DIALOGIC COMMUNICATION PRESENCE OF WEBSITES AND SOCIAL MEDIA ACCOUNTS OF PRIVATE HOSPITALS IN IZMIR: A DESCRIPTIVE RESEARCH

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ABSTRACT

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Advisor: Assoc. Prof. Dr. Selin Türkel

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The purpose of this study is researching the dialogic communication presence of online health communication channels of private-owned general hospitals in Izmir, Turkey depends upon the previous literature. Dialogic communication theory is based upon the opinion of possibility of relational interaction establishment between organizations and their publics within the two-way symmetrical communication. The research is applied with the evaluation of dialogic communication capacities of qualifications on organizational websites and social media accounts according to the dialogic principles (Taylor and Kent, 1998). Transition from Web 1.0 to Web 2.0 enabled the dialogic communication searches for social media (Kent and Li, 2020; Taylor and Kent, 2014). In this research, the research unit has been defined as the

websites and social media accounts -Facebook, Twitter, and Instagram- of 20 private-owned general hospitals in İzmir. As a result, websites and social media accounts are found that they are not used dialogically by the hospitals, instead those online tools are used for providing health information to publics and for organizational promotion without feedback loop. The interactive contents on websites as such making an appointment and retrieving test results are facilitated for the digitalization of the processes rather than dialogue. The suggestions and recommendation for future researches are explained after findings are discussed. Because of the rapid changes on technologies and tools and the arbitrary nature of reversibility of contents brought some restrictions. This research study is restricted in terms of validity and accuracy depending upon the temporariness of online data provided by the online tools.

Keywords**:** online health communication, dialogic communication, website, social media, hospital, Izmir.

ÖZET

İZMİR'DEKİ ÖZEL HASTANE WEBSİTELERİ VE SOSYAL MEDYA HESAPLARININ DİYALOJİK İLETİŞİM GÖRÜNÜMÜ: BETİMLEYİCİ BİR ARAŞTIRMA

Nomanoğlu Servisoğlu, Tuğçe

Pazarlama İletişimi ve Halkla İlişkiler Yüksek Lisans Programı

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Bu çalışmanın amacı İzmir'de bulunan özel hastanelerin çevrimiçi sağlık iletişimi araçları olan websiteleri ve sosyal medya hesaplarının diyalojik iletişim teorisi çerçevesinde araştırılmasıdır. Diyalojik iletişim teorisi, kurumlar ve hedef kitleleri arasında iki yönlü, simetrik bir iletişim ile etkileşim içerisinde diyalog temelli bir ilişki kurulabilmesi fikriyle şekillenmektedir. Araştırmada, hastane web sitelerinin ve sosyal medya hesaplarının özelliklerinin içerik analizi yöntemiyle diyalojik iletişim kapasiteleri ölçülmüştür (Taylor ve Kent, 1998). Bu çalışmada kapsamında, İzmir'de bulunan, Sağlık Bakanlığı'na kayıtlı ve genel tedavi sunan 20 özel hastanenin websiteleri ve Facebook, Twitter, İnstagram sosyal medya hesapları araştırma birimi olarak belirlenmiştir. Diyalojik iletişim teorisi çerçevesinde her bir iletişim aracının

önceki araştırmamalardan örneklendirilmiş ölçeklerle içerik analizi yapılmış ve sonuçları bakımından hastanelerin iletişim kanallarının diyalojik iletişim kapasiteleri ve görünümleri değerlendirilmiştir. Sonuç olarak, hastanelerin halka ilişkiler faaliyetleri bağlamında kurum ve kurumun iletişimde olduğu kitlelerle çevrimiçi sağlık iletişiminin diyalojik olup olmadığı incelenmiştir. Hastanelerin web sitelerini ve sosyal medya hesaplarını diyalojik olarak kullanmadıklarını, bunun yerine bilgi sağlama ve tanıtım faaliyetleri için kullandıkları saptanmıştır. Hastane web sitelerindeki etkileşimsel araçlar diyalog temelli bir ilişki kurmak yerine hastane tanıtımı, doktorlar ve servisler hakkında bilgi paylaşımı, duyurum, çevrimiçi sandevu ve sonuç alma ve hastalıklar hakkında bilgilendirme gibi işlemler için kullanılmaktadır. Bulguların analizleri değerlendirilmiş ve online araçlar aracılığıyla diyalojik bir iletişim kurulabilmesi için araştırma önerileri örneklerle birlikte paylaşılmıştır. Dijital iletişimin hızlı değişmesi, araçların dönüşmesi ve / veya kurumların çevrimiçi hesaplarının kullanım durumlarını değiştirmesi verilerin sınırlı bir zaman için geçerli olduğunu göstermesi açısından geçerlilik ölçütü araştırma sınırlılıkları içerisinde yer almaktadır.

Anahtar kelimeler: online sağlık iletişimi, diyalojik iletişim, Website, sosyal medya, hastane, İzmir.

Dedicated to all my family, for believing in me and always encouraging me to keep going.
Thank you for all your support and unconditional love.

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LIST OF ABBREVIATIONS

B2B: Business to Business

B2C: Business to Consumer

CDC: Central Disease Control

CMC: Computer Mediated Communication

CDHP: Consumer Driven Health Plans

DHI: The Digital Health and Care Institute

DICOM: Digital Imaging and Communication in Medicine

EHR: Electronic Health Records

e-ICU: e- Intensive Care Units

e-WOM: e- Word of Mouth

FB: Facebook

FDA: Food and Drug Association

FOMO: Fear of Missing Out

HCI: Human–Computer Interaction

HIE: Health Information Exchange

HIMSS: Healthcare Information and Management Systems Society

HINTS: Health Information National Trends Survey

HISB: Health Information Seeking Behaviours

HIT: Health Information Technology

HON: Health-On-The-Net Foundation

HTTP: Hyper Text Transfer Protocol

HTTPS: Hyper Text Transfer Protocol Secure

ICA: International Communication Association

ICR: Inter-coder Reliability

ICT: Information and Communication Technologies

IG: Instagram

IHC: Interactive Health Communication

IHCA: Interactive Health Communication Applications

IHCC: Internet Healthcare Coalition

IOT: Internet of Things

LI: LinkedIn

mIoT : Medical Internet of Things

NGO：Non-governmental Organization

OHC: Online Health Communities

OHI: Online Health Information

OPR: Organization-Public Relations

PDA: Personal Digital Assistant

PHR: Personal Health Record

Q&A: Question and Answer

RFID: Radio Frequency Identification

RSS: Rich Site Summary

SAAS: Software as a Service

SEM: Search Engine Marketing

SEO: Search Engine Optimization

SERP: Search Engine Results Page

SHDPD：Stanford Heart Disease Prevention Program

SMO: Social Media Optimization

SNS: Social Network Sites

SoLoMo: Social, Local, Mobile

TW: Twitter

UGC: User Generated Content

UGM: User Generated Media

UI: User Interface

URL: Uniform Resource Locator

UX: User Experience

UV: Unique Views

Vlog: Video Blog

VR: Virtual Reality

WHO: World Health Organization

WWW: World Wide Web

YT: YouTube

CHAPTER 1: INTRODUCTION

Online health communication became one of the prominent research areas in contemporary world. The developing field of research has fastened with the Covid-19 pandemic and its communicative results. Although the Web 2.0 have changed the communicative practices and spaces by introducing the social media, online organization public relationship for hospitals and healthcare services is a newly establishing interaction area via the different types of social media and networking sites(Kaplan and Haenlein, 2010; Mangold and Faulds,2009).

Web 1.0 era was an informative space that websites of hospitals have been prepared as brochure like information sharing places (Berners-Lee, 1999). Advent of Web 2.0 and social media by which organizations are co-creating new online communication spaces for their audiences with the advancement of technology, communication paradigm have shifted from sender to receiver to the co-creational approach, dialogic communication in particular (Avidar, 2013). Communication via the internet, has been transforming the health communication as well as the frame of communication. The hierarchical superiority of information providers, as such doctors or health organizations' perspective has redefined by the new online publics (Berthon et al., 2012, Kelleher, 2009).

Contemporary customers of health sectors are also defined as e-Patients who are seeking health information online before getting any consultation or choose a hospital (Chen et al., 2018; Huo et al, 2019). Now, people demand qualified information as well as they wanted to improve better communication about health and healthcare practices that directed to them. Therefore, health communication, especially online health communication became one of the promising fields that can change, variate, and evolve the future of health communication and health interaction between patients and physicians or organizations while also providing new spheres for organization public relationship. In terms of relationship building between hospitals and their publics, the websites and social media accounts of hospitals may provide a space for interactive communication that may create dialogue-based relationship with their publics(Taylor and Kent, 1998).

The aim of this research is to examine the online health communication channels of private owned hospitals in Izmir to evaluate the degree of which dialogic communication presence on their websites and social media accounts specifically, of their Facebook, Twitter, Instagram accounts. In chapter II, the literature of dialogic communication theory will be discussed, and the uses of websites and social media as public relations tool will be examined with the previous studies. Also, health communication, specifically online health communication is tried to be acknowledged with the earlier research studies.

CHAPTER 2: LITERATURE REVIEW

2.1. Online Communication

The technology of communications has been evolved very slowly (McLuhan 1964; Hall 1980) until the internet-based and computer-mediated communication (CMC) (Boyd and Ellison 2008; Pang et al., 2018) has become widespread public communication tool for both individuals and organizations (Esrock and Leichty, 2000). As McLuhan has addressed that, beginning with the printing machine and radio technology not just the history as well as societies has been shaped by communication technologies. As that could be seen at Figure 1., until the 1990s there are few historical turns in terms of communication technologies. Beginning with the commercial use of WorldWideWeb (Berners-Lee, 1999), global communication speeds as well as the technological inventions. The progress and advancement of communication tools is accelerated with the invention of internet, and transition from Web 1.0 to web 3.0, has speeded the evolution of each communicative medium. The advent of internet in 1960s (Leiner et al., 2009) is followed by the invention of World Wide Web (WWW) in 1991. And the presentation of WWW as public service in 1993 has changed the ways and forms of communication together with the formation and effectiveness of relationships between organization and publics (Kent, 2013; McIntyre, 2014).

Web 1.0 was an informative space for the exchange of knowledge which is highly dependent upon the sender (See; Table 1.). At that time, it was only used by the government and military, after that universities adopted the internet for scientific researches. Even though the internet had found and developed in America, the European effect for public use is remarked by Tim Berners-Lee with the invention of WWW in European Particle Physics Laboratory at CERN in 1993 (Berners-Lee, 1999; Curran, Fenton and Des Freedman, 2012). In 1994 internet has been introduced to the commercial world. Commercialization of internet has created the new marketing communication and public relations practices on online along with the free market dynamics. Cellular phones, Macintosh and Windows based computers dominated the technical progress of communication beginning with web 1.0 era. Online communication was not a new phenomenon in 1990s. On the contrary, previous to the commercial use of internet there were several platform designs that had

Table 1. Comparison of WEB 1.0, WEB 2.0 and WEB 3.0 Source: (Berners-Lee, 1999; Cormode and Krishnamurthy, 2008; Giurgiu and Barsan,2008; Kujur and Chehetri, 2015; Kuswara and Richards, 2011; O'Reilly, 2006)

WEB 1.0	**WEB 2.0**	**WEB 3.0**
1996- 2004	2004- 2016	2016- today
Tim Berners-Lee	Tim O'Reilly- Dale Dougherty	Tim Berners-Lee
The Hypertext Web – Britannica Online	The Social Web – Wikipedia (Anja Ebersbach et al., 2016)	The Semantic Web (Tim Berners-Lee, 1999; as a component of Web 3.0)
Web forms	Web applications	Smart applications
PC	Smartphone, tablet, PC	Smart glasses, Gear VR, wearable technology
Read Only	Reading and Writing, participative	Executable Web, portable and personalization enabled
HTML/Portals	XML / RSS	RDF / RDFS / OWL
Home Pages, static pages	Blogs, Wikis	Virtual spaces, cloud technology, Synchronized sharing, simultaneous content creation
One Directional	Bi- Directional	Multi-User Virtual Environments
Echo System	Participation and Interaction	Virtual Communities both human and machine interacted
Firm-Generated Content (FGC)	User-Generated Content (UGC)	UGC and Machine Learning based generated content (IOT – AI – VR Technologies)
Static Content / Flat Content Web pages, Texts, Images	Dynamic Content / social media posts	Human and machine interacted content, 3D contents, search-enhanced, VR and AI supported
Served content by the page-owners, static as magazine or newspaper pages	Collaborative contents as Podcasting, Blogging, Tagging, Curating with RSS, Social bookmarking, social networking, Social media, Web content voting	VR supported virtual community interaction, multi-device synchronized connectivity, ^D graphics, Voice search, Visual search, 360-degree views, holograms
Banner Advertising	Interactive Advertising	Big Data and AI-based or IOT-based Behavioral advertising (Alexa etc.)

used locally or for experimental purposes (McIntyre 2014). For instance, computer-mediated communication is firstly used by *CompuServe* which is working as an e-mail service for public in 1969 in America. Afterwards, Hotmail redesigned e-mail accounts as user-friendly and free of charge. In 1985, Gmail offered more space capacity to users by which those renewals change the organizational communication practices. Likewise, UseNet that is launched in 1979, was the first forum-type social network that creates interaction amongst the computers. And it became the largest

online discussion platform by 1992 (McIntyre, 2014) which opens up the road to online community forums such as HealthBoards, Medium, Reddit, Quora, TripAdvisor, Yahoo groups, etc. (See; Table 3.). Corcoran (2007) categorizes the communication types into five as intrapersonal, interpersonal, organizational, community and public/mass (See; Table 2.). Those forums and web pages have begun to shape communication type between organizations and publics by chancing the interpersonal communication spaces into the mass communication area. This new communicative space also produces new virtual community by which not only organization and its publics relate but also different publics interact with each other (Chih, Hsu, and Liou, 2017).

However, the interaction between the websites and users at the Web 1.0 era was similar to the any printed media by which organizations building one-way communicative relationship (Berners-Lee,1999). After the invention of internet, contrary to the 1990s, people experienced a fast pace of technological advancement in 2000s (Hendler and Berners-Lee, 2009). Updated algorithms of search engines(Grind et al., 2019), progress of internet technology from 2G to 5G (Kent, 2013), multimedia virtual games such as Second Life (Kaplan and Haenlein, 2009), online chat applications and social media accounts such as Facebook, Twitter, Instagram, Pinterest, TikTok or Linked-In became the inevitable communication spaces on virtual dimensions by the beginning of 2010s (Ariel and Avidar 2015; Boyd and Ellison, 2008; Kaplan and Haenlein, 2010) (See; Table 3.).

Another feature that is equally important as the creation of social network sites is, the function of Web 2.0 as 'the equalizer of the communication', has brought a new aspect to definitions of the concepts of 'sender' and 'receiver' by attributing the function of co-creation. And Web 2.0 has been facilitating the online two-way communication which enables the co-creation of content (Avidar, 2013, Berthon et al.,2012).

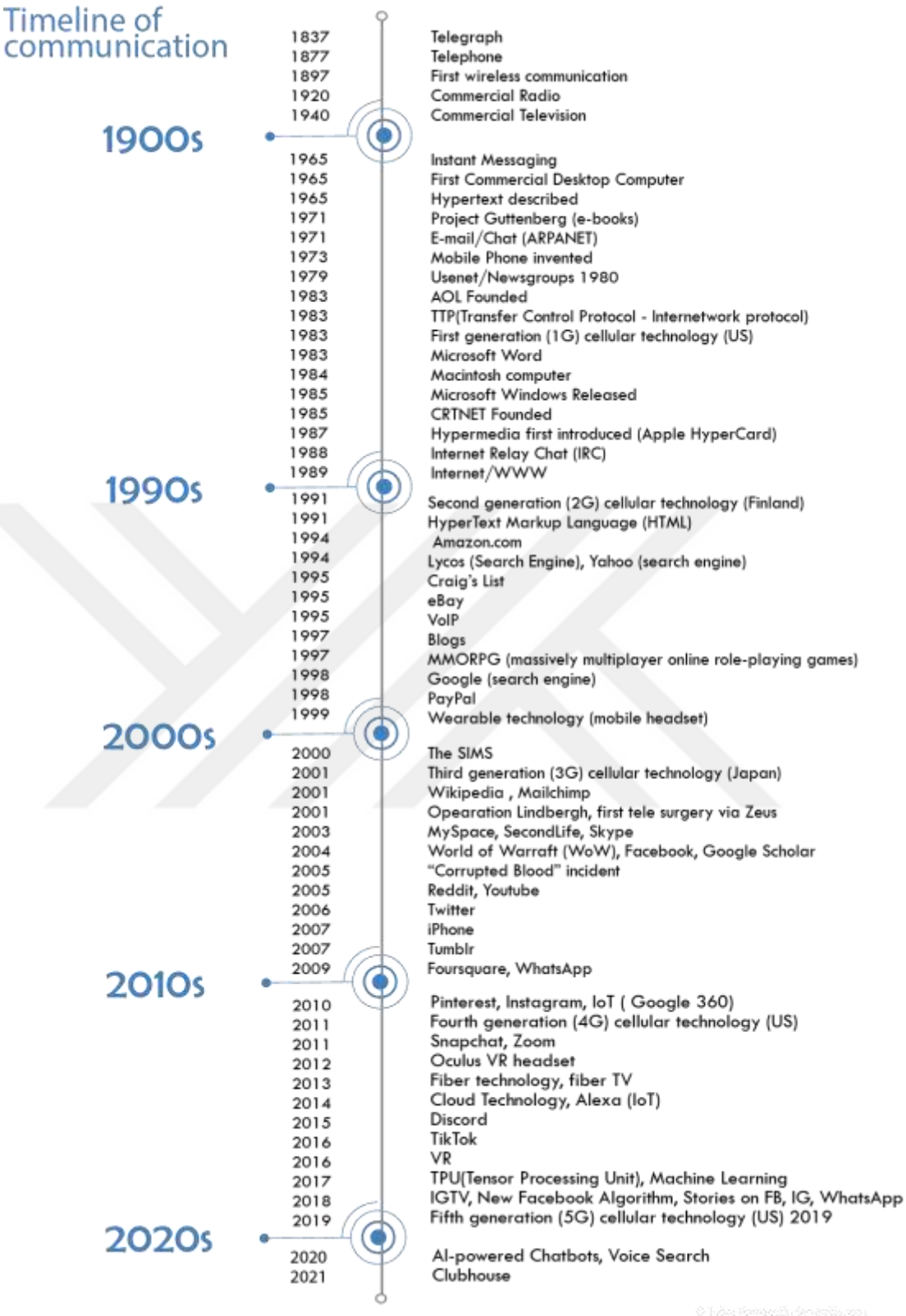


Figure 1. Timeline of Communication

Therefore, the content consumer is no more any user but became a creative consumer (Berthon et al., 2012). Likewise, the invention of social media platforms which are operating as "software working as service" (SaaS) enabled the access to information by providing the platforms on web instead of programs included on computers (Giurgiu and Barsan, 2008; Power and Phillips-Wren, 2011). These facilities of Web 2.0 along with the invention and widespread usage of smart phones and mobile phones have brought new perspectives to the communication studies and to the public relations (O'Reilly, 2006).

Table 2. Communication in Five Categories. (Source: Corcoran, 2007)

Communication Category	Example of Communication Medium
Intrapersonal	Internal communication (for example, what we think, when we listen to an inner voice)
Interpersonal	One-to-one, small groups, emails, telephone calls and other activities that allow personal listening and response
Organizational	Lectures, seminars, debates, meetings, memos, intranets, newsletters, workshops, displays
Community	Local radio, talks, seminars, debates, local newspapers, billboards, bus wraps, health fairs
Public/Mass	Newspapers, television, digital television, national radio, Internet, CD-ROMs, mobile phones

As Taylor, Kent and White (2001) has noted "*For organizations, Web sites provide a controlled channel through which they can communicate with stakeholder publics and the media. For stakeholders, Web sites provide publics with a channel through which organizations can be viewed and better understood*." (2003, p.63). The public relations function of websites has evaluated and broadened via social media from communication through URLs to the communicative networks of URLs, IoT devices, applications, mobile phones etc. (Boyd and Ellison, 2008; Visconti, 2020).

Table 3. Types of Social Media and Examples (Source: Ariel and Avidar, 2015; Boyd, 2010; Boyd and Ellison 2008; Bucher and Helmond, 2018; Carr and Hayes , 2015; Ding et al., 2014; Jordon, 2017; Kaplan and Haenlein, 2010; Mangold and Faulds, ,2009; Zhang et al.,2010)

Category	Type	Example
Search Engine	Online search engines which give pages of results that link to your inquiry	Google, Yahoo, Safari, Yandex, Opera, Mozilla, Bing
Social Networking Site	Both online networking & content sharing. Allows create profile online	Facebook, LinkedIn, Twitter, Instagram, YouTube
Media Sharing Site / Social Publishing Sites	Online Video	YouTube, Vimeo, Vine, TikTok, Periscope, Snapchat, IGTV
	Photo	Instagram, Pinterest, Flickr, Picasa, Snapchat
	Audio- podcast, music lists	Soundcloud, Clubhouse, Twitter Spaces, Facebook Audio,
Review Sites	Comment, reviews	Trip Advisor, Yellow Pages, Yelp
Discussion Forum	Comment, Q&A	Google Groups, Yahoo Groups, Google Answers, Quora
Contact List	Newsletter, E-mail marketing, Bulletins	Mobile phone message, e-mail, MailChimp
E-Commerce	Online shopping sites	Amazon, eBay, Etsy, Trendyol,
Blog	Personal blog	WordPress, Blogger, Medium
	Microblogs	Twitter, Tumblr, Buzz
Geolocation	Social media applications for geolocation and geotagging	Swarm, Foursquare
Entertainment	Websites and applications both for PC and smart TVs also has personalization, membership function	Netflix, IMDB
Academic Social Networking Sites	Article sharing, comment and rating	Academia.edu, GoogleScholar, ResearchGate, Mendeley
Bookmarking	Tagging or bookmarking a webpage that allows to be reach anywhere	Google Chrome, Microsoft Edge, Delicious, Diigo
Virtual Worlds	Computer simulated, AI and VR based virtual worlds	Second Life, Active World, Onverse

Technological progress on online communication tools and the dual function of users of Web 2.0 as both creators and users / consumers (Berthon et. al.; 2012; Bucher, 2015; Bucher and Helmond, 2018; Ding et al., 2014) of the messages directed scholars to the new theories of organization-public relationship. As Shin, Pang and Kim (2015) have indicated, organizations cannot use the full potential of new media even though they have an acknowledgement on the importance of the use of social media and online communication channels. As a result, researchers and PR practitioners revisited and / or updated the old digital online communication theories which will be argued on next section.

2.1.1. Organization-Public Relationship

The medium itself is not only became the message (McLuhan, 1964), but also the identifier of the types of the publics. Therefore, the relationship-building quality of new media (Avidar, 2013; García-Orosa, 2019; Guillory and Sundar, 2014; Springston, 2001; White and Raman, 2000; Volk, 2016; Ye and Ki, 2012) which are featured with websites, social media platforms, intranets, e-mails, blogs, social network sites and forums became one of the prominent research areas in public relations.

The question of how publics are classified is analyzed via different PR theories as such resource-dependency theory which argues the formation of publics depending on their environment (Pfeffer and Salancik, 1978), systems theory which gives certain definition to publics related to their role in the business system (Pieczka, 1996) and situational theory which situates the publics according to their level of activity (Grunig, 1989; Grunig, 1992b; Grunig, 2001; Grunig and Hunt, 1984). The categorization of publics according to their situation in compliance with organizations is not a constant, solid position. The communicative action itself highly related to the current situation of problems and their relevance to the people. The situational theory also explains the questions of why and when people communicate as which publics are more willing to communicate actively whereas their problems are related to the organization (Grunig, 2005: 778).

On the contrary, within the context of categories of publics in online communication, in terms of dialogic communication, instead of type of public, the feature of dialogue has examined. The issues of trust, engagement, recognition have

been evaluated through the interaction between the publics and the dialogic capacity of organizations' online assets. (Kennedy and Sommerfeldt, 2015; Kent and Taylor, 2002; Kent, 2013; Kent and Lane, 2017). These conversions of interactions and of the forms of publics might be varied based on the type of virtual place where the relationship occurs in online communication. Before reviewing the literature on the dialogic communication studies on new media, the models and co-creational approaches in public relations will tried to be explained and, dialogic communication will be detailed with its principles and features.

2.1.1.1. Communication and Four Models of Public Relations

James Grunig (1992a, 2001) defines four models for the practice of public relations throughout the history. The press agentry model or publicity model, defines the one-way communication by which message is highly dependent on the sender. Receiver can only consume the information. Similar to that, public information model is also a one-way communication form by which the dissemination of information is maintained via mass media. (Grunig and Grunig, 1992). Unlike the one-way communication models, the first two-way communication model is represented the "engineering of consent" (Bernays, 1947) which is operating as propaganda. Indeed, the communication is asymmetrical, and the information is converted by which the message is built to persuade (Grunig and Hunt,1984; Jo and Jung, 2005). (See; Table 4.).

According to the scholars, the excellent and ethical communication in public relations could only be possible two-way symmetrical communication (Grunig and Hunt, 1984; Grunig, 2001; Grunig and Grunig, 1992; Grunig, Grunig and Ehling, 1992; Grunig, Grunig and Dozier, 2002). As the ideal form of communication, the two-way symmetrical model provides the ways in which intrinsically equalizes the participants and enables the dialogue. The link between the symmetrical communication (Grunig, 1992; 1997; 2001; 2005), and as one the co-creational in other words relational theory of public and organization relationship (OPR),

Table 4. Four Models of Public Relations (Source: Grunig and Grunig, 1992; Grunig and Hunt, 1984; McNamara, 2012; Özkan and Berkman, 2016)

Models	Press-Agency	Public Information	Two-Way Asymmetric	Two-Way Symmetric
Objective	Propaganda	Dissemination of information	Scientific Persuasion	Mutual Understanding
Organizational Goals	Consulting	Gaining public support	Manipulating the public opinion	Compatibility with the public opinion
Public Relations Role	Consulting	Distributing the information	Consulting	Mediator
Nature Of Communication	One-Way, Truth is not significant	One-way, Truth is important, present source to recipient	Two-Way imbalanced	Two-Way balanced
Nature Of Research	Invest less time in research, mostly depends on in-house journalists	Little, research, readability	Feedback, source to recipients, Formative research	Formative Research, evaluation of understanding
Historical Figure Of Theory	P.T. Barnum	Ivy Lee	Edward Bernays	Bernays and Public Relations Practitioners and Professionals, Educators
Contemporary Practice Areas	Sports, theatrical shows, product sale promotion	Governments, NGOs, structured companies	Competitive businesses and hierarchical – vertically governed businesses, Agencies	Regulated businesses, and modern non-hierarchical, horizontal structured companies
% of Market	%15	%50	%20	%15

the dialogic communication (Pearson, 1989a, 1989b; Kent, 2013; Kent, 2017; Kent and Li, 2020; Kent and Lane, 2017; Kent and McAllister, 2009; Kent and Taylor, 1998, 2002; Taylor, Kent, and White, 2003) in terms of online communication will tried to be explained in the next section.

2.1.1.2. The Co-creational Approaches in Public Relations

Dialogue and ethical dimension of any communication form in public relations has been argued since Pearson's thesis titled as "A Theory of Public Relations Ethics"(1989a). As a form of communication 'dialogue' features the mutually and equality. The inquiry of what is dialogue, and which is not is elaborated by Kent (2017), in his review of history of dialogic communication practice in public relations. He identifies the distinction as identifying the 'dialogue' as '*an interpersonal or small group process'* which exactly not a '*theory of mass communication or mediated communication'* (Kent 2017, pp.8-9). He also, clarifies here the difference between the concepts of dialogue and dialogic by referring to the potential of meaningful interaction that is proposed by dialogic theory (Kent, 2017).

The co-creational approaches consider the relationship between publics and organizations as the central unit of analysis in public relations research (Botan and Taylor, 2004; Avidar, 2013). As one of the approaches of organization - public relationships (OPR) the *relational approach* positions the 'management' of OPR as the main research problem in public relations (Avidar, 2013; Botan, 1992; Broom, Casey, and Ritchey, 1997; Brunning and Ledingham, 2000; Grunig and Huang, 2000; Huang, 2001; Kent and Taylor,1998, 2002; Ledingham and Brunning, 1998; Taylor, Kent, and White; 2003) whereas the *dialogic communication approach* positioned the 'dialogue' as the determinant focus of the relationship-building process and, defined the principles of dialogic communication as framework to obtain ethical organization-public relationship (Pearson, 1989; Kent and Taylor, 1998, 2002; Taylor, Kent, and White, 2001; Pang et al., 2018).

Dialogic communication theory of organization-public relationship is considered as a response to the earlier relational theories (Brunning and Ledingham, 2000). One of relational theories of public relations is situational theory which depicts the importance of influence of external public on organizations (Grunig, 2005). Secondly, the stakeholder theory which explains the individual perspective of OPR is positioned in relational theories and it is considered as useful to apply to internet-mediated organization-public relationship. And as the third relational theory, the resource-dependency theory which identifies the communication as the dependent variable of OPR according to the environmental and external clusters (Taylor, Kent and White 2001, p.67).

Besides the other relational theories for the online communication, the dialogic theory puts forward the effective and interactive communication which will be occur in *'honest, ethical ways'* (Taylor, Kent and White 2001, p.67), and involves *'an understanding of the past and the present, but also has a focus on a continued and shared future for all'* (McAllister 2008, p.26) as one of the distinguishing features of organization-public relationship.

As Wirtz and Zimbres (2018) has indicated "*Pearson (1989b, 1989c) was the first modern researcher to propose a theory of public relations derived primarily from dialogic theory and theories of ethical communication*" (2018, p.6) Pearson explains six dimension of dialogic communication which are systemizing the orientation for dialogic engagement to organization-public relationship (Kent and Taylor, 2014).

The philosophical accounts of dialogic communication theory in public relations can be found on Buber's writings on dialogue (Buber, 1971/2020). The change in the practical and theoretical fields of public relations to the direction of dialogic approach is made by Brunning (2002) which identifies the beneficial relationship amongst organizations and their publics (Kent and McAllister, 2009). But theoretical dimension is considerably applied to the field by Pearson (1989) whereas the research methods and principles of dialogic communication are defined by Kent and Taylor (1998, 2002). After the publicity of WWW, websites of organizations attracted attention of scholars as the new communicative form and place of public relations. Kent and Taylor have identified the necessities that might be granted on websites of organizations (1998; 2002). In other words, as the new research unit of analysis of OPR, the organizational websites might provide the normative principles of dialogic communication theory to obtain two-way symmetrical communication.

2.1.2. Dialogic Communication

Contemporary online communication transformed the tools and organizational forms of communication as well as the impact of public reaction. Trust, reputation, and responsiveness became the vital soft powers of digital communication (Yang and Kim, 2009; Yang, Kang and Cha, 2015). But at the end of 1990s online communication is understood as just a space that organizations should take place in sake of competition, or just being present in the new public sphere (Hajaraian, 2021) . To many, in the beginning the websites provided a virtual place for share of information.

This relationship-building feature of websites brought the theory of dialogic communication to the concern of public relations that is explained in the prominent article by Taylor and Kent titled as "Building dialogic relationships through the World Wide Web" (1998). On the grounds that, the expanding use of 'World Wide Web (WWW)' which is termed as 'Web 1.0' brought the new ways and types of communication as well as new methods of measurement to apply researches in communication studies beginning with late 90s (Kent, 2013). More specifically in public relations studies, researchers have shifted their interest upon this new communicative space which is created by internet (Hachigian and Hallahan, 2003; Hallahan, 1999; Hallahan et al., 2007).

The ongoing studies on two-way communication which is theorized by Grunig (1992) has widened the arguments on the 'dialogue'. Even though the concept of 'dialogue' is not new to the Public Relations (Buber, 1971; Pearson, 1989a; Pearson, 1989b). Taylor and Kent (1998) were the first scholars that introduce the strategic framework of dialogic theory for the computer-mediated communication (Pang et al., 2018) research studies. (Kent and Taylor, 1998; Kent and Taylor, 2002; Kent and Taylor, 2014; Kent, Taylor and White, 2003). Kent and Taylor (1998) suggest that "*to fully understand symmetrical communication, however, one must first understand dialogic communication."*(p.323).

Taylor and Kent (1998) defined the dialogic communication as "*any negotiated exchange of ideas and opinions"* (p. 325). In line with the Grunig's (1992; 2001) two-way symmetrical communication, the dialogic communication can build an ethical and meaningful organization-public relationship (Kent and Taylor, 1998; Kent and Taylor, 2002; Kent and Taylor, 2004; Kent and Taylor, 2014; McAllister-Spooner, 2008; McAllister-Spooner, 2009; McAllister-Spooner and Kent, 2009; McAllister-Spooner and Taylor, 2007). Although these two theoretical approaches resemble, there is an ontological distinction between the two-way symmetrical communication and the dialogic communication (Theunissen and Wan Noordin, 2012). Two-way symmetrical communication is referring to the processes that an organization should provide for ethical and effective two-way communication whereas the "*dialogic communication refers to a particular type of relational interaction--one in which a relationship exists. Dialogue is product rather than process."*(Kent and Taylor 1998, p.323). In other words, two-way symmetrical communication is the definition of the special form of process or processes, the ways through which communication is continuing and the

particular relationship is still in progress. Therefore, in dialogue there is no necessity to be agreed by the individuals who are engaging. The theory of dialogic communication presupposes the intersubjectivity (Kent and Taylor 1998, p.325) by which the negotiation and dialogue is considered as the concrete basis for communication without of being agree by also ensuring the feedback loop.

The term of 'dialogic' is firstly defined by Rogers (1956/1992) as the "unconditional positive regard for the other"(p.825). By attributing to this, Kent (2014) defines the dialogic public relation as which *"(dialogic public relation) is dedicated to truth and mutual understanding"* (p.389). Similar to that expression, Kent and Taylor identifies the ''*dialogic communication "procedures" are a necessary first step toward ethical communication'* (2002, p.66). In other words, dialogic communication is a set of strategic tools which enhances the dialogue that is obtained from the relationship-building process of two-way symmetrical communication (Taylor and Kent, 2002). As a result, it facilitates the organization to build dialogue-based communication. Pang et al. (2018), exemplify this as *"Taylor, Kent, and White (2001) argued that an organization's use of dialogic communication to build relationships with the public shares the same quality of an individual's dialogs in interpersonal relationships. Both processes involve interactions that involve trust and aim to develop satisfactory relationships."(Pang et al, 2018).*

The question of what is 'dialogue' and what is 'dialogic' is considered in different researches (Ertem Eray, 2016; Koehler, 2014; Taylor and Kent, 1998; Taylor and Kent, 2001; Taylor and Kent, 2004; Taylor and Kent, 2017; McAllister, 2008; McAllister, 2012). What the theory that Kent and Taylor(1998) has proposed here is, a translation of interpersonal theory of communication, which mostly dependent upon face-to-face and personal communication, into the web-based or computer-mediated communication (Sommerfeldt and Yang, 2018). Taylor and Kent (1998) foreseen the capacity of internet and computer-mediated communication in public relations and provided "theory-based strategies to enhance organization–public relationships by making the Web more "personal."" (Sommerfeldt and Yang 2018, p.60). Because of that dialogic communication is a set of theory-based communication strategies, here the difference between the dialogues and dialogic becomes the crucial for public relations researchers and practitioners.

Critics on the context of dialogic communication and dialogue have been argued by several scholars. For example, Koehler (2014) argued the conceptual dimensions

of dialogue and dialogic communication. He defends that, "*Kent and Taylor's principles are more about dialogue-orientation and not necessarily about dialogues*." (Koehler 2014, p.182) and problematizes the applicability of dialogue on online communication.

The contextual meaning of concepts of 'dialogue' and 'dialogic' is mostly misunderstood by the researchers. Taylor and Kent (2014) clarify those foundational concepts – 'dialogue' and 'dialogic' by defining the dialogue as '*the orientation to fruitful and ethical communication that develops from enacting dialogic principles'* while the concept of dialogic refers to the 'the procedural steps involved in creating an ethical communicative environment" (p.390). This distinction is important because, as Taylor and Kent notice that, sharing feedbacks on social media or websites is not an actual dialogue- which '*is the product of a particular type of relational interaction, not just any communicative interaction'* (Taylor and Kent 2014, p.390).

Similar to this confusion of conceptual definitions, one other criticism in public relations is the consideration of dialogic communication and symmetrical communication(Grunig,1992a; 1992b) as the identical. Even though two of them defending equally the premise of 'dialogue' as the most ethical form of communication, researchers are misusing the 'dialogue' as the 'set of procedures' instead of dialogic communication (Kent and Lane 2017, p. 571). This misunderstanding reveals in the studies in which those researchers accept the presence of any interactive communicative feature of websites or on social media accounts as the proof of existence of dialogic communication (Sommerfeldt and Young 2018, p.61).

Even though there are critical perspectives on dialogic communication on web, in contemporary world web-based communication became the primary space for interaction and communication. Online public relations began to facilitate as the continuum of PR practices in physical world for organization public relationship. Therefore, the dialogic communication, which is the theory-based strategy for ethical communication between organizations and publics provides one of the strategic research tools to understand the features of online communication between organization and publics.

2.1.2.1. Features of Dialogic Communication

'Dialogue' as the face-to-face communication has introduced to the public relations field by Pearson (1989). Afterwards, Buber and Grunig were the contributors to the definition of dialogue by indicating the feature of relationship-building capacity. They situated the two-way symmetrical communication as the most ethical form of communication between organization and publics. In time, when the online communication platforms have emerged, the computer-mediated communication provided a space for dialogic communication. According to Kent and Taylor(1998), organizations may utilize the dialogic principles on their websites to create a dialogue as orientation that includes dialogic features which are *mutuality, propinquity, empathy, risk, and commitment* (Kent 2013: 343; Kent and Taylor 2002, pp. 24-25). Those features are intrinsic to any kind of communication where the dialogue occurs. But the question of how computer-mediated communication through websites and social media platforms can maintain a dialogic relationship is trying to be answered via the qualification of dialogic principles that are proposed by Kent and Taylor. Even though contemporary world experiences the face-to-face communication online via the tools of videoconferencing and video-calls, there are still an enormous number of users who communicate with organizations via other dialogic elements- online chats, forums, instant messages etc.- of websites or social network sites.

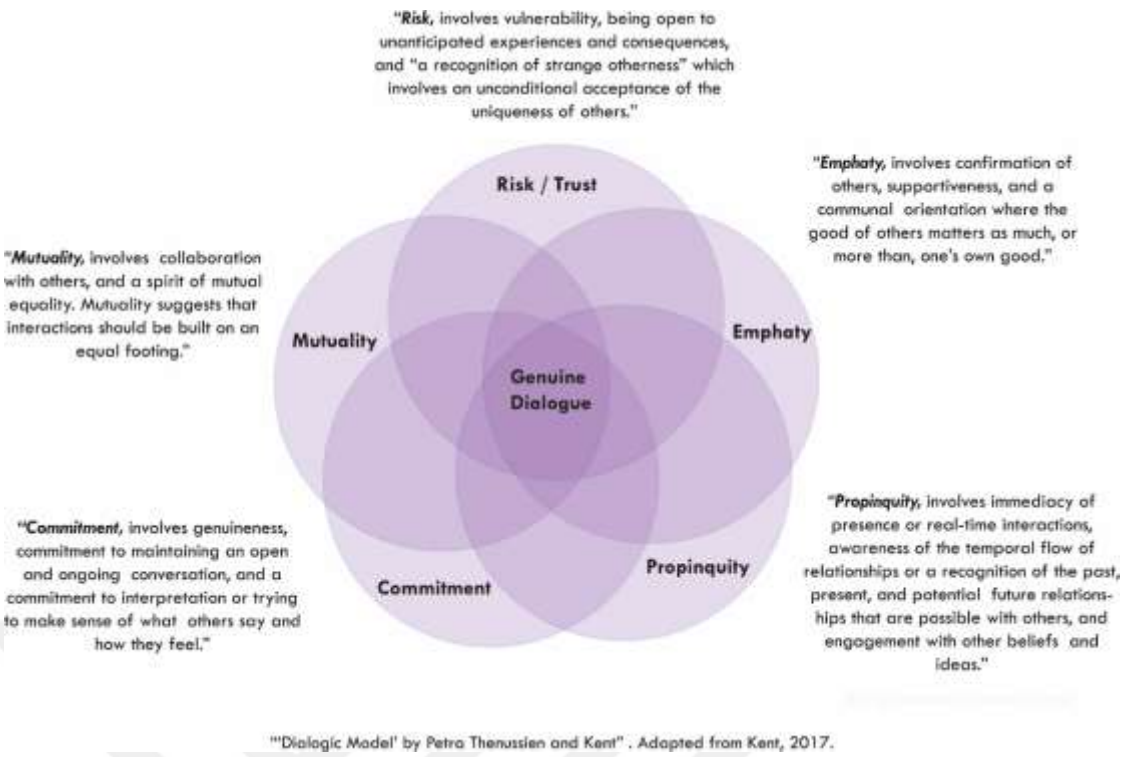


Figure 2. 'Dialogic Model' and Dialogic Communication Features (Source: Kent, 2017)

McAllister explains the dialogic features in terms of organization-public relationship (2008). The feature of *mutuality* expresses the recognition of the relationship. This brings the dialogue on the grounds of mutual contribution and recognition(Kent and McAllister, 2009; McAllister, 2008; McAllister, 2012). The dialogic feature of mutuality encompasses the collaboration which ensures the intersubjectivity and spirit of mutual equality (Taylor and Kent 2002, p. 25).

The feature of *propinquity* refers to the temporality of interactions which are spontaneously occur with the publics of organizations, and it includes the sub features of Immediacy of presence-which proposes to the parties of communication stay in the present; Temporal flow which provides the understanding of past and present to interpret the future; and as the last qualification of dialogic propinquity, engagement which explains the willingness to give whole selves to interact. (Taylor and Kent 2002, p.26). Dialogic communication and engagement are one of the most intriguing research fields that is studied by the prominent researchers of the field (Kent, 2017; Men et. all, 2018; Taylor and Kent, 2021).

The feature of *empathy* foresees the being supportive to public interests and as similar to the sympathy in literature, it involves the attributes of supportiveness, communal orientation, and confirmation. (Taylor and Kent 2002, p. 27).

Every dialogic communication carries the element of *risk* by which each participant of the dialogue interacts with each another by their own terms whereas there is no guarantee of compromise. And the dialogic feature of risk inherits the qualifications of vulnerability, unanticipated consequences, recognition of strange otherness.

And as last, the feature of *commitment*, is the degree to which organization devote itself to build dialogue and the understanding. Genuineness as the sign of sincerity, commitment to stay in conversation and to interpretation are the indicators of dialogic feature of commitment.

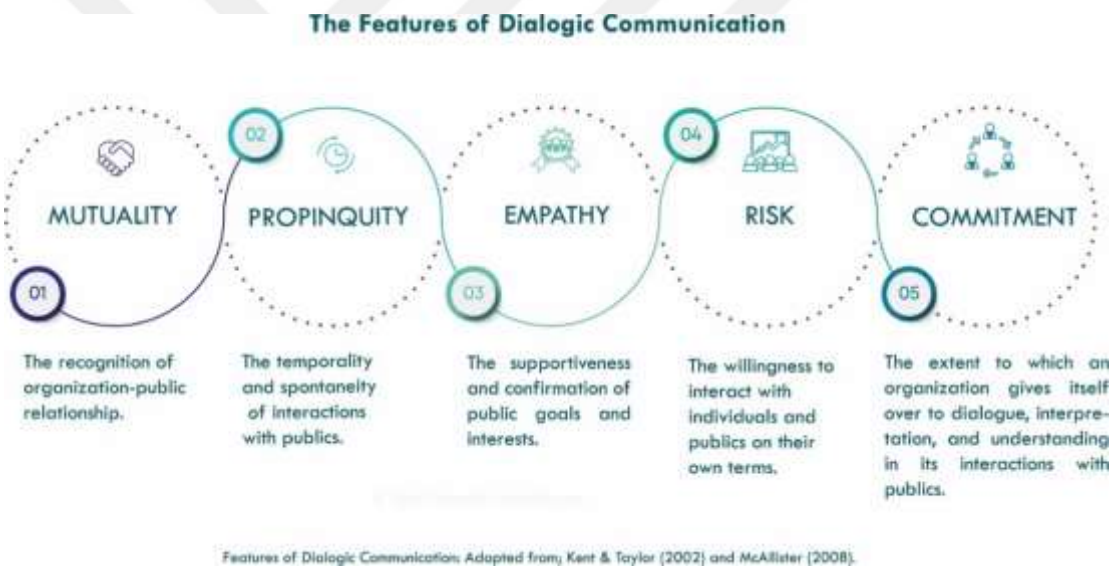


Figure 3. The Features of Dialogic Communication (Source: Kent and Taylor, 2002; McAllister, 2008)

In other words, as McAllister refers, those "*five overarching tenets that encompass the implicit and explicit assumptions that underlie the concept of dialogue*."(McAllister 2009, p.320). Related to those features, researchers have examined the concepts and themes in public-organization relationship as such engagement as a feature of propinquity, trust as a feature of risk etc. (Taylor and Kent, 2014).

Taylor and Kent address that the dialogic communication is not an absolute way to obtain ethical outcomes, nevertheless they attach an importance on the dialogic principles which are increases the orientation of dialogic features (Taylor and Kent 2002) on online communication. Therefore, these five features are the enablers of dialogic communication whereas the principles of dialogic theory are procured.

2.1.2.2. Principles of Dialogic Communication Theory

Kent and Taylor (1998) offered a guideline for organizations to build a dialogic relationship with their publics through the websites. This scale of dialogic communication presence has been updated by Taylor, Kent and White (2001), Kent, Taylor and White(2003), and Taylor and Kent (2014) in relation to the advancement on technology and shift from web 1.0 to web 2.0 and 3.0. This strategic framework of digital dialogic communication consists of five principles which are *the dialogic loop, the usefulness of information, the generation of return visits, the ease of the interface* and *the rule of conservation of visitors* (Kent and Taylor 1998, pp. 326-30).

The first proposed dialogic schema has been used for the evaluation of the dialogic communication presence of websites (Kent and McAllister 2009, p.225). Even though, dialogue has considered as a normative theory, the early studies on computer-mediated communications especially on web-based dialogic theories that have pioneered by Kent and Taylor (1998)(Kent and Taylor, 2002; Taylor and Kent, 2003; Taylor and Kent, 2004), have regarded the interface-based procedures as the part of a dialogic approach to public-organization communication (Kent and Li, 2020). Therefore, those key principles, that identified and accepted in dialogic theory of public relations, are the indicators to understand the presence of dialogic communication whereas also they are guidelines for organizational websites to obtain more ethical and genuine dialogue with their publics.

2.1.2.2.1. The Ease of Interface

The degree of interactivity is one of the key indicators of dialogic communication. Organizational websites as the place of online interaction where dialogue might occur are designed for purpose of the online communication between publics and organization (Avidar, 2013; Kelleher and Miller, 2006) Hence, the user

experience becomes one of the most important elements of online communication which provides and sustains the dialogue in the first place because the functional quality gives an impression of good user experience (Guillory and Sundar 2014, p.49) to the websites' visitors.

The intuitiveness of interface as the prominent characteristic of any website effects the interaction of publics (Geissler, Zinkhan and Watson, 2006; Hallahan, 2001; McAllister-Spooner, 2008; Vorvorenau, 2006). Gordon and Berhow (2009) expresses those websites should be designed user-friendly and provide an easy use of navigation. Therefore, the question of how many clicks should be made to reach a searched page is one of the indicators of ease-of-use principle. In 2006, Vorvoreanu defined the terms of "web site experience" and "user experience (UX)" that advances the researches upon the user perception (McAllister, 2008). The dialogic studies in public relations have also explored the user experience (Kent and McAllister 2009; McAllister 2008; McAllister 2012) and practitioners' perspective (Anderson, Swenson and Gilkerson, 2016; Buchanan and Fitzgerald, 2016; Sommerfeldt, Kent and Taylor, 2012; VanDyke and King, 2020) on dialogic capacity of websites and social media. Recent studies criticize the principle of 'ease of use' in terms of dialogic researches on social media (Zhu and Xu, 2020). Because of the interface is not chancing throughout the accounts on a single social media channel, the affordances approach suggests that do not consider this principle as an indicator of presence of dialogic communication.

To function dialogically, Taylor and Kent offer to any website to provide items of major links to the rest of site, search engine box, site map, language option, direct link to press room (Taylor and Kent, 1998; Taylor and Kent, 2002; McAllister, 2009; Uzunoğlu and Misçi Kip, 2016). Following this, providing important information on the home page is a value-creation that users will pursue in the first place to decide whether stay or leave he website. And finally, presence of logo of organization, self-explanatory images are highly important to create a reputable and trustworthy corporate image.

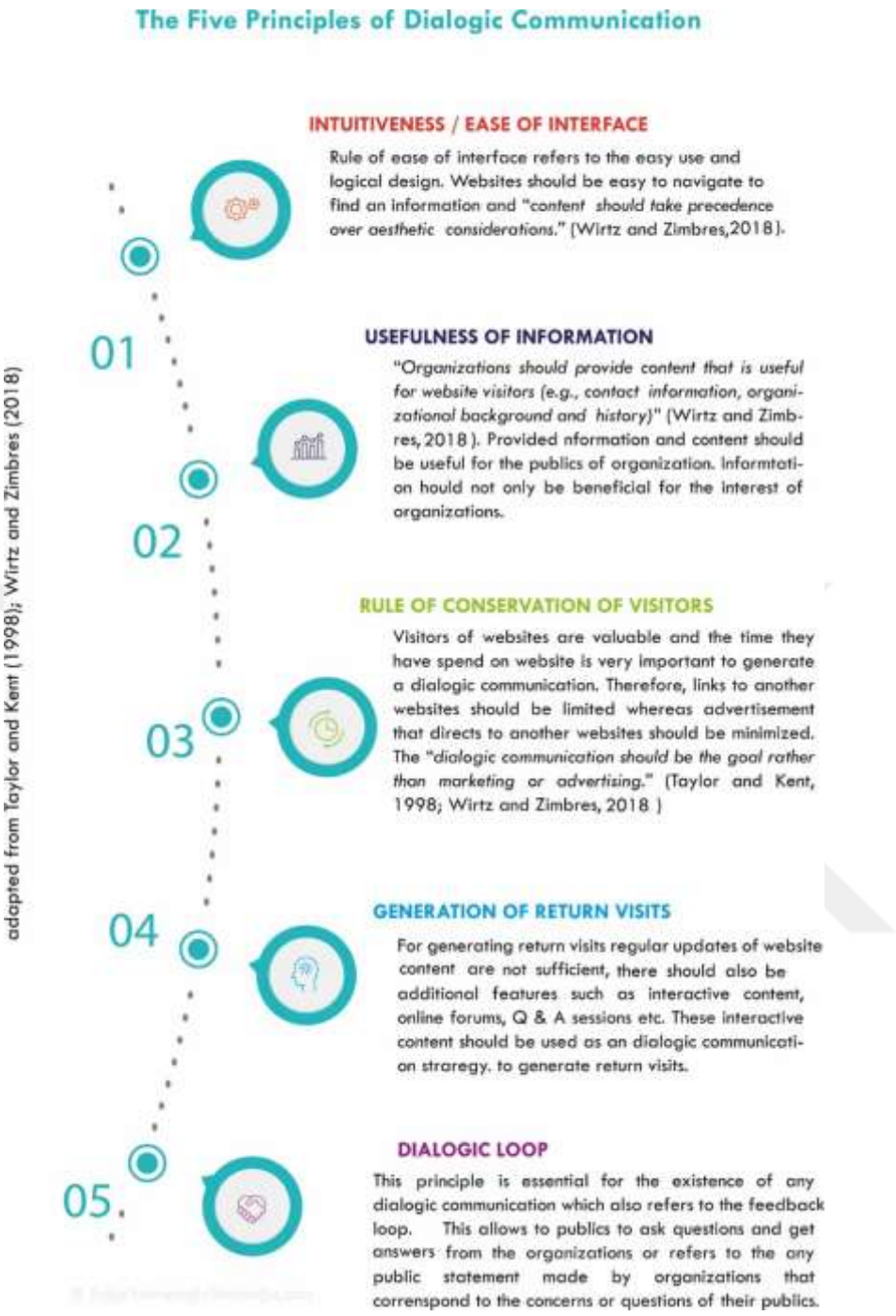


Figure 4. The Principles of Dialogic Communication

2.1.2.2.2. The Usefulness of Information

The usefulness of information is the second criteria that keep visitor on the websites. In terms of key publics of an organization, providing useful, credible

information on organizational websites are one of the determinative factors that make the visitors keep on dialogic interaction.

The information should be disseminated by accounting all characteristics of different publics. For example, any organizational websites should provide information as such philosophy and mission statement, phone numbers, e-mail addresses and any other contact information, information about shareholders (Taylor and Kent, 1998) and subsidiary companies, downloadable graphics, audio/visual clips, biographies of key persons for the knowledge of general public. Additionally, the information of press releases (or pressroom), speeches (e.g., text or video), media contact or factsheets should be provided for media organizations, investors, or other stakeholders (Taylor and Kent, 2004).

Taylor and Kent indicate that to create the dialogic potential, the content on the websites of organizations should be provided by trained public relations practitioners instead of software programmers (1998). For example, McAllisters,(2012), indicates that practitioners perceive the website as the place to share information whereas social media is accepted as the tool for interaction and engagement with publics.

Wisen and Wooneberger (2017), considers the principle of as the usefulness of information one of the technical and design cluster of dialogic communication whereas the conservation of visitors is the other indicator. Same authors accept the information that have provided as a technical and design element of website. Because the design of the menus and submenus of the websites which direct us to the search-intended information becomes the one of the key determinator of the conservation of visitors.

2.1.2.2.3. The Rule of Conservation of Visitors

Taylor and Kent (1998;2002) have defined the three main qualifier of the rule of conservation of visitors. These are, (1) Important information available on first page, (2) Recent update within 24 hours and (3) Links to other web pages. Here also the third indicator is revised by Kim et al. (2014) "links to other SNSs" is added to define the dialogic presence of organization on different social network sites.

McAllisters-Spooner and Kent (2009) claims that to ensure the principle of conservation of visitors, the organizational websites *"should contain features that make them attractive for repeat visits such as updated information, changing issues, as special forums, new commentaries, online question-and-answer sessions, and*

online experts to answer questions for interested visitors" (p.224). This rule gives priority to respect the time allocation of people and precedes the trustworthy correspondence to the informational needs of visitors.

McAllisters issues the fast download and upload speeds that effects the perception of visitors and defines this rule as *"which maintains that Web sites should have fast download speeds, offer timely information, and include only essential links to other related sites."*(2008). Considering the decreased percentage of online attention, keeping the end-users on the page is one of the highly competitive tasks.(Global Web Index Report,2020) Secondly, the more websites provide the updated accurate news and information the more the visitors trust to the web source (Romenti, 2016). Lastly, providing of essential links which are related is another important indicator of conservation of visitors (Taylor and Kent, 1998). The content that has created for the website should be legitimate, accurate and related. Therefore, linkage in a website or backlinks to other websites, social networks sites should be related to gain the trust (Kim et al., 2014). In other words, technical capacity of web pages as speed, user-friendly design, mobile responsiveness are the first-look criteria that visitors accounted on to decide whether they will stay long or leave the page. And the determinator of the length of the duration that have spent on page is dependent upon the qualified, timeous content and correction of link-building process and directiveness to the related content for deepening the knowledge.

2.1.2.2.4. The Generations of Return Visits

The rule of generation of return visits refers to one of the dialogic components that enables the creation of appropriate dialogic features on websites to repeat their visits. Taylor and Kent offer that the websites should provide online question and answer sessions, special forums related to the organizational field, commentaries to get feedback and online help or online chat opportunity to reply to the urgent questions of users (McAllister, 2008). These facilities may increase the repeat visits from the users.

To generate the return visits is essential for any company to build sustainable relationships. In case of hospitals, the need of creation of space for online consultation is demanded with the beginning of Covid- 19 pandemic which enforced the health organizations to add online consultation page or application on their websites. The

absence for online consultation or online chat to ask questions can be determinant factor to choose that hospital or health-information search considering the real-time feedback opportunity. The speed of communication made people to get used to reach answers fast. People began to demand for more fast, valid, and accurate information. The quality of customer services or call centers of any organizations became one of the reasons to repeat their visits. To evaluate this principle; the presence of news forums which is regularly scheduled, existence of FAQ's or Q&A's, related and working links to other websites, existence of calendar of events or upcoming events and downloadable information (e.g., pdf, audio, and video), membership log-in capacity and frequency of posting news (e.g., within last 30 days) have considered to implement the dialogic feature of return visits.

When Taylor and Kent (1998, 2002) have written that the regularly updating the websites and providing qualified content may create return visits from users, they have considered the visitors acceptance of credibility and reliability of the organizations which are assuring the dialogic features. With the beginning of 2000s, opportunity of bookmarking of website, or existence of direct e-mail option are considered the dialogic features for websites. Via the setting of those necessary elements, the establishment of dialogic organization-public relationship enhances.

2.1.2.2.5. The Dialogic Loop

As one of the characteristic principles of dialogic communication, the dialogic loop is termed by Taylor and Kent (1998) which refers to the asking questions and getting answers (p.327). Taylor and Kent states that organization must allow visitors of their websites to ask questions as well as they should provide answers to obtain a dialogic communication (Gordon and Berhow, 2009).

Most of the scholars has already implicated the importance of dialogic loop for the existence of dialogic communication (Kelleher, 2009). This dialogic feedback loops creates actual interactivity between the organizations and their publics (Guillory and Sundar, 2016). And without the fulfillment of dialogic loop principle, there can be no online dialogue (Taylor , Kent and White, 2003; Wissen and Wonnebeger, 2017). Because as the intrinsic element to the dialogue there should be answers and space for feedback and negotiation. Surely, dialogic loop principle enables the dialogic feature of engagement.

It is argued by several authors that for the existence of true dialogue the dialogic loop should be achieved. Even the organization completes the first four principles, dialogic loop enables the dialogic communication (Kent and Lane 2017; Kent and Li, 2019; Taylor and Kent, 2014; Taylor and Kent, 2021; Taylor, Kent and White, 2001) by enhancing the dialogue in relation, and facilitating feedback loop. Interactions should take place as in the form of relationship depend on mutual dialogue instead of any information exchange by which also any OPR would be accepted as successful and dialogic in terms of relationship (Taylor, Kent and White, 2001; Jo and Kim, 2003).

The dialogic principles developed and used as dialogic strategies for studying the stakeholder dialogue with corporations. The corporate websites are studied in terms of use of dialogic strategies and stakeholder engagement. (Ingenhoff and Koelling, 2009; Kent, Taylor and White, 2003; Taylor and Kent, 1998) on organizational websites.

Some scholars categorized those five principles according to their features under two clusters: *The technical and design cluster* which entails the categories of ease of use, usefulness of information, and conservation of visitors; and secondly *the dialogic cluster* which includes the principles of generation of return visits and dialogic loop (Gao, 2016; Ingenhoff and Koelling, 2010, p.177). With Web 1.0 websites only had e-mail opportunity for creation of dialogue via websites whereas most of the content were generated by firms. Therefore, Taylor and Kent were defined the principle of online dialogic communication considering the technical conditions of 1990s. Researchers also have expanded and/or changed the context of categories of each principle (Capriotti and Kuklinski, 2012; Bortree and Seltzer, 2009; Kim et al., 2014; Linvill, McGee and Hicks, 2012; McAllister,2008; McAllister, 2012; McAllister and Taylor, 2007; Pang et al., 2016; Reber and Kim, 2006; Waters et al.,2011) according to the conditions of digital technology, invention of online platforms and enhancing capacities of new media, and, the research field.

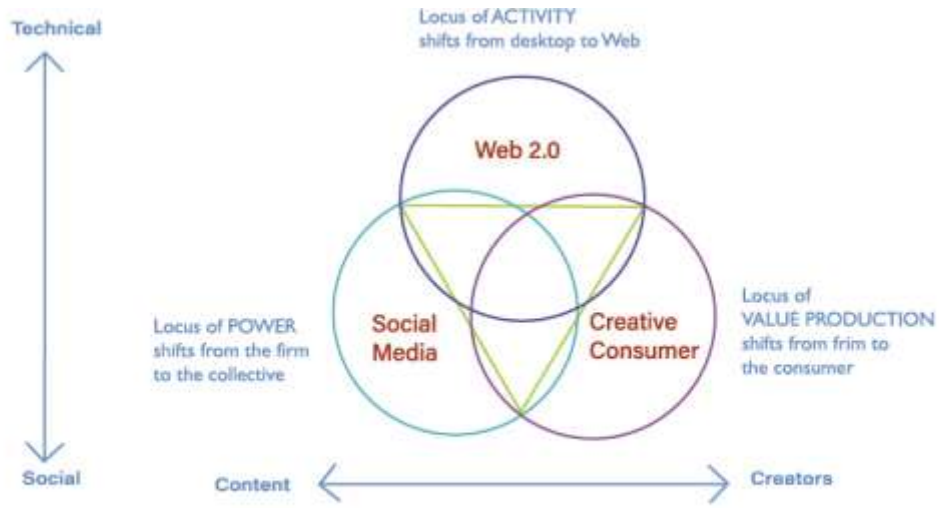
In conclusion, from beginning with the Taylor and Kent(1998)'s first identification of dialogic principles up to date, internet and online communication platforms have experienced many evolutions. Transition from Web 1.0 to Web 2.0 (See; Table 1.) (Kim et al., 2009) has changed the affordance of interactivity between sender and receiver as well as increased the capacities of online dialogic communication tools (Guillory and Sundar, 2014) which are have an effect on the

organization -public relationship. The game-changer effect of Web 2.0 was that with the invention of social network sites (SNS) (Boyd and Ellison, 2008) and new media allowed users to generate content (UGC: user-generated-content) interactively, respond and comment. This advancement has also reproduced new dialogic items to examine as mentioned above. Researchers have updated the dialogic principles to evaluate the dialogic communication capacity of both websites and social media platforms. Those updates of items of dialogic principles will be examined in the next section.

2.1.3. Dialogic Communication Capacities of Digital PR Tools

Digital communication technologies and digital communication platforms are defined as 'new media' whereas old media is referring to any printed communication tools such as newspapers, magazines, or brochures etc. New media communication which is enabled with the computer mediation contrary to the traditional communication brought the change in public relations via communication tools of websites, search engines, web pages, social media, and the internet in extended perspective. As the first controlled mass medium of computer-mediated communications (White and Raman, 2000), the websites, have created a new sphere for organizations to communicate with their internal and external publics.

Transition from Web 1.0 to Web 2.0 has changed the location, activity and, type of value production of communication by which ensuring the two-way symmetrical communication between organization and their publics (Capriotti, Camilleri and Zeler, 2021). The locus of activity is shifted from desktop to Web with the invention of smart phones and tablets, the locus of social power has shifted from firms to the consumers with the change of the locus of value production by consumers instead of firms (Berthon et al., 2012) (See Figure 5.).



"Web 2.0, social media, and creative consumers", adapted from Berthon et all. (2012 , p.262)

Figure 5. Web 2.0, social media and creative consumer. (Source: Berthon et al., 2012).

In the age of digital PR, the research studies on public relations are furthered through the sector-based researches or on different units of analysis with the advancement of Web 2.0 and social media platforms (Kent and Li, 2020). The web experience of users and organizations, the dimensions of digital organization-public relations and user preferences and reasons to use websites and social media became one of the prominent research fields in digital public relations. The importance of organizational presence on the internet or social web have been studied since late 1990s (Collison, 2003; Esrock and Leichty, 1998, 1999, 2000; Hachigian and Hallahan, 2003; Jo and Kim, 2003; Johnson, 1997; Kang and Norton, 2004; Kent, Taylor, and White, 2003; Leichty and Esrock, 2001; McAllister,2019; McAllister and Taylor, 2007; Pinto et al, 2019; Reber and Kim, 2006; Taylor and Kent, 2007; Taylor, Kent, and White, 2001). Further research studies on dialogic communication will review in the next section to acquire the dialogic communication literature on websites and social media.

2.1.3.1. Dialogic Communication Research on Web Sites

The purpose of websites for organization is not just providing information for the publics or not just a useful address book which digitally reachable. The websites also became the communication spaces. Seltzer and Mitrook (2007) states that, the role

of public relations practitioners for organizations establishing a presence on internet with organizational websites. But they added that "*there is a gap between the goals that practitioners have for organizational Web sites and what those traditional sites are capable of delivering in terms of building relationships between an organization and its stakeholders."*(Seltzer and Mitrook 2007, p.227)

Beyond having an organizational presence on internet, websites are one of the key indicators of corporate identity which is important as much the logo and the printed corporate identity materials. Contemporary identity is now searched from the internet. Therefore, a website for any company is the one the most important virtual space for organizational relations.

White and Raman (2000) defines the reasons of organizations for building a website as following; *"emergent themes, competition, hedge against the future, creating an internet presence, web sites as status symbols, image building, dynamic, evolutionary process"* (2000, pp. 413-416). Taylor, Kent and White (2001) notes that "(t)*o make the Internet and Web successful public relations tools it is important to understand their potential as well as their limitations"* (Taylor, Kent and White 2001, p.74). Even websites make possible to communicate directly, the technical capacities are the limitative qualifications of them. Therefore, as much as the use of websites for organizations, the technical and design capacities of them that meets the publics' information needs becomes equally important. Kent, Taylor and White (2003) defends that to obtain dialogic communication it is important to create websites that allows for interactivity and responsiveness with key publics. As organizational perception, Guillory and Sundar (2014), notes that interactivity capacity directly influences the reputation of organizations.

According to the internetworldstats.com, there are more than 5 billion people out of 7.7 billion world population, using internet by the end of 2020. Considering the numbers of worldwide internet users, the importance of the principle of the ease of interface could be understandable. Recently Nielsen research has revealed that the attention span of end-users reduced to the 8 second by 2018 (Nielsen Report, 2018). This fact also brings along the questions of how the organizations keep the duration of attention span of users long and, which indicators determine the bounce rate. Therefore, to attract the attention of users and to keep them on page, organizations began to consider the content value (Taylor and Kent, 1998) and the design elements (Kent, Taylor and White, 2003). The phase of dialogic researches on websites varied

from the studies on the relation between the design elements and degree of responsiveness (Kent, Taylor and White, 2003).

The design of websites and the structure of interface became the interest of researches (Jo and Kim, 2003; García, Carrillo-Durán, and Tato Jimenez, 2017; Geissler, Zinkhan, and Watson, 2006; Kent and Li, 2020; Kent, Taylor and White, 2003; Taylor and Kent, 2004). Design of website for dialogic communication is firstly issued by Kent, Taylor and White (2003).

Beside researches upon the design and elements of interface of website (Liu et al., 1997; Bentley and Barnes, 2015) the effectiveness of organizational websites (Kent and McAllister, 2009) and cross-cultural studies conducted to identify the global differences of corporate website communication (Jo and Jung, 2005).

As much the design and technical components, the content also directive for the users' attention. The relatedness of the information that have provided on the websites are affecting the decision of the users. Also determining the sound and persona of the customers/consumers helps organizations to categorize the content according to the search intent of the end-users.

The velocity of dissemination of information on internet makes the organizations to build up more dialogic and relationship-intended websites. Eventually the rise of the amounts of dialogic researches on different organizational websites is emerged in public relations studies (Kent, 2017, 2020; McAllister-Spooner, 2008; McAllister-Spooner and Kent, 2009; McAllister and Taylor, 2007; Taylor and Kent, 2004; Taylor, Kent and White, 2001). On sectoral basis, both non-profit and for-profit organizations are researched.

Amongst those several organizations, the dialogic communication researches on websites of colleges and universities (Gordon and Berhow, 2007; Ibrahim, Adam and Heer, 2015; Kang and Norton, 2006; Korkuvi, 2015; McAllister-Spooner, 2008; McAllister, 2012; McAllister-Spooner and Kent, 2009; McAllister and Taylor, 2007), non-profit organizations (NPOs) or NGOs (Seltzer and Mitrook, 2007; Bortree and Seltzer, 2009; Ingenhoff and Koelling, 2010; Kim, Nam and Kang, 2010; Kim et al., 2014; Olinski and Szamrowski , 2017; Özdemir and Yamanoğlu, 2010; Reber and Kim, 2006; Sommerfeldt, Kent and Taylor, 2012; Taylor, Kent and White, 2001; Uzunoğlu and Kip, 2014; Uysal, 2018), local governments, governmental institutions (Taylor and Kent, 2004; Soon and Soh, 2014), governmental or formal organizations' (Cha, Yeo and Kim, 2015; Madichie and Hinson, 2014; Sunha, 2015), corporate

companies (Eray, 2016; Hinson and Agbleze, 2014; Capriotti and Camillieri, 2020; De Oliveira and Huertas, 2014) especially fortune 500 companies (Esrock and Leichty, 1999, 2000; Park and Reber, 2008), PR companies (Akwari, 2017; Thelen et al., 2020), health organizations (Chun and Yim, 2020; Hahn, 2010) are studied in terms of dialogic communication capacities of their websites. Accordingly, websites of cultural places such as museums (Capriotti and Kuklinski, 2012), libraries (Agyemang and Dzandu, 2014), churches (Waters and Tindall, 2010), private sector-specific researches like on websites of banks (Okoe and Boateng, 2016) or insurance companies (Hinson, Zyl and Agbleze, 2014); vacation places (Hinson, Osabutey and Kosiba, 2020); health related organizations, institutions (Erwin and Dias, 2016); or websites of communication tools as such public radios (Bentley and Barnes, 2015) wiki websites (Hickerson and Thompson, 2009) have been studied. Extensionally, researches on perception of user publics such as journalists (Pettigrew and Reber, 2011); or activist practitioners (Sommerfeldt, Kent and Taylor, 2012) on organizational websites and their presence of dialogic communication (McAllister-Spooner, 2008) are issued.

In Turkey, research studies upon website are mostly related with the issue of public relations practices and not specifically dialogic communication presence. Researches mostly issued the website uses of organizations for public relations which are operates on different sectors. For example, the use of websites by companies or organizations (Cesur, 2019; Çele, 2018; Kart, 2017), municipalities (Doğu, 2008), SMEs (Şehirli, 2018), NGOs (Yılmaz, 2020) and hospitals(Görkemli and Fidan, 2014) are the issued research fields.

2.1.3.2. Social Media as Public Relations Tool

Social Media has 3,8 billion users by the end of the 2020 around the world which is nearly half of the world population according to the yearly report of We Are Social (January 2021) (See; Figure 7.). Social media applications and the network sites became the primary communication tools and virtual social interaction (Ryan and Jones, 2009) platforms in contemporary world. There are diversified social network sites according to their functions, and relatedly several explanations of the term of social media.

Social Media is defined by Kaplan and Haenlein (2010) as *"(social media) is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content*"(Kaplan and Haenlein 2010; p.61). Even though the use of term of Social Media mostly equalized with the terms of Web 2.0 and Social Network Sites (SNS), there are substantial differences amongst them. Web 2.0 (O'Reilly, 2006) is a term that firstly used in 2004 to define the new promising facilities that have provided by platforms version of WorldWideWeb (McNamara and Zerfass, 2012: 293) (See; Table 5.).

The essential difference between Web 1.0 and Web 2.0 is that first one was a digital version of any printed media in terms of interaction, where the second one allows to all users to collaborate for content creation, give feedback and participate on online communities (Boler, 2018; Briciu and Briciu, 2021). In other words, the production of communication and communicative knowledge is no more under privilege of firms or organizations, rather any individual can communicate, express an opinion, or provide information on an issue. For example, the "*applications such as personal web pages, Encyclopedia Britannica Online, and the idea of content publishing belong to the era of Web 1.0, they are replaced by blogs, wikis, and*

Table 5. Classification of social media by social presence / media richness and self-presentation / self-disclosure. (Source: Kaplan and Haenlein, 2010:62)

		Social Presence / Media Richness		
		Low	**Medium**	**High**
Self-presentation/ Self-disclosure	**High**	Blogs	Social Networking Sites (e.g., Facebook)	Virtual Social Worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content Communities (e.g., YouTube)	Virtual Game Worlds (e.g., World of Warcraft)

collaborative projects in Web 2.0" (Kaplan and Haenlein, 2010, p.61) (See; Table 5.).

Even there are different definitions for social media related to its technological feature of interactivity and ability of content creation of users (Kaplan and Haenlein,

2010); or the function as SNS (Ellison and Boyd, 2008), specifically, in the field of public relations the technological view of concept is defined as the "*set of technology tools that are just as they sound — mediated opportunities for bringing people together and encouraging social networking and dialogic communication"*(Sweetser and Lariscy, 2008, p.180). In a broad sense, Kent (2010) defined the concept of social media as "*any interactive communication channel that allows for two-way interaction and feedback*" and further it is relational which can also occur in real time. Therefore, social media "*are also both media and medium: content and channel, and their features and uses vary widely*" (Kent and Taylor, 2016, p. 62).

Notably, Social Network Sites as the subcategory of Social Media which is defined by Boyd and Ellison (2008) "*(Social Network Sites(SNS)) as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.*"(Boyd and Ellsion, 2008, p.211). The development of web-based communication through the SNSs has transformed the digital organization-public relations. (Kaplan, 2015) (See Table 6.).

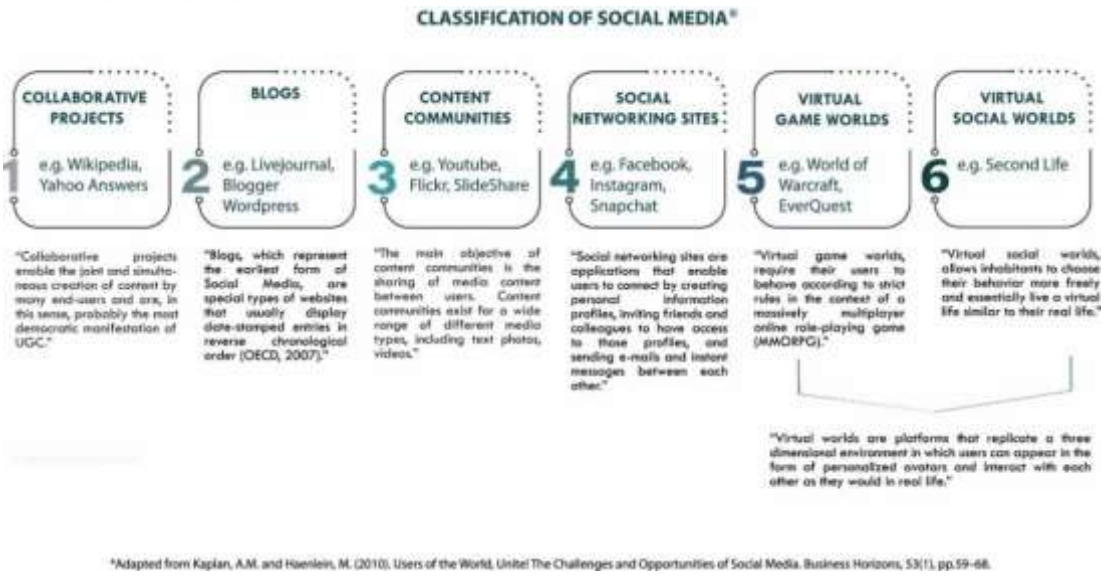


Figure 6. Definitions of Classification of Social Media. (Source: Kaplan and Haenlein, 2010).

The early studies on dialogic capacity of social media in PR has been applied on weblogs or blogs (Seltzer and Mitrook, 2007). These studies are followed by the examinations of user perception from customer' reviews on social networks sites or organizational use of social media to obtain dialogic communication. As Bortree and Seltzer (2009) have indicated "*Social networking sites provide organizations with a space to interact with key publics and to allow users to engage with one another on topics of mutual interest; this should provide the ideal conditions necessary for stimulating dialogic communication*." (Bortree and Seltzer 2009, p.318) Social Media have wide variety of mobile applications and websites which are categorized and identified according to their level of functionalities (Kietzmann et al., 2011)(See; Figure 8.), the type of user interaction (Osatuyi,2013, p.2622) or communicative medium (visual, text, video etc.)(Mangold and Faulds, 2009). Type of media creates variations of social media as such blogs or weblogs, collaborative projects (e.g., Wikipedia) social network sites (e.g., Facebook), content communities (e.g., YouTube), virtual social worlds (Second Life) and virtual game worlds (World of Warcraft) which are classified according to the self-presentations and social presence (Kaplan and Haenlein, 2010; Kaplan and Haenlein, 2012) which also could be examined on Table 6.

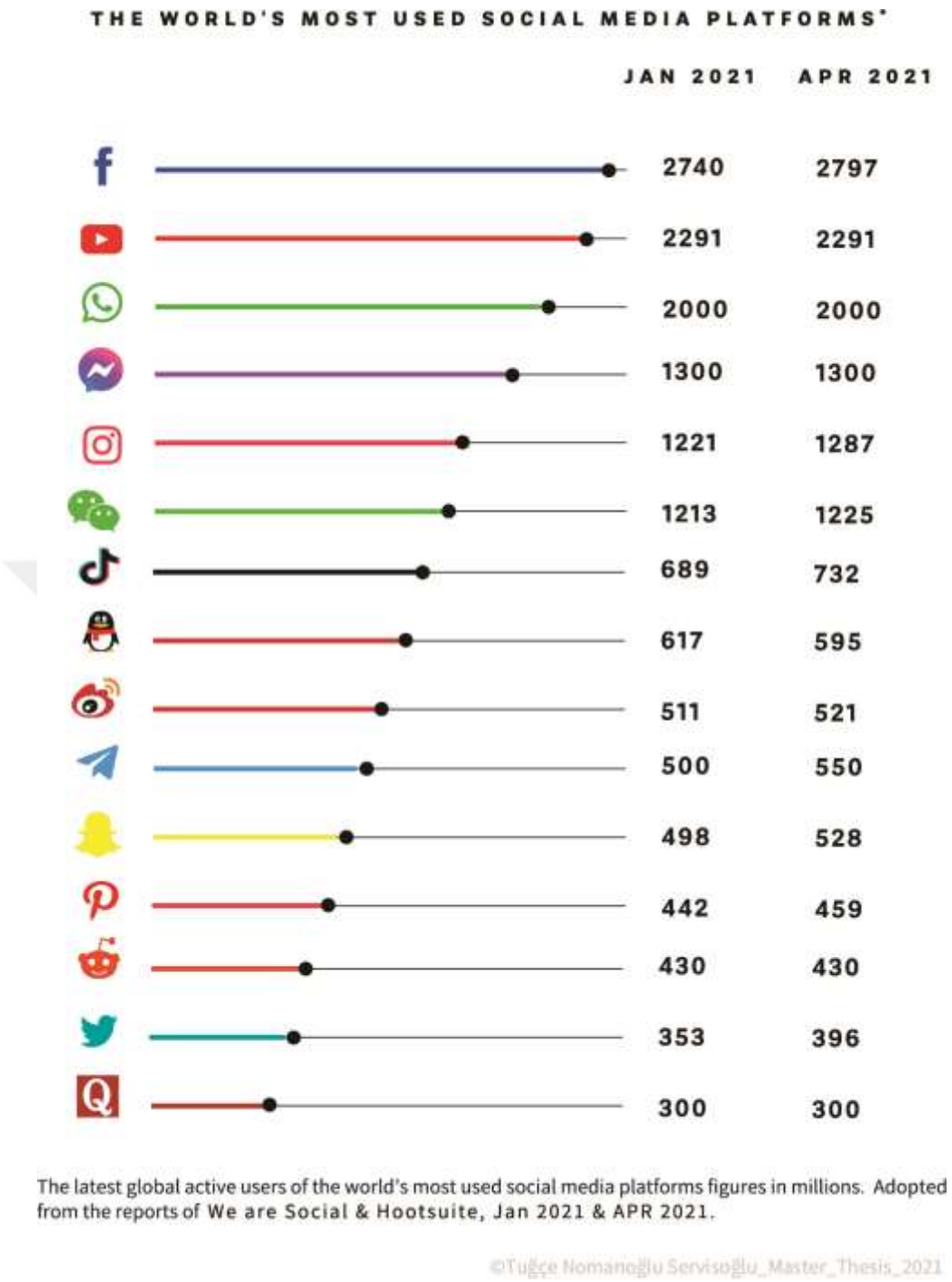


Figure 7. The World Most Used Social Media Platforms. (Source: We are Social and Hootsuit , January, 2021; We are Social and Hootsuit , April, 2021).

The social media and SNSs in particular, are highly decisive on the perception of any organization or individual with the power of the reproduction of social reality (Baccarella et al., 2018; Schivinski and Dabrowski, 2016). Dependently, because of this destructive and productive facilities on Web 2.0, with the widening use of SNSs

by the people, social media is considered as one of the important strategic communication tools for organization (McCorkindale, 2010; Gao, 2016). Surely, there are firms who uses social

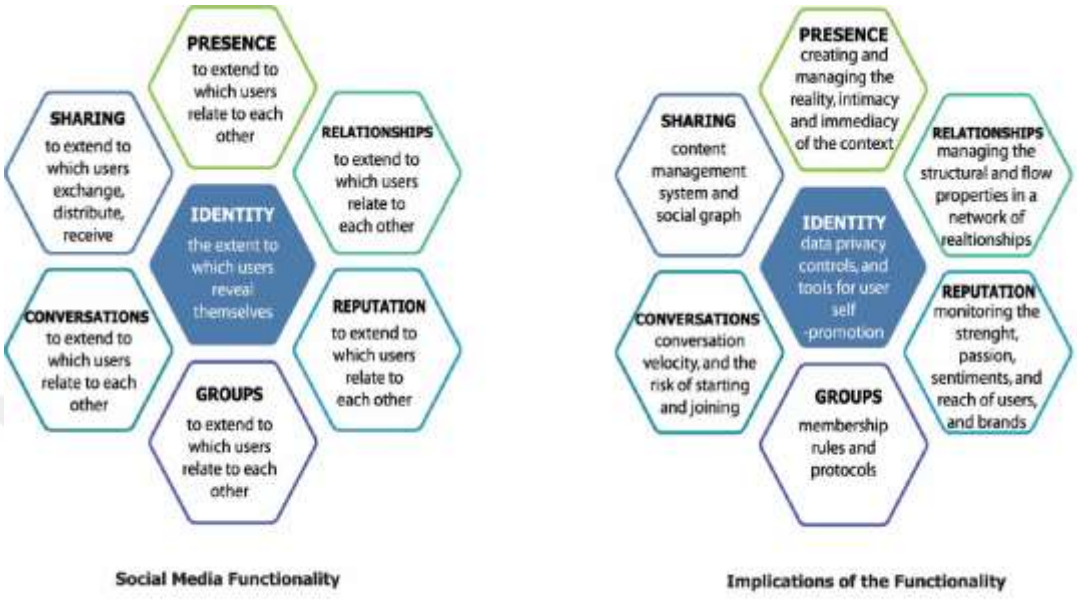


Figure 8. The Honeycomb of Social Media (Source: Kietzmann, 2011)

media similar to the traditional media for the dissemination of information from firm to their publics (Lovejoy, and Saxton, 2012). But, the allocation of information production via web 2.0 has inevitably shifted firm-generated content that occurred from sender-receiver relationship to co-creational communicative practices. (Dijkman et al., 2021:). This new era of dialogue has given the chance to understand the needs and demands of stakeholders (Argyris and Monu, 2015; Belasen and Belasen, 2019; Palotti et al.,2010); to apply effective crisis communication (DiStaso, Vafeiadis, and Amaral, 2015; du Plesis, 2018; Eriksson, 2018; Sweetser and Metzgar, 2007).

Table 6. Models and Examples of Social Media (Source: Kaplan and Haenlein, 2010; Hansen et al., 2011; Munar and Jakobsen, 2014)

Categories	Service Provided	Example
	Blogging	WordPress, Blogger
Communication Model	Microblogging	Twitter, Me2day, Tumblr
	Social Networking	Facebook, LinkedIn, Ning, Cyworld, MySpace
	Event Networking	Meetup.com, Upcoming
	Instant Messaging	WhatsApp, Line, Viber, Messenger, Telegram
	Videoconferencing	Skype, Google Hangout, Zoom, FaceTime
Collaboration Model	Wikis	Wikipedia, Wiktionary, WikiHow, WikiBooks, WikiTravel, Wikimedia Commons, TV Tropes, Gamepedia,
	Social Bookmarking	Pinterest, StumbleUpon, Flipboard, Pocket, Digg, Reddit, Diigo, Scoop.it
	Review & Opinions	Google reviews, Facebook Reviews, Eopinions, Amazon, Yelp, Trip Advisor, Forsquare,
	Community Q&A	Yahoo! Answers, Ask.fm, Askville, Quora, FriendsFeed, Funadvice, Wikianswers, KızlarSoruyor (TR), Forum TR(TR),

So that, organizations began to consider the social media as a communication channel in their strategic communication plans (Hallahan et al., 2007) by which different messages or information could be distributed with different social network sites (Barash and Golder, 2011; Chen and Fu, 2016; Huang and Sun, 2014).

Yu et al., 2020) , also to enhance the consumer-brand engagement (Hollebeek, Glynn and Brodie, 2014; Men and Tsai, 2014; Lewis, 2010; Lopez et al., 2017; Mergel,

2010; Olson et al., 2019; Tsai and Men, 2013, Tsai and Men, 2017; Qu, 2020). Thus, as the public relations tool, social media and its organizational use is examined in literature (Briones et al., 2011; Capriotti and Kuklinski, 2012; Denyer et al., 2011; Durkin et al., 2013; Hudson et al., 2015; Kim et al., 2010; Kim et al., 2014; Macnamara and Zerfass, 2012; Lovejoy and Saxton, 2012) as well as the public relations practitioners' perspective (Diga and Kelleher, 2009; Eyrich et al., 2008; Sweetser and Kelleher, 2011; Verhoeven et al., 2012) which are effecting the reputation of an organization (Pfeffer, Zorbach and Carley, 2013).

That is to say, Web 2.0 is *"putting the public back in public relations"*(Solis and Breakenridge, 2009, cited in McNamara and Zerfass 2012, p. 288). Therefore, usage types of social network sites become one of the research areas in PR studies (Men and Tsai, 2013; Vorvoreanu, 2009), which studies the passive or active use of social media. When Shao (2009) has classified the usage types of user-generated media (UGM) as participation, consumption, and production, he also addressed the interaction level of each usage type (Shao, 2009). The consumption-based usage has lowest level of interaction which limited to viewing or reading, whereas participation refers to user-to-user interaction (or consumer to consumer communication; Duan, Gu, and Whinston, 2008) or user to content interaction such as liking the posts or commenting. The highest level of interaction is the production type of use that defines the phase of creation and publication of contents by individuals (Shao, 2009). The ever-chancing role of users on SNS differentiated the levels of interaction on different social networking sites of an organization. As Gafni and Golan (2016) has mentioned the same user can be a reader of reviews whereas on different platform she/he can be writer of those reviews about same or different products / services (Gafni and Golan 2016, pp.44-45). So, users of social media contrary to traditional media became the co-creators of content instead of only being content consumers(Berthon et al., 2012).

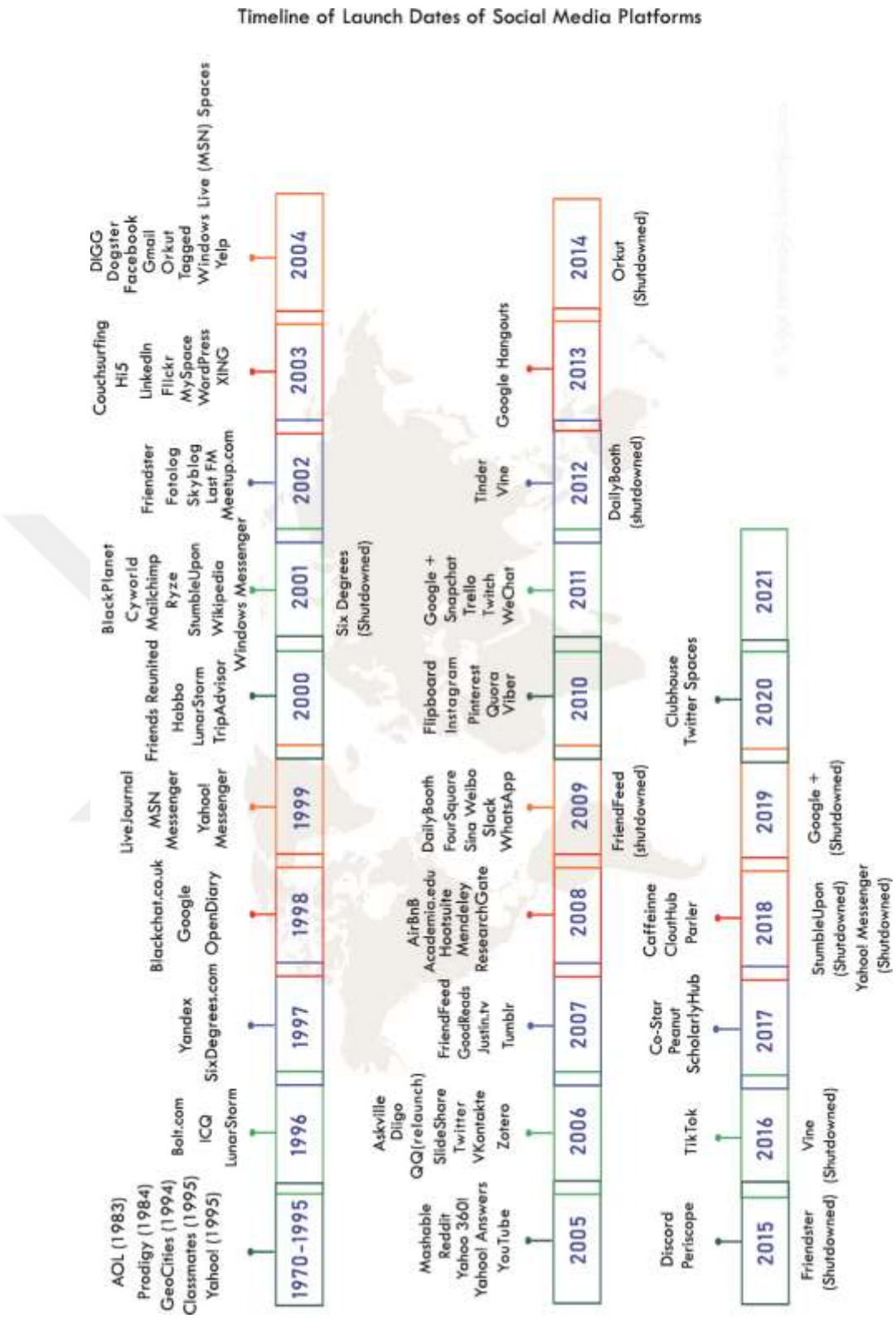


Figure 9. Timeline of Launch Dates of Social Media

The PR perspective on users and the communicative needs of users on social media (Ruehl and Ingenhoff 2015, pp.288-289) differentiated depending on the user

experience of communication channel, the quality of product / service, or the information they search for. Those needs become apparent via UGC or electronic word-of-mouth(e-WOM) which are considered as the non-commercial contents that aren't controlled by the firms(Shwinski and Dabrowski, 2016). The user experience can induce both positive and negative e-WOM (Chu and Kim, 2011; Snipes, Ingram, and Jiang, 2005; Kozinets et al., 2010). The UGC based communication can cause to creation of fake news as well as the positive perception on an organization. Fake news (Jahng, 2021; Rampersad and Althiyabi, 2020; Tandoç, Lim and Ling, 2018) or misinformation (Bode and Vraga, 2018;Valenzuela et al., 2019) could be destructive for an organization. Similarly, online reviews can facilitate negative impact if they are building a negative perception but also, they can create a space for user-to-user interaction that facilitates positively the decision-making process of future consumers of a product / service. Nowadays, online reviews of customers are more effective on brand choice rather than any other marketing communications practices (Enginkaya and Yılmaz, 2014).

Afterall, the social media theory has been mentioned by limited works (Ariel and Avidar, 2015; Ott and Theunissen, 2015; Kennedy and Sommerfeldt, 2015; Kent and Li, 2020), whereas the types of content creation, organizational aspects and user perception on social media has been studied in various studies as summarized above. The creation of spaces for dialogue on websites and on social media accounts of an organization could construct a better organization-public relationship. As Kent and Taylor (2016) have indicated, "(*t)he words social media was first used in the public relations scholarship in 1998, but the first study of social media did not appear in the literature until 2008* (Kent and Taylor, 2016, p.67). Thereby, the dialogic use of social media tried to be explained in next part by also addressing the previous dialogic communication research studies on particular social network sites such as Facebook, Twitter, and Instagram. Facebook as a community building and visual or textual information sharing site, a microblog SNS example Twitter (Kaplan and Haenlein, 2012), and photograph or video based visual sharing application Instagram (Laureiro and Sarmento, 2019) are amongst the most-used social network sites which affect the organizational image (Gilpin, 2010) and the perception of any organization or individual with high rates of worldwide users (We Are Social and Hootsuite, 2021). (See; Figure 7.).

In this part, history of Facebook, Twitter and Instagram will be issued by also exemplifying the prominent research studies on dialogic communication. Those three social media are the ones which most used in Turkey.

2.1.3.2.1. Facebook

The high interactivity levels of Web 2.0, independent use of SNSs of time and concrete place and the decreasing age of media adoption (Chou et al., 2009) has changed the ways of communications between the organizations and their publics or stakeholders (Capriotti and Kuklinski, 2012). Facebook, which is launched in 2004, today it has 2.8 billion monthly active users as of the fourth quarter of 2020 worldwide (We are Scoail Report, January 2021). Facebook as the most used social media in the world, and the biggest network have bought Instagram and Whatsapp recently. Now as the company have informed 3.3 billion people were using minimum one product of company amongst the Facebook, Instagram, WhatsApp, and Messenger.

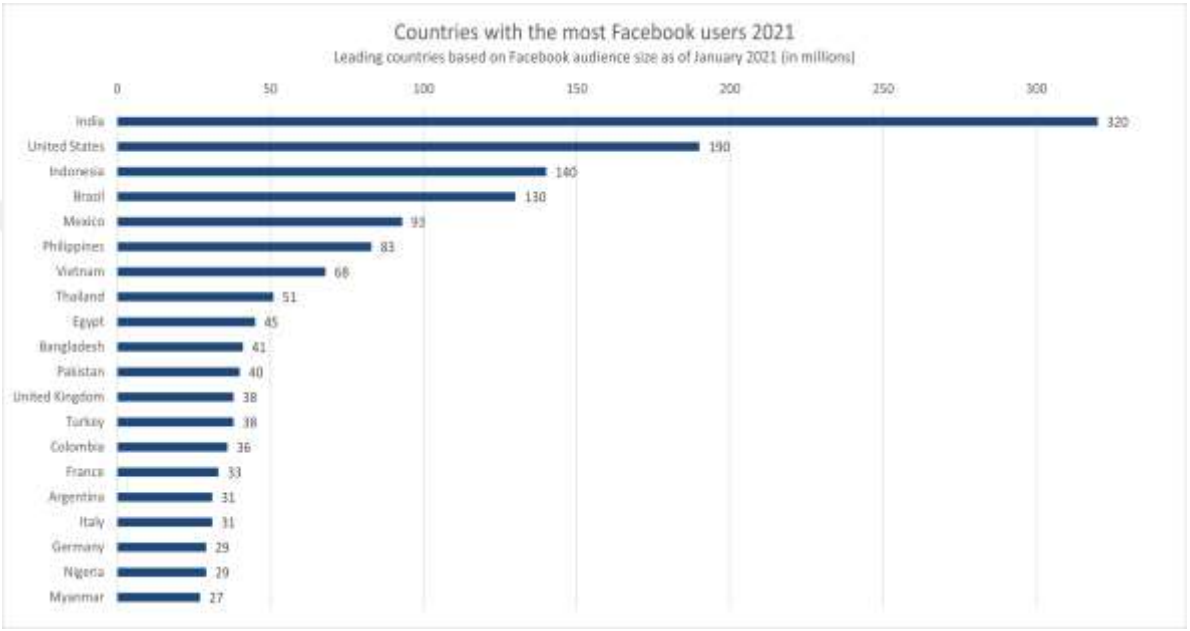
Table 7. Types of resources on Facebook. (Source: Capriotti and Losada-Díaz, 2018).

Category	**Types of Resources**	**Tools**
Types of Resources on Facebook	Graphic	Texts
		Photos / Images / Figures
	Audio-Visual	Audio
		Video
	Interactive	Links
		Hashtags
		Quoted Users

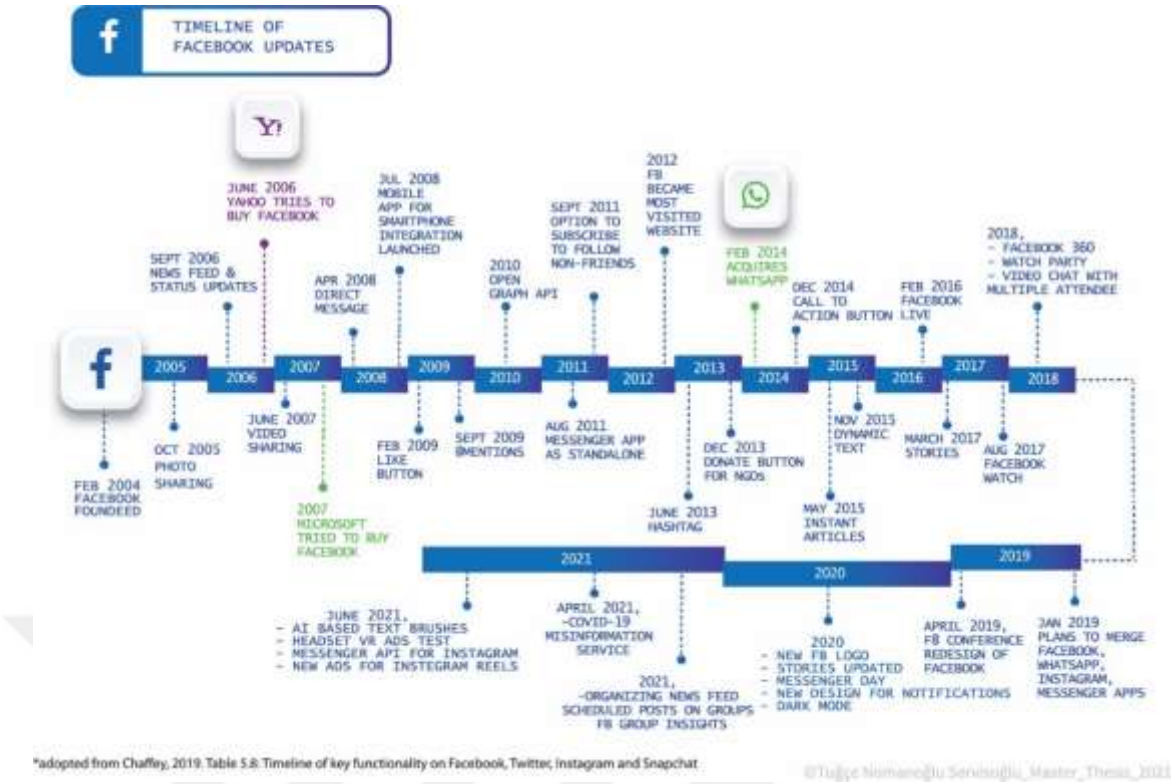
Because of its capacity and updated algorithm to reach to related audience, community-building and multi-type of content (visual, text, video etc.)(See; Table 7.) sharing features, advanced co-creation (page, groups) opportunities, Facebook became one of the research areas for dialogic communication (White and Boatwright, 2020). Capriotti and Losada-Díaz (2018) has identified the 3 types of content source as

graphic (texts, photos, and images), audio-visual and interactive (links, hashtags and mentions). Those type of content are researched for the evaluation dialogic communication presence on organizational accounts. As a participative medium, Facebook is used by 38 million people in Turkey (See: Table 8.)

Table 8. Leading Countries based on number of Facebook users as of January 2021(in millions) (Source: DataReportal and Facebook, January 2021)..



Since its foundation of Harvard university as a communication service by Mark Zuckerberg and his friends, the social media only available for the students of Harvard University. Yahoo and Microsoft tried to buy Facebook in 2006 and 2007. But instead, the new qualifications began to be added to social network platform which enhances the number of users. In 2008, direct message function is enabled. In 2009 like button and mentions are facilitated which are creating dialogic communication amongst people. Call to action button in 2014, stories and facebok watch in 2017 enabled the integrated video function on the social media. By 2020 and 2021 AI based new functions and many other new facilities which could be seen on figure 2.10 have been serviced. Now it is the biggest social media by its rate of reach and total number of active users globally.



*adopted from Chaffey, 2019. Table 5.8: Timeline of key functionality on Facebook, Twitter, Instagram and Snapchat

Figure 10. Timeline of Facebook Key Functionalities and Updates

Dialogic capacities of Facebook profiles are researched on different organizations such as universities (Gordon and Berhow, 2009); governments (Lai, Yu and Chen, 2020; Rodrigez et al., 2018; Rosario, Martin and Rodrigez, 2017); NGOs and advocacy groups (Bortree and Seltzer, 2009; Briones et al., 2011; Mazid, 2019; Wissen and Wonnebeger, 2017); brands (Beltra, Medina and Coreria, 2020; Owoche, Mbuga and Ikoha, 2019; Patel, 2020), firms (Kun, Hong and Shin, 2011; Parsons, 2011), or culture places such as museums (Capriotti and Losada-Díaz, 2018). Beyond the dialogic potential of Facebook profiles, also interaction with publics or stakeholders became the interest of researchers. For example, user approach on a Facebook campaign on love and marriage (Lee, 2014) or candidates' use of Facebook during the election campaigns (Sweetser and Laricsy, 2008), advocacy groups (Bortree and Seltzer, 2009) are the examples of event-specific dialogic communication researches on Facebook. Social presence is both aim and result of having an account of social network sites. The relationship between social presence and engagement (Men et al., 2018; Soon and Soh, 2014), reputation (Hong, Kim and Shin, 2016) is also issued within the researches on dialogic use of Facebook. Considering the giving feedback and building dialogue with publics as the distinctive features of dialogic

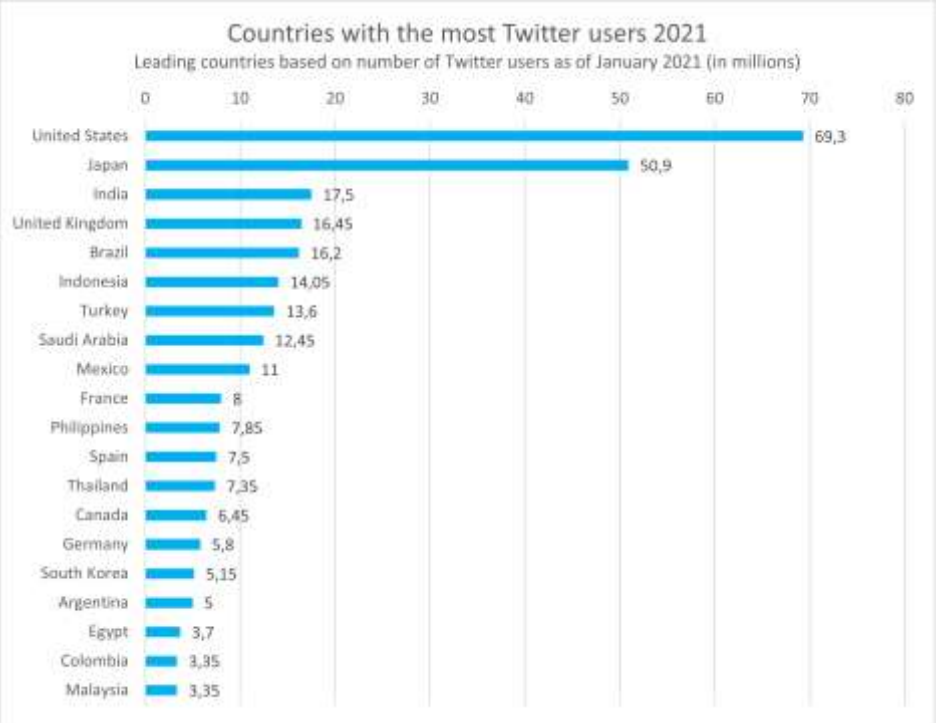
communication, the research upon the dialogue itself between the Facebook users and brands (Chen and Zhao, 2020) is studied.

2.1.3.2.2. Twitter

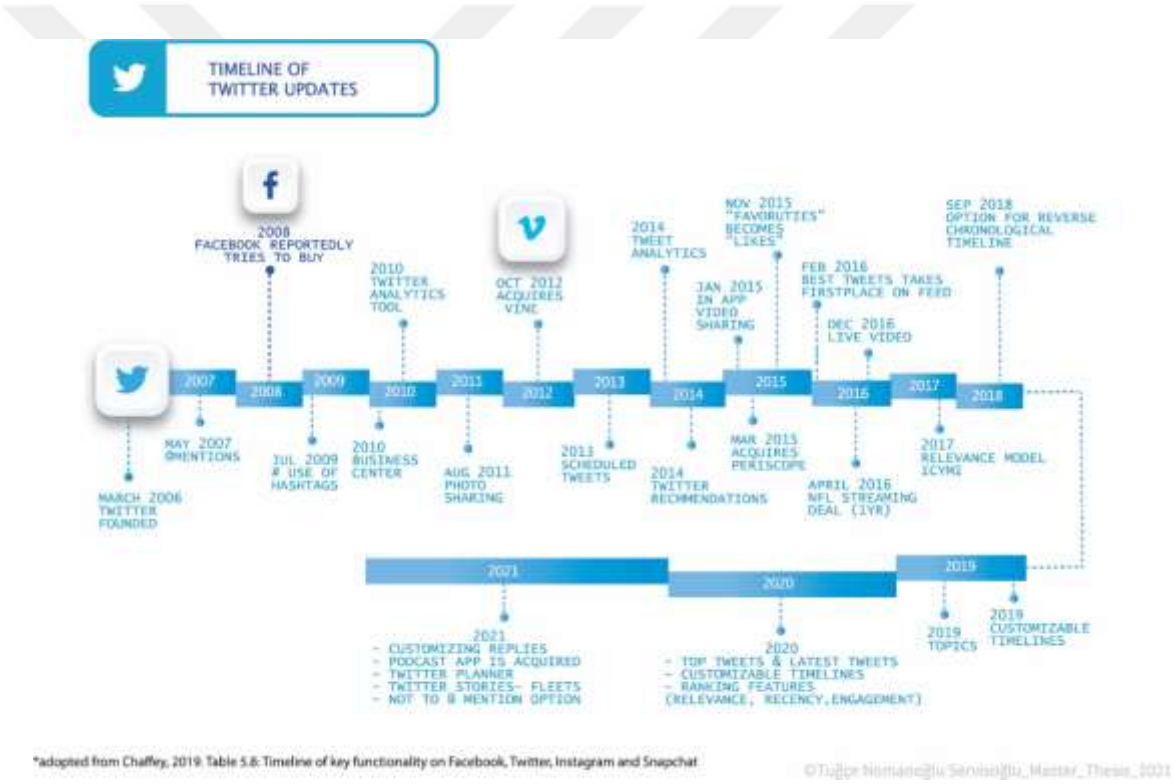
Twitter as the microblog is founded in 2006. According to the global digital report by We are Social, in 2020 Twitter have 4.57 billion of internet users. In Turkey, Twitter has 13,6 million users (See Table 9.) Since its foundation, Twitter also has functioned core updates as such use of mentions (2007) and hashtags (2009), analytics tool (2010) and photo sharing (2011).

Also, Twitter as a company have acquired Vine-the video sharing platform in 2012, and Periscope in 2015. Twitter also facilitate the in-app video sharing by 2015. And add new feature as customizable news feed in 2019. The bunch of new functions added in 2020 and 2021 as customizable replies, comments, podcasts, Twitter stories, pinned Tweets, ranking etc. which can be examined on the figure: 2.11.

Table 9. Leading Countries based on number of Twitter users as of January 2021(in millions) (Source: DataReportal, January 2021).



The dialogic use of Twitter of universities (Linvill, McGee, Hicks , 2012; Köseoğlu and Köker, 2014; Yılmaz, 2020) NGOs (Baumgarten, 2011; Inauen, Schoeneborn and Scherer, 2014; Lovejoy and Saxton, 2012) companies (Rybalko and Seltzer, 2010; Türk, 2016), local governments (Martin, Rosario, Perez, 2015; Sáez Martín, Haro de Rosario, and Caba Pérez, 2015), organizations (Wang and Yang, 2020) is researched through the years to understand the dialogic capacity of organizations on Twitter. Moreover, individual account of famous people such as athletes (Watkins and Lewis, 2014; Lim and Lee-Won, 2017), use of presidential candidates(Adams and McCorkindale, 2013) and academicians (Gillen and Merchant, 2013) or scientist (Jahng and Lee, 2018) use of Twitter.



*adopted from Chaffey, 2019: Table 5.8: Timeline of key functionality on Facebook, Twitter, Instagram and Snapchat

Figure 11. Timeline of Twitter Key Functionalities and Updates

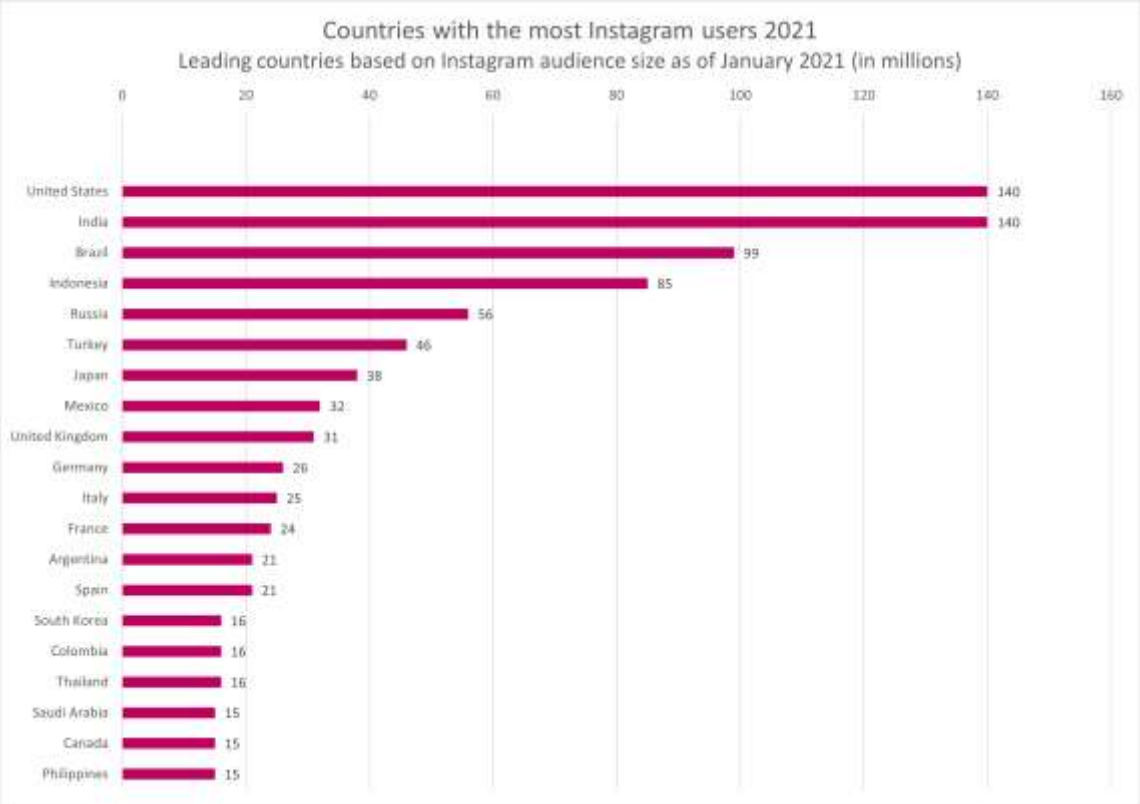
Relatedly, the relationship between the engagement and dialogic strategies on Twitter (Sundstrom and Levenshus, 201) is researched by scholars as well as the effect of dialogic principles that used in Twitter on interaction and attitude (Watkins, 2017). The content Guided by the literature, it can be seen that Twitter as a new field for dialogic communication research, could provide an information to understand the OPR on microblog platforms. Even there are network research studies on Tweets or Twitter

users, from the public relations perspectives Twitter is a resourceful space to examine the social media mediated dialogic communication between organizations and publics (Himelboim et al., 2014).

2.1.3.2.3. Instagram

Instagram can be considered as a new social network site comparing to Facebook and Twitter which is found in 2010. This visual-based social network site allows users to share photos, videos or platform-facilitated small clips. Instagram is a practical place for organizations to commerce their products or services.

Table 10. Leading Countries based on number of Instagram users as of January 2021(in millions) (Source: DataReportal, January 2021).



In Turkey, Instagram with 46 million users is one of the most preferred social media as Facebook. (See; Table 10.) With the new feature of online shopping which is added to the application know facilitates for the small business or individual entrepreneurs to gain income. Since its launch, Instagram is one of the fastest

developing social media. Each year new functions have facilitated, such as hashtags (2011), explore (2012), photo tagging (2013), Instagram analytics (2014), boomerang videos (2015), stickers (2016), live stories (2017), IG TV (2018), Geotagging (2019) Reels and Instagram shop (2020) etc. Recent two years are the innovation year for Instagram. Lots of new features are released in a year that could be examined on Figure 12.

Carceller-Maicas (2016) uses Instagram as a tool for health communication research. Researches on Instagram are made recently on the health-related issues in particular use of Instagram during pandemic (Niknam et al., 2020), stay home hashtag (Umar,2020) or on brand communication (Dias et al., 2020), infodemics (Cuan-Baltazar et al., 2020; Rovetta and Bhagavathula, 2020) during Covid-19. Laferrara and Justel-Vázquez (2021) have researched Instagram posts' contents of news media during the Covid-19 and their effects on health crisis. González Romo, Aguirre and Medina (2020) has researched the effects of pharmaceutical influencers during the pandemic crisis. Similarly, Godefroy (2020) has studied the fitness influencers and their effects during the Covid-19. La Ferrera and Justel-Vazguez (2020) have argued the distribution of visuals and network of visuals on social media during Covid-19. Besides those studies, there are health communication related researches. The health communication research on automated images of Instagram posts and its effects on risk perception is studied by Nobles et al. (2020). Brand communication (Gürüz, 2019) and reputation(Koyuncu, 2019) are amongst the prominent research study areas of Instagram in terms of brand and publics interaction.

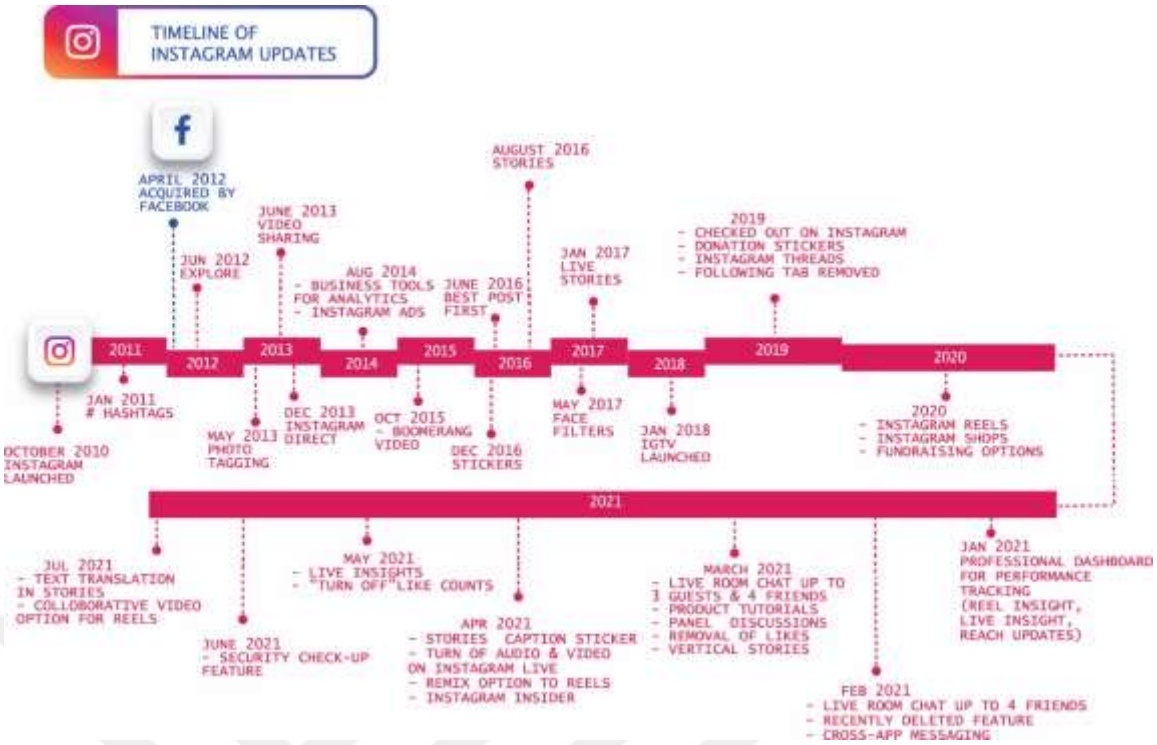


Figure 12. Timeline of Instagram Key Functionalities and Updates

The effect of social media on purchase or decision-making process have been studied by Kuzucuk(2019) with the comparison of uses of Facebook and Instagram. As another example, Toprak Erşen (2018) applies a comparative study on the Instagram uses of luxury clothing brands and mass clothing brands via content and semiotic analysis. Çetinkaya (2019), applies survey for researching brand communication on Instagram. Universities are another research area for the uses of Instagram. Gökler (2019), studies use of Instagram by universities for corporate communication purposes. There are researches upon the functions of Instagram. For example, Hu, Manikonda, and Kambhampati, (2014) define five different types of Instagram users depend on the content they have shared. Turancı (2109) studies the effects of hashtag usage on health tourism. Influencer marketing and its effects on brand communication on Instagram have research by Wibisono(2020). Mendeş (2018) have researched the scientific and ethical stance of Instagram posts by nutritionists.

Dialogic communication studies on Instagram are scarce. In terms of dialogic communication research, there are studies on the top performing brands (Bilgilier and Kocaömer, 2020) and a thesis exploring the dialogic engagement of account of influencer (Merton, 2016) on Instagram. Aslan (2017) have research use of websites as dialogic communication tools by municipalities. Arslan (2019) studies the dialogic

communication capacities of Turkish theaters. Bencze (2020) researches dialogic communication principles on the Instagram use of law school. Yeniçeri Alemdar and Kocaömer (2020) studies dialogic communication principles on the Instagram posts of environmental NGOs in terms of public relations. Finally, as the recent studies depicted, after the worldwide pandemic, the research on Instagram have been increased because the fast dissemination of visuals. Additionally, recent updates of Instagram make the platform as the preferred social media via the use of IG TV, visual sharing, shopping etc.

2.1.3.2.4. Other Social Network Sites and Multi-platform Researches

Most of the studies in public relations focus on the best-known social media sites such as Facebook, Twitter, Linked-in and YouTube (Taylor and Kent, 2016). Those social networks sites also have high amount of user in the world (Statista, WeAreSocial, 2020).But also there are different social media sites which are used worldwide or based on a specific geography or country. For example, China using WeChat (Qu, 2020; Zhang et al., 2017) and Weibo (Lu, 2014) as their popular social network site. Pinterest (Agozzino, 2015; and Instagram (Bilgilier and Kocaömer, 2020; Morton, 2016) are the social media tools that have millions of users around the world but not have an extensive research literature. There are other social media platforms including Reddit, WhatsApp, TikTok (Eghtesadi and Florea, 2020) which are gained popularity, but limited researches have issued those social networking sites. Besides the SNSs, guiding Kaplan and Haenlei n(2010) classification, there are also limited research upon social worlds as such Second Life (Kaplan and Haenlein, 2009), interactive multi-player games such as WOW, several others that have not been researched in public relations yet to the best of researcher's knowledge.

With the advancement in the usage of social media, people began to participate in different social media platforms simultaneously by regarding the content sharing types that offered by those platforms and their information needs. Nowadays most of the people have more than one social media account. They use Facebook to create online communities, Instagram to share visuals and Twitter to share their thoughts. This led companies or organizations to be present on those social media accounts as well as their segmented publics. To build up a good OPR, organizations and companies

began to take place in different social media account by offering communicative spaces for their publics.

Social media platforms became the indicator of credibility both for people and companies. Most of the companies are searching their candidates for any work on social network sites such as LinkedIn, Facebook, Twitter and Instagram before recruiting for a job. Similarly, people also give high importance on the credibility of social media accounts of any organization. The content they share, amount of followers, comments are relevantly evaluated by the people. Therefore, to maintain trust and reputation on their organization-public relationship, most of the organization prefer to show social presence on more than one platform.

Public relations research on the evaluation of social media accounts on different social networks sites of an organization is rare. On dialogic communication capacities in particularly, Kim et al. (2014) is evaluating the application of dialogic principles on websites and, Facebook and Twitter accounts of environmental NGOs. The authors considered those social media account as supplement to the dialogic capacities of websites. Because of some dialogic features are limited on websites and mostly found not present by other studies (See: Dialogic communication studies on websites), they additionally examine the Facebook and twitter in terms of application of dialogic principles. Unfortunately, they have found that NGOs are highly dependent upon their websites at that time and has low overall scores of ensuring dialogic principles on their social media accounts. In similar way of research, Shin, Kim and Pang (2015) have studied the presence of dialogic communication of global brands on their brand websites, Facebook and Twitter accounts. The study depends upon the five unit of analyses, website, profiles of each social media accounts, tweets on Twitter and posts on Facebook to measure the relationship cultivation and dialogic communication on those online platforms. They have found that, global brands prefer those online communication platforms for promotion of different categories of product or services. Resemble to this study, Toledano and Lalueza (2018) evaluate the comparison of dialogic capacities of Ibex 35 and Fortune 500 companies and their integration level of Twitter and Facebook.

In recent, du Plesis(2018) researched the effects of dialogic content on social media crisis communication. Liu and Fu (2020) have studied the relationship between stakeholder engagement on Facebook and Twitter.

2.1.3.2.5. Social Media Research Studies

Boyd and Ellison (2008) have researched the social media to make a definition. As the research field- social media itself has been elaborated in their work that is titled as "Social Network Sites: Definition, History, and Scholarship" . They defined the Social Network Sites by referencing their features. SNSs as tools for *"(1) construct a public or semi-public profile within a bounded system"* have identified new areas for public relations also. Wherever people gather, there will an organization-public interaction by which the strategies for communication on these new platforms is going to be defined (Gao, 2016; Hallahan et al., 2007). Secondly, as they offered people or organizations are going to "*(2) articulate a list of other users with whom they share a connection,"* which will brought good things as such creation of brand engagement (Qu, 2020; Tsai and Men, 2013) and consumer engagement (Dodoo and Padovano, 2020; Dolan, Conduit and Goodman, 2016; Hollobeek, Glynn and Brodie, 2014; Martines-Lopez et al., 2017; Men and Tsai, 2014) Those positive and negative impacts on social media will be caused by electronic word of mouth (e-WOM)(Chu and Kim, 2011; Lee and Youn, 2009; Wolny and Mueller, 2013) by the spread of misinformation (Bode and Vraga, 2018; Valenzula et al., 2020; Rampersad and Althiyabi, 2020), or just by the inefficient use of social media by the organization. Those situations will create crisis which need to be managed on social media (Jahng, 2021; Yu et al., 2020) and will be effecting the consumers' perception of organizational credibility (Erkan and Evans, 2016; Jin and Phua, 2014; Oh and Ki, 2019). Therefore, as the third features, the *(3) view and traverse their list of connections and those made by others within the system* may effect on OPR. As Ellison and Boyd noted, *"the nature and nomenclature of these connections may vary from site to site*"(2008) and dependently each platform has to be studied according to its functionalities. Therefore, for this study, the research coding procedures are formed for each social media as which is explained in next chapter.

As different perception some scholars have mostly concerned on the uses and users of the social media. For example, Waters and Tindall's (2011) research article concerned on the social media practices of journalists. Another example is that Morton (2016) have studied the influencer's dialogic communication presence of on his Instagram account.

Another mainstream research field uses the social media as a research unit is about on the effects of social media. For instance, behavioral or societal effects of social media use or the perception of others on the appearances are problematized by many field from psychology to economy whereas issued also by communication studies (Jin and Phua, 2014; Tsai and Men, 2013). And additionally, the positive and negative impacts of social media on reputation also became the research inquiry for the researchers (Akram and Kumar, 2018; Dijkmans et al., 2021; Tandoc, Lim and Ling, 2018; Wazsak et al., 2018). Most of the studies directed their concerns on the potential of social media in times of crisis and its communicative improvements for the new media era. Blog mediated crisis communication is one of vital improvement for corporate communications also. (Jin and Liu, 2010).

Researches on online platforms specifically social media diverse according to the searched social media type and the area of research study. For example, universities are one of the most researched study setting in terms of social media and communication research. Peruta and Shields (2018) have studied the Facebook post types and formats of universities by applying content analysis. Laudano et al. (2016) have applied research upon the twitter usage to understand the dissemination of information about the library's collections and services. Another research on universities and Twitter usage is applied by Quitana Pujalte et al. (2018) for examining the use of organizational social media accounts in reputational crisis situations whereas Wu et al. (2019) researched the obtained recognition of universities according to the publications scores on Facebook. Kimmons et al. (2017) studies the dialogic use of Twitter as a communication platform for universities. Similarly, Lopez-Perez and Olvera-Lobo (2016) apply research on both Facebook and Twitter to research the universities. Cabrera Espin and Camerero (2016) also studies the digital communication channels of universities by applying research on Facebook.

Carslon et al. (2018) research upon the client perception of the organization on Facebook while and Matosas Lopez (2018) issues the same research topic by researching on Twitter. Mukherjee and Banarjee (2019) studied the impact of advertising from Facebook business. Majumdar and Bose (2009) researched the effect of use of Twitter on the company market value. Instagram is one of the developing study areas comparing to Facebook and Twitter. Balan (2017) have studied the effects of content sharing and propagation on business whereas Giakoumaki and Krepapa

(2019) researched the influence of publication's appeals on the volume of comments on Instagram.

The dialogic use of social media has been argued in respect to existence of dialogic capacity of social media. Whereas some scholars criticize the dialogic communication on social media which enhances the dialogue (Theunissen and Wan Noordin, 2012). Kent (2013) defines the problem as it is related to application and intent instead of the medium of internet. He remarks on the misunderstanding of practice by which equalizing the dialogue with communication based on tweeting or posting on Facebook or Instagram. The acceptance of social media as a substitute of an old mass communication tool for disseminating an information reduces its potential of relationship-building feature for public relations(Kent and Taylor, 2016; Taylor and Kent, 2014).

The dialogic studies on social media are mostly arguing the features of social media which are creating relationality, involving feedback, and having potential to take place in real time dialogically which are coherent with the features of dialogic communication. The uses of social media and their dialogic communication capacities is also researched according to the organizational differences. Amongst those organizational use of social media and their dialogic communication capacities, the social media use of universities (Beverly, 2013; Kimmons et al., 2017; Linvill, McGee and Hicks, 2012), hospitals (Gonçalves, 2020, Hether, 2014); NGOs (Baumgarten, 2011; Lu et al., 2014; Lovejoy and Saxton, 2012); companies (Hong, Shin and Kim, 2016) governments and politicians or organizations (Bardan, 2017; Grant et al. 2010, Lai and Chen, 2020) are researched. Another example is that, Buchanan-Oliver and Fitzgerald (2016) have researched the perception of marketing communication professionals who are working in different sectors about the dialogic use of social media.

2.1.3.2.5.1. Social Media Research in Turkey

Research studies on social media have been intensified in recent years. Especially organizational use of social media, brand integration, creating brand awareness and brand image (Kıraslan, 2018), branding and brand communication (Gürüz, 2019; Kaya, 2020; Türkden, 2013), or relatedly integration of social media as a public relations tool or brand strategy (Carlık, 2019; Karaveli,2019; Şengüler, 2019;

Tüfekçi, 2008, Yavuz, 2019a; Yavuz; 2019b) are the most preferred research topic in Turkish social sciences. Content types of social media (Akgün, 2020) and effects of hasthtag usage (Turancı, 2019) are also studied to find out the content and design effects.

On organizational level, universities (Akyüz, 2019; Carlık, 2009; Gökçe, 2018; Gökler, 2019; Sezgin, 2019), municipalities (Aksekili, 2020; Karakoç, 2019), hospitals (Erbay, 2018; Fener,2016; Uçar, 2019; Uçar, 2020); GSM brands (Türk, 2016) became one of the research areas to understand the effects of social networks sites as tools for communication. The types of uses of social media also have studied. For example, there studies on the use of social media for corporate communication (Aksekili, 2020; Gökçe, 2018), effects on the decision-making processes (Güvendir, 2019; Sezgin, 2019) and for crisis communication (Korkaz Yılmaz, 2020) or health communication via social media (Aygün, 20117; Daşlı, Gencer and Biçer, 2019; Erbay, 2018; Geysi, 2019; Karagöz, 2016; Kasapoğlu,2016; Kaya, 2014; Tengilimoğlu et al., 2014; Tüysüz, 2018) are becoming the trending topics depending on improvements on health sector, new technologies, worldwide health concerns and increasing demand for medical tourism. Which is detailed on next part, health communication in Turkey.

Besides those studies, there Are also dialogic communication research studies that have applied in Turkey. Rendeci (2016) have studied Zumba and dance courses to understand their online communication through social media and engagement level of stakeholders. Türkal (2016) and Türkal and Güllüpınar (2017) have researched dialogic use of social media for public relations of Turkey's top 100 companies. Uysal (2018) have researched the corporate social performance in dialogic communication perspective. Ekmekçioğlu Dedeoğlu (2017) have researched Health NGOs use of social media and their dialogic communication potential on Facebook. Kılınç (2018) have applied research on the dialogic use of Twitter.

2.2. Online Health Communication

Health communication continues to differentiate in relation to the customers' / patients' needs which are derived from social and technological progresses. Globalization, advent of internet and, with the advancement of web 2.0 each organization has transformed its strategic communication through the user-centered

perspectives (Moorhead et al., 2013; Xiang and Stanley, 2017) in contemporary world. U.S. Office of Disease Prevention and Health Promotion (2011), has defined the concept of "health communication" as:

"Health communication is the study and use of communication strategies to inform and influence individual and community decisions that affect health. It links the fields of communication and health and is increasingly recognized as a necessary element of efforts to improve personal and public health." (*para. 1)*

Tools of health communication and health information retrieval became more reachable and personalized with the internet enhanced health communication (Schulz and Rubinelli, 2012) and the prevalent ease of technological device ownership. The outgoing COVID-19 pandemic, which enforces healthcare organizations to provide user-specific mobile applications and e-health tools on organizational websites, has intensified the need for online health communication from different platforms simultaneously (Griebel et al., 2018). Healthcare organizations and hospitals are also transformed their communicative practices through the patient-centered formation (Lober and Flower, 2011) by enabling the direct accession to organizations or health practitioners via social media or e-health mobile applications. This new era of health communication has transformed the social roles of doctors, organizations, and patients as well as the relationship amongst them (Mukherjee and McGinnis, 2007). The changed forms of relationship and roles highly effected the trust on the knowledge of the practitioners. The classical paternalistic forms of doctor-patient relationship give cause for the online health information retrieval.

Extensive worldwide use of SNSs and the easiness of finding information sources from search engines help people to understand the medical terminology to acquire health information depending on their symptoms and enhance their e-health literacy (Berkman, Davis and Cormack, 2010; Bodie and Dutta, 2008). This also help people to acquire information about the medicines, health conditions, hospitals, and practitioners from their peers on online forums, social media or Q&A websites which has the potential of infollution (information pollution), dissemination of misinformation or fake news if the sources aren't reliable which reduces the find out correction sources (Bode and Vraga, 2018; Balatsoukas, 2015; Jahng, 2021). Thereof, people also became skeptic about the health information on websites and social media considering the source credibility (Mukherjee and Nath, 2007) and the privacy of personal medical information (Esmaeilzadeh, 2020; Parthasarathy and Knight, 2020).

Because the trust is one of the most important assets for healthcare organizations considering the life and death matter, the reliability, shareability and lucidness of the health information (Battineni et al., 2020) on organization websites and social media measures the health-related decisions of patient-customers (Kreps, 2012; Chen et al., 2018; Paige, Krieger and Stellefson, 2017; Thapa et al., 2021)

Hence, in this part, after reviewing the history of health communication, online health information search behaviors and the concept of e-health is tried to be explained by also considering the effects of e-health tools and online communication channels. These concepts are beneficial for understanding the dialogic communication features on websites and social media for online health communication practices. After that, the formation, and regulations on communication for private hospitals in Turkey will be issued while healthcare system in Turkey by particularly addressing the private or foundation owned hospitals and state regulations and health related medical applications are tried to be summarized. Lastly, health related researches in Turkey will be examined, and also the previously conducted dialogic health communication researches will be reviewed.

2.2.1. Health Communication: A brief history

The recognition of health communication as a research practice is taken place in 1960s. But, most of the important steps occurred in 1970s. The launching of the Stanford Heart Disease Prevention Program (SHDPP) in 1971 is addressed as the beginning point of legitimacy of the field of health communication by Everett Roger (1994). It is followed by the establishment of the Health Communication Division at the International Communication Association (ICA) in 1972 (Kreps, 2014). Although, considering its history, it can be traced to the 19th century by which health information is provided to the communities via posters or newspapers (Salmon and Poorisat, 2020) but the term as Health Communication is first used by Nusbaum (1989) on the journal of *Health Communication* and became the field in public relations (Poe, 2012; Beck et al., 2014). And this new study area began to one of the credible research areas with the publication of second journal on health communication in 1996 that is titled as, *Journal of Health Communication: International Perspectives* (Kreps, Bonaguro, 2009). The concept of "health communication" is defined by Everett Rogers as "any

type of human communication whose content is concerned with health" (Rogers, 1996, p. 15).

Even the 1970s is the definitive time span for the field of health communication, the practices and tools of health communication can be traced back to the early 19th century. Salmon and Poorisat (2020) determines the four developments for the evolution of practice of health communication: "The use of mass communication for public health campaigns (1900-1910s), the search for effects (1920-1930s),the search for an explanation from interdisciplinary perspectives (1940-1950s), and the formal recognition of health communication as a distinct and valuable field of practice and research (1960s)" (Salmon and Poorisat, 2020).

Health communication is identified by some scholars in the field of communication (Hannawa, et al. 2015; Paek et al., 2010; Rogers, 1994, 1996) rather than field of medicine. The interdisciplinary nature of health communication research field brought different perspectives and different ways of knowing in the areas of public relations, health information, health information search behaviours, health marketing communications (Elrod and Fortenberry 2020a; Purcarea, Gheorghe, and Gheorghe, 2015; Wrenn, 2007) and relationship between patients and health practitioners or healthcare organizations (Hoffman and Longtin, 2020). Eventhough, there is contradicting views upon the segmentation of the field (Becket al., 2004; Freimuth, Massett and Meltzer, 2006; Kim et al., 2010; Paek et al., 2010), health communication practices, media and tools became the field for scientific inquiry public relations. Especially with the advancement on social media, health communication through the SNSs and health information search on internet became one the promising research fields for public relations practices (Moorhead et al., 2013) in health care organizations. Derived from different disciplines (Kreps, 2008) with the advancement of internet-enhanced communication the online health communication became one of the prominent research studies in the field of public relations.

How these concepts are acknowledged is also proceeds the importance of public relations in the health communication field.

2.2.2. Online Health Communication and Public Relations

Tools of public relations are highly used by healthcare companies, non-governmental organizations (NGO) and governments for the communicative purposes or unpaid promotion practices for many decades. For example, CDC publishes the 7 dimensions of health communication which also provides the basics foe the health communication when especially considering the online environments.

Health and healthcare marketing communications is one of the prominent areas than has been using the marketing mix which is composed of advertising, personal selling, sales promotion, and public relations. Besides these, healthcare social marketing has importance to understand the access to healthcare services (Akıncı and Healey, 2004) and hospital choice factors (Akinci et al., 2005). Health sector is diversified from other sectors in terms of their type of service, capacity of services, variety of personnel and the measurement of inputs and outputs in terms of business. The definition and computation of output in health sector is much more constraints comparing to other sectors because, the output of health sector is human- being. The results of treatment may or may not be evaluated in the long-term. Therefore, any failure during the medical care service could not be understood easily as it can be understood any other production process of goods-based sectors. Secondly, hospitals and medical centers requires the corporation of different occupational groups of experts such as doctors, pharmacists, laboratorians and, technical professions such as laundry, room services in bed-hospitals, refectories and substructure work forces linked to the electricity or water system. As a third, most of the work in health sector have immediacy which cannot be delayed. And health sector enforces high-level specialization on the specific diseases because of the vitality of the work field.

Those qualifications of healthcare services differentiate the demand of publics from healthcare organizations as well as the implication of public relations. As a Grunig and Hunt has defined (1984), public relations which refers to the *"managing communication between the organization and its publics*". Hereby, health communication as a subfield of public relations and communications studies is reckoned with integrated marketing practices (Okay, 2020; Ventola, 2014; Kotsenas et al., 2018). The need for genuine public relations for health services promotion has evolved the field of researches as well as the practices and tools of public relations in

line with the technological improvements and integration of marketing communication (Elrod and Fortenberry, 2020).

Viswanath (2008) identifies the five levels of health communication of organizations. These are individual, interpersonal, organizational, social network and mass or societal levels. Considering the offline and online health communication practices and the effect of new media, the social media accounts and websites of organizations can be evaluated in the clusters of organizational and societal or mass levels. Because organizational level is identified as the healthcare system and media practices of health organizations whereas mass or societal level of health communication is addressed as "*large-scale social changes and the role of communication with such changes"* (Viswanath, 2008). The decentralization of healthcare facilities and increase of the number of private hospitals, globalization of media and improvement of communication devices has transformed the decision-making processes of patients in relation to the mass / societal level or organization level of health communication practices. Eventhough the accession of internet has considered as a disparity of services amongst the population, popular use of internet and the mobile electronic devices has widened the online health information retrieval about diseases, preventive health information, medicines, and treatments (Wright, Sparks and O'Hair, 2012). Relatedly, as Brandtzæg and Heim (2009) researched the reason of why people use social network sites, they have reached the results that indicates more than half of people uses the social media for new networks relations, socializing and connecting with friends.

Beneficiary publics of health-care services are primary audiences of health communication channels of organizations. Health information seekers are secondary audiences on those websites and social media accounts (Parwanta and Bass, 2020). According to the searches on web, audience needs and complaints become determinant on the design and content of online communication channels as such online review web sites(Church and Chakraborty, 2018). Kumbasar (2021) has explored that 74.8% of the complaints on the well-known forum-based social platform *Şikayetvar ("there is a complaint")* is about the private hospitals. Also, she has found that the most common complaint issue is on the communication (Kumbasar, 2021, p. 256). Along with this study, many researches have investigated the influence of communication on the patients' perception and their hospital choice (Daniel, Burn and Horarik, 1999).

The need of better communication between patients and healthcare personnel, '*the "dematerialisation" of devices (tablets, computers, mobile telephones, consoles, palmtops)*' (Vanzetta et al., 2014, p. 168) and the advanced use of communication channels has brought the online health communication as one of the important public relations fields within the e-health practices. Online health communication is beneficial for both for internal and external public relations (Gallant et al., 2011). Online health communication thought the websites and social media accounts helps to prospect patients to learn about the health departments of hospitals and the doctors (Berkowitz, 2007). Also, they facilitate as patient relations or customer relations via the instant messaging systems of social media accounts and personalization of communication via online-chat applications of hospital websites. Therefore, those channels enrich the health communications by providing the prior knowledge about the organization and healthcare services before getting any medical care (Ingenhoff and Koelling, 2009).

Studies on online health communication in the field of public relations (Bugg, 2014; Burnett, Lamm and Lucas, 2009; Huete-Alcocer, 2017; Greaves et al., 2013; Griffis et al., 2014; Massey, 2013; Park, Rodgers and Stemmle, 2011; Richter et al., 2014; Rodgers and Chen, 2005; Rothberg et al., 2008; Simith, 2012) has grown in intensity (Thompson, 2010) beginning with the increasing effects of social media and Web 2.0 on the decentralization of communication and the excessive online communication practices of organizations.

Online health communication can be classified according to practices of the health information search by people, e-health implications of organizations, online communication tools and their use by health care organizations(Neuhauser and Kreps, 2003).

2.2.2.1. Health Information Search, E-Health, Concepts and Online Tools

Health information search is becoming one of the vital practices of nowadays considering the ease of dissemination and attain of health information through internet, especially on social media (Calixte, 2020). Daily encounter to the health-related information via the sources of government officials, hospitals, health professionals, televisions, newspapers, or health campaigns (Noar, 2009; Yıldız, 2019) has widened with the online dissemination of health information through the channels of internet-

based tools as such websites, wikis, forums and SNSs (Calixte 2020; Thappa, 2020; Zhao and Zhang, 2017). Furthermore, the COVID-19 global pandemic (Ihm and Lee, 2021; Nan and Thompson, 2021) have forced people and health professionals to communicate on online platforms in case of health safety. Because of the necessity of social distance, not just health information search behaviors taken place on online platforms also the practices of giving consultation and taking the medical background information of patients by the health practitioners has occurred online before applying any tests or physical examination in hospitals. Demand of online health communication and online the health services have prioritized the issues of the health-care information search through the internet, capacities of e-Health tools, communicative capacities of online and offline digital assets (websites, social media accounts, applications etc.) of health providers (Niu et al., 2021). Consequently, health services transformed their practices through the patient-centered appliances more than ever (Huang and Chang, 2014).

Health 2.0, Medicine 2.0, and Care 4.0:

In this new era which is defined as 'Health 2.0' (Chesser, 2016) or "Care 4.0" (Chute and French, 2019) by which patients are becoming the main actor and the client (Marciano et al., 2020) in the new health-care system with the advancement of technology and innovative industry 4.0 such as medical IOT technologies and the decentralized information dissemination Web 2.0. As Chesser (2016) has explained, Health 1.0 is a of the health information seeking behaviours (HISB) (Jacobs, Amuta and Jeon, 2017) from online or offline sources is in the context of Health 1.0, whereas health 2.0 refers to the *"interactive component of eHealth which includes social networking, participation"* and enhances the *"collaboration and openness"* (Chesser, 2016) that reinforces the dialogue-based communication.

One of the determinants of health information search on online sources is the level of health literacy of user. The search type and the keywords they have written for inquiry is determines the which websites will be reached. Therefore, the content creation on dialogic communication basis there should be research on the general understanding and semiotics of keywords related to the medical conditions. This issue is elaborated in a broader respect in the recommended future studies and suggestions.

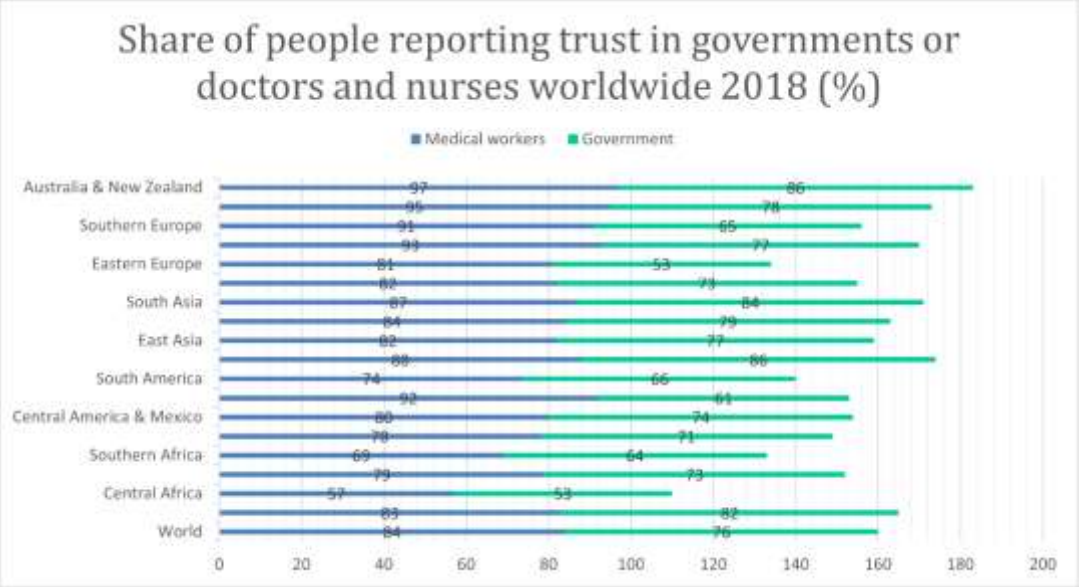
As indicated on the Table 11. people 84% of people in the world trusting the medical workers as such doctors and nurses while 76% of world population have trust on government institutions. This report which is prepared in 2018 shows us that the

trust is one of the important issues considering the health communication. With Health 2.0, new world of online health communication brought new spheres to be defined and new practices that trust needs to be ensured.

e-Visit :

The definition of e-Visit explained by Bria and Finn (2009), as the face-to-face healthcare consultation on online via the case study of Kaiser Permanente. Institute of Medicine (IOM) defines the 21st century medicine as a "*care based on continuous health relationships"* and this new medicine should be practiced for better creating better health communication. "*Patients should receive care whenever they need it and, in many forms, not just face-to-face visits. This ruling implies that the healthcare system should be responsive at all times - 24/7 - and that access to care should be by every possible means including email, telephone, online e-visits, and face to face encounters*" (Bria and Finn, 2009).

Table 11. Share of people reporting trust in governments or doctors and nurses worldwide in 2018 (%)



e-Patients:

The phenomena of "e-patient" encompasses the online health information acquisition from online forums, participatory SNSs and Q&A websites. The term is firstly described by the website "e-Patients.net". As Lober and Flower has quoted the

term refers to the any individual who is ‘‘equipped, enabled, empowered, and engaged in their health and health care decisions” (2011, p.178).

However, because the internet is multi-user area for providing the information it is also challenging to find the accurate knowledge. For example, on the very basics, different search engines such as Google, Yahoo!, Bing, and Ask.com, which are used worldwide indicates different search result pages that are changing to the search engine page ranking algorithms (Grind et al., 2019; Wang et al., 2012). With only changing the search engine panel, one can reach different results when trying to obtain medical information. Also increasing social media accounts who shares their medical experiences can give rise to spread of misinformation which defined as infodemics (King and Lazard, 2020; Cuan-Baltazar et al., 2020). Therefore, misinformation (Allcott et al. 2019; Bode and Vraga, 2018; Waters et al.,2020), fake news (Jahng, M.R. 2021; Wang et al., 2019; Waszak et al. 2018) and online illicit pharmacies (Anderson et al., 2016) could be effective which can cause of worse situation on health and even cause to the deadly conditions. Such infodemics (King and Lazard, 2020; Zarocostas, 2020) are also very disastrous in the times of pandemic as such world is experiencing since 2019 as COVID-19 (Xu et al., 2020). Therefore, accuracy of information, credibility of the health care professionals and organizations (Liu and Jiang, 2021) determinates the patients’ and publics’ perceptions and their level of trust, as well as their decision-making process on health-related consumptions of knowledge and services.

Health Information:

The World Health Organization (WHO) defines the information as a basic right and promotes the activities of accurate health related information production and dissemination (WHO, 2008). Preventive health care information (PHCI) gains much more importance via the globalization of communication tools and the power of the online free sources (Cangelosi et al., 2018). Types of healthcare information acquisition differs according to the source. Offline sources of health information were physicians, and the role of doctors and healthcare providers were determinative in medical decision making processes. Also, any symptom related information was acquired in peer-discussions or from experiences of acquaintances. The advancement of internet and the rapid changes in communication and information technologies (ICT) has changed and powered the position of consumers in health (Alvarez-Galvez et al., 2020). The term “e-patients” is defined to address the new era of participatory

medicine (Lober and Flower, 2011, p.178) in which patients are actively participate on their health decisions.

Types of health information:

Relatedly, the types of health information are changing through the source of the relevant knowledge. For instance, health professionals were seen as the primary source of credible health information, but recent studies have shown that patients are more inclined to acquire knowledge from health websites, or social media by which availability, variety and anonymity of knowledge could be ensured (Atkin and Rice, 2013; Cline and Haynes, 2001; Noar, Harrington, and Aldrich, 2009). Therefore, now hospitals facilitate the online chats and consultations opportunities on their websites (Matusitz and Breen, 2007; Moorhead, 2013). Secondly blogs and social media accounts of influencers are accepted as the health-related information sources by which patients can obtain information from experiences of others (Xiang and Stanley, 2017). For the users of internet, experiences of other patients or reviews of other consumers on the same medical products or healthcare services are much more reliable content than the content that produced by firms (Anderson et al., 2016; Eddabali and Yahia, 2020). The fear of deceptive advertisements and lack of dialogic communication capacities on online channels of health providers make people to trust on other users' reviews and UGCs rather than the companies.

The definitions of health 2.0, e-health care 4.0, health information, e-visit and e-patient are provided here for the clarification of communication tools related to the health technologies and e-healthcare practices. The definitions of mobile health, consumer health informatics, interactive health communication and medical internet of things(mIOT) and computer-mediated health communication is defined in the Table 12 (Schiavo, 2014).

Wolbring., Leopatra, and Yumakulov, (2012) have identified several health words or phrases which are related to health literacy and depicted in different media. Their researches o those words and phrases informs that the growth of social media also effects the content of health information by valuing the importance of most perceived words and disseminating and retrieving related information.

Table 12. Definitions of Health Technology Terms (Schiavo, 2014)

Terms	Definition
Mobile Health (mHealth)	"mHealth defined as medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices." (WHO, 2011: 6)
Consumer Health Informatics	"The branch of medical informatics that analyzes consumers' needs for information; studies and implements methods of making information accessible to consumers; and models and integrates consumers' preferences into medical information systems" (Eysenbach, 2000: 1713)
Interactive Health Communication	"Interactive Health Communication (IHC) is the interaction of an individual - consumer, patient, caregiver, or professional - with or through an electronic device or communication technology to access or transmit health information or receive guidance and support on a health-related issue." (Murray et al., 2005: 2)
Interactive Health Communication Applications	"The operational software programs or modules that interface with the end user. This includes health information and support web sites and clinical decision-support and risk assessment software (which may or may not be online) but does not include applications that focus exclusively on administrative, financial, or clinical data, such as electronic medical records, dedicated clinical telemedicine applications or clinical decision support systems for providers." (Eung et al., 1999: 10)
Medical Internet of Things (mIoT)	"IoT describes a system where items in the physical world, and sensors within or attached to these items, are connected to the Internet via wireless and wired Internet connections.…In the healthcare industry, IoT can help a hospital track the location of everything from wheelchairs to cardiac defibrillators to surgeons."
Computer-Mediated Health Communication	"CMC media refers to computer-based systems that allow individuals to communicate with others" (Rice et al., 1990) on health care programs such as telemedicine, patient support groups or patient provider communication."

2.2.2.2 Health Communication and the Online Channels of Hospitals: Websites and Social Media

Benefits and limitations on social media for health communications is researched by Moorhead(2013) via the examination of 98 original research studies. The results provide an insight about how the users as general public, as patients and as health professionals considers the social media for health communication. Users from all

categories are share the insights that social media increases the interaction with others while also increasing the accessibility. The information on social media is available and tailored according to the search intents. Also, health communication on social

Table 13. Health and Medicine Related Social Media, Web Sites and Applications

Categories	Service Provided	Examples
Communication Model	Blogging	Mayo Clinic, The Healthcare Blog, Science Based Medicine, Reporting on Health.
	Microblogging	Twitter, health specific hashtags
	Social Networking	Sermo, Doximity, DailyRounds, WeMedUp, Figure1, Student Doctors Network, DoctorsHangout, MomMD, Among Doctors, AllNurses, NurseZone, Incision Academy, Physician's Practice, Medical Group Management Association (MGMA),
	Event Networking	Meetup.com, Upcoming
	Instant Messaging	Hospitals' online help services, message boots and WhatsApp
	Videoconferencing	Skype, Google Hangout, Zoom, FaceTime
Collaboration Model	Wikis	Medpedia, livestrong.com, HealthiNation, WebMD, saglik.gov.tr, mevzuat.gov.tr
	Social Bookmarking	Pinterest, StumbleUpon, Flipboard, Pocket, Digg, Reddit, Diigo, Scoop.it
	Review & Opinions	Caredash, Allbud, All Therapist, Healthline, ZocDoc, HealthGrades, WhatClinic, FertilityIQ, Real Patient Ratings, Health Soul, Clinic Search.
	Community Q&A	HealthTap, askthedoctor.com.

media can provide a peer support creating emotionally supporting virtual social sphere. And social media has a potential to affect the health policy while also increasing the health surveillance. Likewise, there is shared opinion the limitations of social media which are indicated as the quality concern on content, reliability issues, risk of personal information share, harmful and incorrect advices, overwhelming information, information that is not suitable for everyone etc. (Moorhead, 2013).

Table 13. is adapted for categorization of health and medicine related web sites, apps and functions based upon the classification of social media and social network sites by Kaplan and Haenlein(2010, p.62). Collaboration model wikis , Q&A web sites, and review web sites are the sources for health information and in contemporary most of the people retrieve information from those web sites. For communication model, blogs are mostly integrated on the hospital websites which are used for information sharing sites about diseases, treatments etc.

Health communication on social media is seen as beneficial for the dissemination of health information. But some studies report that, online health information may cause negative effects. For instance, in case of epilepsy as a health condition, sharing symptoms or personal stories on Twitter causes health crisis in such situations as Rebecca McKee noted (2013) but in different situation, communication through Twitter chats may function for organization to manage crisis by creating engagement with hashtags (Young, Tully, and Dalrymple, 2017). Nonetheless, the significant contribution of social media for health communication and healthcare services cannot be underestimated. Besides the dissemination of health information social media provides a big data that coul be used for surveillance of disease outbreaks and helps to make provision for epidemics. Although the terms “infodemiology” which is lexicalized for defining the mass spread of misinformation (Cuan-Baltazar et al., 2020; King and Lazard, 2020; Rovetta Bhagavathula, 2020).

Health communication brings health ethics issues with new technologies, e-healthcare applications, and new media. Therefore, for regulating the health communication sphere there are several examples on the word as such the privacy rule that have regulated in USA. Health Insurance Portability and Accountability Act (HIPAA) has been regulated for the protection of privacy rights since 1996. Associations such as Internet Health Coalition (IHC), Health On the Net Foundation, Hi-Ethics are the established for control and regulate the online health communication which the are defined at the Table 14.

Table 14. Examples of Organizations, Rules and Regulations for Health Ethics (Source: De Jong, 2014).

	Description
Health-On-The-Net Foundation (HON)	**HON** is a nongovernmental nonprofit foundation, supported by the United Nations Economic and Social Council and designed to guide consumers to reliable, credible health, and medical information on the Internet.
Hi-Ethics, Inc., or Health Internet Ethics	**Hi-Ethics** unites the most widely used health Internet sites supporting high ethical standards. Member companies are committed to earning the trust and confidence of consumers who choose to use Internet health services for improving their health and healthcare.
Internet Healthcare Coalition (IHCC)	**The IHCC** is an independent and non-industry aligned group. Dedicated to educating healthcare consumers, professionals, educators, marketers, and both healthcare and mainstream media, as well as public policymakers on the full range of uses of the Internet – current and potential – to deliver high-quality healthcare information and services.
US Federal Regulations Regarding Privacy (HIPAA)	The Congress of the United States, in 1996, enacted the Health Insurance Portability and Accountability Act (HIPAA). **HIPAA** has two parts. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their job. Title II of HIPAA, The Administration Simplification (AS) provisions require the establishment of national standards 96
The Privacy Rule	In 2003, the Privacy Rule was promulgated to establish a national floor of privacy protections for patients by limiting the ways that health plans, pharmacies, hospitals, and other covered entities can use and disclose to third parties patients' personal medical information. It also includes a provision that enables patients to both access their medical records and control how their personal health information is used and disclosed 97

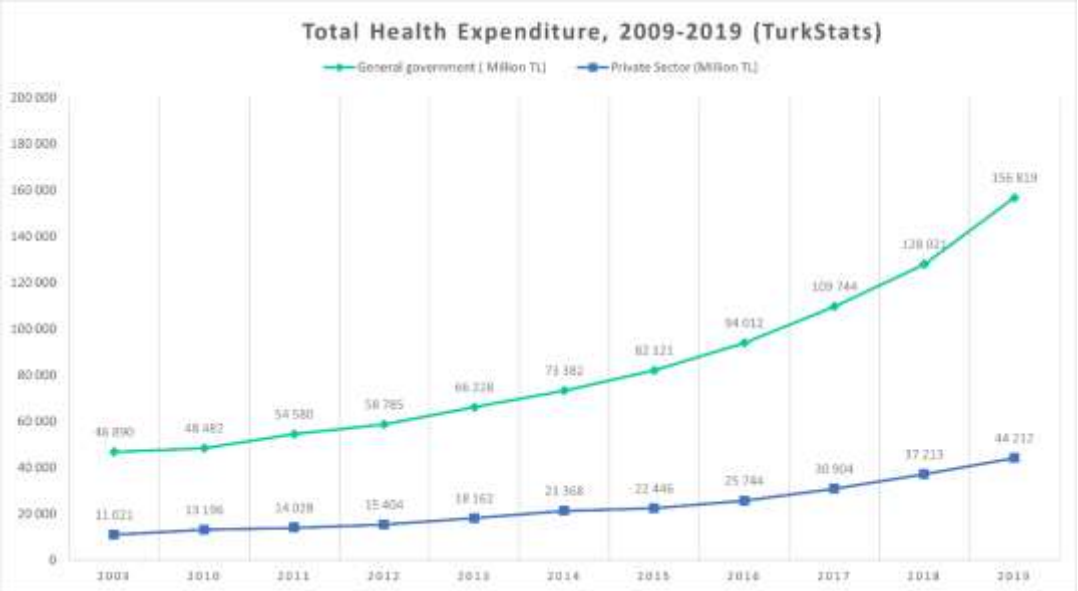
2.2.3. Health Communication in Turkey

Healthcare system in Turkey categorizes the services according to the capacities of health facilities as such number of beds, departments, and physicians and also

according to their degree to respond the levels of health practices (Okay, 2020). As the first step of healthcare facilities hospitals are considered.

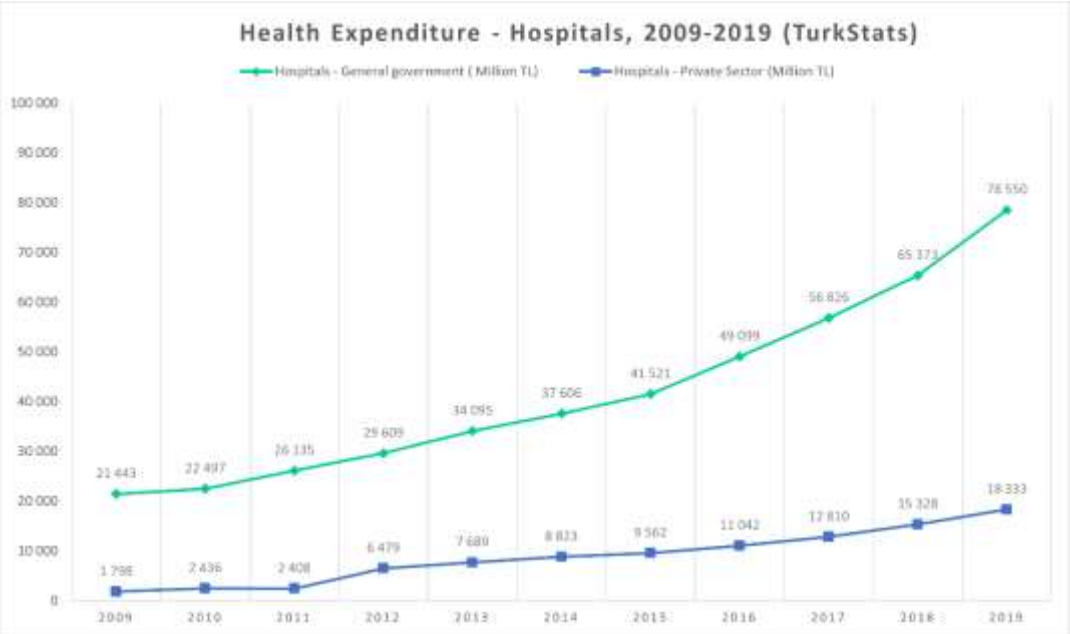
On the Table 15. that depicts the total health expenditure between 2009 and 2019 in Turkey, indicates that the rise of the expenses both general government and private sector expenditures. This total expenditure includes hospitals, health centers, household expenses, medicine and other medical related sector.

Table 15. Total Health Expenditure, 2009-2019 (Source: TurkStats,2020)



Within all these expenses the total expenditures amount of hospitals is depicted on Table 16. More than half of all health expenditures of government is made for hospitals whereas almost 40% of total health expenditures of private health sector is made for the private owned hospital . these numbers indicates that within the health sector, hospitals have one of the biggest economies. Therefore, especially private owned hospitals have the competition within each other for economic growth. Therefore, the field of health communication becomes important more than ever. Besides designed health campaigns, health communication in dialogue getting importance because of information demand of knowledgeable patients of contemporary world.

Table 16. Total Health Expenditure - Hospitals, 2009-2019 (TurkStats)



Health communication in Turkey is neither directly regulated nor has a directory for the ethical practices or use of channels. As Okay (2020) has introduced the field of health communication is growing and developing new communication tools and rules as well as. There is a restriction upon the advertisement-based information sharing act of hospitals which is published on official pages (Health Ministry, 2020). But there is no regulation or proposed directory for how they communicate, which information is categorized as the "must include" on online communication channels of health care organization except general regulations on internet and websites. For example, Italian Ministry of Health provided suggestions on usage of Internet, social media, and technology in 2010. They advised to organizations which are part of the Italian national health service (Servizio Sanitario Nazionale, SSN) to advance their technological capacities for achieving the communicative expectations of publics (Vanzetta et al., 2014).

Additionally, except the private hospitals' own sources of communication Turkish Republic provides citizens online health applications for both e-appointment and Digital imaging and communication in medicine (DICOM). "MHRS" is an e-health application that helps citizens to take an appointment in according to their health issue or place preferences (Alacadağlı,2017; Sert, 2019; Öztemiz, 2019) . Similarly, "e-NABIZ" is another application which directly linked to the e-government

applications that provides health care background, previous tests' results, prescription medicines, and the existing appointment while also providing an opportunity to take an appointment as well as the MHRS. Related to the applications, governments and hospitals use telemedicine as automated information services that remind the patients their appointments which have taken from MHRS or help citizen to get appointment from hospitals. (Matusitz and Breen, 2007).

Also, governmental use of social media accounts of the official health ministry pages is providing the current health related information. Beyond those official applications and online SNS mediated health communication, private hospitals' and healthcare organizations' communicative practices on health are regulated or are not officially inspected and supervised by the regulations.

2.3. Researches on Health Communication

There are studies upon the hospitals or health organizations communication on social media and websites. Gallant, Irizarry and Kreps (2007) studied the hospitals websites and their interactive and patient-centered levels which enhancing trust and personalization. This study was one of the prominent studies of the field in terms of research on hospitals and their use of website for communication with their publics. Wishon(2012) have studied the social media use of CDC. Thackheray et al. (2013) researched government health departments' use of Twitter in terms of information sharing and engagement. Bardach et al.(2013) researched relationship between commercial hospitals website ratings and the traditional performance measures in USA. Similar to Bardach's research, Huerta et al.(2014) researched the websites rankings of hospitals for evaluating the standards for effective consumer engagement. Huang and Chang (2014) researched the examples of e-health tools on hospitals websites. Glover et al.(2015) researched the comparison of ratings of hospitals on social media. Reber and Chon (2016) researched the hospitals use of social media for dissemination of online health information. Wong et al. (2016) researched the social media presence of hospitals in USA. Aljumaan et al. (2020) studied the effects of health information on websites of healthcare organizations in Saudi Arabia by applying survey. Apenteng et al. (2020) researched the effect of social media use by hospitals and its relation to the hospital revenue. Similarly, Costa-Sánchez and Míguez-González (2018) researched the use of social media for the purpose of

education and corporate communication of hospitals in Spain. Bach et al. (2019) research the contents of websites of EU countries as which are candidate, recent and established member of EU. Beier and Früh (2020) researched the factor that effecting the social media adoption of hospitals in Switzerland in terms of technology, organization or environment while Lang et al. (2020) researched a website of hospital by using Google Analytics tool by which social media is used as research study tool.

2.3.1. Health Communication Research in Turkey

In Turkey, even the health communication in public relations is one of the new research fields there are numerous studies that applied different research methods such as surveys (Akış, 2019; Aygün, 2017, Bozkanat, 2018; Çankaya, 2017; Çelik, 2018; Fener, 2017; Karagöl, 2017; Orak, 2018; Öncü, 2018; Sarı, 2016; Tosyalı, 2016; Sabırcan, 2017; Uçar, 2019; Zağlı, 2019), or content analysis (Birke Bulu, 2019; Başdok, 2019; Kaya, 2014; Karagöz; 2014; Sezgin, 2010); semiology analysis, (Çanak, 2019; Işık, 2019; Tüyöz, 2018; Mardeş, 2018; Ertekin; 2017; Yanık,2018), and mixed methodology as In-depth interview and content analysis (Geysi, 2019).

On the improvement of health and health communication, the role of social media has been studied by several researchers (Ertekin, 2017; Gönüllü, 2019; Karagöl, 2017; Karagöz, 2016; Kasapoğlu, 2016;Mendeş, 2018; Mendi, 2015; Orak, 2018; Öncü, 2018; Öztürk,2020; Sert,2019; Seven, 2019; Sezgin, 2010). Furthermore, health literacy, use of social media (Aygün, 2017) and digital narratives about health communication on social media (Tataroğlu, 2020), the social media effect on hospital and doctor choice (Fener,2016; Tengilimoğlu et al., 2014; Uçar, 2019; Uçar, 2020), social media use of health organizations (Erzurum, 2015) or health institutions (Bulunmaz, 2019), and digitalization of hospitals (Vermişli Peker, Yavuz van Giersbergen, and Biçersoy, 2018) and use degree of health-related web sites (Özer, Şantaş and Budak, 2012) and mobile applications for health communication (Alacadağlı, 2019; Öztemiz, 2019) are the issues that researched. Besides health messages and communication design of social responsibility health campaigns (Neğiş, 2019) are one of the research areas in health communication studies. Also, the design of websites of health organizations is researched (Görkemli and Fidan, 2014; Yanık, 2018) and their effects on health communication gaining attention via the widening use of internet. Health expenditures and comparative studies on regional or worldwide

scale of economies are also another health-related researches that gains attention in recently (Daştan and Çetinkaya, 2015; Erol and Özdemir, 2014). There is a systematic review study on the master thesis that have written on health communication (Becerikli, 2013) and also qualification of hospitals' websites has been studied on region-based research (Yorgancıoğlu Tarcan et al., 2020).

Başok Yurdakul and Öksüz has studied the hospital websites by comparing state-owned and private hospitals' corporate websites and their uses for publicity. For the corporate image of hospitals, the research article concerns on the functionality of the corporate websites by examining the functions of presentation, publicity, information sharing via the content analysis methodology (Başok Yurdakul and Öksüz, 2007).

Erbay (2018) has studied the website uses of private owned hospitals in Ankara. Author applied content analysis on the websites of hospitals to comprehend the degree of online health communication of selected sample of private hospitals. Özkan and Çağıltay (2020) researched the usibility of websites of hospitals. Ekmekçioğlu Dedeoğlu (2017), researches the health nonprofits' use of Facebook in Turkey. Boydak (2019), researched the design infrastructure and qualifications of function on websites of public and private hospital in Turkey. Consumer experience is one of important research areas for hospitals and health organizations. Köksal et al. (2012) compared the website use of private and public hospitals as a health communication tools with cross-sectional research. Altundal (2019), researched the public relations application of a research hospitals and its effects on customer experience. There is also different content analysis that have applied on the social media accounts of hospitals. Bulu (2019) researched the three main hospitals' uses of Twitter by applying content analysis. The comparative analysis on health systems of different countries is also a newly growing research fields in Turkey. Tagiyev and Ünal (2016) applied comparative research on the health systems of Turkey and Azeribeijan. The corporate image in related to the health communication practices of hospitals are also studied comparatively between private and public hospitals (Zağlı, 2019). As the new area, health tourism and social media also have been studied (Yedekçi, 2019).

2.3.2. Research on Dialogic Health Communication of Healthcare Organizations

There are scare sources on dialogic communication practices and capacities of hospitals and healthcare organizations in the world. The first reason for this that even though dialogic communication researches has been applied almost twenty years, there are limited studies on the healthcare context. And the second reason, advancement of social media globally is taken place beginning with 2000s. And since then, global needs were determined upon the needs of publics which also direct researchers. In public relations, dialogic communication researchers generally studied on universities, NGOs and global companies. But the outbreaks such as Zika virus, MERS and COVID-19 which are globally affect the publics for a decade, made the hospitals and healthcare organizations primary focus of the world. The need for effective communication, dissemination of credible information and space for dialogue between publics and organizations on digital and online platforms has given rise to research studies on dialogic capacities of websites and social media accounts of health care institutions.

Dialogic communication researches on health and healthcare organization are also growing the effect of global pandemic of Covid-19 virus. One of the earliest dialogic communication researches is studied upon the healthcare service of Kaiser Permanente's social media practices (Hether, 2014). After this research study, Kang, Kim and Cha(2018) examined the dialogic communication practices of government and effects on citizens' emotions during the South Korean MERS outbreak in 2015.

Another dialogic communication study on healthcare context is researched on the misinformation about COVID-19 (Rafi, 2020). Author researched the informative practices of social media and its effects on the society in Pakistan. In another perspective, COVID-19 has shown that there is global need of dialogue for reaching the trustworthy information and to build healthy relationship between publics and organization trough the social media. Therefore, Camilleri (2021) has studied the strategic dialogic communication in scope of crisis communication management of organizations during the COVID-19 pandemic.

Along with the study on dialogic capacities of healthcare service of Kaiser Permanente's social media accounts (Hether, 2014), there are only two other studies that researches the dialogic communication capacities of hospitals on the field, , to the

best of knowledge of researcher. First one is master thesis research by Hahn (2010) which explores the dialogic features of hospital websites. Second one is a recent study on the dialogic communication capacities of hospitals' Facebook accounts in Portugal by Gonçalves (2020). Another example, Gonçalves (2020) examined 29 hospitals' Facebook accounts and their dialogic communication capacity in which sample was including both public and private owned hospitals in Portuguese. Her study shows that even those hospitals have Facebook accounts, the degree of presence of dialogic features was low. Chung and Lim (2020) have also researched the utilization of dialogic communication capacities of health organization by studying the messages in websites and Twitter accounts.

2.3.4. Dialogic Communication Research Approaches

The theory of dialogic communication has been researched more than twenty years, and there is a growing literature depends upon the different methodologies and research approaches. Even it has been only two decades that the theory is formed, both empirical and review based studies have been presented by different scholars.

Because of the rapid evolution of internet and World Wide Web, the studies upon websites and social media are intensified. Therefore, review based researches upon the previous literature has also been conducted.

The review-based studies upon the field firstly had been considered by McAllister(2009) who is also one of the most-known scholars who studies upon the dialogic communication. After ten years of the composition of dialogic theory, in her review, McAllisters mainly addressed the importance of the researches on the internet and organizational communication and public relations. As for the research results, review of then-year dialogic studies show that websites mainly found as non-dialogic communication spaces (McAllister, 2009: 321). With the end of the 2010s there was a rise in the users of the social media which also directs the organization public relationship on different platforms. This phase is identified by some scholars as 'postmodern turn' (Kennedy and Sommerfeldt, 2015) in the social media and relationship research because of the increasing research studies upon the dialogic social media sites. The field of public relations has been attributing new definitions to the dialogic studies from the philosophical accounts (as such Lyotard's difference and the quest of dissensus and consensus etc.) to understand and express the new emerging

virtual communities on social media platforms (Kennedy and Sommerfeldt ,2015: 39-40). Sommerfeldt and Yang(2018) also revisited the definition of concept of dialogue by reviewing the twenty-years of dialogic communication studies.

Additionally, one of the different approaches to the concept-based review researches is conducted by Ao and Huang (2020) who contributed to the field by examining the cross culture public relations approach of dialogue on information-based technologies. They have reviewed the English and Chinese journals to understand the implementation of dialogue in different methods, samples, research topics and objectives.

Contrary to concept-based theoretical reviews, Kent (2017), who is also one of the founders of the dialogic theory, reviewed the previous studies on the dialogic communication field on historical perspective. He re-identified the foundational concepts of dialogic theory which are principles of dialogue and the features of dialogic communication (Kent, 2017). The importance of this study is that, Kent (2017) has clarified that what is dialogue and what is not (p. 2-9), and defined the progress of dialogic theory. He also has introduced the public relations scholars of the dialogic communication (Kent, 2017: 30-36). This review is a descriptive framework for the researchers who want to explore the clusters of dialogic communications and the trends and scholarships.

Wirtz and Zimbres (2018), has reviewed the studies on dialogic communication on a systematic basis to find out the researches that have applied on the principles of dialogic communication. As the units of analyses, they have restricted the research upon the organizational websites, social media accounts and weblogs. This review study is valuable research that helps the emerging researchers to find out the specific studies on the field. Especially, to find out the previous researches and scholars upon the organizations' dialogic communication practices, this review would be prominent resource on the systematic review (Wirtz and Zimbres, 2018: 13-23). Another interesting review on the dialogic communication field is Morehouse and Saffer's bibliometric analysis of dialogue and digital dialogic researches. Depending upon the concepts (e.g., dialogue, dialogic etc.) they have identified the articles and researches that been contributed to the field. Thereafter, they have created the maps of networks that identifies the authors, concepts, publications and etc. which enables them to identify the invisible scholarships (Morehouse and Saffer, 2018: 66-80). This study

actually brought the new perspective upon the relationship of concepts, theories and scholars.

The research-based studies on application of dialogic theories have been elaborated according to both qualitative and quantitative approaches. The researches on the theory of dialogic communication highly dependent upon the content analysis of digital online tools as Taylor and Kent(1998, 2002) has suggested in the first place.

2.3.4.1 Qualitative research approaches

Qualitative content analysis has been extensively used by scholars to assess the content published by organizations on Internet (Agyemang, Boateng, and Dzigbordi Dzandu, 2015; Altheide, 2015; Esrock and Leichty, 1999, 2000; Gomez Vasquez and Soto Velez, 2011; Ha and Pratt, 2000; Ibrahim, Adam, and De Heer, 2015; Jo and Jung, 2005; Keller, 2013; Kim, Kim, and Nam, 2014; Losada-Díaz and Capriotti, 2015; Lovejoy, Waters, and Saxton, 2012; Madichie and Hinson, 2013; McAllister-Spooner and Kent, 2009; Men and Tsai, 2012; Muckensturm, 2013; Rybalko and Seltzer, 2010; Saxton and Waters, 2014; Seltzer and Mitrook, 2007; Traynor et al., 2008; Wang, 2015; Waters, Canfield, Foster, and Hardy, 2011a, 2011b; Ye and Ki, 2012). Indeed, a longitudinal study of social media research published in Public Relations Review from 1998-2011 shows that content analysis of social media messages represents 45% of all the studies conducted (Kent and Taylor, 2016b).

Interview:

The qualitative research approaches on dialogic communication varied from interviews to types of content analysis. Interview-based dialogic researches are generally concern with the users' experience or practitioners' perspective of dialogic communication.

The interviewing as research method contributes to field to understand the basic concepts of the research context and their denotations. For example, in dialogic studies the most research applied themes are engagement, interactivity and responsiveness.

Taylor and Kent (2004) interviewed 32 congressional offices about their congressional official websites, additionally they have examined the 100 randomly selected congressional websites in terms of the presence of dialogic principles. The study affirms that internet could provide dialogue between the organization and publics unlike the any print or broadcast media (Taylor and Kent, 2004).

Briones et al. (2011) have used the interview technic to identify how American Red Cross employees apply dialogic communication on the Facebook and Twitter accounts. 40 in-depth interviews reveal an insight that practitioners need further acknowledgement on the application of dialogic social media practices (37).

VanDyke and King(2020) applied 24 semi-structured telephone interviews with 25 officials of to understand the practitioner view on strategic public communication with stakeholders. The authors indicates that there is need for more research on dialogic communication and environmental risks.

Another example of interview-based research is on the industry and agency practices of social media (Buchanan-Oliver and Fitzgerald, 2016). Researchers applied 26 semi-structured in-depth interviews with the marketing and communication professionals of organizations to enhance the knowledge upon the implementation of dialogic communication as an integrated marketing communication(IMC). Although this research is more related to the marketing communication instead of public relations, it can provide an insight for the industry and agency appeals of social media which will be an informative asset for the future public relations researches.

Content analysis:

Content Analysis is one of the primary qualitative research methods in terms of dialogic communication studies. After the principles of dialogic communication is introduced by Kent and Taylor (1998), research studies applied to different unit of analysis as indicated on the previous part. This type of content analysis is researching the presence of each dialogic item under the dialogic principles by coding the presence as "1" and absence as "0". The total amount of dialogic principles can give a clue about the dialogic capacities and potentials.

Critical discourse analysis(CDA) is another type of content analysis research, which examines the interactions. Rodrigez et al. (2018) is applied an example of this type of research method to understand the dialogic strategies of local governments on social media and their interactions with citizens. du Plesis (2018) uses a different research approach on crisis communication via social media. By considering a case study, researcher explores the dialogic content via deductive thematic analysis approach. Semantic analysis is conducted to interpret the ideas.

2.3.4.2 Multimethod research studies

One of the first multimethod studies on the dialogic communication field is applied by Kent and McAllister(2009). Scholars investigate the dialogic capacity of websites of community colleges by using both qualitative and quantitative research approaches. Two methods they have used which are examination of dialogic principles on website via dialogic content analysis and the e-mail experiment by requiring an information. They have evaluated the timespan and content of feedbacks via e-mail. And later they conducted a statistical analysis to understand the relationship between these variables (225).

In health-related dialogic research studies, Hether (2014) applied both interviews and dialogic content analysis. Another multimethod study is both acquiring qualitative and quantitative research methods by applying dialogic content analysis to the websites of banks in Ghana and survey to understand the user perception (Okoe and Boateng, 2016). Rafi(2020) also applied multimethod research study on the misinformation during the COVID-19 pandemic outbreak. Author conducted both content on the 50 posts and comments on them. He also applied 30 informal interviews with the people with different demographic features.

2.4. Research Questions

Studies on websites and social media accounts of organizations will help to understand the importance of web site design or functionality of any type of knowledge share on social media accounts as well as will incline the user preferences. Although there is wide-spectrum research on websites, social media accounts or online communication types of hospitals which are studied across the world-academia, there are still a gap studies on hospitals' websites or social media accounts and their dialogic communication capacity.

Therefore, the main purpose of this study is to understand how hospitals create websites to build an organization-public relationship. The objective is to acknowledge whether websites of organizations are designed for create, sustain, and improve dialogue with their publics. Relevantly, the degree to which how social media accounts are coherent with the website for fostering dialogic communication. Therefore, the dialogic communication capacities of three main social media accounts are considered

within the scope of research. To acquire an information for accomplishing the objectives of this thesis research, the following research questions based on the preceding literature review are considered as guide for the research:

RQ1: What type of dialogic tools are present on websites of private hospitals in İzmir?

The main purpose of the first research question is to determine the existence of dialogic communication capacities of websites. The importance of this research question is that the research will be presenting that how websites are designed and used by hospitals as well to what degree the information is provided on websites to create dialogic communication. To answer this question, the structure of coding scheme is adapted from the previous studies (Hahn, 2010; Kim et al., 2014) which are developed coding procedures in line with the theoretical framework by Kent and Taylor (1998) and the five principles of dialogic communication which are the ease of use, usefulness of information, conversation of visitors, generation of return visits and dialogic loop. The researched websites that the results are proceeded will be restricted to a particular timespan which is the research coding is applied. Therefore, other research questions will be providing additional information for the online dialogic communication capacities of hospitals.

RQ2: a) To what extent do private hospitals in İzmir use dialogic principles on their social media accounts in particularly Facebook, Twitter and Instagram? b) How well dialogic principles are coherent with hospitals' websites and among social media accounts?

Research question two aims to compare the dialogic uses of social media accounts by hospitals both for their organizational level and inter-organizational levels. The consideration of the RQ2a is to understand the dialogic uses of social media by hospitals. Here the uses and their levels of dialogic communication integration amongst the hospitals will be tried to be understood. To achieve this research the coding procedures have adapted from the research studies by Gonçalves (2020), Kim et al. (2014), Bortree and Seltzer(2010), Wang and Yang, 2020), and Bilgilier and Kocaömer (2019). In line with this, RQ2b searches the dialogic communication capacities of social media accounts and their level of congruence with

the organizational websites. To understand this the presence of links to social media accounts on websites are researched and according to the results of first part of RQ2, the dialogic capacities of Facebook, Twitter and Instagram accounts are compared for each hospital within itself to understand the coherence of dialogic communication presence.

Organizations are mostly utilizing the online communication channels for promote their products or services or just for showing a presence when their names are searched through the internet or on social networking sites. (For example, websites were used as a controlled communication channels to communicate with their publics (Taylor, Kent and White, 2003) before, but with the advent of social media and web 2.0 the communicative demands of publics have changed. Therefore, this research question will answer whether dialogic communication is present or not on social media accounts of hospitals and the degree of integration of hospitals to the Web 2.0 era as their online presence in coherence on all platforms.

RQ3: What are the differences and similarities based on dialogic principles between the uses of social media accounts and websites of the hospitals? Which social media accounts of hospitals are used more dialogically? Do these accounts facilitate for only providing information or are they also used for building dialogic relationship?

Third research question posited to understand the differences between the use of social media accounts of hospitals and websites of hospitals. The importance of this questions will provide answers for comparing and finding out the contrasts of uses of online communication tools by hospitals. Which qualifications are mostly endeavored for communicating dialogically with the publics is significant side question related to RQ3 to understand the operability of dialogic communication principles besides to acknowledge whether or which is most used or not? Also, RQ3 enable to render the use form of social media accounts and websites by comparing the degrees of presence of dialogic communication principles.

In order to answer these questions, a content analysis methodology have been applied to websites, Facebook pages, Twitter and Instagram profiles of hospitals. All the related information about the applied research methodology is explained in next chapter.

CHAPTER 3: METHODOLOGY

3.1. Sample and Unit of Analysis

The sample is determined as websites and social media accounts of 20 hospital depending on the data which is published on website of Health Ministry. According to the list of registered private owned hospitals in İzmir, the type of general hospitals has been accounted as the research unit while the field-specialized hospitals of which their areas differentiated according to the specific health conditions or diseases (hospitals specializes on heart, eye related conditions etc.) are excluded. Furthermore, state-owned public hospitals are not considered within the research unit because of the differences of the use of the online assets. Although advertisements of any product are restricted via the regulations. Obviously, the private owned hospitals are using websites and social media as a public relations medium of marketing communication whereas state hospitals are using the websites and social media accounts for the purpose of obligated publicity by state communication regulations on rights of being informed. Beyond the mandatory explanations or information there are limited dialogic communication facilities or useful information provided on websites of state-owned hospitals.

Secondly, because the audiences of public and private hospitals have different communicational needs in accordance with the marketing communication strategy prospects, private owned hospitals are mostly understood as spaces of choice contrary to the public hospitals. Depending on the given free of charge insurance, which is provided to all citizens of Turkey, people can have health care without any additional purchase from public hospitals. Therefore, for the low-income group, public hospitals are not choice. Unfortunately, the free of charge services in the public hospitals are facilitated with low quality and obligatory conditions. Most of the state-owned hospitals are not provide better equipment, detailed consultation, or new medical technology for treatment which are all enabled mostly by the private-owned hospitals. Thereby, besides the visits to any private owned hospitals with the reason of the urgent health conditions or specific treatments, the fee for consultation in private hospitals and or for the prescribed tests are not included within state insurance. Therefore, socio-economic status may affect the choice of hospital type and eventually state hospitals

are becoming obligation for the people with low-income. Comparatively, private owned hospitals are choice of consumers depending on their needs or expectations. In other words, being patient in the first one is being a receiver of an inevitable predefined healthcare practices but being a patient in private owned hospitals is being consumer / customer whose needs and requests are in negotiation including communicational needs. Instead of reluctant type of communication, for private owned hospitals there is a hospital marketing communication dimension whereas public relations are highly important to crate relationship with the patient-customers in such a trust-demanded sector. Therefore, it can be said that dialogue can only be occur when both sides are willing to communicate not obligate to that. Hence, because the economic needs of state-owned hospitals are different and those public hospitals are obligated to communicate with their audiences, the unit of analysis is determined as that is restrict to the private-owned hospitals where dialogue might be occurred.

The type of content in this study is manifest content which decreases the errors of inter-coder reliability and validity. The manifest content is a form of content type that used in content analysis which indicates the occurrence or presence of specific text or visual (Potter and Levine-Donnerstein, 1999). (See part 3.2: Content Analysis and Research Method).

The websites of each hospital are reached by searching their names on the Google search engines. Google has chosen depending on the quality that it is most preferred search engine amongst others as such, Internet Explorer, Safari, Mozilla, Yahoo and Bing. (Seymour and Kumar, 2011; Wang et al., 2012)

Because the main purpose of evaluating the capacities of dialogic communication of online assets of hospitals, Taylor and Kent(1998)'s primary coding frame is followed. According to the original research format, first the websites of sample hospitals has been studied. Social media accounts of hospitals are researched according to direct links on their websites to the social media accounts. Also additionally content analysis of social media accounts has examined if they have websites by not confirming the direct links from websites to the social media accounts.

To evaluate the overall dialogic communication presence of hospitals on their online communication channels, both results are regarded for researching the dialogic communication capacities of hospitals which has direct links to social media accounts from their websites and the hospitals which has no direct link to social media account

on websites. The difference of direct link is also indicated to evaluate the coherence and creation of conservation of visitors amongst the online platforms of one hospital.

3.2. Content Analysis and Research Method

As the qualitative research methodology, the content analysis has chosen for researching the inclined theory according to the sample size. The definition of content analysis which is contemporarily accepted is defined by Berelson (1952) as "research technique for the objective, systematic, and quantitative description of the manifest content of communication" (Krippendorff, 1980/2004; Manganello and Blake, 2010). There are several definitions for content analysis referring to the data type, data collection methods or its normative structure as a methodology. As one of those explanations, Neuendorf (2002) conceptualize the definition of content analysis within six features as a *"(a) scientific; (b) messages being the unit of analysis, data collection, or both; (c) quantitative; (d) summarizing; (e) applicable to all contexts; and (f) all message characteristics available to analysis"* (pp. 9–26).

The methodology of content analysis is historically used by communication studies or cultural studies especially after the increase of research studies on TV programs. But also, afterwards with the rise of interdisciplinary researches and schools, other disciplines such as sociology, health, psychology, political science, media, and cultural studies began to use the content analysis method as complementary or directly as the main methodology of the research. Most of the scholars began to prefer content analysis methodology to evaluate effects of modern communicative tools in a systematic measurable qualitative methodology (Whaley, 2014). As a method for social sciences, content analysis has requirements of standards to examine the data.

Even though the content analysis studies associated with communication studies in tradition, which is an academic discipline emerged in 1950s, the health studies is widely using the content analysis methodology to evaluate the public health and health communication messages on mass media. As Kunkel has indicated, the national and international associations for health communications are established as a new organization (Coalition for Health Communication) which works multi-disciplinary or sub-division of communication associations (e.g., International Communication Association, National Communication Association, American Public Health

Association). And the foundation of famous journal, the Journal of Health Communication, in 1996 (Kreps, 2014) which defines the field of health communication has popularized the qualitative studies, content analysis in particular for the investigation of health messages for health communication (Kreps, 2008).

Hereby contrary to the deterministic positivist approaches, the descriptive content analysis with a deductive methodology is adopted (Potter and Levine-Donnerstein 1999, p.264) in accordance with the Taylor and Kent's dialogic communication theory ad its principles. For the presence or absence of dialogic communication on websites and social media accounts of hospitals only the existence of features is researched as suggested on previous studies. Furthermore, as the scope of methodology, in this study the content analysis of visuals or texts are excluded.

3.3. Coding Frameworks, Definitions and Coding Schemes

The method of content analysis had been used since 1950 that it is conceptualized by Berelson in 1952. Tian and Robinson explain the application of content analysis as "(it) *is counting the frequency with which some event occurs. In many cases, it is about the presence or absence of some sign or symbol in communication texts(…)"* (Tian and Robinson 2014, cited in Whaley, 2014). Neuendorf (2002) defines this kind of coding as mutually exclusive which means each feature that is determined should be coded into one category. Here the type of content has importance for research.

Coding Frameworks. Codebooks are adopted from the works which are developed according to the coding reference from Taylor and Kent's researches on principles of dialogic communication. Additionally, because of the transition from web 1.0 to web 2.0 the use and facilities of websites has also evolved. Therefore, for this study, contemporary researchers' codebooks are exemplified. The codebook for websites is adapted from Jennifer Hahn's research on dialogic capacities of websites of Hospitals. (Hahn, 2010). Coding frameworks for the researches adoption also enhanced with the compulsory implication of state on the online communication standards. For instance, addition to the Hahn's coding index, the compulsory items which are protected under the regulations are added to the list to control whether organizations build dialogic communication with government in terms of following the regulations on online communication. Furthermore, Akıncı et al. (2005)

summarizes the Boscarino and Steiber (1982) identification of hospital choice criteria's' of patients according to types of services as general hospitals, special care service providers and emergency care services. First three criteria are common for all type of healthcare services which are closeness to residence, physician's use/recommendation, and past hospital experience, For private owned hospitals or special health care services, the criteria of availability of best equipment and technology and availability of qualified specialist physicians are other highly important factors for patients' decision. To evaluate those hospital choice factor for private-owned hospitals the availability of technologies added as a qualification of coding procedures. Additionaly because the research is designed for the comparison of dialogic features of online assets of hospitals, the research article by Kim et al. (2014) is also considered. The index of qualifications of dialogic communication presence of Facebook is prepared according to the research works by Gonçalves (2020), Kim et al. (2014) and Waters et al. (2011). The index for Twitter coding the research examples by Bortree and Seltzer (2010) and Wang and Yang (2020) has adapted. Dialogic communication presence on Instagram is researched according to the qualification index coding that is prepared by Bilgilier and Kocaömer (2019). Some qualifications are adapted according to the organizational or sectoral based given qualifications on websites as such e-appointment, e-results etc.

Definitions and Codebook. The definitions of each feature and their coding components are clarified at the codebook which can be found on the Appendix. Those definitions are made according to the previous studies (Gonçalves, 2020; Hahn, 2010, Kim et al., 2014; Waters et al., 2011; Rodrigez) that are provide an acknowledgement for the application of evaluation. Again, the glossaries for website, online communication, Facebook, Twitter, and Instagram are prepared to assure the common understanding of terminology before coding any research factor of dialogic features.

Coding schemes. Coding schemes are developed by exemplifying the research study by Ebru Uzunoğlu and Sema Misçi Kip (2014). The research excel is adapted for applying the research. Furthermore, the method scheme for the comparison is adapted from the works of Kim et al. (2014). Additional to this, to provide a general framework for the research, tables of the existence of social media accounts of hospitals, the qualifications of websites which enable people to find or stay on page, and the scheme of numbers of followers, followings, shares of social media accounts are also presented. These schemes are used for apprising an overall view about the

correspondences before evaluating the dialogic presence coding results. Those coding schemes can be found on findings section by which an insight is tried to be conveyed about websites' user-friendly features and degree of responsiveness. Of course, detailed examination on the capacity to "user-friendly design" and "responsiveness" is not achieved through this study. Instead, these features are researched limited to key functions that enables to reach any website(….). nevertheless, the importance of responsiveness and user-friendly design is considered at the future research part in the conclusion chapter.

3.4. Coder Training, Inter-coder Reliability and Validity

Content analysis is a methodology for social sciences which requires qualified standards to examine the data. Because the social sciences have descriptive characteristics unlike the positive sciences, the importance of perspective, social and ethical stances, and demographic qualifications of researcher or data coders for the researches have also differentiates the results. By reason of validity and reliability concerns, content analysis of applied communication research needs strong justification grounds for any subjective interpretation. Potter and Levine-Donnerstein (1999) argue the objectivity and subjectivity of content analysis and quoted from Stempel (1989) to question the possibility to staying objective if the manifested is abandoned. Stempel (1989) indicates that "*The content analyst after all is at this point injecting a subjective interpretation. While he or she may feel that it is an obviously correct interpretation, whether or not others will see the situation in the same terms is another matter"* (p. 126).

When considering such social data, it should be considered that the untrained coders are reporting on their observations. Even though the basic training is provided that may be noted that the coders are not always educated researchers which can cause different interpretations. Here the questions of validity and reliability comes into inquiry considering the different demographic backgrounds of coders. For the research the disagreements on coding are settled with discussion and consensus for each qualification within each principle. Otherwise, when the coders coded independently, the coded data controlled with the researcher and by making distinction between the coders, one opinion is valued over other for create consensus(Schreier, 2012).

Coder training. Coder training is completed in one day before the research. For the coder training, the purpose of the research, each feature and their correspondences on websites and social media accounts are explained. After that the one example which is not included on the sample is practiced establishing a consensus as an example of content coding of hospitals.

Inter-coder Reliability. There are numerous reliability calculations to use for qualitative researches. Reliability is defined by Krippendorff (2011) as "*is the extent to which different methods, research results, or people arrive at the same interpretations or facts.*" (Krippendorff,2011, p.94). In other words, Reliability as term is defined as getting same results from regular testing on the same issue with the same methods. Inter-coder reliability (ICR) is defined and is calculated according to the consistent results that obtained from both coders of qualitative research study. (O'Connor and Joffe, 2020). The reliability between the coders' data is very important for the validity of the research. There are almost 43 inter-coder agreement calculation methods for two coders or in other words 'agreement indices' that is defined by Popping (1988) to use in qualitative research with nominal data (Hayes and Krippendorff, 2007, p.78). Also, Neuendorf (2002) give importance to the inter-coder reliability to identify and record the qualifications of the coded data more objectively. According to her, without inter-coder reliability the method will be useless for scientific research. But contemporarily most used methods are percent agreement, Holsti's method, Scott's pi (p), Cohen's kappa (k), and Krippendorff's alpha (a)(Lombard, Snyder-Duch, and Bracken, 2002). In this study because the number of the sample is limited with 20 hospitals the percentage agreement is used (Hayes and Krippendorff, 2007). The rate of agreement between the coders as 70% has generally accepted by the researchers as good reliability (Whaley, 2014).

The objectivity is also highly inclined with the type of content. The manifested content is one of most objective type of contents that not so open to the comment or subjective judgements contrary to latent content.

Validity. For any research that is accepted as there are two types of validity as internal and external validity in terms of content analysis method. External validity refers to the generalizability of the results depending on the findings. For this research external validity may be a concern because of the temporality of the research data which derived from the online sources. Nevertheless, the findings could be generalizable according to the included qualification and its implication of dialogic

communication in terms of given setting of online channel. The internal validity changes according to adequacy of coding schemes, equivalence of coder training, the well or poor definition of categories, and quality of the data. And to provide internal validity consensus is used as collaboration for agreement on the definitions of categories (Creswell and Miller, 2000).

For this study, for the validity of the presence of dialogic communication the upper rate of 85-90% is accepted as the valid existence of dialogic communication for each qualification and for each principle.

3.5. Ethical Considerations

Association of Internet researchers (AoIR) (2012) is an academic association which works interdisciplinary, has determined six ethical principles as a guide for internet-based researches. These principles are foreseeing the possible errors that could be resulted from the nature of online sources and suggest that to understand the needs of vulnerable communities and avoiding harmful judgements. Also, AoIR give importance to the recognition of the representation of people not only as data and protection of personal rights. Relatedly rights of subjects and the benefits from the research should be balanced in terms of protection of people. The last two principle is important for the scope of this research. The association indicates the temporality of internet researches by suggesting that, *"(e) embrace the evolving nature of online research, and (f) engage in deliberative decision-making that reflects a broad range of information and recommendations"* (Markham and Buchanan, 2012, pp. 4–5, cited in Hertogh, 2018).

During the search there is no excessive information is collected which is against the terms, conditions or legalities of social media site or web sites or contents which is related to the privacy of people aren't used for the research.

In this research the names of the hospitals are connoted with the Latin alphabets for the privacy of the data concerns. The sample as the data source is restricted with information provided on the official website of Health Ministry. Therefore, the research universe is restricted with given data which may or may not be contemporary, and /or not include all private hospitals which are presently providing service in İzmir. Therefore, the results are obtained according to this restriction. Dependently, if the research is replicated with different hospitals or different number of hospitals, the

results could be vice versa. Furthermore, the research results which are derived from the coding procedures that are applied during the specific time-period could be falsified if the research is replicated in different timespan. This possibility is an ethical limit for the research which makes the research be evaluated within these time limits.

CHAPTER 4: FINDINGS

For understanding the degree of dialogic presence of private-owned hospitals on their web sites and their social media accounts, firstly, the existence of the websites and social media accounts (limited with the accounts of Facebook, Twitter, and Instagram in this research scope) is researched. The existence of online communication media of hospitals is coded as present(1) or absent(0) to understand the online presence capacity of hospitals in the sample.

As could be seen on Table 17., 19 out of 20 hospitals have websites, whereas all of them have Facebook pages beginning of the research phase. Only 15 hospitals have Twitter profiles while 17 of them have Instagram accounts (Later , it is counted as 19 Instagram accounts).

There are 13 hospitals have both social media accounts and organizational website on all online communication channels within the scope of research. 2 out of 5 hospitals which have three channels of communication, don't have presence on Twitter. While 1 out of those 5 hospitals had no website -which was probably under construction it is published during the dialogic communication research- , another one of those 5 hospitals is which with three online communication channels has not presence on Instagram. And there is only one hospital that has just website and Facebook as online communication channel.

That should be noted here, considering the tables for preliminary researches, there are some discrepancies between the numbers of specific hospitals on tables. Because of the time gap between the dates of preliminary researches and dialogic communication research, during all phases that tables are prepared, some hospitals have closed and reopened their social media accounts, and also renewed their websites.

The researches on dialogic communication presence were firstly applied for the websites in the web 1.0 era by the prominent researchers of the field that are issued on chapter II. But with the transition to the web 2.0, the scope of researches on dialogic communication presence of online communication media channels of organizations have also widened through the social media which are explained with details in the Literature Review chapter.

Table 17. Online Communication Channels of Private-Owned Hospitals in Izmir

Private-Owned General Health Hospitals' Presence on Website and Social Media	WB	FB	TW	IG	TOTAL SCORE
A	**1**	**1**	**1**	**1**	**4**
B	**1**	**1**	**1**	**1**	**4**
C	1	1	0	1	3
D	1	1	0	1	3
E	**1**	**1**	**1**	**1**	**4**
F	**1**	**1**	**1**	**1**	**4**
G	**1**	**1**	**1**	**1**	**4**
H	**1**	**1**	**1**	**1**	**4**
I	**1**	**1**	**1**	**1**	**4**
J	1	1	1	0	3
K	1	1	0	1	3
L	0	1	0	0	1
M	1	1	1	1	3
N	1	1	0	0	2
O	**1**	**1**	**1**	**1**	**4**
P	**1**	**1**	**1**	**1**	**4**
Q	**1**	**1**	**1**	**1**	**4**
R	**1**	**1**	**1**	**1**	**4**
S	**1**	**1**	**1**	**1**	**4**
T	**1**	**1**	**1**	**1**	**4**
TOTAL	**19**	**20**	**15**	**17**	

Note: This table is prepared according to the research which is applied on 15.06.2021

Accounting both the foundational applied research of the dialogic communication theory on websites (Kent and Taylor, 1998, 2002, 2004; Kent, Taylor and White, 2003; McAllister, 2008, 2009, 2010; McAllister and Taylor, 2007), and the development of research methodology for examining the social media accounts related to the Web 2.0, the hospital with no website within the sample is not considered for the dialogic presence of research. Therefore, the size of sample is reduced to 19 hospitals.

Secondly, because the social media accounts are within the scope of the research, the hospital with no website but have three of the social media accounts is also

considered only within the frame of social media account comparison. It had been excluded from the website and social media coherence comparison. But later the website is launched during the research time and added to the coherence comparison research.

To evaluate the consistency of dialogic communication through all online media channels within the scope of research, 13 hospitals with both websites and all three social media accounts have compared for the coherence of presence of dialogic communication which is explained in detail on Discussion chapter. Facebook, Twitter, and Instagram have determined for the research according to the statistics of use of social media by platform in Turkey (See: Chapter 2).

Second segmentation for the comparison on coherence and consistency have applied in terms of the existence of links from websites to the social media accounts. Before making comparison amongst the online assets of hospitals, as could be seen on the Table 18., existence of links from organizational websites to social media accounts have researched and evaluated for the comparison.

17 out of 19 hospitals have had Facebook page links on their organizational websites. 19 hospitals had Facebook profiles (later it is counted as 20 Facebook accounts). 2 hospitals haven't directed the visitors of website to their Facebook accounts whereas another 2 hospitals have linked their all-social media accounts which are researched.

8 hospitals have link on their organizational website that directs to Twitter whereas 15 hospitals have links to the Instagram on website.

Besides these social media accounts, YouTube and LinkedIn also popular social media that used by hospitals. 11 hospitals have directed their visitors via link on their websites to their YouTube channel, while 7 of 20 hospitals have link to their organizational Linkedin accounts.

There have been some updates that happened during the research phase. Before the research on dialogic communication potentials of websites and social media accounts between the dates 29.07.2021 and 15.08.2021, the preliminary research on the existence of websites and social media accounts, and the researches on directed links or website qualifications are implemented between the dates of 15.06.2021 and 25.06.2021.

Table 18. Links to Social Media Accounts on Websites of Private Owned Hospitals to Izmir

Izmir Private Owned - Health General Hospitals' Links to Social Media Accounts on Their Websites	WB ST	FB	TW	IG	YT	LI	TOTAL SCORE
A	1	1	1	1	1	1	5
B	1	1	1	1	1	0	4
C	1	1	0	1	1	0	4
D	1	0	0	0	0	0	0
E	1	1	0	1	1	0	3
F	1	1	0	0	1	0	2
G	1	1	1	1	1	0	4
H	1	1	0	1	1	0	3
I	1	0	0	0	0	0	0
J	1	1	1	1	0	0	3
K	1	1	0	1	1	0	3
L	0	0	0	0	0	0	—
M	1	1	0	1	0	0	2
N	1	1	1	1	1	0	4
O	1	1	1	1	1	1	5
P	1	1	1	1	1	0	4
Q	1	1	0	1	1	0	3
R	1	1	0	1	0	0	2
S	1	1	1	1	1	1	5
T	1	1	0	1	0	0	2
TOTAL	19	**17**	**8**	**15**	**11**	**7**	-

Therefore, the numbers between two researches had been updated. A month after preliminary researches, dialogic communication presence coding of websites and social media accounts have been applied by the coders. During this one-month time span the one website has launched and total amount of websites became 20. After that phase, the control researches have applied by both coders for the accuracy of the results and for creating consensus. Also, there was some new functions that have added to the social media accounts which are not considered within the research.

In this chapter, findings of research on dialogic communication presence capacities of websites and social media accounts of hospitals will be explained.

4.1. Dialogic Communication Presence of Websites of Hospitals

Dialogic communication preferences on Websites are calculated as 51,14% which is not dialogic considering the agreement rate of dialogic communication potential on websites is accepted as between 85-90%.

Before evaluating the presence of principles of dialogic communication on websites the responsiveness qualifications and security qualifications are examined. (See Table 19. Qualifications of Websites of Private Owned Hospitals in Izmir)

Thus, out of 19 hospital websites 17 hospitals have the same wording and name on their URL (Uniform Resource Locator) address. This qualification is important to find any web page on search engines -if the exact URL hasn't known- then people are likely to search name of the organization. If organization hasn't use same name as their organizational name on the URL address of their web page than it is really time consuming to find that related web site which will not be preferable. Moreover, using different name other than the known organizational brand name obstructs the communication in the first phase. To build relationship on online through the organizations' websites between organizations and publics, the websites should be found in the first place. Therefore, URL names has importance to starting online dialogue. Additionaly not just dialogue with publics interrupted with the lack of corresponding information, also accuracy on digital communication became undefinable. Because of using different name on URL, Google AI couldn't find or relate the information provided and couldn't grant google search visibility on SERP. (Wang et al., 2012) Mobile readiness and / or responsiveness degree can be evaluated by examining the qualifications of web page. Considering the increasing use of mobile phones and mobile applications, mobile compatibility of any website became vital for communication and for conservation of visitors (McCorkindale and Morgoch, 2013).

Table 19. Qualifications of Websites of Private Owned Hospitals in Izmir:

Izmir Private-Owned General Health Hospitals' Website Qualifications	WEB SITE	NAME & WEBSITE ADRESS SAME	MOBILE READINESS / RESPON-SIVENESS	HTTP / HTTPS	PAGE SPEED LESS THAN 3 SC	TOTAL SCORE
A	1	1	1	1	1	**5**
B	1	1	1	1	1	**5**
C	1	0	1	0	1	**3**
D	1	1	0	1	1	**4**
E	1	1	1	1	0	**4**
F	1	1	1	1	1	**5**
G	1	1	1	1	1	**5**
H	1	1	1	1	1	**5**
I	1	1	1	1	1	**5**
J	1	1	1	1	1	**5**
K	1	1	1	1	1	**5**
L	0	0	0	0	0	-
M	1	1	1	1	1	**5**
N	1	0	1	1	1	**4**
O	1	1	1	1	1	**5**
P	1	1	1	1	1	**5**
Q	1	1	1	1	1	**5**
R	1	1	1	1	1	**5**
S	1	1	1	1	1	**5**
T	1	1	1	1	1	**5**
TOTAL	**19**	**17**	**18**	**18**	**18**	

The one hospital with no website has launched its website during the research phase. But contrary to the most used "com" part this website has used different domain extension which interrupts the communication by eliminating to be found easily. Most of the URL of web pages is ending with "com", while websites owned by governments or governmental institutions using "gov" domain extension with an ending of geographical domain that indicates the country. Universities has "(dot)edu" extension while organizations have as "(dot)org". The components or URL are features that need to be examined in future studies. Accordingly, the presence of dialogic communication research on websites have continued with all hospitals in the sample.

As the third rule, using HTTP (Hyper Text Transfer Protocol) or HTTPS (Hyper Text Transfer Protocol Secure) is also another indicator for creating dialogue in terms of security. Most of the search engines provide alert for the websites without the HTTP or HTTPS protection by labeling them as non-secure web pages which is not recommended to visit. Therefore, when visitor confronts such warnings texts that discourages to proceed to web site may consider returning instead of visiting the web page. (Pohjanen, 2019; Strzelecki,2020)

Lastly, the opening speed of pages is determinative for visitors to visit the web page or stay on the page. The loading time qualification is added by previous researchers to calculate the time that spent to reach the web page (Hahn, 2010). 14 hospitals' websites have provided all four qualifications.

The research indicators showed that 18 of the websites has less than 3 seconds time duration of page loading. Here is the main important thing, which is not considered, is the quality of access that internet provider has grant which is also highly effective on the page speeds (Teixeira Lopes and Ribeiro, 2011).

By taking average rates of two coders, *dialogic communication presence of websites* is evaluated as 51,4% which is not dialogic. All five principle is calculated between 30% and 80% . The frequency of *ease of interface* is evaluated as 71%. *Usefulness of Information for patients* is evaluated as 61,1% whereas *usefulness of information for public* is 57,30 % if all 13 qualifications are considered.

Table 20. Dialogic Communication Presence of Websites Accounts of Hospitals

Website / Principle Of Dialogic Communication (20 Accounts)	
PRINCIPLE	**% AVARAGE**
Ease of interface (5)	**71%**
Site map	90%
Major links to rest of site	95%
Search engine box	35%
Language option	80%
Direct links to press room	55%
Usefulness of Information for Patients(9)	**61,10%**
Description of services	85%
Logo of organization on home page	100%
Ability to find a physician	95%
Identification of organizational key members	35%
Awards	25%
Option to pay bill/make appointment/refill prescriptions	85%
Quality measures	90%
Patient testimony/stories	20%
Virtual tour	15%
Usefulness of Information for General Public(13)	**57,30%**
Statement of philosophy/mission	90%
Press release/press room/newsroom	60%
Donation opportunities	10%
Volunteer opportunities	5%
Organizational history	90%
Organizational publications	30%
General organizational facts	100%

Table 20.(Cont'd)	
Audio/visual capabilities	100%
Annual report	10%
Legal text on protection of personal information	75%
Information of contracted institutions / state departments / insurance companies	95%
Private accommodation options	30%
Information on health technologies of hospital	50%
Generations of Return Visits (11)	**34,09%**
Links to external Web sites	55%
Downloadable information	45%
Calendar of events	10%
FAQs/Q&As	10%
Posting of news stories within last 30 days	20%
Ability to request information by mail/email	100%
Ability to register/log-in to personalized Web page	30%
Ability to register/sign-up for classes/groups/events	15%
Option to "bookmark now"	0
Explicit statements that invite users to return	85%
Forums	5%
Conservation of Visitors(3)	**78,3%**
Important information available on the home page	90%
Average loading time less than 3 seconds	90%
Posting of last updated time and/or date	55%
Dialogic Loop(7)	45,71%
General contact information	100%
Opportunity for user-response	95%
Regular information email/subscribe	50%
User survey	10%
Recognize hospital staff	25%
Opportunity for online consultation	30%

Table 20.(Cont'd)	
Online polling	5%
Web 2.0 (8)	**53,12%**
Ecards	30%
Interactive content	60%
Links to social networking sites	85%
RSS feeds	0
Microblog	45%
Podcasts/ Vodcasts/ Webcast	65%
YouTube	65%
Blogs	75%
WEBSITE TOTAL COUNT	**51,14%**

Without additional four features, the overall score for the usefulness of information for publics is calculated as 49,50%. The frequency of *generation of return visits* is shown as 34,09% while the frequency of *conservation of visitors* is depicted as 78,3% which is the highest rate amongst these principles. The determinative principle of existence of dialogic communication is the principle of *dialogic loop* which is calculated as 45,71%. Depending on those the websites of hospitals have present non-dialogic communication. For evaluating the coherence between websites and social media accounts of hospitals also Web 2.0 qualifications on websites have researched and the frequency of *Web 2.0* is evaluated as 53,12% which is also not present any dialogic communication (See; Table 20.).

4.2. Dialogic Communication Presence of Facebook Accounts of Hospitals

Contrary to other online communication channels of hospitals, each hospital in the sample has Facebook page and 17 out of 19 hospitals has links on their websites which directs the visitors to the organizational Facebook pages.

Table 21. Facebook Accounts of Private-Owned Hospitals

Izmir Private-Owned General Health Hospitals' Facebook Accounts	FB	FB ACTIVE or NOT	INT. OR 2ND ACCOUNT	TOTAL
A	1	1	0	2
B	1	0	0	1
C	1	1	0	2
D	1	0	0	1
E	1	1	0	2
F	1	1	0	2
G	1	1	1	3
H	1	1	1	3
I	1	0	0	1
J	1	1	0	2
K	1	1	1	3
L	1	0	0	1
M	1	1	1	3
N	1	1	1	3
O	1	1	1	3
P	1	1	0	2
Q	1	1	0	2
R	1	0	0	1
S	1	1	0	2
T	1	1	0	2
TOTAL	**20**	**15**	**6**	

But only 15 out of 19 Facebook accounts regularly updating their accounts considering the one-month timespan for post share.

Surprisingly 6 of them also has international account for their international patients or accounts for specific health or treatments as such plastic surgery. (See; Table 21. Facebook Accounts of Private-Owned Hospitals)

To gather further information the registration dates of hospitals' accounts, likes, followers, geotagging and ratings is measured which the results could be seen on Table 22. All hospitals have registered the Facebook beginning with 2010s, which is at least five years later that Facebook has launched. There is one hospital with two accounts besides that all hospitals are using one official account.

Table 22. Registration date, Followers, and Shares on Facebook

Izmir Private Owned – General Health Hospitals' Facebook Accounts	1st account registration date	Account likes	Followers	Geo-taggings	Review / Rating
A	26.01.17	17963	18943	10181	140
B	07.01.14	11110	11267	22717	236
C	09.12.13	1249	1273	10524	—
D	24.11.12	5462	5584	37.892	323
E	14.03.16	13123	13451	13404	122
F	08.04.15	6692	6833	11138	62
G	04.01.20	280	291	196	1
H	10.10.19	2564	2687	6	—
I	22.05.12	13541	13856	39808	821
J	08.02.15	61775	62273	7345	—
K	26.08.14	5264	5241	4322	—
L	12.03.15	594	610	—	51
M	17.06.14/ 25.07.14	50942/ 1023	50365/ 1046	22045/ 6501	—/40
N	08.03.11	41233	41405	9648	—
O	26.09.14	132471	133B	55099	—
P	07.11.13	20790	21074	37.397	—
Q	21.03.16	25000	25724	8289	—
R	05.12.12	10405	10482	22863	340
S	10.04.14	16304	16132	23143	—
T	13.01.16	7182	7275	2462	—
Research on 24.06.21					

Likes of profiles pages and number of followers is depicted here but are not considered as a valid data to evaluate. Because the likes, followers and views could be

purchasable by individuals and organizations, these numbers may or may not present the reality. As could be seen from the numbers, ratings option is not used by all hospitals. But geotagging may inform about the amount of Facebook users of visitors. Overall dialogic communication capacity of Facebook Accounts of hospitals in the sample is calculated as 58,82% which found as non-dialogic. As it is indicated on Table 23., the frequency of principle of *ease of use is calculated* as the highest score amongst all principles as 68,13%. The frequency of *usefulness of information* is evaluated as 63,75% whereas the score of *conservation of visitors* is 48,3%. The frequency of *generation of return visits* is shown as 55,25%. The frequency of *dialogic loop* is calculated as 61,4%.

Table 23. Dialogic Communication Presence of Facebook Accounts of Hospitals

Facebook /Principle Of Dialogic Communication (20 Accounts)	
PRINCIPLE	**% AVARAGE**
Ease of Interface (4)	**68,13%**
Images	100%
Videos	90%
Pinned Posts	5%
Use of #hashtags	77,5%
Usefulness of Information (8)	**63,75%**
Logo of organization	90%
About the organization (mission, vision, goals)	10%
Contact information (e-mail/telephone/address)	100%
Posts about hospital news/events – announcements	55%
Posts about commemorative dates	95%
Posts about diseases	90%
Posts about Covid-19	70%
Administrator of Facebook account	0%
Conservation of Visitors(6)	**48,3%**

Table 23. (Cont'd.)	
Link to the hospital website	100%
Link to other social networks in which the hospital is present (Twitter, YouTube, Instagram, blogs, etc.)	20%
Recent update (last 24 hours)	35%
Regular updating (at least 1 post Monday to Friday)	70%
Appealing titles	65%
instant replies to comments	0%
Generation of Return Visits (10)	**55,25%**
Explicit appeal to come back to the page	70%
Daily posts	25%
Call for action button	75%
Scheduling of events	25%
Possibility to share	95%
Possibility to receive notifications	100%
Allows tagging in photos	15%
Links to websites where additional information can be obtained	55%
Likes on comments	37,50%
Dialogic Loop(7)	**61,4%**
Email address	100%
Allows answers to posts	100%
Opportunity for users to comment even if no post exists	45%
Allows rating	45%
Allows private messages to be sent	100%
Replies to comments	35%
Replies to criticism	5%
TOTAL COUNT (34)	**58,82%**

4.3. Dialogic Communication Presence of Twitter Accounts of Hospitals

The existence of Twitter accounts has researched before the dialogic presence research. 15 out of 20 hospitals have Twitter accounts. From those 15 accounts only

Table 24. Twitter Accounts of Hospitals

Izmir Private-Owned General Health Hospitals' Twitter Accounts	TWITTER	TWITTER ACTIVE OR NOT (last post)	INTERNATIONAL OR 2ND ACCOUNT	IF 2ND AC. EXISTS, IT IS ACTIVE OR NOT (last postdate)
A	1	1 (10.06.21)	0	—
B	1	0 (17.07.20)	0	—
C	1	0	0	—
D	0	—	0	—
E	1	0 (31.12.18)	1	NO POST
F	1	0	0	—
G	1	1 (06.06.21)	1	— (20.05.12)
H	1	1 (22.05.21)	0	—
I	1	0 (17.04.19)	0	—
J	0	—	0	—
K	0	—	0	—
L	0	—	0	—
M	1	0 (03.10.14)	0	—
N	0	—	0	—
O	1	1 (15.06.21)	1	1 (15.06.21)
P	1	0 (10.11.20)	0	—
Q	1	0 (14.04.19)	1	— (24.02.20)
R	1	— (18.01.13)	1	—
S	1	1 (15.06.21)	0	—
T	1	0 (22.11.20)	0	—
TOTAL	**15**	**5**	**5**	**1**
This table is prepared according to the research which is applied on 15.06.2021				

3 of them have been using Twitter actively on the date of research (See; Table 24. Twitter Accounts of Hospitals). 5 of them had international Twitter account that

provides content in different languages except Turkish, but those accounts also haven't used actively as the main accounts. 5 hospitals have second account whereas 5 hospitals have no Twitter account during the research time-period. Those numbers shows that Twitter is not a preferred communication channel for Hospitals. It seems that the Twitter accounts are used for the purpose of just showing a presence as an official account. For further understanding also, the registration dates of accounts, number of followers and number of followings and number tweets have indicated at the Table 25. Registration Date, Followers and Shares on Twitter. Similar to Facebook, most of the accounts are registered in 2010s. Considering the numbers of followers and followings, making inferences could cause error because with high or

Table 25. Registration Date, Followers and Shares on Twitter

Izmir Private-Owned General Health Hospitals' Twitter Accounts	1st account registration Date	1st account Following / Follower	Tweets	2nd account registration date	2nd account Following / Follower	Tweets
A	Apr 2017	2/139	926	—	—	—
B	Nov 2015	27/45	387	—	—	—
C	—	—	—	—	—	—
D	—	—	—	—	—	—
E	Mar 2016	32/52	1005	Jul 2019	0/1	—
F	Dec 2015	57/30	—	—	—	—
G	May 2012	70/118	2	Feb 2019	52/93	300
H	Nov 2011	3/1248	1596	—	—	—
I	Jun 2012	1/646	914	—	—	—
J	—	—	—	—	—	—
K	—	—	—	—	—	—
L	—	—	—	—	—	—
M	Jul 2014	15/35	48	—	—	—
N	—	—	—	—	—	—
O	May 2011	2/1150	2465	Sep 2009	14/14379	24484
P	Mar 2014	1/1182	1074	—	—	—
Q	Mar 2016	0/30	474	Jan 2020	1/7	11
R	Jan 2013	0/12-2/9	0-1	Dec 2013	5/20	1
S	Apr 2014	1/425	1426	—	—	—
T	Nov 2020	0/2	5	—	—	—
	This table is prepared according to the research which is applied on 24.06.21					

low number of followers, almost all accounts have shared posts around thousands. Therefore, the followers could be bot accounts which may be purchased. Eventhough these preliminary researches on Twitter didn't assure convincing results, those numbers may be evaluated as the attempt for creation of presence on Twitter by organizations. Continuing with the dialogic communication research, the results is verified the non-dialogic condition besides the large numbers of shares and followers. Therefore, considering the overall size of the sample as 20 hospitals, overall percentage of the *dialogic communication presence* on Twitter is 37,85% which is not dialogic for the organization-public relationship in terms of online communication. As indicated on Table 26., the frequency of *principle of ease of interface* is calculated as 45%. The frequency of *usefulness of information* is calculated as 50,5%.

Table 26. Dialogic Communication Presence of Twitter Accounts of Hospitals

Twitter/ Principle Of Dialogic Communication (15 Accounts)	
PRINCIPLE	**% AVARAGE**
Ease of Interface(4)	**45%**
Images	80%
Videos	46,7%
Pinned Tweets	13,3%
Use of #hashtags	40%
Usefulness of Information(12)	**50,5%**
News Link	13,3%
Profile Picture	100%
Video or Audio	40%
Organizational Description(mission, vision, goals, etc.)	0%
Logo of organization	93,3%
Organizational Website Link	80%
Contact information (Hospital's phone number, e-mail adress or/ and adress)	86,6%
Posts about hospital news/events or Announcements	46,7%

Table 26.(Cont'd.)	
Posts about commemorative dates	46,7%
Posts about diseases	60%
Posts about Covid-19	40%
Administrator of Twitter account	0
Conservation of Visitors(6)	**25,5%**
Recent update (within 24 hr)	13,3%
Link to the hospital's website	73,3%
Links to organizational SNSs in which the hospital has account (Facebook, Instagram, YouTube, blogs etc.).	20%
Regular updating (at least once weakly, Monday to Friday)	26,6%
Instant replies to comments	0
Encouraging to Follow	20%
Generation of Return Visits(13)	**33,3%**
Links to Web pages where additional information can be requested	26,6%
Calendar of events or link to a Web page containing such a calendar	6,66%
Links to news related to the hospital issued by external media	33,3%
Use of links or hyperlinks to add external information	0%
Use of retweets to add information published by other users	13,3%
Use of hashtags (# before or after one or more-word combinations)	33,3%
Explicit appeal to come back to the page:	33,3%
Daily Posts	13,3%
Possibility to share(Retweet):	86,6%
Possibility to share the tweets on other platforms or send via private message	86,6%
Possibility to receive notifications	100%
Likes on comments	0%
Downloadable Information	0%

Table 26. (Cont'd.)	
Dialogic Loop(8)	**32,05%**
E-mail address	13,3%
Allow answers to posts	93,3%
Opportunity for users to comment even if no post exists	93,3%
Allow ratings	0%
Allow private messages to be sent	56,65%
Replies to comments	0%
Replies to criticism	0%
TOTAL COUNT(43)	**37,85%**

The principle of *generation of return visits* as is shown as 33,3% whereas the frequency of *conservation of visitors* is depicted as 25,5% . Lastly as the indicator of presence of *dialogic communication*, the frequency of dialogic loop is evaluated % 32,05%.

4.4. Dialogic Communication Presence of Instagram Accounts of Hospitals

Before the dialogic communication presence content coding research phase, there were 17 Instagram account. First coding by coder one began with 17 accounts. But while the second coder has begun to research, two more hospitals have registered or activated their Instagram accounts during the research phase. Because to generate more accurate valid information, first coder worked with second coder together and as the control research 19 hospital have coded. The results of coder 2 is obtained from this control research. The difference between the coding results is valuable information that indicates even one-month time difference between those two codeworks works has expressed that most of the hospitals began to use functions of Instagram.

Table 27. Instagram Accounts of Private-Owned Hospitals

Izmir Private-Owned General Health Hospitals' Instagram Accounts	INSTAGRAM	IG ACTIVE OR NOT	INTERNA-TIONAL OR 2ND ACCOUNT	TOTAL
A	1	1	1	3
B	1	1	1	3
C	1	1	1	3
D	1	0	0	1
E	1	1	1	3
F	1	1	1 (2)	3
G	1	1	1	3
H	1	1	1 (5)	3
I	1	1	1	3
J	0	0	0	0
K	1	1	1	3
L	0	1	1	2
M	1	1	1 (2)	3
N	0	0	0	0
O	1	1	1 (5)	3
P	1	1	1 (4)	3
Q	1	1	1	3
R	1	0	1	2
S	1	1	1	3
T	1	1	1	3
TOTAL	17	16	17	
This table is prepared according to the research which is applied on 15.06.2021				

Most of the accounts have more than one Instagram account. As shown in the table 27., hospitals are registered for one account and for some reason, they opened second accounts. Some the second accounts are registered for specific departments, treatments such as plastic surgery or for international communication purposes in different languages other than Turkish. The number of followers and followings are providing some information about the audience. But again, because the bot accounts could be purchasable, those numbers may not be presenting the reality. The number of shares could provide some insight about the use of Instagram actively or not which can be seen at Table 28.

Table 28. Registration Date, Followers and Shares on Instagram

Izmir Private-Owned General Health Hospitals' Instagram Accounts	Date of 1st photo	Followers	Following	Shares
A	16.06.17	17.100	50	1.460
B	6.05.16	10.500	3	2.221
C	2.02.17	1.788	34	328
D	10.05.17	4.654	158	481
E	18.04.19	3.401	2	484
F	22.11.19	754	127	134
G	12.12.17	5.549	2.749	566
H	25.10.19	1.846	19	376
I	18.03.19	2.405	17	168
J	10.03.15	7.172	4	463
K	02.01.19	2.400	10	291
L	-	0	0	0
M	27.08.14	12.500	24	2.579
N	25.06.14	16.100	3	1.602
O	06.07.15	53.000	3	2.783
P	31.07.19	4.170	34	1.204
Q	10.08.16	8382	33	1.190
R	-	0	0	0
S	-	0	0	0
T	16.04.16	2.099	22	213
This table is prepared according to the research which is applied on 30.07.2021				

For dialogic communication presence research, some numbers haven't corrected according to the control research. Because the time span has shown that organizations are began to update and use highlight function much better. Therefore, the research is made with consensus of the coders and the results from the control research have considered as the findings.

Table 29. Dialogic communication capacity of Instagram accounts of hospitals

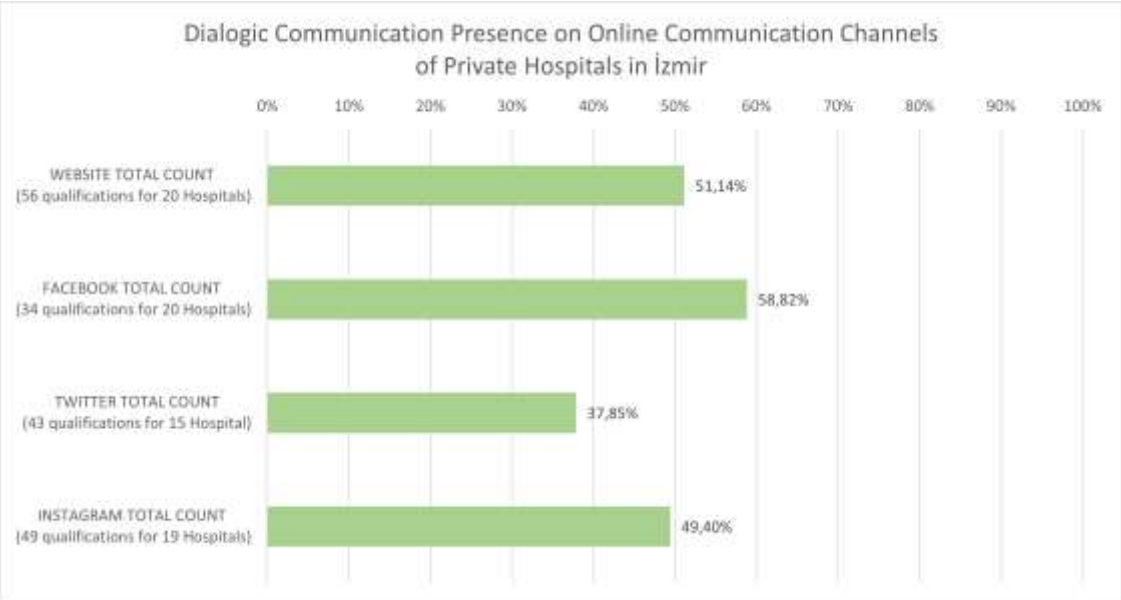
Instagram/ Principles Of Dialogic Communication (19 Accounts)	
PRINCIPLE	**% AVARAGE**
Ease of Interface (4)	**97,3%**
Images	100%
Videos	100%
Highlights	89,47%
Use of #hashtags	100%
Usefulness of Information(16)	**50,16%**
Content that provides information to the media related to the organization (press release, speeches, policies, video, news, etc.)	47,36%
Post about participation in campaigns (CSR, Contest, etc.)	10,52%
Sharing useful information from users about products and services	63,15%
Recent developments in the organization and its environment	52,63%
Career opportunities	0
Usefulness of information in stories (day, degree, location, hour, etc.)	89,47%
Profile picture	100%
Organization Name	100%
Location (Address) in profile	71,05%
Website address in profile	97,37%
Biography in profile	10,52%
Contact addresses (telephone, email) in profile	86,84%
Social media addresses	10,52%
Business category in profile	63,15%
Blue tick for official account	0

Table 29. (Cont'd.)	
Administrator of the account	0
Conservation of Visitors(8)	**65,79%**
Sharing photos and videos in posts(Photo, Video, Carousel)	94,73%
Sharing photos and videos in stories	92,10%
Link to other social media accounts (n)	13,15%
Update (in the last 24 hours)	65,79%
Link to organization website (via see more, get more information features, see products)	100%
Use of stories highlights feature(recently updated)	76,31%
Sharing feed posts to stories	0
Mention(@) / hashtag(#) usage (if tagging themselves)	84,21%
Generation of Return Visits(9)	**36,25%**
Link to other websites / Link to other Instagram accounts	10,52%
Message / link to calendar of events	15,78%
Links to frequently asked questions and discussion sections, such as websites, Blogs	10,52%
Links to the news in the media	10,52%
Follow calls to non-followers	0
Promotion and Sales	100%
Mention / Hashtag usage (if not tagging themselves)	63,15%
Regular story sharing (15 days out of 31 days)	47,36%
Regular post sharing (15 days out of 30 days)	68,42%
Dialogic Loop(12)	**30,475%**
Sharing links to participate in a survey or study on an organizational topic	0
Asking simple and clear questions	34,21%
Encouraging followers to submit their posts	26,31%

Table 29. (Cont'd.)	
Sharing followers' posts in posts / stories	26,31%
Answering a question (by responding or like)	39,47%
Using emoji or GIF	52,63%
Using of ask me a question feature	15,79%
Use of poll feature in stories	13,15%
Use of emoji slider in stories	2,63%
Use of the quiz feature in stories	5,26%
Creating interpersonal interaction in comments	52,63%
Open to comments (Comments can be open or closed)	100%
TOTAL COUNT (49)	**49,40%**

According to table 29., the overall dialogic communication presence of Instagram accounts of hospitals is evaluated as 49,40% which is not dialogic. The frequency of *ease of interface* is calculated as 97,3% whereas the frequency of *usefulness of information* is calculated as 50,16%. The principle of *generation of return visits* is evaluated as 36,25%. The frequency of *conservation of visitors* is depicted as 65,79%. The frequency of dialogic loop is calculated as 30,48%.

Table 30. Dialogic Communication Presence Levels on Online Communication Channels of Private Hospitals in İzmir



As a result, that could be seen on Table 30., the overall score of dialogic communication presence of websites is calculated as 51,14%. Amongst all online communication media Facebook has the highest degree as 58,82% percentage while Twitter has the lowest percentage of dialogic communication presence as 37,85%. It should be noted that Twitter is not a preferred communication medium for hospitals.

The numbers are obtained from the results of 15 hospitals which have account. To differ from all other platforms, if the calculation is made with adding the average of 5 hospitals with no accounts as 0, then the overall percentage decreases to the 28,43% as again non-dialogic. Similar results also have obtained on Instagram. Instagram accounts of hospitals are used non-dialogically which the overall percentage is calculated as 49,40%.

The evaluation of dialogic communication capacities of websites and social media according to each principle will be discussed in next chapter.

CHAPTER 5: DISCUSSION

The analysis of coded research results depending on the overall scores of dialogic communication (DC) presence on online communication channels of hospitals have revealed significant results. General findings which are evaluated on previous chapter will be discussed in this chapter based on the research questions. All online communication tools are evaluated as non-dialogic when considering the minimum limit for the presence of dialogic communication as between 85% -90% .

Eventhough, some qualifications on both websites and social media accounts have used dialogically, in terms of principles of each medium and the overall scores indicates that hospitals are not using their websites and social media accounts dialogically.

For further understanding, in this chapter, firstly all principles with their qualifications of each communication tool will be discussed. Secondly, the overall scores of each hospital by platform will be evaluated. And then, degree of dialogic communication potential will be tried to be understand in comparison the previous research review. And then finally the coherence degree of 13 hospitals which uses all communication tools for OPR tried to be compared, while also two hospitals who have linked their websites with their all three social media accounts will be argued and compared.

To comprehend the effects of each qualification of principles for each communication channels the numbers of qualifications have listed on the Table 31. Indicated on the list, the total amount of qualification for each communication medium is not equal. The total number of qualifications for Website is 56, Facebook is 34, Twitter is 43 and Instagram is 49. Therefore, within the scope of study the communication tools are not compared for one hospital, the comparison is made for all hospitals according to medium. Therefore, first of all total numbers of all hospitals' websites are discussed, then for each social network site. Lastly coherence of communication channels for each hospital is compared amongst the hospitals who have all of them. Additionaly, each research unit (Website, Facebook, Twitter, Instagram) evaluated by its own category according to the hospitals. Also, existence of links to the social media accounts on websites of private owned hospitals are researched.

Table 31. Number of Qualifications of Dialogic Principles for Website, Facebook, Twitter, Instagram

Principle / Number of Qualification	Website	Facebook	Twitter	Instagram
Ease of Use	5	4	4	4
Usefulness of Information	9 (for Patients) 13 (for Public)	8	12	16
Conservation of Visitors	3	6	6	8
Generation of Return Visits	11	9	13	9
Dialogic Loop	7	7	8	12
Web 2.0	8	-	-	-
TOTAL	**56**	**34**	**43**	**49**

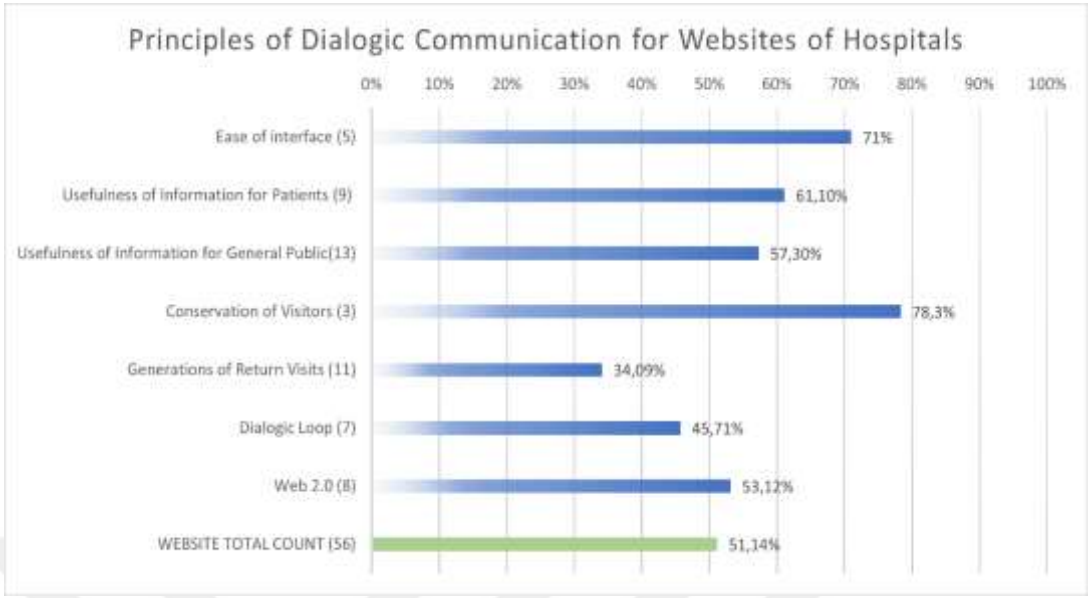
5.1 Evaluating the Dialogic Communication Capacities of Websites

To answer the first research question that asking types of dialogic tools that are present on websites of private hospitals in İzmir, dialogic communication presence research has been applied. In this part, the results of each principle for website will be discussed.

- RQ1: What type of dialogic tools are present on websites of private hospitals in İzmir?

As calculated on Table 32., the highest degree amongst the dialogic principles for websites is obtained from the conservation of visitor which is 78,3%. The lowest degree on the contrary, is evaluated as 34,09% which is the generation of return visits. Although websites of hospitals are not present dialogic communication, for evaluating the degrees of presence of dialogic tools on websites, each principle has discussed according to the corresponding number of qualifications that have listed on the table 31.

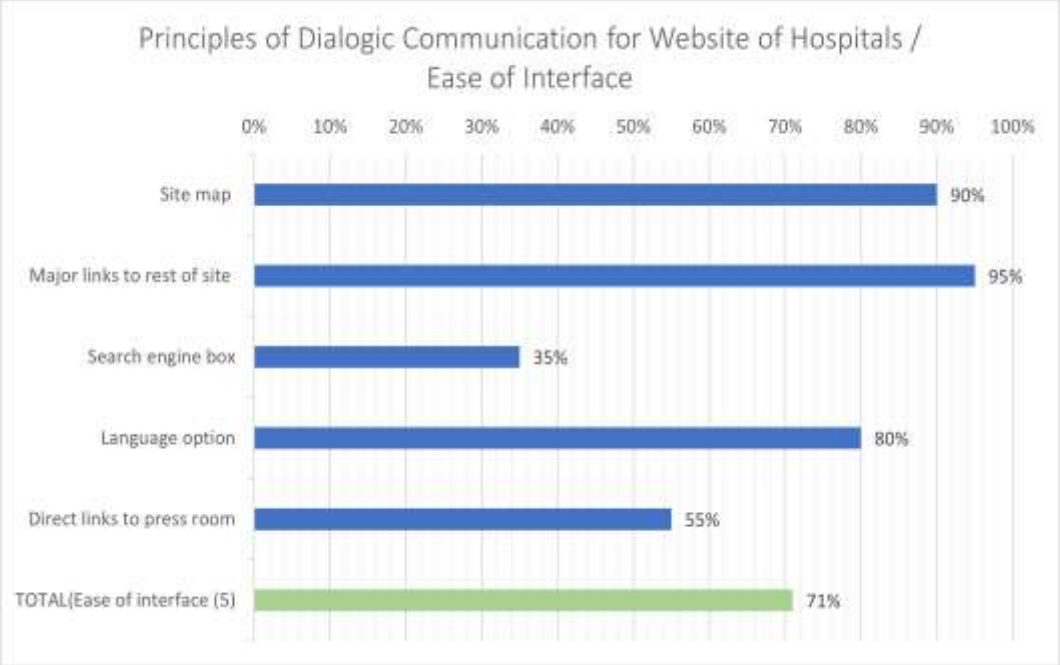
Table 32. Principles of Dialogic Communication for Websites of Hospitals



5.1.1. Ease of Interface:

Hospitals' websites *overall degree of ease of interface principle* is calculated as 71% which is the highest score amongst all other principles of dialogic communication principle. Within this principle out of 5 qualifications, existence of *sitemap* (90%) and major links to rest of the site (95%) have highest score which are accepted as dialogic. Sitemaps which ease the use of website are used as a measurement for interactivity by public relation professionals (Brunson and McEntire, 2005). Sitemaps are important components of websites which provides s structured list of all other major links to rest of the website, are mostly placed at the bottom of the website. These are also facilitating as map that enables people to navigate through the pages of website and find related links for searched information (Korkuvi, 2015, Park and Reber, 2008).

Table 33. Ease of Interface Principles of Dialogic Communication on Hospitals' Websites



Interesting point is the lowest score of existence of *search engine box* which is calculated as 35%. The search engine box is important for the principle of ease of use. Because finding health information by asking via the search engine box creates dialogic relationship while also is increasing the interactivity. With the score of 55%, qualification of *direct links to press / newsroom* is also not developed on hospital websites. Although private hospitals have competition each other in health sector , and e-WOM is highly important for being preferred by patients, considering the users' perception (McAllister, 2008) and their preferences to get advice and / or share experiences from forums or rating websites, it's highly interesting that just half of the hospitals' websites included a direct link to the press / newsroom. Finally, the qualification of the principle of ease of use for dialogic communication presence measure is language option which is another high rank as 80% . The reason that the quick adaption of multi-language preferences on websites may be fastened by the trending promotion of medical tourism in Turkey. (Moreira, 2014; Sandberg, 2017).

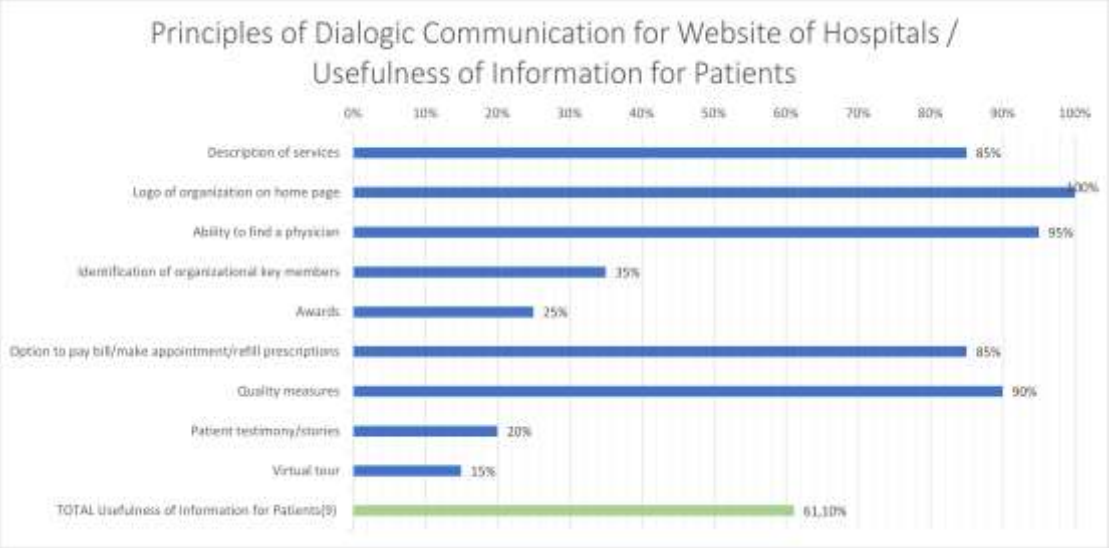
5.1.2. Usefulness of Information (For Patients):

The *overall score for usefulness of information for patients* on hospitals' websites is measured as 61,1%. The most dialogic scored qualification of this principle is the existence of logo of the organization which is applied by all hospitals in the sample. It seems that this component of measurement could be definitive back than beginning of 2000s when the dialogic communication theory has begun to be argued. But, considering the evolution of online communication tools and internet, all organizations are using their logos on their web pages as the symbol of their brand image. Perhaps these qualifications could be important measurement for the dialogic communication presence research on social media whereas not all organizations using their logos.

Continuously, criteria of *ability to find a physician* (95%) an, of *description of services* (85%) are highest ranks within this principle which are also related with the major links to rest of the site of ease-of-use principle. Almost all hospitals have described their services by providing information on each department. Some hospitals have also provided pages for each medical services and for each doctor which is also really eases to use websites if there are also search engine box facilitated. Another high rank of calculation is the existence of quality measures as 90%. This section is semi-compulsory part of websites in Turkey. Quality management systems is kind of managerial information that gives the current capacities of hospitals.

The lowest score of usefulness of information for patients is registered in qualifications of *awards* (25%), and *identification of organizational key members* (35%) which are provides information about the structure and management of hospitals. Only few hospitals have provided an information about awards which are generally the news of accreditations. Healthcare industry also have accreditation standards for the provided medical care in Hospitals (Sandberg, 2017). there were hospitals have accredited and depict those accreditations via news blog post made visible with a badge on their website. This information would be useful for both future patients and for medical tourism. Also, those accreditations and their context could be researchable within the quality measures that affecting hospital choice as a research topic for another study.

Table 34. Usefulness of Information (for Patients) Principles of Dialogic Communication on Hospitals' Websites



The most possible dialogic qualifications of this principle are calculated as the least attained functionalities. *The virtual tour* option is available for 15% of hospital websites. Virtual tour is a 3D visualization of any place mostly recorded as video by which anybody could give a virtual visit to hospital and s for example, see the accommodation options for patients. This is an interactive element that creates an engagement between organizations and publics. Therefore, this qualification of websites should be added to websites. Second qualification that creates interactivity is text or audio/visual based *patient testimonies or stories* which is calculated low (20%) are about the hospital or about their experience on online or offline provided services by the hospital. This qualification is important because providing useful and accurate information is highly vital for both OPR and the reputation of organizations. Online health information (OHI) could be obtained from variety of sources which is highly preferred in contemporary societies (Thapa et al., 2021). The more use areas of web are widening in our lives, the more people searching health information from web. Addition the increasing HISB (Makesh and Rajasekhar, 2020) from online platforms, also the increasing variety of social network platforms that allow people rank, comment, or ask and answer questions about the products / services that they experience have changing the perceptions and decisions of publics. The health sector isn't an exception, contrary, people are retrieving health information more than from other people or health professionals depending on different reasons (Keller et al., 2014) Therefore forums, Q&A websites or rating web pages for health information retrieval

or, reading recommendations about hospitals and health professionals which are tried to be identified on the literature review chapter in this study, are becoming more trustful sources for its anonymity, and variety of shared experiences.

Therefore, patient testimonies and stories could function for both ways. This kind of content could help people to find the information they are searching and supports hospitals and their physician' reputation by advancing the stories on positive views. The rating web sites about doctors or hospitals may affects people's view and decision-making processes. This kind of webpages could be resourceful to understanding both sides of any misunderstandings, but also could damage organizations their profit. The information that is disseminated could be true or could be fake news but may create Infodemic disaster depending on rivalry or competition (Jahng, 2021). At the end of the they people will believe what they wanted to believe but the perception of any profit-making organization could be harmed.

Contrary to those two interactivity-based facilities on websites, another interactive tool on web sites which is the qualification of *option to pay bill/make appointment/refill prescriptions* has calculated with a high rank as 85%. Most hospitals provided an option for online appointment. There are hospitals who are integrated WhatsApp business by which people can interact directly to get appointment. Some hospitals have provided an online form to get appointment. There are also hospitals which are facilitated chat-bots for live communication. Online prescriptions from e-visits to hospitals are not supported by government yet, therefore none of the hospitals have this option. As Adam, Wessel, and Benlian (2020) has noted the AI-based chat bots have change the nature of communication to two-way communication by also providing sense of trust while also decreasing the time and human capital need of organization by automatizing and displacing the real human agents (p.2).

5.1.3. Usefulness of Information (For General Public):

The score of principle of information for general public as an indicator of dialogic communication presence is calculated as 57,30% which is not dialogic. Within this principle, all hospitals have stated *general organizational facts* such as physical capacities, services, provided, organizational facilities. Also, all hospitals

have *audio/visual capabilities* that depicts the hospitals' physical condition outside and/or inside the buildings, portraits of doctors or stock visuals related to blog posts. 90% of hospitals have state their *mission, vision and goals* and *organizational history.* Those qualifications are the highest ranked which are providing information.

60% of hospitals have using press room/ newsroom and publishing press releases. On contracts 30% of them have organizational publications as such online magazine whereas 10% of hospitals have published their annual reports. This is mostly related to lack of reporting standards in sectoral business. Relatively, volunteers' opportunities are calculated 5% and donation opportunities is calculated as 10%. The reporting standards

Table 35. Usefulness of Information (for General Public) Principle of Dialogic Communication on Hospitals' Websites

enforces organizations also report corporate social responsibility applications besides the financial status. Therefore, to obtain higher ranks on volunteer and donation opportunities, the reporting standards should be established for the health sector. The average of those 9 qualifications have evaluated as 49,5%. Additional features have been added to the coding processes related to the results of preliminary research such as *legal text on protection of personal information* -which is compulsory by the state laws- , *information of contracted institutions / state departments / insurance companies, private accommodation options* and *information on health technologies of hospital*.

The overall rank as 57,30% is calculated with these 4 additional qualifications added to first 9 qualifications. Surprisingly, even though it is compulsory 75% of hospitals have declared the legal text on protection of personal information. 50% of the hospitals have introduced their new medical technologies therefore this qualification has added for measurement. Because related to the technological advancement, people may prefer hospitals with better equipment for medical interventions. Information of contracted institutions, state departments or insurance companies is very important in Turkey, because agreement with SGK (Sosyal Güvenlik Kurumu- Social Security Institution) which is general health insurance provided to all citizens of Turkey may change people's decision to choose a hospital and its score is 95%. And lastly, private accommodation option which is calculated as 30% is important for people who are going take medical care for their hospital companions

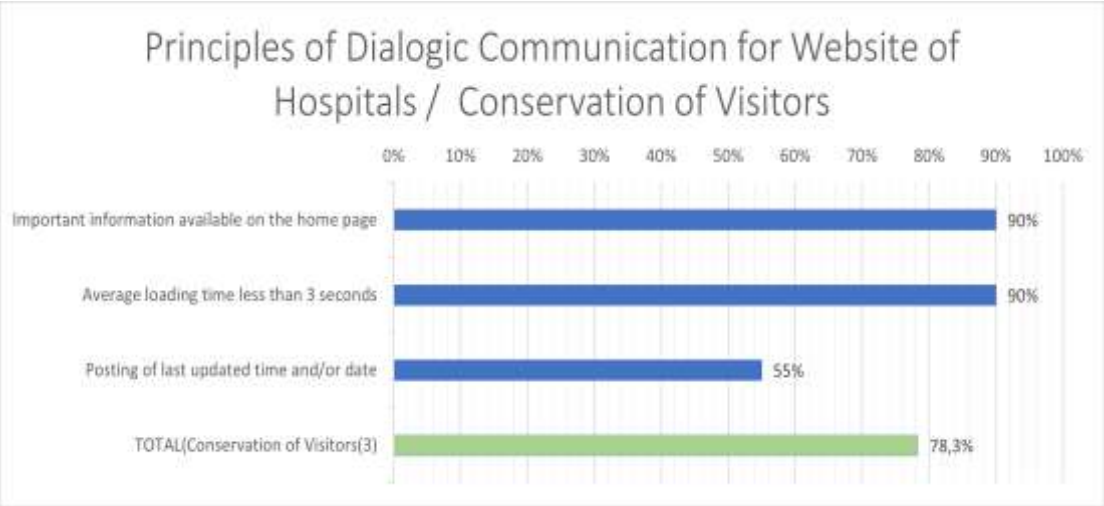
5.1.4. Conservation of Visitors:

The principle of conservation of visitors has one of the highest ranks amongst all results of presence of principles oh hospitals' websites with a degree of 78,3%. This principle has 3 qualifications that measures the qualifications which makes visitors stay on page. For visitors, there should be valuable information that they want to read, research, or decide to contact via online tools. Therefore, websites of hospitals should define the personas of their publics and acquire insights from different audiences of their websites. For example, what patients' needs to know about facilities of hospitals should be well expressed with different types of content. Both interactive contents such as virtual tours, podcast or vodcast, e-appointment, and blogs or description of services should well designed and simply explained to keep visitors on website. More exactly before giving a decision to leave the website, within this limited time the homepage facilitates a vital role that directs those decision. If important information is provided or links to the rest of web site is well-structured than visitors may decide to stay. Providing an important information on home page is calculated for websites as 90% which the dialogic feature of this principle.

Second important quality is loading time of web pages. The importance of loading time has explained in previous chapter, Findings. There are several websites that help to calculate the loading times of website for free. The average loading time

of 90% of hospitals are less than 3 seconds. Eventhough the time of opening a web page is not only depends upon the website itself, but the content should also be designed to facilitate the speed load. The last qualification as posting of last updated time and/or date could be definitive facility if the researched organizations is providing patient stories, or latest developments of hospital. This qualification is calculated for websites of hospitals as 55%.

Table 36. Conservation of Visitors Principle of Dialogic Communication on Hospitals' Websites

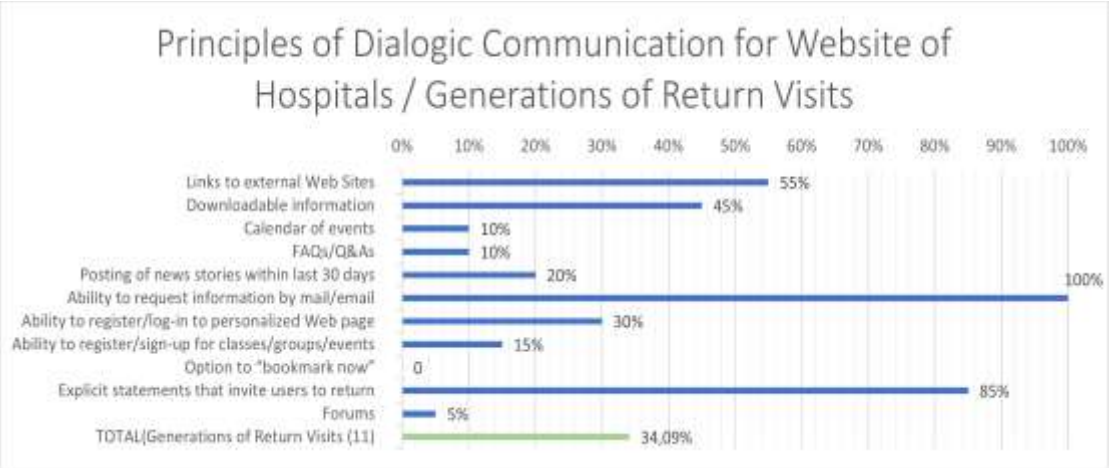


5.1.5. Generation of Return Visits:

The principle of generations of return visits for dialogic communication presence of websites is calculated as 34,09% which one of the lowest degrees out of five principles. After the principle of dialogic loop, the generation of return visit principle which is also enablers of dialogic loop is also indicator for the presence of dialogic communication between organizations and its publics. All hospitals are using e-mail as a communication medium therefore, *the ability to request an information* via e-mail is possible from all hospitals. 85% of hospitals shares *explicit statements that invites users to return*. 55% of hospitals give links to other websites that additional information can be obtain whereas 45% of hospitals *provide downloadable information* as text or visual. 10% of hospitals have *Frequently Asked Question(FAQs) or Q&A* parts on their websites that allows people to find information. As the lowest result, 5% of hospitals which means only one hospital provide integrated forum which

will be a dialogic component for website. Those qualifications have functions to generate return visit by providing information in interactivity. Also, existence of *calendar of events* which is calculated as 10%, could help people to follow updates. Similarly, posting news stories within last 30 days that is calculated as 20% may help people to learn campaigns, events, or news about the hospitals or to follow blog posts which will generate return visits to website. But another function for generation of return visits, the *option for "bookmark now*" is not used by any hospitals.

Table 37. Generations of Return Visits Principles of Dialogic Communication on Hospitals' Websites



Other qualifications which enable patient be member of communities or provides them a personalized web page is calculated as low. For example, *ability to register or log-in to personalized web page* integrated to hospitals' websites is facilitated by 30% of hospitals. This kind of applications also need organizational level rearrangements such as patient programs to organize the services that provide for regular patient-customer.

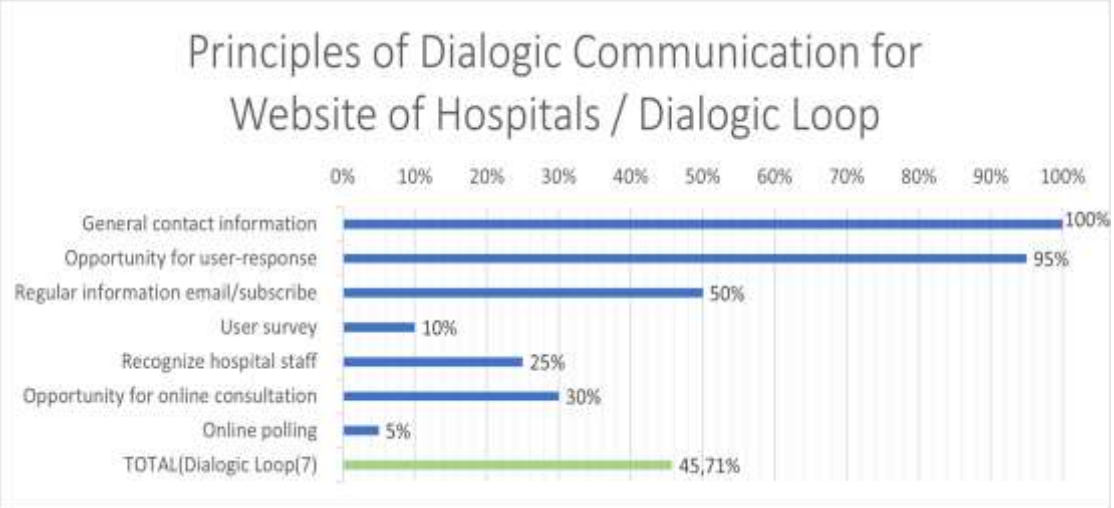
Another example of this kind of membership program is the *ability to register/sign-up for classes/groups/events* which is enabled by 15% of hospitals. This kind of applications enhance the relationship between publics and hospitals by creating communities. But these qualifications are not only online- tool dependent qualifications which should also continue with offline activities as such organization of events. Although private online forum communities could be facilitating on websites, the sources should be reorganized to recover such applications. Because of

rules on privacy and risk of dissemination of misinformation this kind of online groups or forums should be supervised which requires an additional expenditure(Mukherjee and Nath, 2007).

5.1.6. Dialogic Loop:

Taylor and Kent (1998) clearly define that to define any communication on website as dialogic, the dialogic loop feature should be achieved. Considering the minimum degree of being dialogic as between 85% - 90% with the overall score of *principle of dialogic loop* for websites as 34,09% , the hospitals' websites have not dialogic communication potential. 95% of hospitals have *opportunity for user response* on their blog section or as contact form communication. Amongst all hospitals 50% provides a *subscription or regular information retrieval by e-mail*. As the newly adapted features by all hospitals, on 30% of hospital websites appears a function for opportunity for online consultation. 25% of hospitals recognize hospital staff. To obtain feedback from patients, *user surveys* have been used by 10% of hospitals whereas 5% of hospitals.

Table 38. Dialogic Loop Principle of Dialogic Communication on Hospitals' Websites

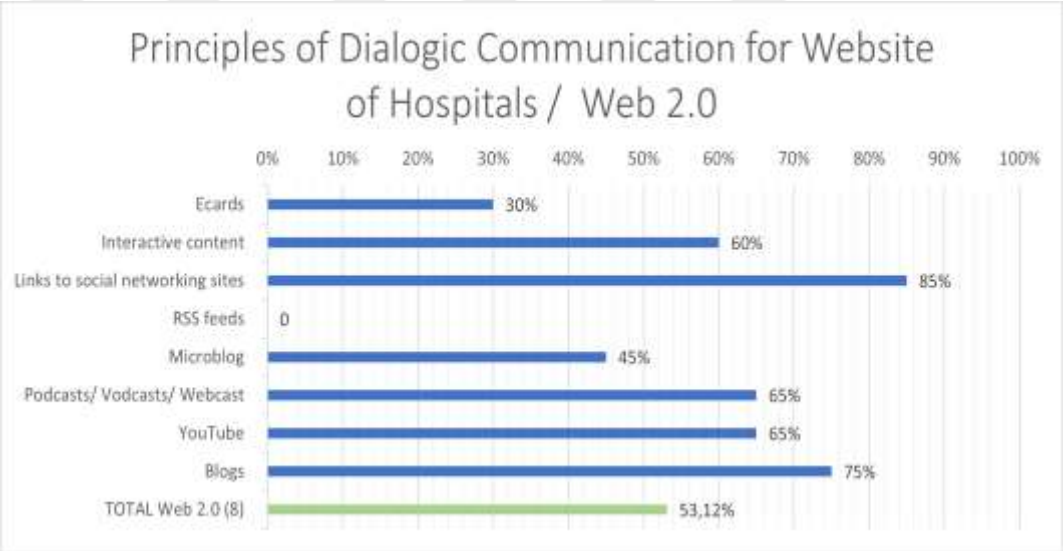


Web 2.0:

Previous studies have updated the original research of dialogic communication capacities of websites by adding new qualifications for measurement of the effects of

Web 2.0, that are exemplified in this research (Hahn, 2010; Kim et al., 2014). These updates on researches of dialogic communication on websites and social media have also been argued for two decades whenever new technological advancement occurs by prominent researchers of the field (Kent, 2013, 2017; Kent and Lane, 2017; Kent and Li, 2020; Kent and Taylor, 2021; Taylor and Kent, 2014). Consistent with the rapid change of online communication, theories and research methodologies of the public relation field also tries to reach the velocity, variety and speed of new media. Web 2.0 that is endorsed with big data and AI also has changed the way of online communication through websites and social media. Interactivity began to gain importance which is also very important for the creation of dialogic communication.

Table 39. WEB 2.0 Principle of Dialogic Communication on Hospitals' Websites



Hospitals' websites have adopted WEB 2.0 features with an overall score of 53,12% which is not dialogic. Measuring the 8 qualifications within the principle of WEB 2.0, none of the web pages includes RSS feed that supports people to save the webpage to get notifications if any updates happen. As the highest score is obtained from the qualification of *links to social networks sites of organization* (85%) which at least navigates people to their other online communication channels. In other perspective that may create a conservation of visitors amongst the online communication channels of hospitals by linking all online communicative spaces. Blogs on websites are the second high degree of this principle that is obtained from the hospitals with the score of 75%. Even if they are dialogic, they create a space for

health information retrieval which also enhances the possibility to be found of websites via the keywords. But most of the hospitals have closed the option to make comment on blog posts which declines the dialogic communication capacity.

65% of the hospitals have a *YouTube* channel on which they share videos about diseases, medical solutions, treatments, or health related information that are provided by the doctors who are specialized on the same filed that is issued. Besides link to YouTube channel from the websites, also hospitals have embedded the YouTube videos on their websites facilitates as webcast. The video content which seems the next important content type that people most prefers later images. Contrary to microblogs (45%) podcast/vodcast/webcast (65%) are preferable by hospitals. Link to this calculation it could be understood that why 15 hospitals out of 20 have Twitter account on considering the launch date of platform as 2006, but 19 out of 20 hospitals have Instagram account that is launched in 2010. The preferred content by the publics of organization highly effects the use of organization. Surprisingly there is one hospital that have been using podcast which is also have highest score of dialogic communication amongst other hospitals. It is important to use podcast when considering the future of voice search which will be affect the page visibility ranks on search engines.

And finally, use of e-card is really low on hospital websites which help people to send their best regards to their acquaintances who are getting healthcare (Thackeray et al., 2008). Use of this option may be low according to the cultural differences or could be low because of not easy to find on the homepage of hospitals. Therefore, it is a function on webpage that only people have known could search and find, or people can coincidently find when they are visiting the website. The use of e-cards on webpages and cultural differences on health communication of recovery messages could be interesting research topic as a comparative study (Penn and Watermeyer, 2018).

5.2. Evaluating the Dialogic Communication Capacities of Social Media

The results for social media accounts of hospitals and dialogic communication research will be guided by the second question.

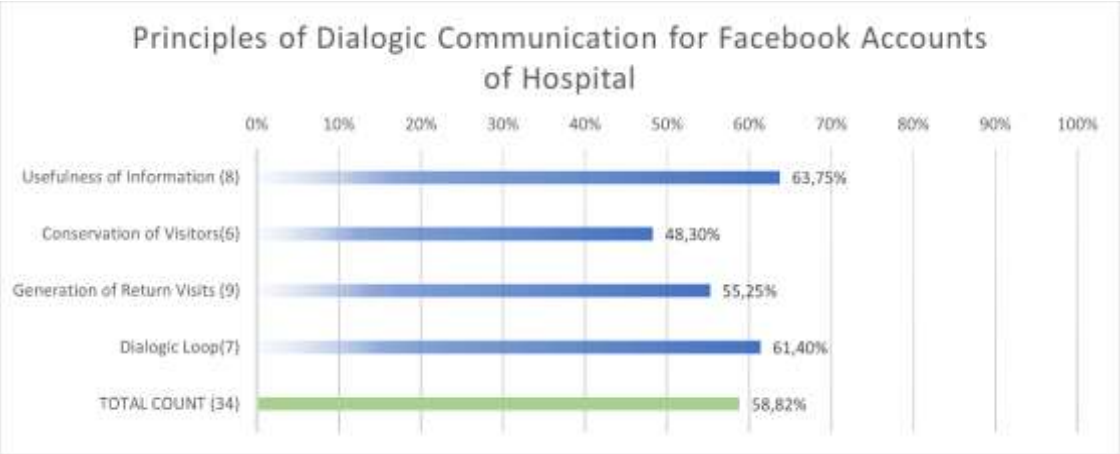
- RQ2: a) To what extent do private hospitals in İzmir use dialogic principles on their social media accounts in particularly Facebook, Instagram, Twitter? b) How well dialogic principles are coherent with their websites and among social media accounts?

The first part of question will be evaluated according to the overall results of each principle and each qualification. Second part of the question will tried to be explained Before the discussion on the links directed from websites to the social media accounts, all hospitals have had Facebook account even the ones with no websites. 5 of them have no twitter account while one of those 5 hospitals has no website. 3 out of 20 hospitals have no Instagram profile.

5.2.1. Facebook:

All hospitals have Facebook accounts that the findings on the existence of accounts and the registration dates, number followers have shared at the findings chapter.

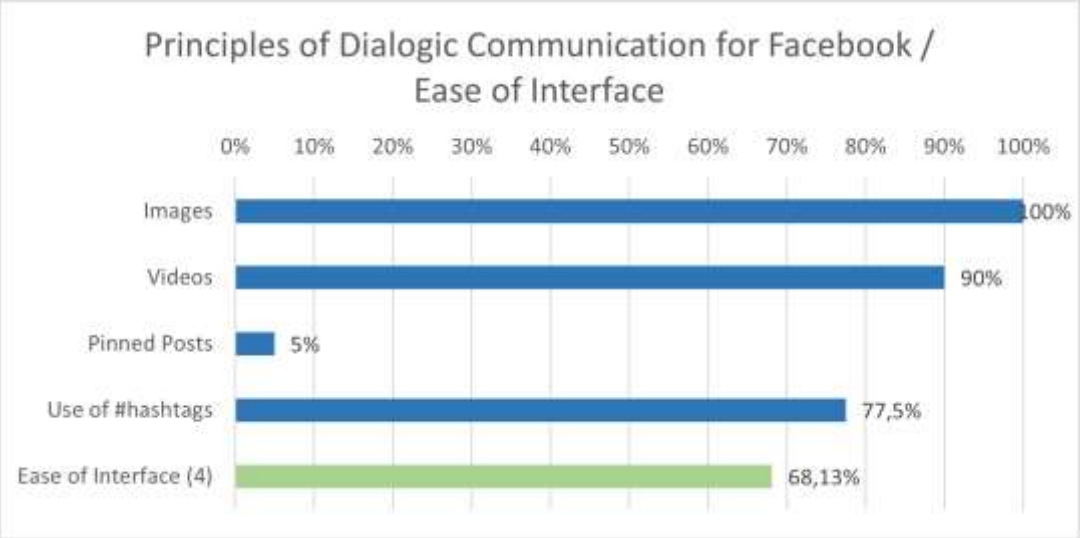
Table 40. Principles of Dialogic Communication for Facebook Accounts of Hospitals



5.2.1.1. Ease of Interface:

The principle of *ease of interface* to evaluate the dialogic communication presence of Facebook is calculated as 68,13%. This is a moderate percentage that have obtained from 4 qualifications for 20 accounts. Even though uploading an image is not compulsory to open an account on Facebook, all hospitals have uploaded *images* as profile pictures and photos related to their posts. *Video* option has used by 90% of hospitals and mostly the videos on YouTube are shared. Use of hashtags(#) is a new function for some hospitals which they never used, others are regularly using hashtag on Facebook specifically or are shown on accounts because of synchronized posts from Instagram. The overall score of use of *hashtag(#)* qualification is 77,5%. The surprising element is here the use of *pinned posts* which is used only 5% of hospitals.

Table 41. Ease of Interface Principles of Dialogic Communication on Hospitals' Facebook Accounts

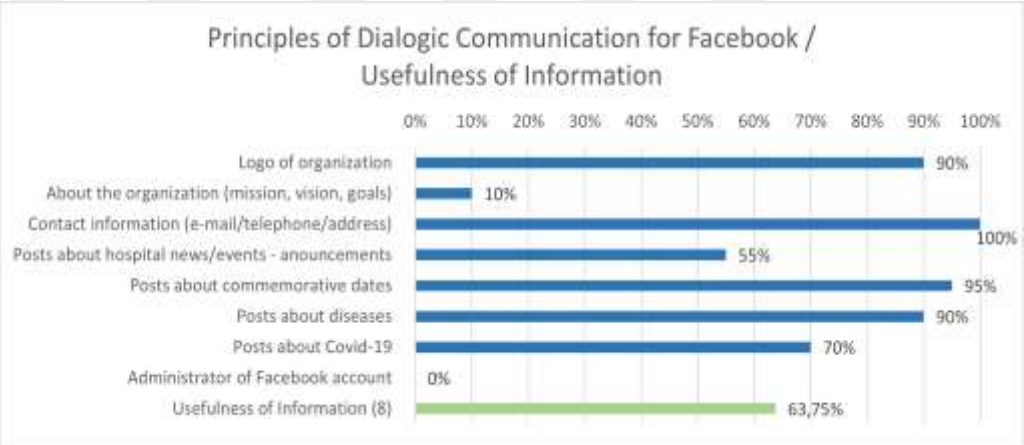


5.2.1.2. Usefulness of Information:

The overall score for principle of *usefulness of information* on Facebook is evaluated as 63,75%. All hospitals have shared the *contact information as telephone number, e-mail and address*. 90% of hospitals have shared the *logo of organization* on profile. But in terms of organizational facts just 10% of hospitals have shared information on *about the organization such vision, mission, and goals*.

Types of content of shared posts are evaluated by considering the shared posts within one-month time span until the research coding date. Almost all hospitals have content that depicts the important dates on health or national dates. The *posts about commemorative dates* are calculated as 95% whereas the *posts about diseases* is calculated as 90%. As the contemporary epidemic condition, the *posts about Covid-19* are shared by 70%. It's interesting that shares on commemorative dates are higher rate than posts about diseases. But when considering the almost each day have been attained for specific issue in terms of health specific diseases, hospitals also share information about that disease or health condition as well.

Table 42. Usefulness of Information Principle of Dialogic Communication on Hospitals' Facebook Account



None of the hospitals have provided the information on the *Administrator of Facebook account*. This is highly non-dialogic feature that turns Facebook as page that facilitates as a weblog of organization.

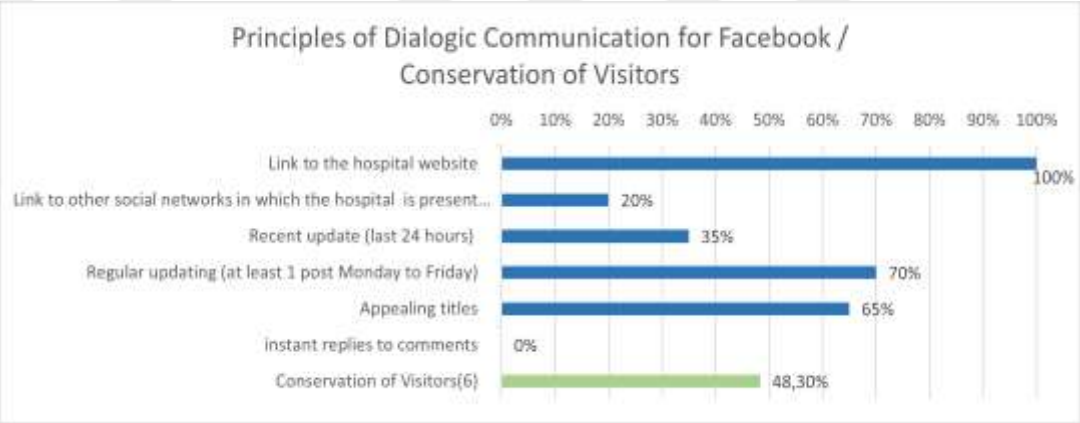
5.2.1.3. Conservation of Visitors:

One of the important principles as conservation of visitor has low rate on Facebook page. The overall score for the *principle of conservation of visitors* is calculated as 48,3%. Only dialogic qualification of this principle for OPR communication on Facebook is existence of *links to the hospital website* which all hospitals have provided website link on the Facebook profile. Even though all of the

hospitals have shared website link, 20% of those have provided *links to other SNS in which hospital has present.*

Posts with *appealing titles* is shown on 65% hospitals Facebook feed. *Regular update as at least one post from Monday to Friday* has achieved by 70% whereas *recent update in last 24 hours* is calculated as 35%. This difference shows that most of the hospitals are using Facebook as an online space to show presence rather than a communication medium. Because also none of the hospitals provides *instant replies to comments on posts*.

Table 43. Conservation of Visitors Principle of Dialogic Communication on Hospitals' Facebook Accounts

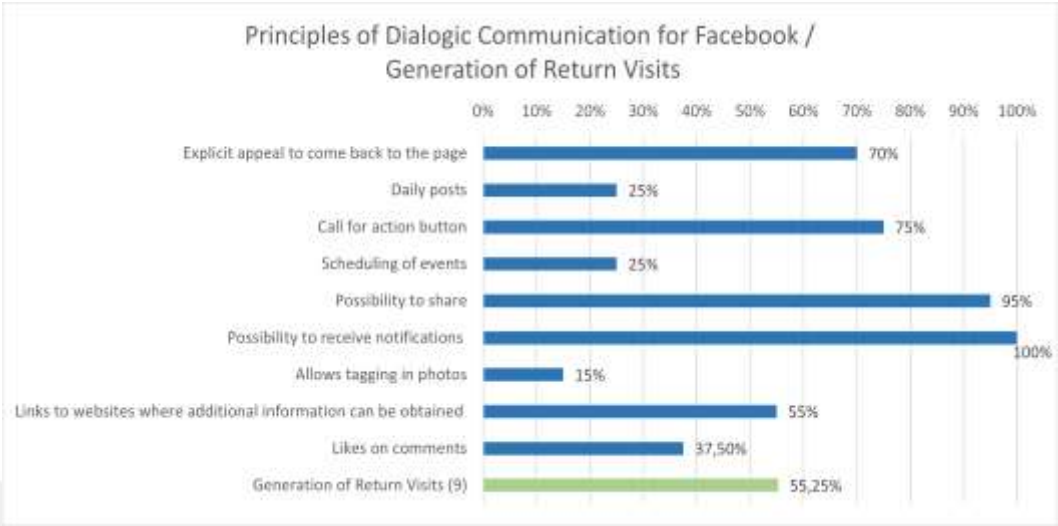


5.2.1.4. Generation of Return Visits:

The principle of generation of return visit to present a dialogic communication on Facebook is evaluated as 55,25% which is not dialogic. This principle is important for existence of any dialogic communication. 70% of hospitals have used *explicit appeal to come back to the page.* Also 75% of them are using *call for action button* which creates appeal to communicate with hospital.

All hospitals allow to *receive notifications* and 95% of them allows *share of posts*. This principle is non-dialogic because 15% of hospitals *allow tagging in photos*, and 25% provides *daily posts* and also 25% of hospitals provides *scheduling of events*.

Table 44. Generations of Return Visits Principles of Dialogic Communication on Hospitals' Facebook Accounts

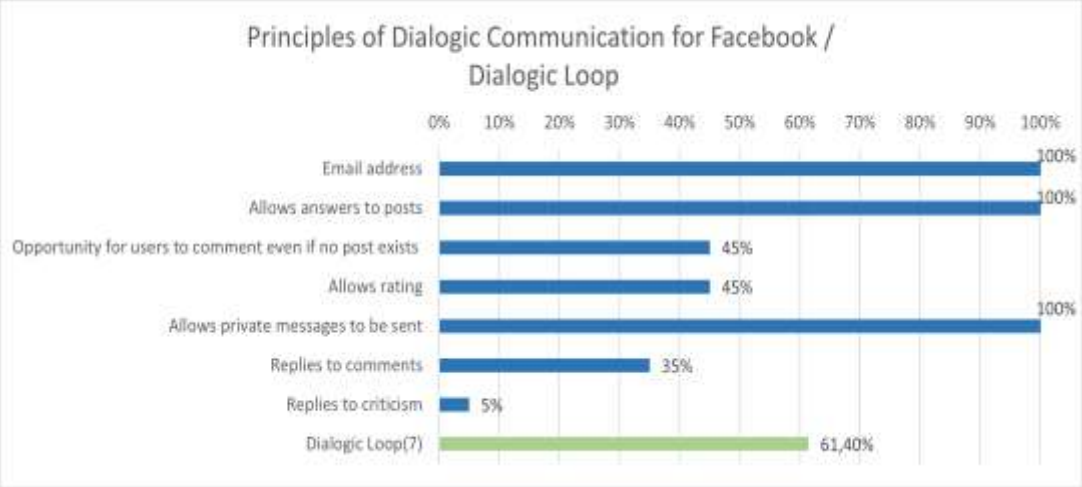


And with 37,50 % calculation the qualification of *likes on comments* is also very low to create a dialogue with publics on Facebook. More than half of the hospitals have shared *links to websites where additional information can be obtained* which is evaluated as 55%.

5.2.1.5. Dialogic Loop:

Overall score for dialogic loop principle for Facebook is calculated as 61,4%. All hospitals allow the visibility of *e-mail address* on their Facebook profile, allow *answers on the posts* that they shared and allows *private messages to be sent*. Besides those three qualifications which is attained by all hospitals, the scores of other 4 qualifications are between 5% to 45%. *Opportunity for users to comment even if no post exists* is facilitated by 45% of hospitals. Similarly, on their Facebook account 45% hospitals *allow ratings*.

Table 45. Dialogic Loop Principle of Dialogic Communication on Hospitals' Facebook Accounts

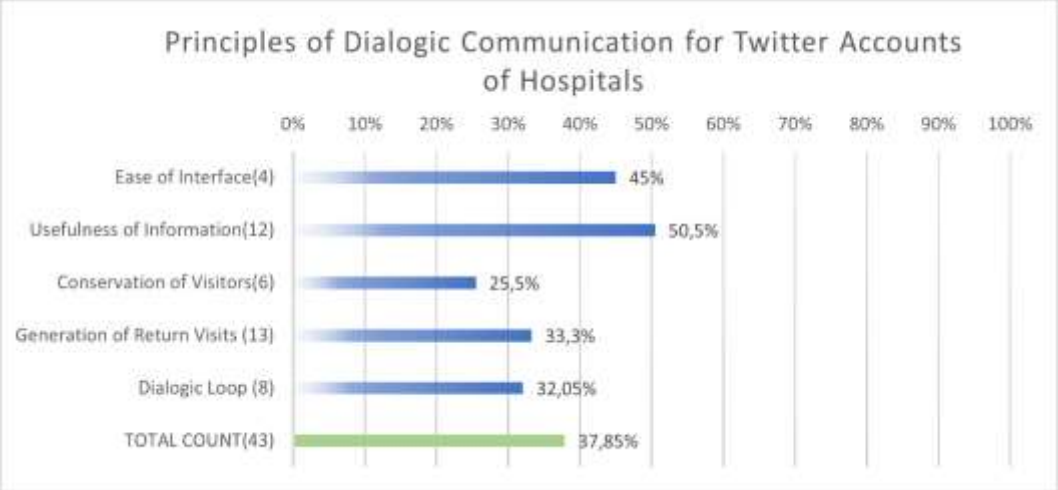


But 35% of hospitals have *replied to comments* by people on the posts that they shared whereas just 5% of hospitals have *replied to criticism*.

5.2.2. Twitter:

For dialogic communication presence research on Twitter 15 accounts have considered. Because 5 out of 20 hospitals have no accounts on Twitter. The use of Twitter is very low compared to other social network sites. Dependently only 8 hospitals have provided links to their Twitter accounts from their organizational websites. Amongst all other use of social media, Twitter has the lowest score of presence of dialogic communication for hospitals.

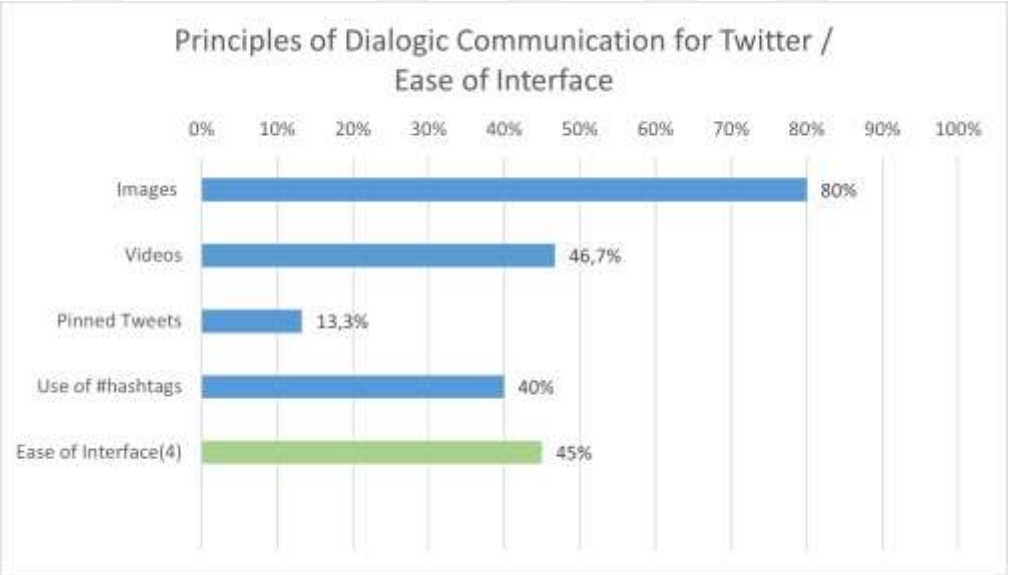
Table 46. Principles of Dialogic Communication for Twitter Accounts of Hospitals



5.2.2.1. Ease of Interface

The overall score of principle of ease of interface has calculated as 45%. Within 4 qualifications for this principle, on Twitter accounts of hospital the 80% of hospitals have shared *images*. 46,7% of hospitals have shared *videos*. The lowest rank is surprisingly calculated for *Pinned Tweets* as 13,3%. Although twitter topics are designed for *the use of hashtags (#),* 40% of hospitals have used this function.

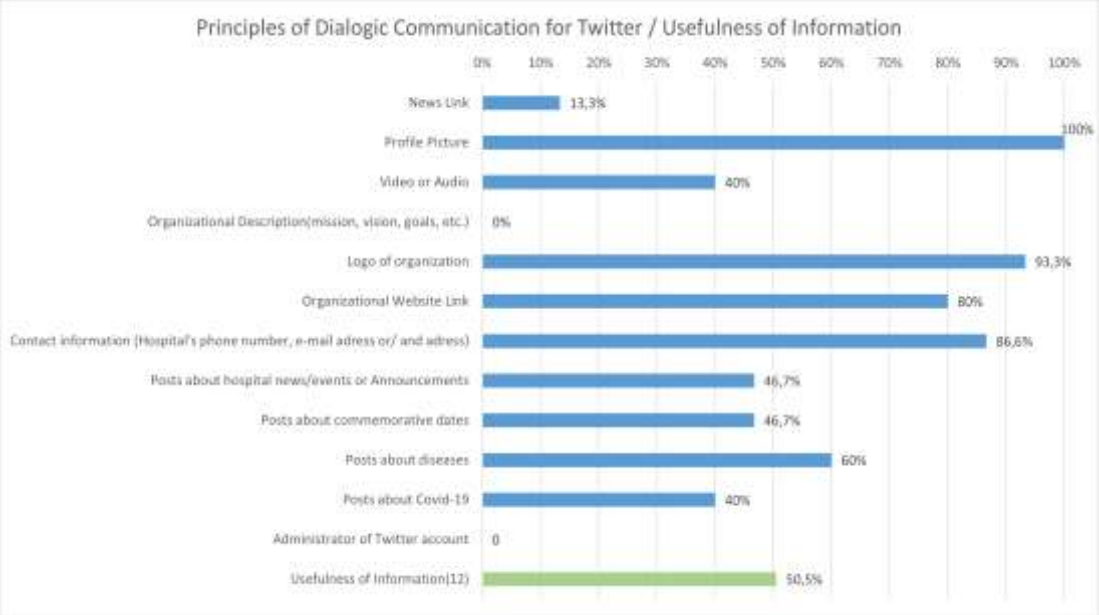
Table 47. Ease of Interface Principles of Dialogic Communication on Hospitals' Twitter Accounts



5.2.2.2. Usefulness of Information

The overall score of *principle of usefulness of information* for Twitter accounts of hospitals has calculated as 50,5%. The highest scores for this principle are existence of *profile picture* which all hospitals have uploaded and *the logo of organization* with a score of 93,3% which are mostly used as profile picture on Twitter accounts. 80% of hospitals have provided *organizational website link,* and 86,6% of them have provided *contact information (Hospital's phone number, e-mail address or/ and address)* for communication. None of the hospitals have provided further information about the organization as *organizational description (mission, vison, goals)*.

Table 48. Usefulness of Information Principle of Dialogic Communication on Hospitals' Twitter Account



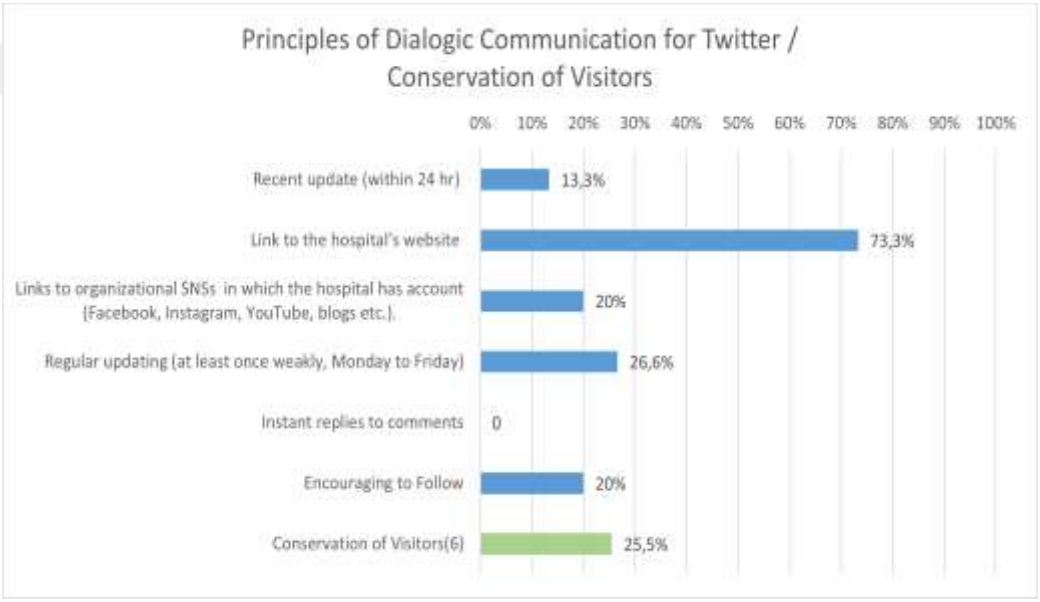
As shared content type, 40% of the hospitals have shared *video or audio*-based content. In terms of issues on contents, 46,7% of hospitals have shared *posts about hospital news/events or announcements,* 60% of hospitals have shared *posts about diseases,* 46,7% of hospitals shared *posts about commemorative dates,* 40% have shared *posts about Covid-19.* Similar to other social media that hospitals have registered, on Twitter none of the hospitals have shared the information of the *administrator of Twitter account*.

5.2.2.3. Conservation of Visitors

The principle of conservation of visitors is calculated as 25,5% for hospitals' Twitter accounts' dialogic communication presence. As the lowest degree amongst all qualification, none of the hospitals gives *instant replies to comments* which is actually highly important for dialogic communication on Twitter which facilitates as microblog. Even from these results it is understandable that Twitter is not actively used by hospitals instead the SNS is a online space for showing an organizational presence. Also the percentages of *recent update (within 24 hour)* as 13,3 % and *regular updating at least once weakly from Monday to Friday* as 26,6% indicates this estimation. Although 73,3% of hospitals have *link to the hospital's website* , those links are mostly

provided on the biography part without any other explanation. To conserve the visitors amongst the social network sites of hospital providing the links of other social media accounts could be useful application. But, just 20% of hospitals have shared the *links to organizational SNSs in which the hospital has account (Facebook, Instagram, YouTube, blogs etc.)* which is very low. With a ratio of 20% of encourage to follow, Twitter accounts of hospitals are far beyond of being dialogic on conversation of visitors.

Table 49. Conservation of Visitors Principle of Dialogic Communication on Hospitals' Twitter Accounts

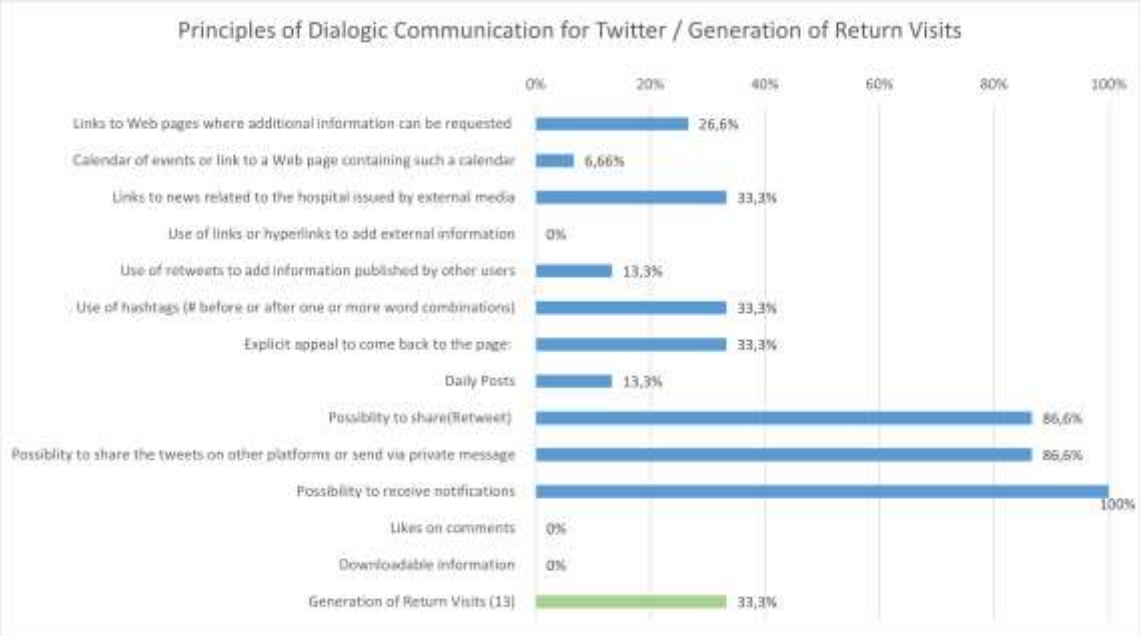


5.2.2.4. Generation of Return Visits

The overall percentage of the *principle of generation of return visits* is calculated as 33,3%. To generate return visits on Twitter, *use of hashtags (# before or after one or more-word combinations)* is very important which is calculated as 33,3%. Because finding any topic on Twitter is possible by following the hashtags, this qualification is highly important for creatin any dialogue. 86,6% of hospitals ensure the *possibility to share(retweet)* and *possibility to share the tweets on other platforms or send via private message*, but because the accounts are not actively used, the sample of this possibilities is limited. For example, with ratio of *daily posts* are shared by 13,3% of hospitals and *retweets are used to add information published by other users.*

None of the accounts have posted or used the *links or hyperlinks to add external information*. Besides, any *downloadable information* isn't shared by any of hospitals. 26,6% of hospitals have shared *links to Web pages where additional information can be requested*, and 33,3% of hospitals have shared *links to news related to the hospital issued by external media*. But none of the hospitals *liked comments* because there were no comments at all on the news feed of vast majority of accounts. 6,66% of hospitals have provided a *calendar of events or link to a Web page containing such a calendar*. 33,3% of hospitals have used *explicit appeals to come back* to their Twitter accounts. All of hospitals allow to *receive notifications*.

Table 50. Generations of Return Visits Principles of Dialogic Communication on Hospitals' Twitter Accounts

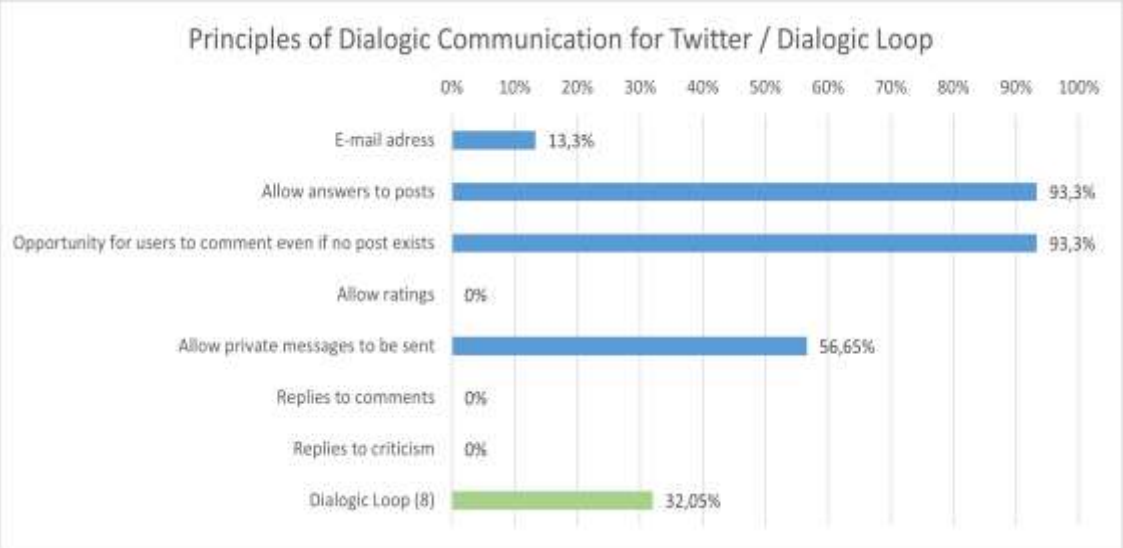


5.2.2.5. Dialogic Loop

With overall score of 32,05% the principle of dialogic loop for Twitter accounts of hospitals shows that the use of Twitter for communication with publics is non-dialogic. 13,3% of hospitals have shared their *e-mail address* information. 56,65% of hospitals *allow private messages to be sent* to their DM on Twitter. Although hospitals *allow answers to posts* and provides *opportunity for users to comment even if no post*

exists with a percentage of 93,3%, none of the hospitals *allow ratings* or provide *replies to comments* or *replies to criticism.*

Table 51. Dialogic Loop Principle of Dialogic Communication on Hospitals' Twitter Accounts

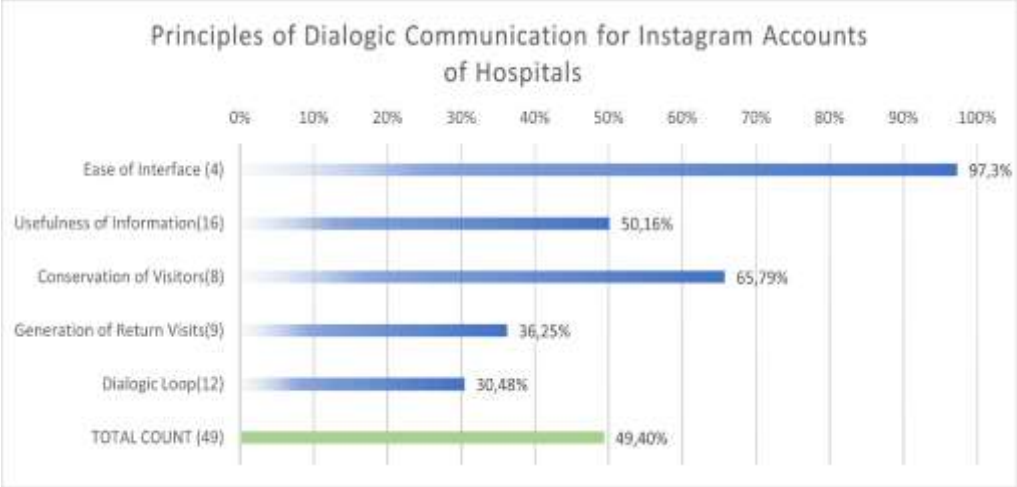


5.2.3. Instagram:

Instagram is becoming another important social media account that organizations build relationship with their audiences. Compared to the Twitter and Facebook, Instagram has launched in 2010, almost 5 years later. But nearly same number of hospitals as Facebook have Instagram profiles also. 15 out of 20 hospitals have Instagram accounts and direct links to their Instagram profiles from their organizational websites.

The principle of ease of interface has the highest degree for presence of dialogic communication. But because the nature of Instagram as visual-sharing social media which is indicated on Table 52., it may not be providing a valid data. Comparingly, the lowest degree is obtained from the principle of dialogic loop which is calculated as 30,48%.

Table 52. Principles of Dialogic Communication for Instagram Accounts of Hospitals

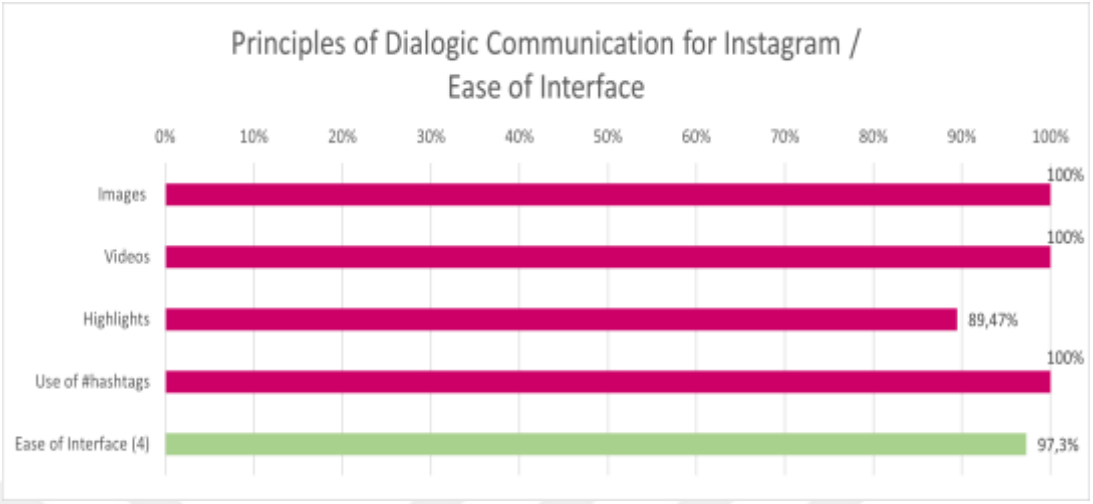


5.2.3.1. Ease of Interface

The ease-of-use principle for Instagram accounts of hospital has the highest calculation amongst other principles of Instagram as 97,3%. 19 hospitals out of 20 have Instagram account and upload at least one image or video. Also, the importance of use of hashtags (#) has acknowledged by hospitals when considering that the 89,47% of them has using hashtags to indicate the keywords to be found on Instagram. The principle of ease of use has similar qualifications with other social media platforms (images, videos, highlights, use of #hashtags). Only difference that Facebook has pinned posts whereas Twitter has pinned Tweets, Instagram has the function of highlights that creates pinned stories.

There is no pinned posts option on Instagram since it is originally designed for share visuals. It is easy to navigate the visuals on any Instagram account by checking the grid system. Because only the stories have limited time that users of Instagram may view as in twenty-four hours, pinning the selected stories in categories option is functioned with the highlights.

Table 53. Ease of Interface Principles of Dialogic Communication on Hospitals' Instagram Accounts



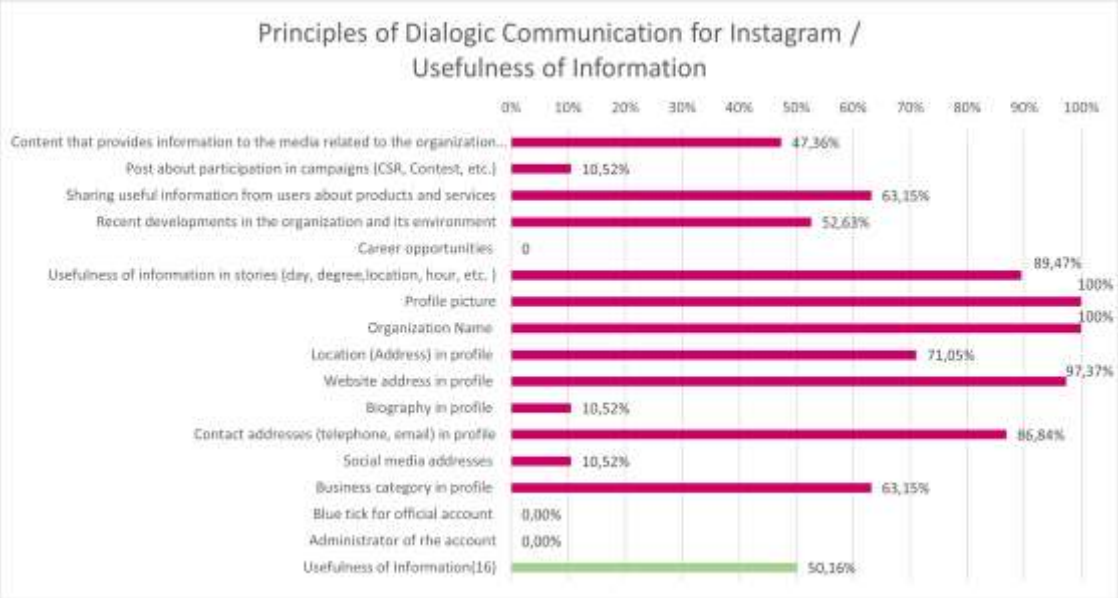
5.2.3.2. Usefulness of Information

Overall score for *the principle of usefulness of information* has calculated as 50,16%. All hospitals have provided *profile picture* and *organization name*. But none of them have *blue tick for official account* or provided an information about the *administrator of the account*. 10,52% of hospitals provided a *biography in profile* whereas 63,155 of hospitals have indicated the *business category in profile*. As for the information related communication, 86,84% of hospitals have shared their *contact addresses(telephone, e-mail) in profile*, almost all hospitals, the 97,37% percentage of hospitals have provided *website address* in profile. Besides the information for communication also 71,05% of hospitals shared *information of location(address) in profile*.

The content shared on profiles mostly related with the promotion of services, doctors, or medical cares that hospitals provided. The qualification of *usefulness of information in stories (day, degree, location, hour, etc.)* has evaluated within this context and calculated as 89,47%. For the presence of dialogic communication sharing *useful information from users about products and services* has calculated as 63,15%. Because most of the hospitals have shared patient experience of their services. Addition to content that manifests the patient experience or promotion of hospital facilities, CSR related content share is rare. *Post about participation in campaigns (CSR, Contest, etc.)* is calculated as 10,52%. Posts about the *recent developments in*

the organization and its environment is calculated as 52,63%. And 10,53% of hospitals have shared other *social media addresses* on their Instagram profiles or on posts or stories. As for the news, 47,36% of hospitals shared *content that provides information to the media related to the organization (press release, speeches, policies, video, news, etc*.). None of the hospitals provides any information for *Career opportunities*.

Table 54. Usefulness of Information Principle of Dialogic Communication on Hospitals' Instagram Account



5.2.3.3. Conservation of Visitors

The overall score for conservation of visitor to evaluate the dialogic communication presence on Instagram accounts of hospitals is calculated as 65,79% which is not dialogic. Although within 8 qualifications, the qualification of *sharing photos and videos in posts(Photo, Video, Carousel)* is calculated as 94,73% and the qualification of *sharing photos and videos in stories* which is calculated as 92,10% and seems like dialogic. Actually, these two qualifications are the way of use of Instagram as a visual-sharing social media. Therefore, share of images or videos on posts or stories are not creating a dialogic communication without providing a dialogic loop. All hospitals have provided a link to *the organization website via stories by depicting appealing titles such as see more, get more information about services or health care facilities etc*. Also, 76,31% of hospitals have used *the stories highlights*

feature which is recently updated. Besides share of links, 84,21% of hospitals have used the *Mention(@) and hashtag(#)*.

Limited number of accounts which are the 13,15% of hospitals have shared *link to other social media accounts*. Because the Instagram is a new field for organizational use 65,79% of hospitals have a ratio of *update in the last 24 hours*. None of the hospitals have shared feed posts to stories.

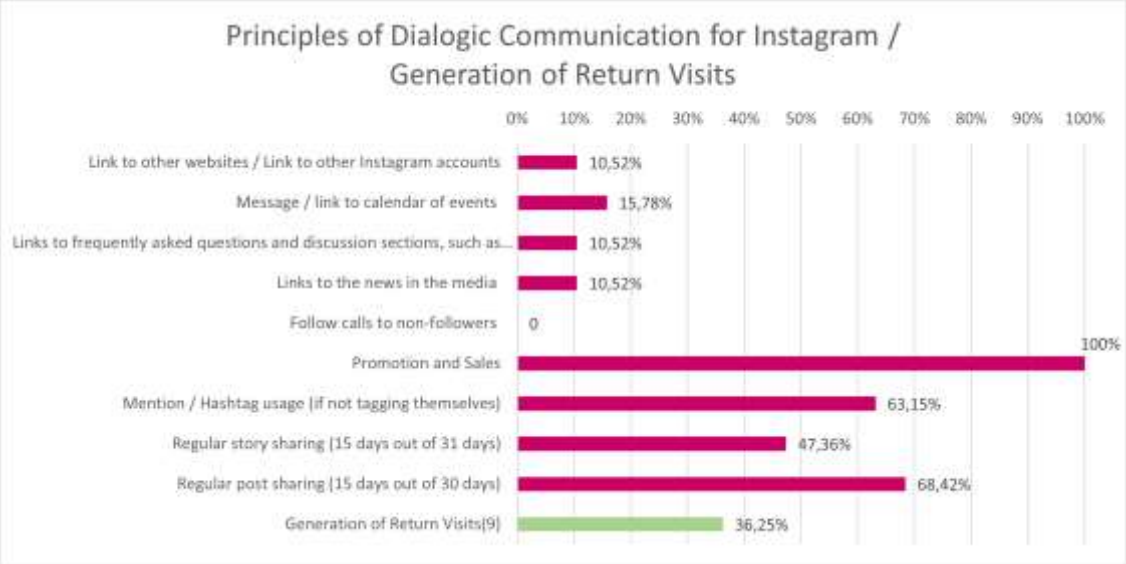
Table 55. Conservation of Visitors Principle of Dialogic Communication on Hospitals' Instagram Accounts

5.2.3.4. Generation of Return Visits

The overall score for *principle of generation of return visits* for the dialogic communication presence of Instagram accounts of hospitals is calculated as 36,25%. Within this principle, the qualification of *promotion and sales* have considered in terms of promoting the hospitals or their departments not for sales. Therefore, all hospitals have accounted on this qualification. The inference in here is that the existence of most of the Instagram accounts of hospitals are for promoting the organization instead of creating a communication. This also understandable by checking the regular updates in terms of *regular story sharing (15 days out of 31 days)* 47,36% which is calculated as and *regular post sharing (15 days out of 30 days)* that is calculated as 68,42%. One of the highest percentages that is calculated as 63,15% is the qualification as use of *mention / hashtag usage by the other accounts that are tagging the hospitals*. About providing link on account, for example 10,52% of hospitals have shared *link to other websites or link to other Instagram accounts* and

links to the news in the media. Similarly, 10,52% of hospitals have provided *links to frequently asked questions and discussion sections, such as websites, blogs*. None of them explicitly make *follow calls to non-followers of account.* 15,78% of hospitals have shared link or posts to calendar of events.

Table 56. Generations of Return Visits Principles of Dialogic Communication on Hospitals' Instagram Accounts



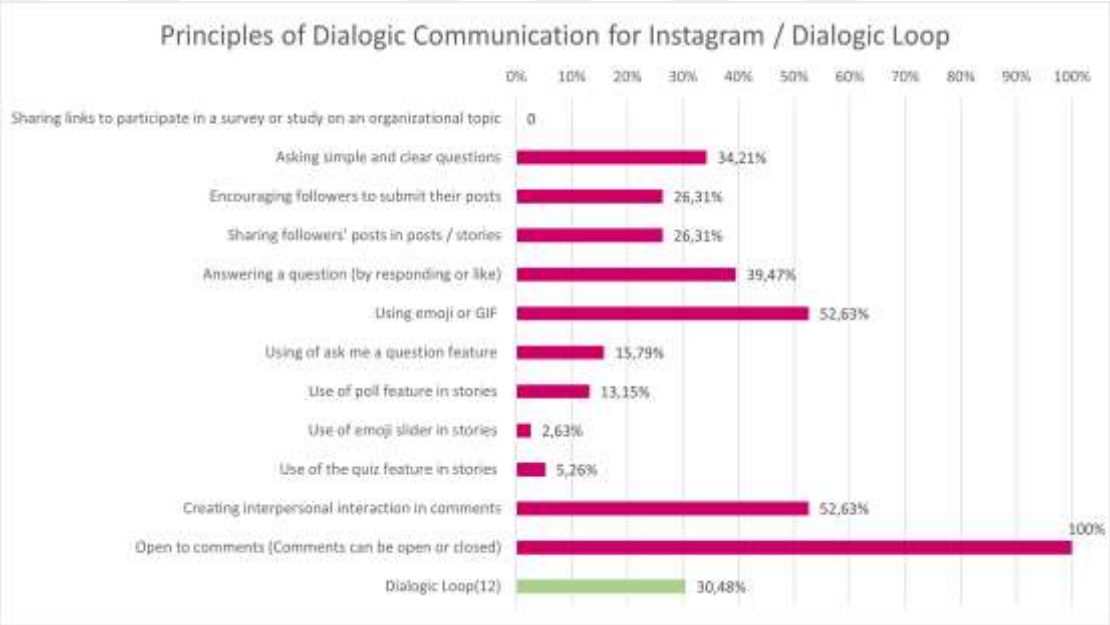
5.2.3.5. Dialogic Loop

Overall score for principle of dialogic loop to evaluate the dialogic communication presence is calculated as 30,48% which is not dialogic. Although all hospitals are *open to comments* and *creating interpersonal interaction in comments* is calculated as 52,63%. Considering providing feedback, 39,47% of hospitals give *answers to questions by responding or via like*. 26,31% of hospitals have shared *their followers' posts in their posts*. In terms of use degree of stories function on Instagram, 13,15% of hospitals *use of poll feature in stories*, whereas again 13,15% of are *using of ask me a question feature on stories*. 5,26% of hospitals have used the quiz feature in stories which are also could be found on highlights. The use of emoji slider in stories have calculated as 2,63%. Because during the research after coder 1 have completed the research, the coder 1 and coder 2 decided to apply second coding together. The results are also controlled by two coders simultaneously and, on consensus the average is accepted. Here is another remark on Instagram research is that, because the accounts

are not using stories regularly or not all of them save the stories via the highlight function, finding the criteria of dialogic communication could be challenging and results could be change even within seconds.

None of hospitals have *shared links to participate in a survey or study on an organizational topic*. But 34,21% of hospitals have been *asking simple and clear questions* through stories by using the poll or mini quiz functions. 26,31% of the accounts *are encouraging followers to submit their posts* especially in terms of patient experiences. Finally, 52,63% of hospitals used emoji or GIFs on their shares.

Table 57. Dialogic Loop Principle of Dialogic Communication on Hospitals' Instagram Accounts



The reason for use of social media may vary for different reasons for hospitals. Apenteng et al. (2020) have quoted from Gallant et al. (2011) to explain the social media utilization of hospitals which are connecting and interacting with patients; providing education, performing administrative duties, and developing a network of patients and their references. Considering those reasons, it can be said that, the social media use of private owned hospitals in Izmir have similarities as which all hospitals use the social media to build a network of patient reference by sharing the posts about patient experiences, hospitals facilities.

5.3. Similarities and Difference of Hospitals' Online Channels

Dialogic communication researches both on websites and social media have indicated that the organizations are not using those communi cation media dialogically.

The third research question of this study is asked to explore to which degree hospitals that have all-communication channels within scope of this research are using their dialogic communication potential and what are the differences of their communication preferences.

- RQ3: What are the similarities and differences based on dialogic principles between the uses of social media accounts and websites of the hospitals? Which social media accounts of hospitals are used more dialogically? Do these accounts facilitate for only providing information or are they also used for building dialogic relationship?

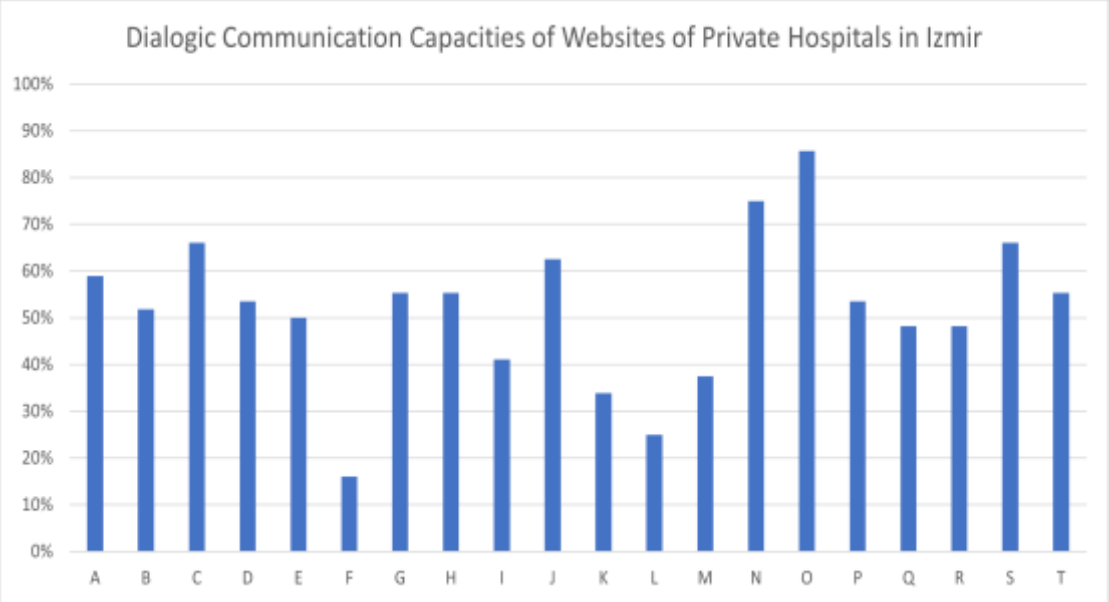
To answer this question, the coherence in terms of social media use of health organizations and their level OPR with the integration of communication channels should be defined. Thomas and Woodside (2016) notes that for coherence, the use of social media by healthcare organizations have to reach a degree of social media maturity so that "*its community relationships, its operations, and its vision become more seamlessly meshed."* (Thomas Woodside 2016, p.71). Therefore, to obtain better social media and community for online health communication, health organizations should be *"raising the level of its interactions into the shapes of community – expanding its partnerships with its health consumers, social influencers, expert peers, support groups, its employees"* with also developing the health information exchange for creating trust with its publics (Thomas Woodside, 2016).

Therefore, integration of web sites with the new technologies is becoming highly important considering the user preferences. The ease of use and design of the front pages of people decision-making at the beginning. Hospitals home page mostly designed well, organized and almost all hospitals have used visuals and provided information about the services, doctors, and facilities of hospitals. Web sites which are directed by AI-based google searches or could be reachable by direct URL are the forms of communication are one of the main communication sources. In terms of use of interface, most of the hospitals have used their logos and corporate brand color for design of their websites as the integration of brand cluster elements(Vollmers, Miller, and Kılıç, 2010).

Websites of hospitals have almost similar function design for their interface. As Synder, Ornes and Paulson(2014) said *"healthcare providers are moving away from static "brochure-ware" websites to dynamic, real-time, content-managed information portals at a slower pace than expected by consumers.*"(p.38)

The difference is related with the type and quality of the content. The main difference is the limited use of dialogic tools as such, feedback option, comment section etc. one of reasons for that could be the influence of negative comments or reviews that will affect the future visitors (Gafni and Golan,2016). But as Alkibay, Özdoğan and Ermeç (2007) has pointed out on their research on corporate visual identity of hospitals, within the devastating competition in health sector, hospitals need to be differentiated themselves by using effectively using their communication tools. Although principle of ease of use has achieved by almost all hospitals, it should be considered that the degree of ability of visitors to use websites may effect the perception of websites. To understand the dialogic capacity of ease of interface principle, the ability of visitors to use web sites could be researched with different research methods (Elling, Lentz, and de Jong, 2012).

Table 58. Dialogic Communication Capacities of Websites of Private Hospitals in İzmir

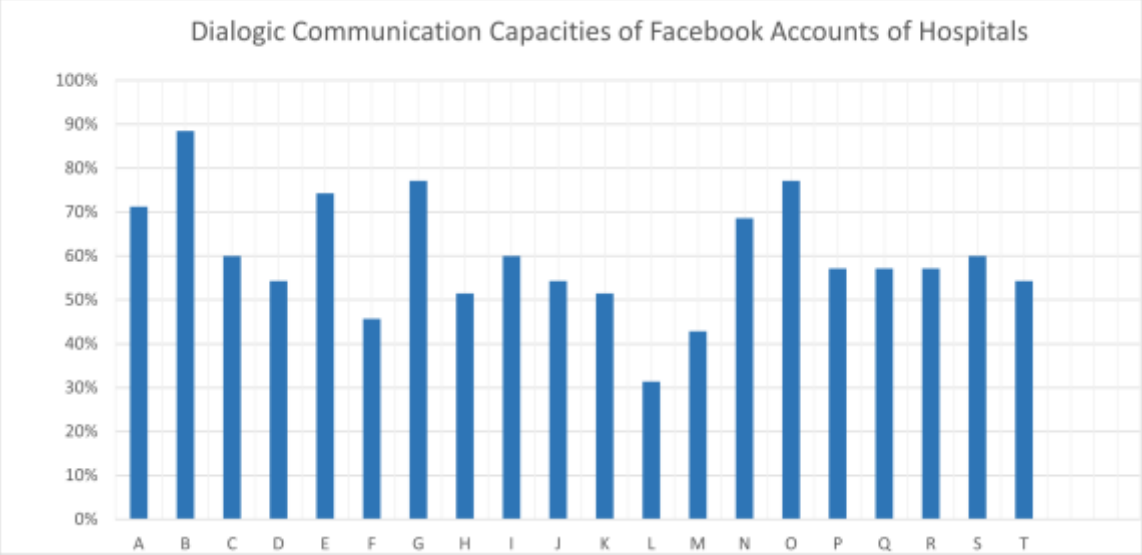


There are two hospitals facilitated use of the enterprise social network site and use of social media for internal communication (Ellison, Gibbs, and Weber2015).

Considering the fastened doctor-patient communication, the development of social media or intranet web sites (such as Yammer) for internal communication could be beneficial for hospitals (Sanchez and Maier-Donati, 2000). Considerably one of these hospitals is multihospital setting which has several hospitals setting in different places with same name (Yavaş and Romanova, 2002). In is understandable why they are preferring use internal communication social media that for the creating company-wide communication amongst all hospital setting. Another difference is also observed that multihospital setting also providing more dialogic communication qualification on their websites. The reason for that could be also the competition multihospital setting. The applications of e-healthcare are functioned by most of the hospitals' websites. More than half of the hospitals have e-results, e-appointment and as such applications.

Use of social media is found as non-dialogic for organization-public communication of hospitals. Hospitals' use of social media depens upon the firm-generated content instead of user generated content (Schivinski, and Dabrowski, 2016). Social Media could be used for more dialogically, as in terms of facilitating

Table 59. Dialogic Communication Capacities of Facebook Accounts of Private Hospitals in İzmir



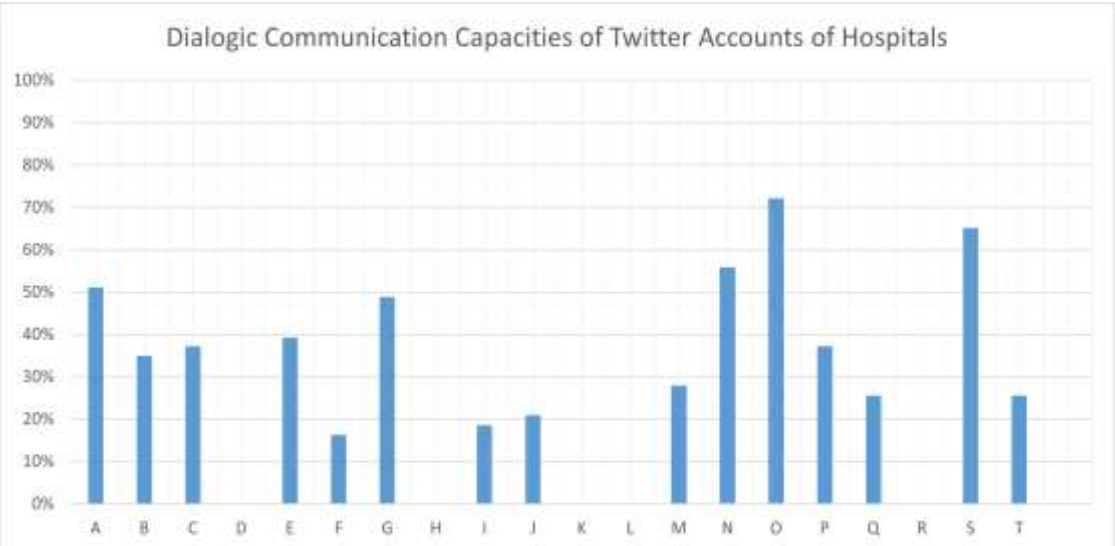
the new features such as IG TV and Facebook Watch could be new areas for patient centric community creation. This also will improve the organization public relationship by adding dialogic communication spaces for communication with each

other (Chou et al., 2011). Social media predicts and presents the content that people may like depending on the big data that have collected depending on demographic, personal social determinants. (Kalampokis, Tambouris and Tarabanis, 2013). Therefore, this predictive feature of social media could be useful for organization to understand their publics and provide better communication.

For example, Gonçalves has found from her research on 29 hospitals in Portugal, that hospitals are not using the potential that platform is providing. Similar results have obtained on the hospitals' accounts of Facebook. Considering the Table 59., presents that one hospital have dialogic communication presence, while 4 hospitals have scores higher than 70% which are presenting nearly dialogic communication. But all hospitals' considering the principle-based calculations, the overall degree of Facebook use of hospitals are not dialogic. They are providing useful information for their publics, but feedback loop is not achieved by none of hospitals.

Twitter accounts of hospitals with the 28,43% percentage is evaluated as non-dialogic. 15 out of 20 hospitals have presence on Twitter, but most of the accounts are registered but not used at all. As Table 60. indicates, the dialogic communication is nor occur on Twitter accounts of hospitals. Dependently only 8 hospitals have provided links to their Twitter accounts from their organizational websites. Amongst all other use of social media, Twitter has the lowest score of presence of dialogic communication for hospitals.

Table 60. Dialogic Communication Capacities of Twitter Accounts of Private Hospitals in İzmir

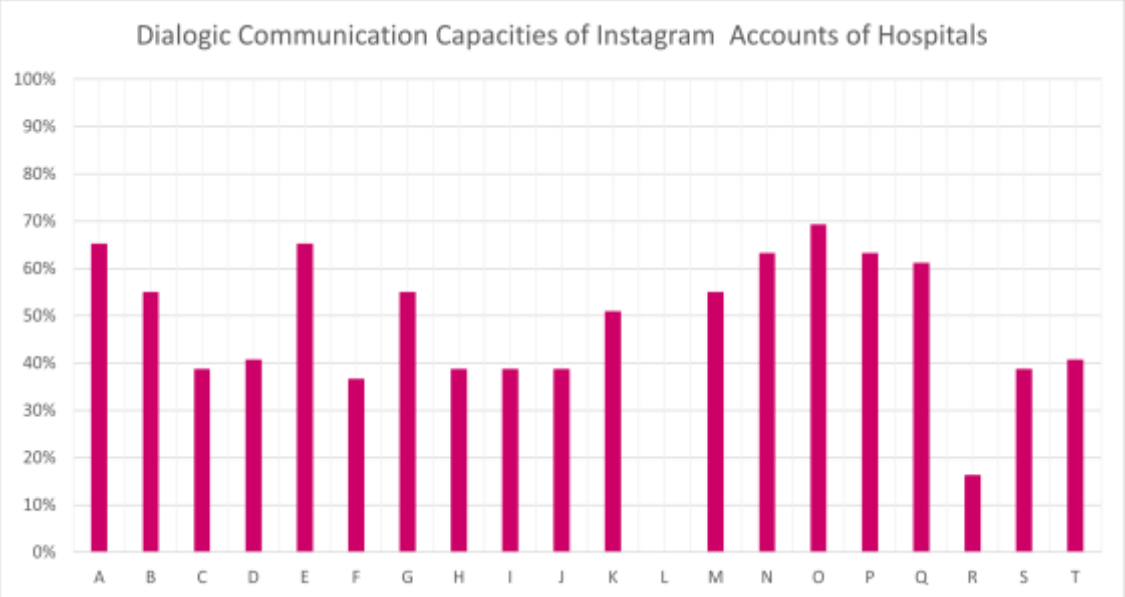


As it is noted before 5 of the hospitals has no Twitter accounts. And other accounts are not actively using. According to the Westerman, Spence and Van der Heide(2014), the recency of updates is important for the credibility of information. And considering results, Twitter accounts of hospitals ate not dialogic.

Instagram accounts of hospital have high rates of dialogic presence, yet none of the hospitals have achieved the dialogic communication. As indicated on Table 61., hospitals have similar percentages on the degree of dialogic communication presence. The reason for that all hospitals are achieving the principles of usefulness of information and ease of interface. But considering the dialogue-based dialogic principle clusters as conservation of visitor, generation of return visits and most importantly dialogic loop, most of hospitals have not dialogic communication presence.

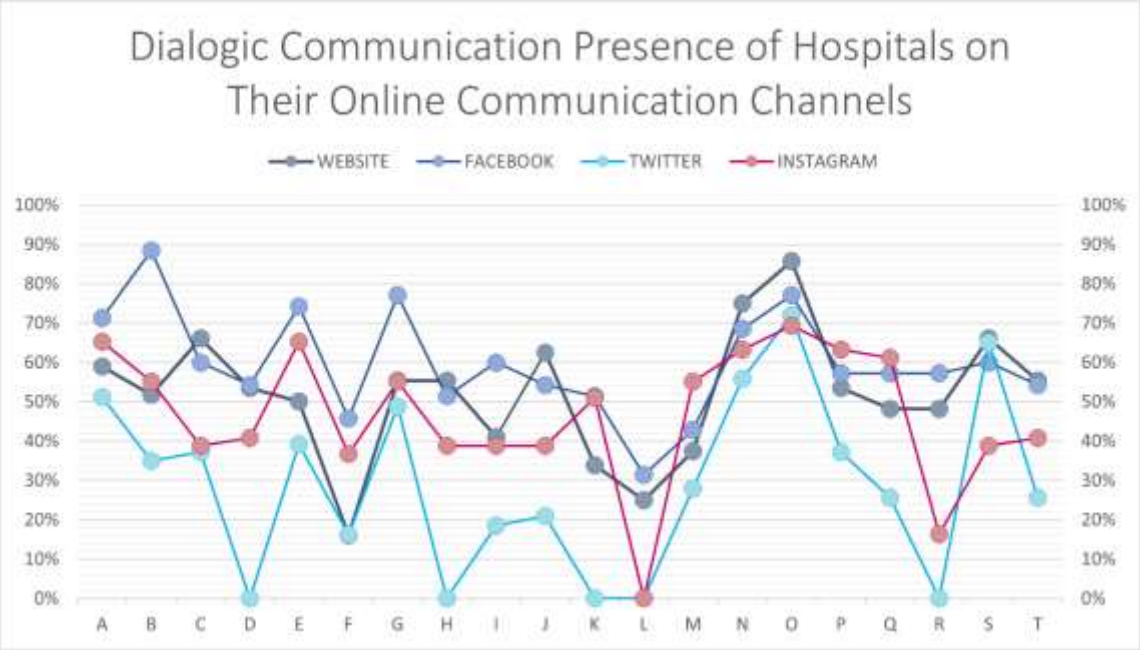
The use of Instagram for organization-public relationship is newly forming space for the hospitals in Turkey. Therefore, the non-used qualifications as such, providing a company biography on profile or providing the name of the Instagram account manager, taking blue tick for the official account are the function that also provides trust to publics of organization that enhances dialogic communication.

Table 61. Dialogic Communication Capacities of Instagram Accounts of Hospitals



To be concluded, considering the dialogic communication presence of for each hospital on their online communication channels, 5% of them have coherence on the degree of dialogic communication on all platforms. Considering those hospitals, their websites having the dialogic communication principles, while their social media accounts are calculated as above 70% percentage which are close to being dialogic.

Table 62. Dialogic Communication Presence of Hospitals on Their Online Communication Channels



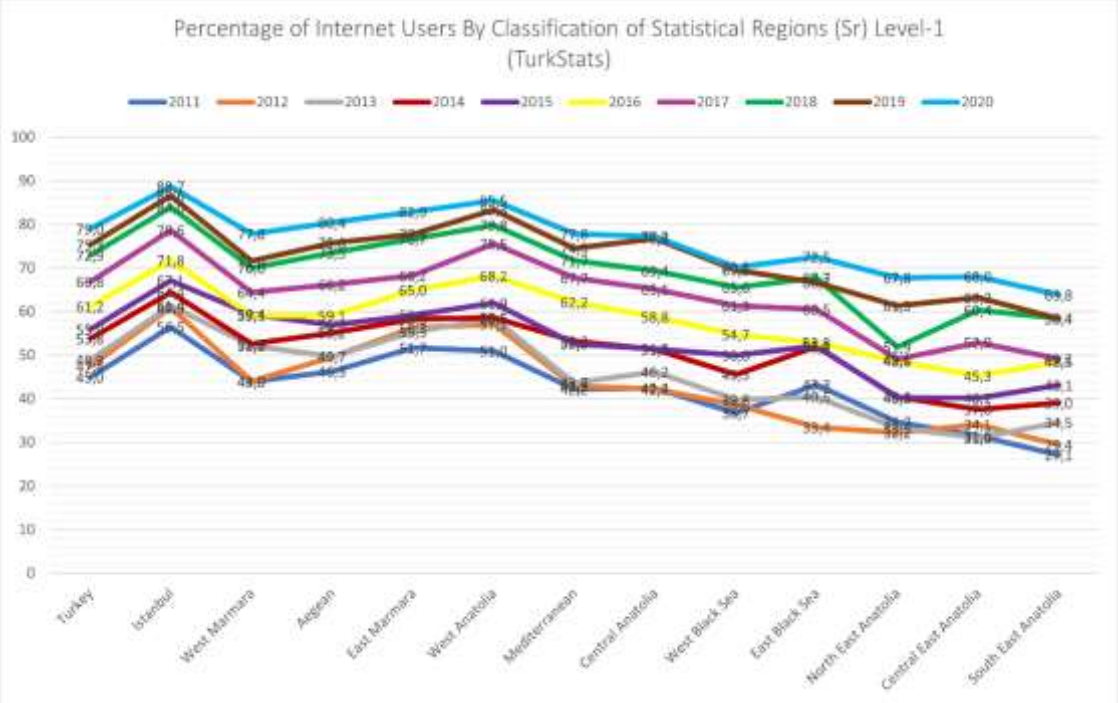
None of hospitals have been using the full potential of features on social media platforms especially considering the recent features added to social media, the functions that have dialogic potential a such IG TV, comment, Facebook live, stories, polls etc. are not using by the hospitals efficiently. Considering the Table 62., there are two hospitals that facilitates their social media and websites at similar levels of dialogic communication. Twitter has the lowest dialogic communication capacity amongst other online communication channels for all hospitals. Evaluating the results from the principles of each online communication channel and hospitals' percentages for each social media and websites, it can be said that the use of social media and websites of hospitals are directed to the public relations for marketing purposes (Elrod and Fortenberry; 2020b). Therefore, promotion based non-dialogic qualifications are calculated with higher percentages.

5.4. Limitations of the Study

This study is restricted in terms of geography, sample size and type, methodology and research unit. Additionaly limitations within the scope of research, such as recent technologic improvements and or demographic or socio-economic restrictions related to the technology as technological device ownership by household were the constraint of research. This is study as the previous studies on websites and social media is descriptive in nature by "*showing the motivations for their implementation in the health sector, their use, advantages and disadvantages*." (Alonso-Cañadas, 2020).

Geographic and demographic limitations. The research is applied on virtual space of internet. These are virtual communicative spaces are the representations of the concrete existences as such organizations like hospitals. Even though the internet

Table 63. Percentage of Internet Users By Classification of Statistical Regions (TurkStats)



has no land to stand, not has a tree-dimensional existence (but by which one may create 3D objects), it enables web sites to refer to the specific nations by using national codes on URL addresses. Or even some web sites could only be reached by addressed

nations or addressed regions according to the internet protocols. The declarations of social media bans or ban to specific websites by governments create a regionalized / nationalized internet reach which has non-physical boundaries linked to the national / regional boundaries. Therefore, as the scope of the research, geographic location is limited to the city of Izmir in Aegean Region of Turkey. This restriction allows to examine the supplied online features of organizational websites and social media accounts according to the specific geography. Table 63. depicts the number of internet users between the years 2011-2020 by regions of Turkey(TurkStats). Although for each region there is regular growth of the rates, comparing the regions numbers change. Therefore, limiting the study to one city or one region, the data could provide an insight about how hospitals add features according to the regional needs and demands for future researches. Concurrently, for this study, any demographic indicator such as gender, income, age, education etc. is not considered because the research perspective and methodology are restricted to evaluation of online applications of websites or social media accounts of hospitals. Therefore, in this study expectation of users from different demographic backgrounds and their health information preferences are excluded (Fergie, Hilton, and Hunt, 2015).

Sample size and type. The type of sample is determined within the health sector which is restricted to the private-owned hospitals that are providing services for the general health conditions based upon the list by Health Ministry. The specialized hospitals which are provide services for the special conditions or diseases are excluded from the sample. And research unit is limited with species of the manifested concrete content of online communication platforms of hospitals within a specific time duration. Therefore, the temporality of the research results should be evaluated as limitation within the context of online research studies by considering their changeability. *Methodology and research application time frame.* As the social data which are provided from the sample, the manifested content evaluated with non-participatory observation of occurrences on websites and social media accounts Manifested content is more tangible data which is related to surface. Although quantification of manifested data which is easier than latent data, the coding procedures still open to interpretation subjectively (McNamara, 2018). Because the coding procedures are highly dependent on the subjective observations of the results which were open to interpretation. Therefore, to evaluate these social data, coders agreed upon consensus by controlling the results of the researched data. As time frame, research is applied between

15.06.2021 and 15.08.2021 in two phases. Preliminary researches for existence of the communication tools of hospitals were applied between 15.06.2021 – 25.06.2021, researches on presence of dialogic communication and control researches by two coders for consensus were applied 29.07.2021 and 15.08.2021.

*Research unit and scope as the number of social media accounts***.** Because of the concerning theory of the study is dialogic communication theory by Kent and Taylor (1998), as the unit of analysis the digital online communication channels of hospitals are considered. Alongside with the websites -which are the sample unit of analysis of the theory- the social media accounts are also added to research scope. Indeed, the evolution of online communication has reviewed with details in the second chapter, considering the current media of online communication as websites and social media accounts are selected as the unit of analysis for the study. However, because of the time-restriction and scope limit of the research study, not all social media accounts are researched. Specifically, as the video-based social media accounts such as YouTube, TikTok etc. are excluded which may also require an additional content analysis of posts to understand the presence of dialogic communication. Like this, Pinterest accounts also excluded. For reason that is, Pinterest as the visual sharing platform has not high number of users in Turkey contrary to the Instagram. And, for Turkey, Pinterest is not used for communicative purposes as much as the other countries instead, the platform is used as source of knowledge or visuals. The social media platforms (See; Table 6.) are sorted for their purpose of use as such microblogging (Twitter), image sharing (Instagram), and social networking (Facebook). Also, these platforms are chosen according to the percentages of users in Turkey compared to other social media platforms.

*Data on Consumer Preferences on Healthcare***.** Another constraint was about the knowledge on the consumer preferences. Because there are limited resources on the consumers/patients experiences, it is not possible to reach overall patient ratings of private or public hospitals. The consumer reports on private hospitals which are indicated by Turkey National Statistics Institution (Türkiye Ulusal İstatistik Kurumu - TUIK) are scarce or not existent. The sample reports are generated mostly in America and Europe by the www.consumerreports.org that provides the information on patient scores on hospitals, doctors, and health communication. Therefore, retrieving direct information about the user perception of online communication practices of hospitals was the restriction. For this reason, the information from the TUIK data has been used

to remark the levels of use of internet according to demographic qualifications and for describe the regional hospital capacities. Additionally, Global Web Index Reports are evaluated to understand the general framework for the digital healthcare, device usage and social media in numbers but there were limited data for the digital healthcare in Turkey.

Scope of Research Field. Study refers to the directly public relations and theories of public relations and health communication. Marketing communication field is not considered within the scope. Therefore, public relations practices for hospital marketing via social media may be researched for further studies(Smith, 2017). Marketing communications forms and applications with PR methods are not evaluated in terms of function or content. Specifically, intense social media advertising practices created a space for organizations to advert and publicize their products or services. Additional restrictive regulations on health sector about advertisement for marketing purposes will be limiting the research scope in terms of evaluation of marketing tools. The evaluation of the socio-economic stance of hospitals within the scope of integrated marketing communication could be valuable research phase which is not included in this study.

As final consideration, the identification of the some of the limitations or the absence of information became valuable informational grounds for the new research areas which are detailed in the following section, the future research suggestions.

5.5. Suggestions

5.5.1. Theoretical implications

This study offers a framework for further research studies upon dialogic communication presence on health sector. In this research the presence of the dialogic features on private hospitals' websites are compared with the dialogic communication presence on social media accounts as well as the presences of the dialogic communication principles for each communication channel are researched. This study may contribute to the research methodology of dialogic communication theory for OPR in terms of considering multiple online platforms for the healthcare context as Kim et al. (2014) has also studied in different context. Secondly, as for the theoretical implications, study provides broad information on literature which could be a

benefactory asset for further researches on health sector and dialogic communication theory.

For technical advancement of the research method this research also provides suggestions. Considering the local enforcements on online communication tools and new facilities which are widely used by organizations, four new qualifications have been added to the codebook that are providing useful information to publics (Hayes and Krippendorff, 2007). These qualifications as legal text of personal information protection, information on health technologies owned by hospitals, private accommodation options, and information on contracted institutions such as state departments or insurance companies have been evaluated within the usefulness of information for public. Addition to these four qualifications also URL design should be added to the principle of ease of interface along with responsiveness quality. This study has revealed that to begin an online communication with publics through the organizational websites, the website is medium should be found in the first place. By reason of results from search engine inquiry are depending upon both context and content, the URL design here have great importance for organizational websites to be reached by the publics (Strzelecki, 2020; Teixeira Lopes and Ribeiro; 2011). The parts of URL, domain name and extension even the geographical domain and file path explanations have a huge impact on the results of search inquiries. Two of the hospitals haven't used their exact brand names on URL which make difficult to find the website by writing the name to the search engine. And one of the hospitals have been using an URL with different domain extension that makes people to confuse the website via the same name that have ending as"(dot)com" which is most known.

Other important functionalities which are not researched in this study are voice search, meta descriptions of site links which is visible on result pages, and description of visuals. Those technical features of websites are also effective on people's decision to visit a website. Instead of only examining the presence of each qualification that is determined for each principle, additional research methods such as in-depth interviews with social media responsible of organizations or surveys to understand effects of new technologies on the user perception in relation to the dialogic communication capacities of online communication media of organizations may be researched (Peluchette, Karl, and Coustasse, 2016).

Voice search enables people to reach information by using voice commands. If website has providing better explanation than AI of voice search will be directing

people to that website which corresponds to related information. Meta description is description for each hypertext and page on the website which enables people to find related content to their inquiries depending on keywords. (Global Web Index Report, 2020) The description of visuals is another important communicative function that both enables websites to be reached and via visuals and helps people with visual disabilities to understand information online. The concern is here providing correct and simple explanation that make people to visit the website and provide related information to search engines to make them relate the information with inquiries more accurately (Hariri, 2013). Henceforth, technical improvements that are required by web 3.0 era should be also added to the coding procedures of dialogic communication research. which are changing the chance to communicate with publics online.

5.5.2. Practical Implications

As the world has experience with the pandemic conditions of last one year has demonstrated the advantages and disadvantages of online media. Even though with the beginning of Covid-19 outbreak, an infodemics (Rovetta and Bhagavathula, 2020) also has speeded the inaccurate news that causes chaos. Therefore, Eyrich, Padman and Sweetser(2008) were suggesting PR practitioners to develop their technological skills by addressing that "*as social media tools gain strategic momentum, practitioners are developing skills related to this online technology*" (p.224). During the research new functions have added to the social media tools even just in months, Google has changed its protocol for result pages and AI based technology have leveraged the new add-ons to websites. Therefore, PR practitioners to keep the contemporary technological advancements also should learn and use tools. Also, universities should provide related lectures for PR students from the fields of computational sciences. Even though the rapid changes have actualized in each day, this study may provide a basic check list to follow to build better websites and social media accounts for health organizations and for public relations practitioners (McAllister, 2012).

The share of patient testimonies or stories via organizational communication channels is increasing. The popularizing effects of podcast, vodcast and webcasts incline people to reach information via those tools(Diddi and Lundy, 2017). The increasing use of YouTube and IG TV shows thar personal narratives are valuable. Chou et al. (2011) exemplifies that share of personal narratives of cancer survivors on the YouTube platforms. Similarly, Instagram has facilitated the IG TV beginning

with 2019 which allows people share videos on platform. Facebook have Facebook Watch. To enhance the dialogue with publics organizations may use the IG TV or Facebook Watch as an open-speech space for their publics or could be created an e-community for specific health conditions, newborns, or pregnant women or for elder people by which patients will be supported (Aardoom et al., 2014). Their patients -if they wanted- can send videos about their recover phases, or their treatment processes. Also, organizations may also provide interviews with patients alongside with the interviews with the doctors. Because most of the accounts has online-video of interview with their physicians about their specialization fields. Providing videos both interviews with patients and doctors on similar disease or treatment may have create a genuine dialogic communication on the content itself. Community building efforts on social media and website could facilitate coherently by using the latest features that have launched for creating patient engagement and to enhance patient centered OPR strategy. (Ornes, Paulson, and Snyder, 2014; Phillips and Scheffmann-Petersen, 2020).

As an example of practice, Mayo Clinic which is a non-profit organization that operates internationally has example of best practices for online communication on websites. For example, on Mayo Clinic's website, an application called symptom checker is helps people to find out the related health service according to their symptoms. This kind of application could reduce the appointments which have taken from wrong service. Also, they are providing an dictionary of diseases and conditions that people can read and understand what they are going through. For practical implications such best practices could be taken as an example for improving the organization communication online. For following consumer driven health plans (CDHP) to optimize the OPR between patients and hospital, digital qualifications for personal health record (PHR) as patient log-in options to personalized web pages on websites, personal digital assistant (PDA) as application which could be integrated to the hospitals' online communications, interactive health communication applications (IHCA), and spaces for online health communities(OHC) for sharing personal narratives on experiences should be advanced.

The research indicated the urgent need for nationwide statistical data that will contribute the academic research era as well as the health business sector for innovation. For example, Health Information National Trends Survey (HINTS) (Calixte et al., 2020; Chou et al., 2009; Huo et al., 2019) is survey study which elaborates the future trends in health sector and determine health or medical related

needs by evaluating the nationwide demand form the health services. And finally, in USA hospitals' scores are evaluated by Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). It is a scale which uses the data from both surveys and commercial rating websites and accepted the industry as well. In Turkey, similar scales could be prepared for both beneficiary of health sector and people . This kind of data would be helpful for organizations to develop their services while also provide people an information which obtained not just from organizations' online communication tools but also from different sources. Also, social media may provide data via the polls, ratings and user responses to surveys (Van Dijck and Poell, 2013) To advance dialogic communication the scores of hospitals may be manifested on organizational websites (Bardach et al.,2012).

5.5.3. Managerial Implications

This research could be beneficial for the crisis communication strategic plan for the organizations. Applying dialogic communication principles on the online platforms could be helpful to reduce any harmful situation or act to the organization or to the people. Taking an action before any health crisis occur on online communication platforms would be the better solution for risk management (Yu et al., 2020). Because the online crisis management is one of the hardest issue managements within the public relations and could be much more harmful any other crisis because of the nature of web by which any issue spread in seconds (DiSatso et al., 2015), public relations and communication professionals and corporate communication specialist need to evaluate and moderate better online reputation and communication with the publics of an organizations. Therefore, the results of this research and the content features that examined may be a guide for the organization to create better communicative spaces on their online platforms.

Contemporary world is threatened by the infodemics(Rovetta and Bhagavathula, 2020) which creates a chaotic communication even on simple health related issues. This information pollution is mostly created and disseminated as the result of profit-seeking perspective of companies, media institutions and individuals on online platforms. On internet, almost every media institution, health professionals or organizations are creating a webpage about every single medical treatment, medical condition, illness, health care practices, alternative medicine, and medical diagnostics. Those informative webpages generally are not depending upon official or professional

doctor view or creditable academic knowledge, instead this information is provided through the online sources. This kind of act which is mostly derived from the profit-making intent of corporates for their own interests, may cause highly critical conditions which leads to crisis. The use of social media accounts and web pages for the purpose to disseminate the formal and accurate health information as an online health communication could be facilitate by both private and state-owned hospitals via supervision and inspection of health ministry. If they are claiming that they are providing health information for the purpose of for preventive medical care practices, contents should be investigated for preventing any breach of patient privacy or dissemination of misinformation (Esmaeilzadeh, 2020; Parthasarathy and Knight,2020). The blog posts on hospitals' websites should be reviewed by health professionals on the issued practice field and the name of the health professional should be provided. Even though medicine is a positive science area, the application of the science is depending and changing on its practitioners' individual qualifications, cultural backgrounds, demographic dependencies, and personal prejudices (Hofstede, 1984; Lin and Ho, 2018).

Organizational level researches on the digital corporate communications concerns on crisis management and consumer complaints on Facebook (Champoux et al., 2012) may give an insight for the communicational needs of audiences, but implication of dialogic communication principles before any crisis occur could enhance better communication while also decreasing the risk of any crisis related to digital communication. Anderson, Gilkerson and Swenson (2016) in their article depict the co-creational model for engagement and dialogic communication. They offer dialogic communication for the management of crisis communication. Therefore, the application of dialogic principles on online channels may be reduce the risk of crisis by enhancing trust of publics of organization.

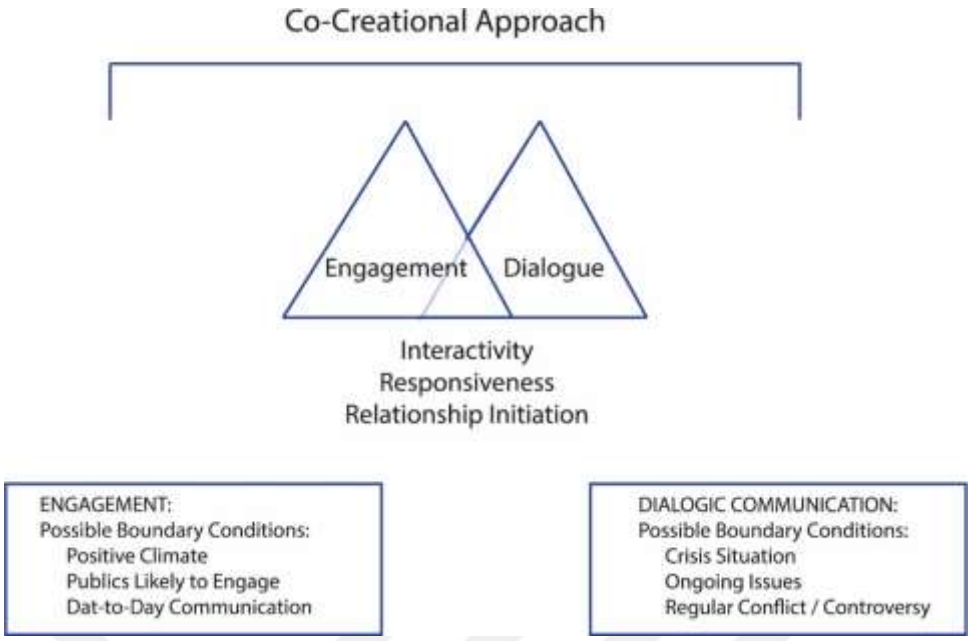


Figure 13. The Co-creational model for engagement and dialogic communication, by Anderson, Gilkerson and Swenson (2016).

Berthon et al. (2012) suggests that five axioms for managers to understand the creative consumer and to enhance the organizational communication on social media accounts. First axioms as *"(1) social media are always a function of the technology, culture, and government of a particular country or context*" is very important to understand and evaluate the changes and differences amongst the countries.

Even though the human body has similar functions and resemble structure on every part of the world without any discrimination of race, nation, belief, or opinion (by not considering the divergent conditions of human body related to specific conditions, age, sex etc.) the communication on health and human has divergences according to the culture, socio-economic structures, and institutional habitus. Therefore, it is important to understand that one application on online health communication in different country may not be successful on other. Or technological advancements with high speed of innovations sometimes foresees to apply different types of same SNS as beta or theta formations of new qualifications could only be reachable for specific countries. For example, for a considerable time voice adding to the stories on Instagram has not launched in Turkey whereas it is useable in America. Resemble to this, difference on regulations on specific sector defines the context of communication. For instance, in Turkey is highly restricted to make advertisement for

health-related services and products. The context of health sector also definitive to apply any communicative functions. Before creating a strategic communication plan it is important to understand the technological and regulative restrictions and possibilities of that specific country or local context. Secondly, *"(2) local events rarely remain local"* is an axiom which fits our contemporary world considering the Covid-19 pandemic. The pandemic health conditions also create its special health communication which elaborated through the world. Therefore, the motto which is always used as think globally act locally is guiding words for any communication professional or any organization especially in terms of online networked communication. Related the third axioms reaffirms the previous axioms which is suggested as *"(3) global events are likely to be (re)interpreted locally*;". Even though global actions have taken, and global communication solutions have found, local culture still the determinative about the terms of organization-public communication. The fourth and fifth axioms which are formulated as *"(4) creative consumers' actions and creations are also dependent on technology, culture, and government; and (5) technology is historically dependent."* have theoretical roots rather than practical. Here these arguments intensify the importance of understanding of the uses of social media and internet-based communication channels. In other words, to achieve these five axioms by Berthon et al. (2012), applying principles of dialogic communication is becoming more essential for managers of organizations when considering the powered creative consumers via the variety of social media and AI powered applications.

For the state-level new regulations should be prepared for the online health communication and online health information retrieval. Any kind of health information that are disseminated by organization should be supervised by commissions to prevent any privacy breaches (Esmaeilzadeh, 2020; Parthasarathy and Knight, 2020). Also, health blog posts on websites of hospitals should published via the name of the author and / or the name of supervisor on issued field of the article. Another state-level implication could be the regulation of e-visits, online payment and online prescription. In future, e-visits are predicted as one of the increasing practices of online health communication. The regulation of field could be beneficial to apply e-visits without breaching privacy of patients(Esmaeilzadeh, 2020; Parthasarathy and Knight, 2020).. E-prescription is another issue that could be obtained from e-visits to hospitals or health professional without physically going to any hospital. The

regulation of online prescription by defining its limitations and boundaries should be taken into the agenda of health ministry. And, via the option of e-prescription and e-visit, the density of hospitals may be reduced and relatedly health professionals may reach better working conditions.

Finally, in Turkey there is limited organization for health communication. There are organizations and associations that works for information and communication technologies on health, mIOT, interactive health communication(IHC) on online platforms and health information technology (HIT), or facilitate as online health communities(OHC) such as The Digital Health and Care Institute(DHI), Health-On-The-Net Foundation (HON), Internet Healthcare Coalition (IHCC), Health Information National Trends Survey (HINTS), Healthcare Information and Management Systems Society (HIMSS), International Communication Association (ICA) etc. which could be taken as sample for establishing national organizations or associations for health communication. New websites to communicate with publics about health research, health information and health innovations. Maybe databases should be provided to comprehend nationwide applications.

5.6. Future Research

Acknowledging from the results of this study, results has addressed a number of new research studies as future research fields.

Research scope and theory. This research study is evaluated with the conceptual frameworks of the theory of dialogic communication. As a research method, descriptive content analysis is applied for researching the presence of dialogic communication principles on online platforms of hospitals (Schreier, 2012). And study is applied by examining the manifested content on the structure of platforms by the organizations. The research scope could be broadened to comparison of different geographies or dialogic health communication in relation to the demographic differences could be considered for dialogic research on online tools of hospitals.

Research upon the specific dialogic principles or features. There are some studies upon the specific features of dialogic communication such as engagement (Kent and Taylor, 2021) or specific principles such as dialogic loop (Pons, 2019) on

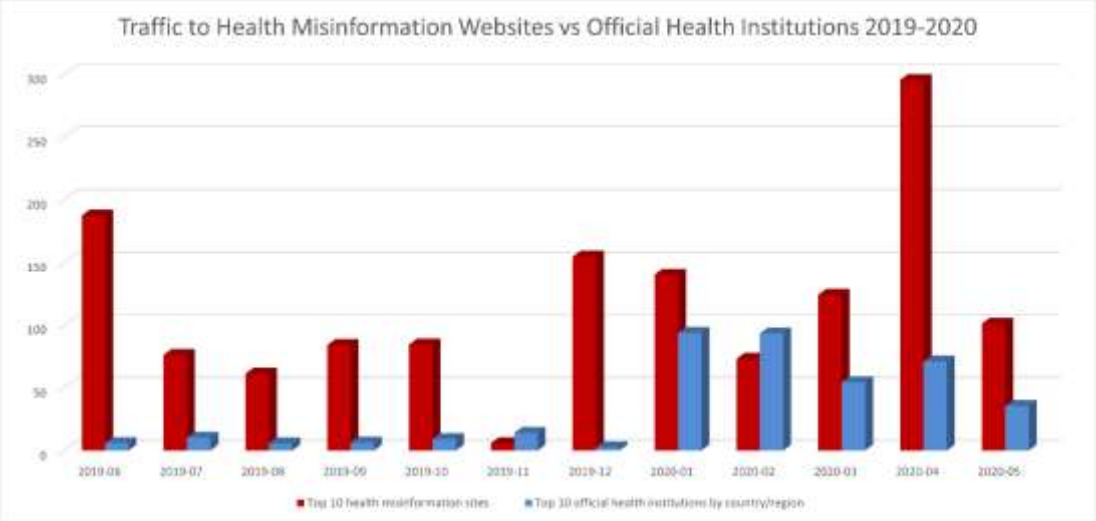
websites or social media are researched. In Turkey, the features of dialogic communication could be studied in scope of health communication.

Trust/ Risk. Organization-public relationship (OPR) is examined and discussed by various studies to search the effects of dialogue and the cultivation of trust between organization and its publics in both online and offline communication settings (Cheng, Shen, and Jiang, 2020; Huang et al., 2020; Chen, Hung-Baesecke and Chen, 2020; Park and Reber, 2008; Yang et al., 2015). Likewise, because the trust one of the most valuable assets in terms of healthcare, and the effects of dialogic features on building trust between the hospitals and their publics could be an important research study that can provide an insight about the impacts of online health communication practices (Huang, 2020; Rahimnia and Hassanzadeh, 2013; Yang and Lim, 2009; Yang, Kang and Cha, 2015; Yen, Phua and Wu, 2020). For example, when people searching about hospitals or doctors, for getting better treatment, also they are in search of trust as well (Niu et al., 2021). The trust factor on health communication is really a vital difference whether can cause life or death conditions. The degree to whether people trust to hospitals' online communication channels or not in relation to the dialogic communication capacities would be valuable research to understand the effects of dialogic communication presence. Odel and Poerson (2019) compares the trust models according to organization -centric and person-centric (in organizational context) models. Organization-centric trust is mostly between a user and formal services or trust between the organizations. Within this model quality, security, safety, and resilience are the main indicators to evaluate the degree of trust to organization or between the organizations. As the second model, The person-centric trust is indicating the trust between people or trust between formal and informal services. With this model the ability, integrity and benevolence are required for the existence of trust. Similarly, perceived trust and brand awareness is becoming one of the vital indicators in terms of health and hospital choice. For understand the effects of dialogic communication presence on online communication channels of hospitals, the relation between perceived trust and content that creates brand awareness could be studied according to the proposed model by Lou and Yuan (2019). Besides those trust models and their effects to the trust as one the features of dialogic communication amongst *propinquity, empathy, mutuality* could be considered specifically in terms of health communication setting.

For online health communication the risk is both for publics and organizations are misinformation and fake news. This research revealed that there is a need for health communication researches in Turkey which primarily concern on the online channels in terms of health information search behaviours (HISB) (Makesh, and Rajasekhar, 2020; Sarı, 2016) of citizens and on accuracy of the information that is flowing on internet. The Table 64. shows that traffic to the websites which are providing the misinformation comparing to the official health institutions between the years of 2019 and 2020. As it is calculated for each month, the spread of misinformation is faster than official accurate health information. Therefore, the concept of misinformation and impact of infodemics or fake news on medical and healthcare context should be studied on online communication channels Jahng, 2021; Rovetta, and Bhagavathula, 2020). With those complementary studies the dialogic capacities of online channels of hospitals would be improved.

*Methodology***.** Besides this content analysis-based research, also the degree of trust to private hospitals depending upon the features on their websites or the content they have shared on social media accounts could be researched by applying survey. This research is only applied to the online assets of hospitals. Only the features of websites and social media is considered. To evaluate the perspectives on presence of dialogic communication, the use of internet according to the generation and age(Subrahmanyam et al., 2008) could

Table 64. Traffic to Health Misinformation websites vs Official Health Institutions, 2019-2020



be researched by applying online survey method or semi-structured in-depth interviews. Additionally, other demographic indicators as such education, income could be categorized as secondary variable. In this study the research is applied to the online assets of hospitals. Only the features of websites and social media is considered. To evaluate the perspectives on presence of dialogic communication, the use of internet according to the generation and age could be researched by applying online survey method or semi-structured in-depth interview. Additionally, because Facebook and Instagram provide suggestion according to networks and health related decision-making process are mostly yielded by recommendations.

Correspondingly, worldwide journals level health communication researches are regularly reviewed by researchers (Feeley et al., 2010) which are very valuable sources to whom will study about the health communication related research fields. In Turkey there is gap about the review-based research studies that can help further studies by systematically reviewing and examining the issues, authors, or journals within the context of health communication. Those kind of researches in the fields of online health communication and communication channels contributes to the research area as well as helps researchers to find the credible sources of the field, follow the prominent researchers and discover the recent issues and research topics that have been studied (Ao and Huang, 2020; Boulianne, 2015; Chesser et al., 2015; Eriksson,2018; Kim et al., 2010; Madathil, 2015; Moorhead et al., 2018; Morehouse and Saffer, 2018; Reader, Gillespie, and Roberts, 2014; Sanchez et al., 2017; Sharma, Nahak, and Kanojia, 2019; Stoycheff, et al., 2017; Tao et al., 2020; Thapa et al., 2021, Wirtz and Zimbrez,2017). There are several systematic review studies on dialogic communication and / or health communication for English-written sources (Aichner, 2020; Ao and Huang, 2020; Bougioukas, et al., 2020; Feeley, 2010; García-Orosa, 2019; Nazione et al., 2013; Wang et al., 2019; Zhao and Zhang, 2017). There is need a systematic literature review which is research scope is Turkish-written studies (Becerikli, 2013) or researches upon the health communication in Turkey would be valuable contribution to the field. Another perspective to research scope, would be longitudinal studies to understand the how PR communication of hospitals are changed in terms dialogic communication (Liu and Jiang, 2021; Wright and Hinson, 2017; Van de Belt et al., 2012).

*Sample type and size***.** This study is restricted to the list of private owned general hospitals that is published by Health Ministry (2020). Therefore, to understand the differences and similarities of dialogic communication capacities of the websites of private-owned and public hospitals, the question of what differences and similarities of the presence and application of dialogic principles exist on websites of those hospitals could be answered by further research studies.. There are similar studies that compares the public relations practices and communication capacities of private owned and public hospitals (Başok Yurdakul and Öksüz, 2007). Accordingly, a study to compare the private and public hospitals' online dialogic communication capacities in Izmir may have provide both academic and practical implications for the health sector. As the scope of methodology, in this study the content analysis of visuals or texts are excluded. For the presence or absence of dialogic communication on websites and social media accounts of hospitals only features are researched as suggested on previous studies. Furthermore, comparison of online healthcare systems and e-healthcare facilities of different countries could be beneficial (Alasaarela, DeMello, and Nemana, 2009)

Type of research unit of analysis. Another data is shown about the other social media platforms, YouTube and LinkedIn, which are the most present and linked on websites of hospitals. Here the YouTube and LinkedIn are accounted in terms of the existence of direct links from websites of hospitals to their social media profiles. The high amount of YouTube accounts which is counted as 11 directed links from the websites, indicates that the video as a medium is becoming one of the important communication media in terms of online social communication. In terms of health communication, the use of YouTube is increasing which enables people to listen doctors online or live sessions.

LinkedIn also may create a network for health professionals as well as adding value to the reputation of hospitals. People prefers to decide on doctors before the hospitals which is also understandable considering the dialogic tools on websites mostly encouraging the relationship between patients and doctors rather than the organization-public relations. As a network platform LinkedIn use could be studied by the age group. Besides all, shared posts of organization, their types and content appeal may ve researched in terms of dialogic communication with publics (Tafesse, and Wien, 2017)

Types of medical social media. Denecke (2015) categorizes the types of medical social media as collaborative and non-collaborative social media. according to type of data as meta data or content. For the content part, collaborative content is considered as medical wikis, whereas the non-collaborative medical data defined as blogs, video-blogs, podcasts or personal health records. As for metadata, author identifies social bookmarking and social networking sites as collaborative medical social media meta-data whereas reviews, forums and Q&A portals are considered as types of non-collaborative metadata of medical social media. As outlined on the literature review, online health communication is not only restricted with the hospital websites. There are also forums and rating websites for / about hospitals, governmental organizations, or doctors.

Specific Functionality of SNSs. There are adhesive studies on the specific functionality of SNSs such as alerts, votes, ups or functions for revisability and activity log, status update, like, comment, catalogs of photos and entries, history of activities and discussions, followings, subscriptions and tags (Boyd, 2010; Leonardi, Huysman, and Steinfield, 2013). How those function affects the communication and how they preceded the communicative action between organization and public are in question on different studies. For further inquiry to understand the impact of specific functions on dialogic communication, the new added features should be studied. For example, Twitter has activated new functions such as view list. Those qualifications are enabled according to the demand of publics for more dialogic communication. Similar to these bases, Facebook has announced chat rooms or Instagram recently updated IG TV, Reels function which is similar to TikTok and recently direct links on stories. The qualifications on social media such as view moments, view lists, add/remove from lists, view topics, mute, block, report, or new features on websites and how they used by organization could also be studied by applying in-depth interviews with practitioners or end-users. Facebook and Instagram provide evaluation metrics to organizations about the features to for creating better content such as Reels metrics, plays, accounts reached, number of likes, comments, saves, shares, or live video metrics and account insight. Those number could be evaluated for the comparison data for the effects of dialogic use of social media. All those functions could be studied to understand the dialogic communication capacity of organizational communication media for build-up relationship with their publics.

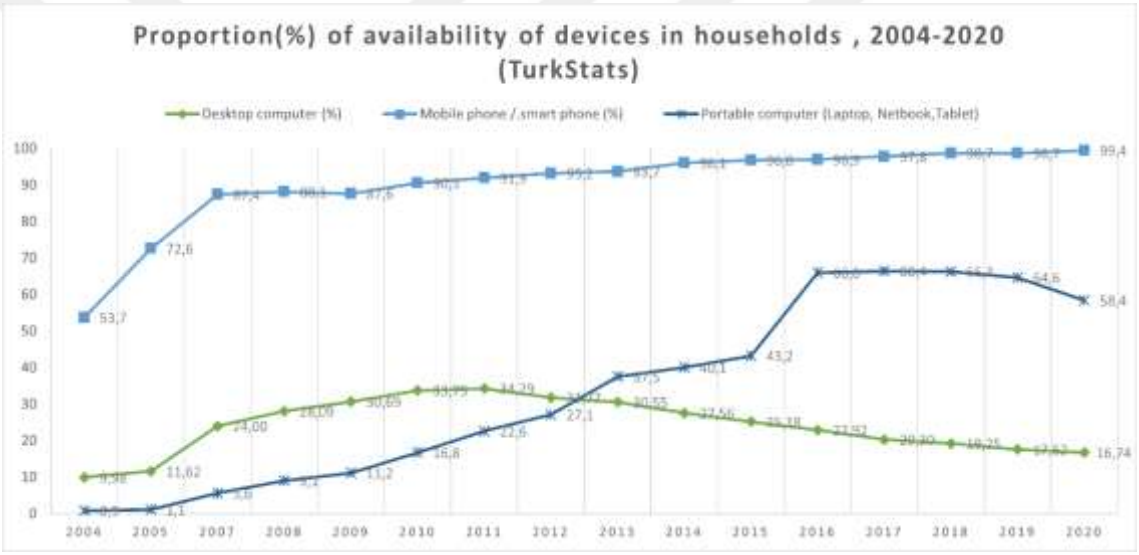
Design and function. Social media also enhanced the visual communication in our lives that design elements of websites or visual design of content that shared on social media can be decisive experience to make choice about any service or product. Depending the degree of responsiveness, the speed of website, became one of the determinant variables to stay on page or not. The more people stay on web page the more they willing to get informed, purchase goods or decides to get services. Therefore, dialogic communication criteria's that indicates the importance of user-friendly design and quality of responsiveness could be researched with mixed methodologic approach. The presence of those features may ve studied via content analysis whereas the user perception of those features could be researched to understand whether the perception of existence of features are align with the degrees of presence or not. Another technologic feature that most of the hospitals have announced is e-appointment and e-consultation opportunity on their websites. To evaluate the dialogic communication occurrences those e-services may be examined. Furthermore, as the TurkStats (TUİK, 2020) data have shown the device preferences is shifted from computer to the mobile / smart phones. Therefore, applications of each social network sites are preferred more than reach through the URL link on web search. Additional research may be applied to the front-end and back-end developers to understand their perception and function to design more dialogic applications for the end-users.

Mobile vs computer mediated communication. There are important differences of between the reach to the hospital websites and social media accounts from PC or from mobile phone. Because also applications and web sites have different frontends designs which are accord with even the model of mobile tool. The responsiveness degree is effecting the uses of websites as well. The comparison between the presence of the dialogic communication features of websites and social media by reaching from mobile phone and from PC can be studied.

Because the main theory is derived according to the computer-mediated communication, this research is applied based upon the computer-mediated reach to the social media accounts. Beginning of the research, one of the coders applied the coding by controlling the qualifications from mobile application of social media. Coder explained that, the application-based usage is already set up on minds as reaching from the mobile phones instead of computer. Therefore, the research on social media have replicated on consensus by applying computer-mediated research. It was

an important data for research process also, even the coder-training have been instructed; in terms of social media the mobile phone became the first choice of use. According to the TurkStats (TUIK) the ratio of availability of mobile /smart phone in household by 2020 is calculated as 99,4% , the portable computer is calculated as 58,4% while desktop computer has the percentage of 16,74% (See; Table 65.). Considering this data, the increasing use of mobile phones also enforces academicians to adapt these new tools. To comprehend more insight on the presence of dialogic communication further researches may be applied according to the device preferences.

Table 65. Proportion of availability of devices in households, 2004-2020 (TurkStats)



*Social media and health communication ethics***.** Data-privacy and data protection issues are becoming one of the prominent topics of the healthcare industry considering the overwhelming breaches that both harmed the organizations and publics via the high-speed progress of internet and technology (Parthasarathy and Knight, 2020; WARC, 2020). Electronic health records, new health related mobile applications and website functions for e-results, e-consultation or government-based applications that keeps the data of EHRs are making easy and reachable to personal health information whenever and wherever people want. However, these services also brought the issues of data security (Paturusi, Sukarsa, and Sasmita, 2012). Therefore, the protection of health information is becoming one of the important research fields

in future. Even though there are regulating rules such as specifics of the EU's General Data Protection Regulation (GDPR) or state privacy laws in Turkey which is the Regulation on the Protection of Personal Data (KVKK), there still the conditions that enforces people to grant consent. Furthermore, the protection of personal health data could be studied in different perspectives considering the social media posts about the patients or websites e-services functions of hospitals.

User perception. The study was limited to the online presence features of the hospitals' practices. Therefore, the dialogic capacity is only examined according to the message creator/sender/coder perspective which are the organizations. To understand the user perception and, to make the research dialogic in itself as well as in terms of research method the user / consumer perception should be also studied. The acceptance of those features on websites as whether dialogic or not should be examined by also defining the expectations of visitors of hospitals' website and social media (McCarroll et al., 2014). Equally important, the factor of trust especially in health sector is a determinative to choose physician, hospital, or online health websites for online health information (Benetoli, Chen, and Aslani; 2018; Behl et al., 2020). For example, Champoux, Durgee and McGlynn(2012) research the importance of consumer complaints for crisis communication management on Facebook. Research studies upon user perception of online communication platforms of hospitals would be important research that may help to understand the audiences and to gain insights for providing better dialogic communication.

Geographic and demographic limitations of the research could be an informative guide to practice new research that comparing the hospitals on different regions or cities. As Gans (2020) have pointed about there are publics are not targeted, limited-served or not represented via the types of contents that have provided on communication media tools of hospitals. Also, to understand the user perceptions from different demographic segmentations could be researched to understand the dialogic communication demands of different stratifications of society (Calixte, 2020; Rampersad and Althiyabi, 2020).

Technology and cultural preferences. Cultural differences may affect the technology acceptance (Lin and Ho, 2018). For example, according to the results of the research, Twitter is not used as dialogically by hospitals whereas the uses of Instagram and Facebook are the communicative spaces for interaction with publics. As the social media preferences, health communication practices on participatory

media (Della et al., 2008) and the channels of health information search online (Parshakov, Permyakova, and Zavertiaeva, 2020) have been chancing according to the cultural preferences of publics. Therefore, this may also effect the use of any social media platform for health information search or establishment an OPR for health communication. For the communicative preferences of societies, one social media platform would provide more functionalities that related to the communicational practices of the people which they have used to than another social media. For example, Facebook is preferred by higher amount of people in Turkey comparing to Twitter as the data indicates that is provided by the global search index and We Are Social (DataReportal, 2020, We are Social, 2021). Besides, the preferences of type of social media; the decision for using or not using social media may be change in according to the age group, gender or any other demographic reason (Bobkowski and Smith 2013; Calixte, 2010). Depending on the results of the research, by comparing with the previous studies on dialogic communication research of hospitals' websites and social media, in this study it may be said that the cultural differences on communication practices changes people's social media preferences for health communication and health information search.

e-Patient / Customer / Creative Consumer. The definition of patient is also evolved to the e-patient via the technological advancements and development of online health communication both in terms of applications, web pages and potential for information retrieval. Therefore, the perception of e-patients has also changed and affected by the virtual environment even more before as well as their description. Uses of dialogic features and principles on websites or social media and their effects on e-patients / consumers could be research. Also, preferences of e-health consumers could be retrieved from health-related forums, or Q&A web sites. The difference amongst the uses of mobile applications of social media for health communication also would be valuable contribution. Besides those, the dialogic communication capacity of medical information web sites or social media tools for medical students would be resourceful guide for the future studies of medicine education. The Covid-19 pandemic has created global need for common health solutions. With the free movement of people, services, and products, from one country to another increased the health concerns. Therefore, the comparative studies which will examine the similarities and difference between the dialogic health communication practices of two or more

countries could be valuable academic information as well can present practical implication for the improvement of health sector(Alvarez-Galvez et al., 2020).

The ultimate varieties of information sources are derived online via search engines. According to research by Forrester research %93 of people is retrieving any information and reach to websites by use of search engines. Dependently results on search engines are differentiate according to the user-experience, user-preferences and choice of search engine type. The evolution of search engines through the web history has also transformed the information retrieval which are sorted according to the artificial intelligence algorithms (Bar-Ilan, 2005; Grind et al., 2019; Shahzad et al.,2020). Therefore, even though the results for information queries are getting more personalized, the device ownership by household is also changes the results that are shown. To understand the differences of informative content according to the different search engines and or search inquiries, hashtags and mentions could be researched in future (Alicino et al., 2015; Anuyah et al., 2019; Goel et al., 2010; Krrabaj,and Sadrijaj, 2017; Rovetta and Bhagavathula, 2020; Teixeira Lopes and Ribeiro, 2011).

Technology and health. In terms of technologic developments, cloud-based implantable medical devices (Alshagathrh, 2018), medical AI and mIOT are chancing the medical care environment as well as health communication (Kim, Singhal, and Kreps, 2014). Practitioners also have to learn to use new devices and new terminologies related to the medical or communicational technologies. Although new technologic devices for treatment brought the simplest solutions to the health conditions also invites new solutions of medical communication. Not only the new devices also interactive health communication (IHC) practices (Murray et al., 2005) enforces the physicians to precede online consultations which also brough new questions for the online health communication (Antheunis, Tates, and Nieboer, 2013). The studies upon the technology adaption and communication channels for medical technology may be elaborated to understand and improve the communicative spaces for the practitioners. Mobile health (mHealth) (WHO, 2011) is one of the growing fields that is part of our lives since PDAs. Nowadays mobile applications by private hospitals or government provide instant health information and online appointment or opportunity to reach test results online without going to hospital. Therefore, considering the new technologies, the mobile applications that have launched by government for e-health records and e-appointments could studied for understanding the user preferences. SoLoMo is an acronym for ‘Social, Local, Mobile’ which is

began to use with the invention of mobile phones and social media. The age of individualized web which is directed with semiotics need local understandings to create communicative solutions. Therefore, once again considering the Berthon et al. (2012)'s five axioms, and the proposition of creative consumer, future researches also could be elaborated on local preferences for health communication through mobile phone and social media. New applications launched by the state which are described earlier have liberated people from the physical boundaries to reach the health results or getting appointment from doctor. One now doesn't have be in hospital physically to have the test results. Also, it is possible to have results on webpages of hospitals if they have defined such quality. Further studies could be specifically made upon these online interactive content and user perception to broad a perspective for practical implications.

New media and health information. For the new media and social networking sites the researches upon the information search of doctors or clinics and, recommendation websites would a valuable asset to understand the consumer preferences and expectations both from the hospitals and doctors. For the field of marketing communications ,because of the strict regulations on advertising, hospitals are not allowed to apply marketing practices directly. But public relations for marketing communications purposes, may create a space to reach the patients/customers for private-owned hospitals. New media for health considering the social media campaigns or any potential tools could be classified and studied for further content analysis. (Abroms, Schiavo, and Lefebvre, 2008).

Public relations, dialogic communication, and health marketing communication. WEB 2.0 has changed the opportunity to reach the organizations on online by widening the fields of communicative spaces. Beginning with 2000s social media platforms began to be released one by one (See: Figure 2.7). The era named as "social web" until 2016 which spreads the communication on different platforms with different functions that is also described above on the literature review part. But, with the rise of semiotic web- WEB 3.0- the search engines became the game-changer for the relationship building between organizations and their publics on online platforms (Krrabaj and Sadrijaj, 2017). Beginning with 2010s both 3D searches, voice search and visual search has added besides the textual search (See; Figure 1.). Here, intensified search possibilities and uses of multiple platforms have also advanced with semiotic knowledge of AI-based search engines. In years Google AI robots has trained by the

users of internet to find out what is intended to be searched instead what is searched. The results are wrong or true, the AI robots of Google began to learn show more accurate or related results. This technology also progressed with the uses of mobile phone by large amount of people which enables AI to relate the results with individuals by depending on their application-based accounts. Besides some possible errors on predictions, these kinds of technologies have also leveraged the OPR. For example, Google advances organizations by helping them to create online advertisement via GoogleAdwards. Similarly, Facebook and Instagram (owned by Facebook) have an option to advert on social media platforms by using Facebook Business. Paid media on internet and advertisement, or search engine marketing (SEM) filters the reach to audiences, therefore segment the consumers depending on the search.

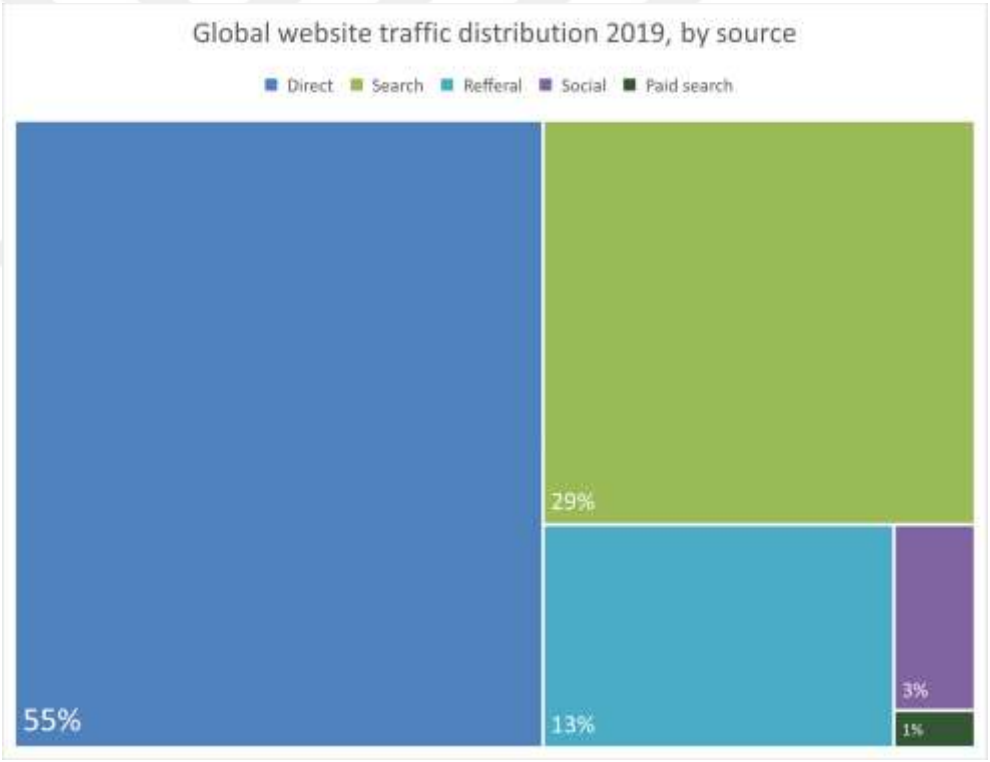


Figure 14. Global website distribution by source, 2019.

This kind of online advertisement and SEM enforces to communication professionals to apply search engine optimization tactics to be found on internet with the related keywords(Anuyah et al., 2019; Shahzad et al., 2020). Because search engines sort and show the web pages according to their content relevance to inquiry on the search engine result page (SERP) (Krrabaj, and Sadrijaj, 2017). As could be

seen on Figure 14., according to the SEMrush, the percentage of direct reach to websites is 55%, while reach to websites by searching is 29%. Although it is evaluated as 1% of the global website traffic is from paid searches which are also directed by advertisement. And 13% of website traffic is directed from social media(SEMrush,2020). Therefore, the comparison of sources of website reaches may also provide a data which could be obtain from the webmasters.

Content creation, design and SEO. The order of web sites on SERP advances some organizations to be reached than others as well as also creates option to communication if they have used related keywords according to the search. Therefore, to begin to communicate on webpages, hospitals or need to be found via the related health-keywords and terms to be reached by the publics. Relatedly, even URL design has differentiated the degree to which any webpage can be found or not on search engines(Pohjanen,2019). Depending on this PR applications on online platforms for advertising and for marketing communications intentions could be examined in future studies. The effect of SEO, most searched keywords and the web pages related to those keywords (Krrabaj and Sadrijaj, 2017; Linh Nguyen, 2020; Mashrafi, 2017; Miklosik and Evans, 2020; Martinez et al., 2016) could be studied in relation to the hospital's webpages and their dialogic communication presence on websites.

Additionaly, for marketing purposed content creation is highly important to have unique views (UV) that gives the number of different users who has reached the website. But on the contrary, for public relations, the rule of generation of return visits is very important to create dialogic communication online with the publics. Therefore, instead of UV it is important to reach the data of repeated visits by same people in terms of to understand the how dialogic website is. As a resemble qualification, the time span for staying on page, which is known as bounce rate, is also very important data for digital marketers to evaluate the conservation of visitors which is highly important that the UVs are not has high bounce rate. This rate is valuable for digital marketing both to understand which content people prefer most, how people are appealed and visited the website. Also, the duration of stay-on-page or bounce rate advances the webpage on SERP lists by moving up the website to the top of the ranking. In terms of content and design, for digital marketers the user interface (UI) which is also issued as ease of interface principle for dialogic communication potential of website by PR, and user experience (UX) related to interface is highly important to be ranked on SERP. UI and UX can affect the decision to stay on page. Kent and

McAllister(2009) have suggested that future studies should be evaluating the incorporation of dialogic and interactive features on websites to understand the dialogic capacity instead of examining the presence of dialogic features whether exists or not (Kent and McAllister 2009, 237). Considering all merging areas of digital marketing and public relations, the rate of engagement with hospitals through practices of digital marketing communications and its relation to the dialogic communication presence on websites could be examined to understand the impact of SEO, UI and UX (Vorvoreanu, 2006) both in terms of content and website design. Also, the impact of success of marketing communication practices on dialogic communication could be another research topic by evaluating the specific principles as such generation of return visits or conservation of visitors. In addition, the type, design and quality of digital content provided via campaigns or posts on social media may effect and encourage the production of UGC which will enhance the dialogic communication (Abroms, Schiavo, and Lefebvre, 2008; Kim and Song,2018; Rowley, 2008).

Social Media Optimization (SMO) is now mostly used for advertising purposes on Facebook Business which allow account owners to be shown related news feeds on user accounts according to the demographic qualifications. Therefore, the communicative spaces are segmented once again according to the advertising selections or keywords that users have searched. To begin any communication and create dialogue one need to be found first. And it seems that the business sector' use of social media is going to be dominated by the advertising facility.

Creative health economies. Creative economies not a new field but it is enhanced via the social media. The field of online alternative economies which is improved by the individual accounts on social media which are created for online selling and buying the product and services, is developing by the market applications and online shopping links added to advertisements. Those functions have recently launched on Facebook and Instagram and, they are updated according to the demands. As example for health-related economies and their positive or negative impacts on users would be a research issue. The effect of dialogic communication on the purchase intends and appeals through the social media may be researched via interdisciplinary perspective.

CHAPTER 6: CONCLUSION

In conclusion, dimensions of social interaction are multiplying in both virtual and concrete social spaces which continue to affect each other interchanging. The mutually dependent natures of virtual and material words of contemporary age, are updating the communication as well as organization-public relationship. With the existence of new media, people who leveraged the equivalent power of getting and spreading information, demand better health communication practices which is easily integrated between the online channels. The social media sites have revalued genuine human-organization communication by accelerating the simultaneous communication facilities. The pandemic that the all world experienced with hardest conditions has also leveraged the online communication. Therefore, online health communication and online health information search became one of the upcoming issues that also facilitate the uses of websites and social media.

In this study, the dialogic qualifications of websites and social media of hospitals are researched with the dialogic communication theory. The websites and social media accounts of hospitals are not using dialogically. The overall percentages for principles of usefulness of information and ease of interface were calculated with higher results amongst the other principles. Therefore, it could be said that hospitals generally used those communication tools for providing information about organization, services, and facilities. One of the interesting results that study has revealed is the lack of creation of communicational spaces on websites and social media for different publics. Depending on the results, on the suggestions part, theoretical, practical mand managerial implications for future studies and OPR practices are explained. The limitations and finding of the research have provided new research areas which are explained also at the recommendations for future studies part.

Varey and Ballantyne (2006) have identified three distinctions between types of interactions as which are *informational*, *communicational*, and *dialogical interaction.* They differentiate the conversational approach with dialogic communication by indicating that "*In creating a nexus between dialogical interaction and relationship marketing, one problem is that common use of the term can often mean no more than a conversational approach to stimulating a hoped-for purchase and/or use-of-product response."* (Varey and Ballantyne 2006, p.14). Here not all communicational

approaches are dialogic conversation-based approaches as well as not all conversational approaches are accepted as dialogic relationship. Reconsidering the finding of the research, the PR communication of majority of hospitals are regarded for marketing purposes. Except two hospitals, the dialogic communication-based relationship building intended tools are not used by the hospitals. Consequently, because of this research is only focused on the dialogic potential of relationship between organization and publics via the use of website and social media, the study restricted with the public relations practices of organizations. To comprehend the demands of both organizations and publics, further studies suggested on discussion chapter.

To conclude, the field of health communication is growing, developing, and promising sphere for future researches. It is understood that with the worldwide online virtual communities, the dissemination of news, services, products via social media and web are fast as they have never been before. the effects of the globalization and increased world population became more visible. And the increasing demand on health services and medicine have enforced rapid evolution of tools and channels of health communication. As the promising research area of public relations, dialogic communication, and online health communication should be also evaluated within the clusters of new AI-integrated applications and health technologies in relation to the user generated information systems ((DesAutels, 2011). The demand on health services and online health information has created its own specific economic structure which directs people to related services and products. The privatization of health services and increased use of social media and internet have affected the health organization in terms of both service supply and ways of communication. The relation between health communication, technology and new media which are gained fast pace of change related to the health information technologies (HIE), mIoT and AI, and recent developments should be evaluated for the future of online health communication.

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APPENDICES

APPENDIX A. Coding Procedures for the Research of the Dialogic Communication Presence on Hospitals' Web Sites and Social Media Accounts (Facebook, Twitter, Instagram)

Materials included:

a) General information for the procedures for each dialogic communication features
b) Procedures of coding for Website
c) Procedures of coding for Facebook
d) Procedures of coding for Twitter
e) Procedures of coding for Instagram

Introduction:

The aim of this research is to evaluate the online dialogic communication capacities of hospital websites and social media accounts. To find out the usage degree of online dialogic communication tools, and their integration with web 2.0 and social media tools, the content analysis will be conducted to the online assets of each hospital which are included in the sample. The assessment of research will be applied by each coder individually according to the coding procedures as described in this codebook.

Content analysis data of web sites and social media accounts are going to be coded into the excel spreadsheet that can be found within attached files.

Each coder should provide the data of day(s) and hour(s) that s/he has spent during the coding procedure. Also please provide the date and hour data by taking screenshots of each homepage of websites and social media accounts.

The qualifications of each feature should be discussed by the coders to specify a mutual understanding for the assessment of coding, and for producing common set of coding rules to avoid inconsistency. The coders should be decided to time and date interval of the access to websites to ensure the equal evaluating. Also, coders should be agreed upon the same type of search engine that they are going to use during the research process.

A) General Information for coding procedures:

Please complete the following information on the first page of excel spreadsheet.

1. Type coder number as indicated. (initialsofyourname_date / e.g.TNS_220521)

2. Type date and time information of the access to website / social media of hospital as the following format. (DayMonthYear_HospitalNameCode e.g., 260721_A)

3. For Website coding, Search the name of the hospital by typing to the search engine box and paste the URL address of hospital website to the information page of the spreadsheet (exclude http://)

4. For social media account coding: Search the name of the hospital by typing to the search engine box by also adding the name of the platform that is coded. (e.g., X hospital, Facebook / X hospital, Twitter / X hospital, Instagram)

5. Any additional concerns, possible errors, indecisions about coding questions or remarks should be sent to the lead researcher via e-mail. For further questions please contact via e-mail. For the criteria of the validness of the coding please read the additional information at the following section. Then, if there are any other uncertainties, please contact with the lead researcher.
   Additional information:

   • If hospital has additional Website or social media accounts, please only code main hospital website and /or official page which is for Turkey.

   • And if there are more than one social media accounts, please provide only their names and types. For example, type after the names of other accounts as their functionality according to language or specific health conditions: for English /Arabic/ Russian speaking users or for rhinoplasty, for plastic surgery etc.

   • If two or more hospitals have merged during the research time, please contact with lead researcher and type the sample item as invalid.

   • If hospital Web site is shown as “under construction” or not has any Web site, please contact with lead researcher, and remark the sample as invalid.

   • If hospital does not have a social media account for specific SNS or not have any shares on the specific account(s), the sample of that social media account research becomes invalid. Please type the account name with “not exists” or “not have any shares” and contact with lead researcher.

B) Research Codebook of Dialogic Communication Presence for Websites:

I. Provide the general information that is detailed on previous section.

II. Please code the first section: "ease of interface".

1. Site map: Check the availability of site map.
   Sitemap operates as navigation for the other sections of websites mostly placed at the end of the homepage of websites or provided as link.

- If "absent" code "0".
- If "present" code "1".

2. Major links to the rest of site: Indicate the code number to mark the major links to the rest of the website of hospital as present or absent. Links to the rest of the site generally available on the navigational menu on homepage or as text links which allows users to reach to the needed information from other pages of the website.

- If "absent" code "0".
- If "present" code "1".

3. Search engine box: Indicate the code number to mark the search engine box as present or absent. The search engine box in websites allows users to search needed information via keywords within the website which is mostly available on homepage of website.

- If "absent" code "0".
- If "present" code "1".

4. Language option: Indicate the code number to mark the language option as present or absent. Language option is provided on websites as mother language of country of the hospitals that locate and as second option mostly the English language for international users or other specific language for the target market. Language option enables the translation of all information which is provided on website and website frontend from primary language to the requested language.

- If "absent" code "0".
- If "present" code "1".

5. Direct links to press room: Indicate the code number to mark the direct links to press room as present or absent. This feature allows people to reach the press news about the brand or business directly.

- If "absent" code "0".
- If "present" code "1".

III. Please code the second section: "Usefulness of Information for Patients"

6. Description of services: Indicate the code number to mark the description of services as present or absent. This feature provides information for the services that hospital offers. This sections mostly places on websites as the list of specific medical or other departments (e.g., cardiology, plastic surgery, finance and insurance, etc.) and / or list of specific medical treatments or procedures (e.g. bypass, radiation, ultrasonography, etc.)

- If "absent" code "0".
- If "present" code "1".

7. Logo of organization on home page: Indicate the code number to mark the logo of organization on home page as present or absent. The logo of the brands is the emblem of hospitals which helps people to visualize the difference of the brand from other hospitals.

- If "absent" code "0".
- If "present" code "1".

8. Ability to find a physician: Indicate the code number to mark the option of the ability to find a physician as present or absent. This feature helps patients to find the physicians' name, their specialty and background information, and/or contact information and their availability for online consultation.

- If "absent" code "0".
- If "present" code "1".

9. Identification of organizational key members: Indicate the code number to mark the information of organizational key members as present or absent. This section is mostly places within the section of "About Us" and provides information about CEO and board members, executives, trustees and quality management teams. This section does not include the information about physicians or other staffs.

- If "absent" code "0".
- If "present" code "1".

10. Awards: Indicate the code number to mark the information of awards as present or absent. This feature provides information about the wards that hospital won.

- If "absent" code "0".
- If "present" code "1".

11. Option to pay bill / make appointment and refill prescription: Indicate the code number to mark the option to pay bill, make appointment and or refill prescriptions as present or absent. This feature allows patients to make an appointment for consultation or pay the bills of consultations or medical tests.

- If "absent" code "0".
- If "present" code "1".

12. Quality measures: Indicate the code number to mark the quality measures as present or absent if hospital has provided. Quality measures mostly presented in the form of report that inform the publics about the

international, national and local quality standards on healthcare and medical services.

- If "absent" code "0".
- If "present" code "1".

13. Patient Testimony / stories: Indicate the code number to mark the patient stories and/or testimonies as present or absent. This feature includes the experiences of patients and/or their families, friends or relatives about the hospital. These stories or testimonies could be in the form of visual, audio, text or the link to the social media tagging.

- If "absent" code "0".
- If "present" code "1".

14. Virtual tours: Indicate the code number to mark the virtual tours as present or absent. This section allows visitors of website to see the 360-degree visualized video of hospitals. This virtual experience gives an insight for the prospective patients about the physical conditions of the hospital.

- If "absent" code "0".
- If "present" code "1".

IV. Please code the third section: "Usefulness of Information for General Public"

15. Statement of philosophy/mission: Indicate the code number to mark the philosophy or mission as present or absent. This could be presented as vision and mission, or organizational goals.

- If "absent" code "0".
- If "present" code "1".

16. Press release/press room/newsroom: Indicate the code number to mark the press releases, press room or newsroom as present or absent. There could be press releases on website as a downloadable link or there could be link to "press room", "newsroom" as a section as well as links to the other websites of news could be provided within the posts of hospital press room.

- If "absent" code "0".
- If "present" code "1".

17. Donation opportunities: Indicate the code number to mark the donation opportunities as present or absent. This includes information on fundraising events, online donation application forms or information on how to donate to the hospital or specific facilities.

- If "absent" code "0".
- If "present" code "1".

18. Volunteer opportunities: Indicate the code number to mark the volunteer opportunities as present or absent. This option provides the information

about volunteer activities varies from clinical trials to reading to patients etc. as well as gives information on how and where to be a volunteer.

- If "absent" code "0".
- If "present" code "1".

19. Organizational history: Indicate the code number to mark the organizational history as present or absent. This generally gives information about the hospital and placed at the sections such as "About Us" or "Organizational History" etc.

- If "absent" code "0".
- If "present" code "1".

20. Organizational publications: Indicate the code number to mark the organizational publications as present or absent. These publications could be considered as press releases, brochures, medical journals, reports, newsletter, magazines etc.

- If "absent" code "0".
- If "present" code "1".

21. General organizational facts: Indicate the code number to mark the general organizational facts as present or absent. This information includes the number of branch offices, physicians, staff members or beds. Also, general information about the financial condition, donations or facilities and technologies.

- If "absent" code "0".
- If "present" code "1".

22. Audio/visual capabilities: Indicate the code number to mark the audio and/or visual capacities of website as present or absent. This feature includes any audio-visual content such as video files, audio files, multimedia contents, slides, embedded YouTube clips or podcasts, live webcams etc.

- If "absent" code "0".
- If "present" code "1".

23. Annual report: Indicate the code number to mark the annual reports as present or absent. Annual report is a overall record of activities of a company during the year. Annual reports provide information about the annually performance of financial, social and environmental activities of a company for shareholders, investor and any other interested people.

24. Information of contracted state departments / insurance companies
25. Private accommodation options
26. Information on Health technologies of Hospitals
27. Legal Text on Personal information protection text (KVKK)

- If "absent" code "0".
- If "present" code "1".

V. Please code the fourth section: "Generation of Return Visits"

28. Links to external web sites: Indicate the code number to mark the links to external web sites as present or absent. For the valid coding, be sure about the links are directed to separate Web site instead of to the other section of hospital's web site. These external links could be links to other organization web sites of insurance companies or health ministry or any NGO as well as the links of news web sites.

- If "absent" code "0".
- If "present" code "1".

29. Downloadable information: Indicate the code number to mark the downloadable information as present or absent. This information includes downloadable files of fact sheets, press releases, bulletins, news, magazines, patient registry forms or any other contact registration forms, medical information, personal test results etc.

- If "absent" code "0".
- If "present" code "1".

30. Calendar of events: Indicate the code number to mark the calendar of events as present or absent. This option allows users to register to events, set and publish events or apply labels of importance on an online scheduler. Also, this calendar of event may provide the list of upcoming events or important dates.

- If "absent" code "0".
- If "present" code "1".

31. FAQs/Q&As: Indicate the code number to mark the option for Frequently Asked Questions (FAQs) or Questions & Answers (Q&As) forums as present or absent. This could be located on home page or can be found another section which directed through the homepage via link.

- If "absent" code "0".
- If "present" code "1".

32. Posting of news stories within last 30 days: Indicate the code number to mark the recent posting of news stories within the last 30 days as present or absent.

- If "absent" code "0".
- If "present" code "1".

33. Ability to request information by mail/e-mail: Indicate the code number to mark the option of the ability to request information by mail or e-mail as present or absent. This feature allows visitors to request information by either fill out an online form or to send and mail, fax or e-mail to the provided contact information instead of downloading any other information. These requests could be the information about prices, facilities of hospitals, physicians as well as for information of medical records or test results etc.

- If "absent" code "0".
- If "present" code "1".

34. Ability to register/log-in to personalized Web page: Indicate the code number to mark the option for ability to register or log-in to personalized page within the hospital network as present or absent. These are mostly links that directs register or log-in page for the personal page by which allows to access to personal health records or to make an appointment.

- If "absent" code "0".
- If "present" code "1".

35. Ability to register/sign-up for classes/groups/events: Indicate the code number to mark the ability to register or sign-up for specific classes, groups or events as present or absent. These classes could be an education on first aid, breast and cervical cancer or labor as well as support groups for cancer patients or any other diseases. Additionally, some hospitals offer events for their customer/patients as picnic, tournaments or activities for health life etc.

- If "absent" code "0".
- If "present" code "1".

36. Option to "bookmark now": Indicate the code number to mark the bookmark now" option as present or absent. This feature allows users to bookmark the Web site or Web page. The social bookmarking enables people to bookmark pages or websites and find and view similar bookmark lists that they have similar by searching the links according to the categories or tags or randomly. Examples of such social links are, StumbleUpon, Pocket, etc.

- If "absent" code "0".
- If "present" code "1".

37. Explicit statements that invite users to return: Indicate the code number to mark the explicit statements that invite users to return as present or absent. This statement may be a text or visual called banner or a graphic link that invites users to return to page. These texts are could be "check for updates" , "visit again" or "subscribe for the news" etc.

- If "absent" code "0".
- If "present" code "1".

38. Forums: Indicate the code number to mark the forums linked to the website as present or absent. Forums are internet chat rooms that allow users to share their experiences, leave comment and take and give advice or information about the specific subjects which enables people to discuss on subjects in real time with users or physicians and hospital staff. This option is also a live chat with physician and other hospital staff to obtain information about health issues.

- If "absent" code "0".
- If "present" code "1".

VI: Please code the fifth section: "Conservation of Visitors"

39. Important information available on the home page: Indicate the code number to mark the availability of the important information of the home page as present or absent. This information helps visitors to make health related decisions and inform them about services, staff or specific medical conditions etc.

- If "absent" code "0".
- If "present" code "1".

40. Average loading time less than 3 seconds: Note the average loading times of hospital web pages by using the web speed calculators.

- If the average loading time is "more than three seconds" code "0".
- If the average loading time is "less than three seconds" code "1".

41. Posting of last updated time and/or date: Indicate the code number to mark the time and date information of last update as present or absent. The specific statement of the time and date of last update could be found on the page as indicated as "Last update on 19/07/2021" or the information of recent update could be found on the top or bottom of the home page as a time stamp of certain date stamp for example as "July 19,2021".

- If "absent" code "0".
- If "present" code "1".

VII. please code the sixth section: "Dialogic Loop"

42. General contact information: Indicate the code number to mark the general contact information as present or absent. General contact information is provided on either the "Contact" section of website or on the lists of staff, departments or physicians. This information could be the e-mail addresses, phone numbers or administrative contact forms.

- If "absent" code "0".
- If "present" code "1".

43. Opportunity for user-response: Indicate the code number to mark the user response as present or absent of opportunity. This feature contains the areas that visitors of websites may leave comment and/ or write their complaints. Also allows users to ask their questions on health-related information that is provided on the website etc.

- If "absent" code "0".
- If "present" code "1".

44. Regular information offered through email/ or subscribe: Indicate the code number to mark the option for subscription or regular information offer as present or absent. Check the availability for sign-up option for email list or a subscribe option for a newsletter or updated information.

- If "absent" code "0".
- If "present" code "1".

45. User survey: Indicate the code number to mark the user surveys as present or absent. User survey helps visitors to provide feedback and share their opinion on issues such as hospital policies, quality measures or website usage experience. These surveys don't necessarily have to be multiple questions they could be short interviews or questionnaires.

- If "absent" code "0".
- If "present" code "1".

46. Recognize hospital staff: Indicate the code number to mark the ability to recognize hospital staff members for their performance as present or absent. This feature contains send a message to hospital or leave a comment about a service. It could be online form or questionary that nominates the hospital staff for recognition of his/her outstanding performance.

- If "absent" code "0".
- If "present" code "1".

47. Opportunity for online consultation: Indicate the code number to mark the online consultation opportunities as present or absent. Online consultation is a panel, forum or live chat that doctors or specialists provide online information or recommendations to the health-related issues.

- If "absent" code "0".
- If "present" code "1".

48. Online polling: Indicate the code number to mark the online poll service as present or absent. Online polls allow visitors to declare their opinion with questionnaires or interviews.

- If "absent" code "0".
- If "present" code "1".

VIII: Please code the seventh section: "Web 2.0"

49. E-cards: Indicate the code number to mark the E-cards as present or absent. E-cards are online generated greeting cards for birth or recovery from diseases that you can send your message to the patients via e-mail.

- If "absent" code "0".
- If "present" code "1".

50. Interactive content: Indicate the code number to mark the interactive content that provided on website as present or absent. These are interactive content or applications that provide information and help to get feedback. Examples of virtual tours, symptom checkers or health calculator as such body index etc.

- If "absent" code "0".
- If "present" code "1".

51. Links to social networking sites: Indicate the code number to mark the links to social network sites on homepage as present or absent. Those links could be hyperlinked on brand icons of SNSs. Example of those social media sites are Facebook, Instagram, LinkedIn etc.

- If "absent" code "0".
- If "present" code "1".

52. RSS feeds: Indicate the code number to mark the RSS feed as present or absent. RSS is an abbreviation for Really Simple Syndication which is an additional technology of internet that allows people to follow updated on the websites that they have enabled the RSS feed. RSS operates via the extension of a XML code, which regularly the controls the updates on website.

- If "absent" code "0".
- If "present" code "1".

53. Microblog Indicate the code number to mark the microblogging option included on website as present or absent. Microblogs are social media services that allows people create short texts with or without visuals and share micro media in the form of audio, visual, text or video. This content can be seen by either specific audience or public. The embedded flood of content on Twitter or link to the Twitter or Tumblr may be considered as the presence of Microblog.

- If "absent" code "0".
- If "present" code "1".

54. Podcasts/Vodcasts/Webcast: Indicate the code number to mark the Podcasts, Vodcasts and/or Webcasts as present or absent. These are the tools to receive audio and/or video files from the internet. The services for broadcasting are mostly consist of news and information files which can be downloadable and transportable.

- If "absent" code "0".
- If "present" code "1".

55. YouTube: Indicate the code number to mark the links to the YouTube channel as present or absent. The video-sharing social media platform YouTube allows users to upload and share videos on a specific channel that they can create which can be followed by others as well as can be subscribed.

- If "absent" code "0".
- If "present" code "1".

56. Blogs: Indicate the code number to mark the blogs as present or absent. A blog is website or microsite in the website which contains regularly updated information, articles, news or recommendations in the textual, video or graphic format. Entries of blogs mostly visible from the last uploaded to the first. Examples of blogs within the website of hospitals are medical condition blogs, health blogs, volunteer blogs or visitor blogs etc.

- If "absent" code "0".
- If "present" code "1".

Additional: Indicate the code number to mark as present or absent of any other features which are not included on the list above. If there is any new feature added, type the name of the feature to the end of the excel spreadsheet. If no additional Web-based services offered, you may leave blank the additional features section.

- If "absent" code "0".
- If "present" code "1".

*The Codebook for hospitals' websites is adapted from the master thesis research by Jenifer Hahn (2010) and, research articles by Kim et all., (2014)

C) Research Codebook of Dialogic Communication Presence for Facebook:

I. Provide the general information that is detailed on section "a".
II. Please code the first section: "ease of interface".

1. Images: Indicate the code number to mark the use images in posts as present or absent.

- If "absent" code "0".
- If "present" code "1".

2. Videos: Indicate the code number to mark the use of video for information sharing in their posts as present or absent.

- If "absent" code "0".
- If "present" code "1".

3. Pinned Post: Indicate the code number to mark whether there is pinned post as important information at the hospital Facebook page as present or absent.

- If "absent" code "0".
- If "present" code "1".

4. Use of #hashtags: Indicate the code number to mark the hashtags (#) as present or absent which are used in addition to a description with the text, images or videos in posts.

- If "absent" code "0".
- If "present" code "1".

III. Please code the second section: "Usefulness of Information"

5. Logo of the organization: Indicate the code number to mark the logo of the organization whether it is present on the hospital's page or not.

- If "absent" code "0".
- If "present" code "1".

6. About the organization (mission, vision, goals): Indicate the code number to mark the mission, vision and /or goals of organization as present or absent. This generally gives information about the hospital and placed at the sections such as "About Us" or "Organizational History" etc.

- If "absent" code "0".
- If "present" code "1".

7. Contact information (e-mail/telephone/address): Indicate the code number to mark the contact information of hospital as present or absent on the Facebook page. General contact information is provided on the "About" section of the Home page of Facebook organizational account. This information could be the e-mail addresses, phone numbers or links of administrative contact forms directed from the organizational web site.

- If "absent" code "0".
- If "present" code "1".

8. Posts about hospital news/events: Indicate the code number to mark the posts about hospital news/events. This information could be found on Timeline (See: Glossary for Facebook) as well as in the sections of Photos, Videos or Community.

- If "absent" code "0".
- If "present" code "1".

9. Posts about commemorative dates: Indicate the code number to mark the posts about commemorative dates whether it is present on the hospital's page or not. The information can be found on the sections of Photos, Videos or Timeline.

- If "absent" code "0".
- If "present" code "1".

10. Posts about diseases: Indicate the code number to mark the Posts about diseases whether it is present on the hospital's Facebook page or not. This can be photos or videos about diseases as well as can be a link to informative blog post that is directed to hospital's website.

- If "absent" code "0".
- If "present" code "1".

11. Posts about Covid-19: Indicate the code number to mark the posts about Covid-19 as absent or present. This information can be found on the hospital's Facebook timeline or on other sections as in the form of photo, text or video.

- If "absent" code "0".
- If "present" code "1".

12. Administrator of Facebook Account: Indicate the code number to mark the presence of administrator name of Facebook Account as absent or present. This information can be found on the related section provided by Facebook.

- If "absent" code "0".
- If "present" code "1".

IV. Please code the third section: "Generation of Return Visits"

13. Explicit appeal to come back to the page: Indicate the code number to mark the explicit appeal to come back to the page is present on the hospital's Facebook page or not in the textual or graphic form.

- If "absent" code "0".
- If "present" code "1".

14. Daily Posts: Indicate the code number to mark the daily posts. For the valid coding, be sure that the recent update is posted within 24 hours.

Indicate the code number to mark the logo of the organization whether it is present on the hospital's page or not.

- If "absent" code "0".
- If "present" code "1".

15. Call for action button: Indicate the code number to mark the call for action button. This feature make people to take specific action such as "ask a question via private message", "send an e-mail to hospital" or "call for information" etc.

- If "absent" code "0".
- If "present" code "1".

16. Scheduling of events: Indicate the code number to mark the calendar of events. This option allows users to register to events, set and publish events. Also, the calendar of events provides the list of upcoming events or important dates.

- If "absent" code "0".
- If "present" code "1".

17. Possibility to share: Indicate the code number to mark the share option of posts by the hospital or ability to share on the wall of hospitals by individuals.

- If "absent" code "0".
- If "present" code "1".

18. Possibility to receive notifications: Indicate the code number to mark the possibility to receive notifications.

- If "absent" code "0".
- If "present" code "1".

19. Allow tagging in photos: Indicate the code number to mark the allowance of tagging in photos by visitors or page followers.

- If "absent" code "0".
- If "present" code "1".

20. Links to websites where additional information can be obtained: Indicate the code number to mark the links to the websites. Search this option if there any posts contain links that directed to the websites, or ant additional link on profile.

- If “absent” code “0”.
- If “present” code “1”.

21. Likes on comments: Indicate the code number to mark the likes on comments if available or not on organizational page.

- If “absent” code “0”.
- If “present” code “1”.

VI: Please code the fifth section: “Conservation of Visitors”

22. Link to the hospital website: Indicate the code number to mark the link to the hospital’s website if there is or not.

- If “absent” code “0”.
- If “present” code “1”.

23. Link to other social networks in which the hospital is present (Twitter, YouTube, Instagram, blogs etc.): : Indicate the code number to mark the links to the other SNSs that hospital has an account.

- If “absent” code “0”.
- If “present” code “1”.

24. Recent update (last 24 hours): : Indicate the code number to mark the recent update on FB page within last 24 hours.

- If “absent” code “0”.
- If “present” code “1”.

25. Regular Updating (at least 1 post Monday to Friday): Indicate the code number to mark the recent update on FB page within last 24 hours.

- If “absent” code “0”.
- If “present” code “1”.

26. Appealing titles: Indicate the code number to mark the appealing titles.

- If “absent” code “0”.
- If “present” code “1”.

27. Instant replies to comments: Indicate the code number to mark the instant replies to comments of visitor are made or not.

- If “absent” code “0”.
- If “present” code “1”.

VII. please code the sixth section: “Dialogic Loop”

28. Email address: Indicate the code number to mark the presence of e-mail address.

- If “absent” code “0”.
- If “present” code “1”.

29. Allows answers to posts: Indicate the code number to mark the allowance of answers to the posts.

- If “absent” code “0”.
- If “present” code “1”.

30. Opportunity for users to comment even if no post exists: Indicate the code number to mark the presence of the opportunity for users to comment on posts or share a comment even if there is no post shared by the hospital page admin.

- If “absent” code “0”.
- If “present” code “1”.

31. Allows rating: Indicate the code number to mark the presence of allowance of ratings.

- If “absent” code “0”.
- If “present” code “1”.

32. Allows private messages to be sent: Indicate the code number to mark the availability of the option to send private messages.

- If “absent” code “0”.
- If “present” code “1”.

33. Replies to comments: Indicate the code number to mark the replies to the comments of visitors by the hospital page administration.

- If “absent” code “0”.
- If “present” code “1”.

34. Replies to criticism: Indicate the code number to mark the replies to criticism by the page admin is present or not.

- If “absent” code “0”.
- If “present” code “1”.

Additional: Indicate the code number to mark the presence or absence of any other features that Facebook has recently launched which are not included on the list above. If there is any new feature added, type the name of the feature to the end of the excel spreadsheet. If no additional Facebook based feature offered, you may leave blank the additional features section.

- If “absent” code “0”.
- If “present” code “1”.

** The Codebook for Facebook is adopted from the research article by Waters et all. (2011) and Gonçalves (2020).

B) *D) Research Codebook of Dialogic Communication Presence for Twitter:*

I. Provide the general information that is detailed on section "a".
II. Please code the first section: "ease of interface".

1. Images: Write the corresponding code number to mark the absence or presence of images.

- If "absent" code "0".
- If "present" code "1".

2. Videos: Write the corresponding code number to mark the absence or presence of videos.

- If "absent" code "0".
- If "present" code "1".

3. Pinned Tweets: Write the corresponding code number to mark the absence or presence of pinned posts.

- If "absent" code "0"
- If "present" code "1".

4. Use of #hashtags: Write the corresponding code number to mark the absence or presence of the use of hashtags (#).

- If "absent" code "0".
- If "present" code "1".

III. Please code the second section: "Usefulness of Information"

5. News Link: Write the corresponding code number to mark the absence or presence of the link to news.

- If "absent" code "0".
- If "present" code "1".

6. Profile Picture: Write the corresponding code number to mark the absence or presence of the picture of the account. It could be the logo of the organization or any official indicator picture of hospital.

- If "absent" code "0".
- If "present" code "1".

7. Video or audio: Write the corresponding code number to mark the absence or presence of posts with video or audio.

- If "absent" code "0".
- If "present" code "1".

8. Announcement: Write the corresponding code number to mark the absence or presence of announcements whether shared by hospital or

retweeted news or important information about health, healthcare, medicines or medical issues.

- If “absent” code “0”.
- If “present” code “1”.

9. Organizational Description: Write the corresponding code number to mark the absence or presence of organizational description on the profile.

- If “absent” code “0”.
- If “present” code “1”.

10. Logo: Write the corresponding code number to mark the absence or presence of the logo of the organization.

- If “absent” code “0”.
- If “present” code “1”.

11. Organization’s website link: Write the corresponding code number to mark the absence or presence of the link of the hospital’s official website.

- If “absent” code “0”.
- If “present” code “1”.

12. Posts about hospital news/events: Write the corresponding code number to mark the absence or presence of the posts about hospital news/events.

- If “absent” code “0”.
- If “present” code “1”.

13. Posts about commemorative dates: Write the corresponding code number to mark the absence or presence of the posts about commemorative dates. It can be found on News feed or shared media of the hospital’s Twitter account.

- If “absent” code “0”.
- If “present” code “1”.

14. Posts about diseases: Write the corresponding code number to mark the posts about diseases on Twitter account of hospital. This can be texts, photos or videos about diseases as well as can be a link to informative blog post that is directed to hospital’s website.

- If “absent” code “0”.
- If “present” code “1”.

15. Posts about Covid-19: Write the corresponding code number to mark the absence or presence of the posts about Covid-19. This information can be found on the hospital’s Twitter news feed or on other sections as in the form of photo, text or video.

- If “absent” code “0”.
- If “present” code “1”.

16. Contact information (e-mail/telephone/address): Write the corresponding code number to mark the absence or presence of the contact information. The information may be provided as email address or telephone number or address.

- If “absent” code “0”.
- If “present” code “1”.

17. Administrator of Twitter Account: Write the corresponding code number to mark the absence or presence of identity of the administrator of the hospital’s Twitter account.

- If “absent” code “0”.
- If “present” code “1”.

IV. Please code the third section: “Generation of Return Visits”

18. Links to Web pages where additional information can be requested: Write the corresponding code number to mark the absence or presence of the links to websites by which visitors can obtain additional information.

- If “absent” code “0”.
- If “present” code “1”.

19. Calendar of events or link to a Web page containing such a calendar: Write the corresponding code number to mark the absence or presence of calendar of events or link to a web page that allows visitor to reach such a calendar. This option allows users to register to events, set and publish events. Also, this calendar of events provides the list of upcoming events or important dates.

- If “absent” code “0”.
- If “present” code “1”.

20. Links to news related to the hospital issued by external media: Write the corresponding code number to mark the absence or presence of links to the news about the hospitals which are published by external media.

- If “absent” code “0”.
- If “present” code “1”.

21. Use of links or hyperlinks to add external information: Write the corresponding code number to mark the absence or presence of the use of links or hyperlinks to add external information.

- If “absent” code “0”.
- If “present” code “1”.

22. Use of retweets to add information published by other users: Write the corresponding code number to mark the absence or presence of the Use of retweets to add information published by other users.

- If “absent” code “0”.
- If “present” code “1”.

23. Use of hashtags (# before or after one or more-word combinations): Write the corresponding code number to mark the absence or presence of the use of

- If “absent” code “0”.
- If “present” code “1”.

24. Explicit appeal to come back to the page: Write the corresponding code number to mark the absence or presence of explicit appeal to come back to page either as text or visual based graphic.

- If “absent” code “0”.
- If “present” code “1”.

25. Daily Posts: Write the corresponding code number to mark the absence or presence of daily posts. For the valid coding, be sure that the recent update is posted within 24 hours.

- If “absent” code “0”.
- If “present” code “1”.

26. Possibility to share (Retweet): Write the corresponding code number to mark the absence or presence of share option of posts by the hospital or ability to share on the wall of hospitals by individuals.

- If “absent” code “0”.
- If “present” code “1”.

27. Possibility to share the tweets on other platforms or send via private message: Write the corresponding code number to mark the absence or presence of share option of the tweets on different social media platforms or via private message.

- If “absent” code “0”.
- If “present” code “1”.

28. Possibility to receive notifications: Write the corresponding code number to mark the absence or presence of the possibility to receive notifications

- If “absent” code “0”.
- If “present” code “1”.

29. Downloadable information: Write the corresponding code number to mark the absence or presence of downloadable information. Those can be in the form of flyer, newsletter or visual and textual based graphics that could be download through social media.

- If “absent” code “0”.
- If “present” code “1”.

30. Likes on comments: Write the corresponding code number to mark the absence or presence of likes on comments.

- If “absent” code “0”.
- If “present” code “1”.

V: Please code the fourth section: “Conservation of Visitors”

31. Recent update (last 24 hours): Write the corresponding code number to mark the absence or presence of last update within in 24 hours.

- If “absent” code “0”.
- If “present” code “1”.

32. Link to hospital website: Write the corresponding code number to mark the absence or presence of the link to hospital website. These may be links to chats, forums or FAQs on the official website of the Hospital.

- If “absent” code “0”.
- If “present” code “1”.

33. Link to other social networks in which the hospital is present (Facebook, YouTube, Instagram, Blogs, etc.): Write the corresponding code number to mark the absence or presence of links to other social networks that hospital has already had account.

- If “absent” code “0”.
- If “present” code “1”.

34. Regular updating (at least once daily, Monday to Friday): Write the corresponding code number to mark the absence or presence of the regular updating at least once a day from Monday to Friday.

- If “absent” code “0”.
- If “present” code “1”.

35. Instant replies to comments: Write the corresponding code number to mark the absence or presence of instant replies to comments by hospitals Twitter admin.

- If “absent” code “0”.
- If “present” code “1”.

36. Encouraging to Follow: Write the corresponding code number to mark the absence or presence of any encouraging title or text to follow the account.

- If “absent” code “0”.
- If “present” code “1”.

VI. please code the fifth section: “Dialogic Loop”

37. Email address: Write the corresponding code number to mark the absence or presence of e-mail address provided on the Twitter profile.

- If “absent” code “0”.
- If “present” code “1”.

38. Allows answers to posts: Write the corresponding code number to mark the absence or presence of allowance of answers to the posts.

- If “absent” code “0”.
- If “present” code “1”.

39. Opportunity for users to comment even if no post exists: Write the corresponding code number to mark the absence or presence of

opportunity for users to comments even if there is no posts previous post exists.

- If "absent" code "0".
- If "present" code "1".

40. Allows ratings: Write the corresponding code number to mark the absence or presence of allowance for ratings.

- If "absent" code "0".
- If "present" code "1".

41. Allows private messages to be sent: Write the corresponding code number to mark the absence or presence of allowance for private messages to be sent.

- If "absent" code "0".
- If "present" code "1".

42. Replies to comments: Write the corresponding code number to mark the absence or presence of replies to comments.

- If "absent" code "0".
- If "present" code "1".

43. Replies to criticism: Write the corresponding code number to mark the absence or presence of replies to criticism.

- If "absent" code "0".
- If "present" code "1".

Additional: Write the corresponding code number to mark the absence or presence of any other features which are not included on the list above. If there is any new feature added, type the name of the feature to the end of the excel spreadsheet. If no additional Twitter-based feature offered, you may leave blank the additional features section.

- If "absent" code "0".
- If "present" code "1".

***The Codebook for Twitter is adopted from the research studies by Kim et all. (2014) and, Martin, Rosario and Perez (2015), Rybalko and Seltzer (2010), Wang and Yang (2020).

Rybalko, S. and Seltzer, T. (2010) Dialogic Communication in 140 Characters or Less: How Fortune 500 Companies Engage Stakeholders Using Twitter. Public Relations Review, 36(4), pp.336–341.

Wang, Y. and Yang, Y. (2020) Dialogic communication on social media: How organizations use Twitter to build dialogic relationships with their publics. Computers in Human Behavior, 104.

Kim, D., Chun, H., Kwak, Y. and Nam, Y. (2014) The employment of dialogic principles in website, Facebook, and Twitter platforms of environmental nonprofit organizations. Social Science Computer Review 32, pp. 590–605.

E) Research Codebook of Dialogic Communication Presence for Instagram:

I. Provide the general information that is detailed on section "a".

II. Please code the first section: "ease of interface".

1. Images: Write the number to indicate the absence or presence of images.

- If "absent" code "0".
- If "present" code "1".

2. Videos: Write the number to indicate the absence or presence of videos.

- If "absent" code "0".
- If "present" code "1".

3. Use of #Hashtags: Write the number to indicate the absence or presence of use of hashtags (#).

- If "absent" code "0".
- If "present" code "1".

4. Highlights: Write the number to indicate the absence or presence of highlights.

- If "absent" code "0".
- If "present" code "1".

III. Please code the third section: "usefulness of information".

5. Content that provides information to the media related to the organization (press release, speeches, policies, video, news, etc.): Write the number to indicate the absence or presence of content which provides information about the hospital to the media, such as news, speeches, press release, etc.

- If "absent" code "0".
- If "present" code "1".

6. Post about participation in campaigns (CSR, Contest, etc.): Write the number to indicate the absence or presence of posts about the participation in campaigns.

- If "absent" code "0".
- If "present" code "1".

7. Sharing useful information from users about products and services: Write the number to indicate the absence or presence of shares of useful information from hospital visitors.

- If "absent" code "0".
- If "present" code "1".

8. Recent developments in the organization and its environment: Write the number to indicate the absence or presence of recent developments about hospital, the new technology they obtained or new improvements of its environment.

- If “absent” code “0”.
- If “present” code “1”.

9. Career opportunities: Write the number to indicate the absence or presence of career opportunities.

- If “absent” code “0”.
- If “present” code “1”.

10. Information about products and services: Write the number to indicate the absence or presence of information about services that hospital provides.

- If “absent” code “0”.
- If “present” code “1”.

11. Usefulness of information in stories (day, degree, location, hour, etc.): Write the number to indicate the absence or presence of information in stories. For example, important medical information, commemorative days, information of events, updates on services etc.

- If “absent” code “0”.
- If “present” code “1”.

12. Profile photo: Write the number to indicate the absence or presence of profile photo.

- If “absent” code “0”.
- If “present” code “1”.

13. Organization Name: Write the number to indicate the absence or presence of organization name.

- If “absent” code “0”.
- If “present” code “1”.

14. Location (Address) in profile: Write the number to indicate the absence or presence of location in profile.

- If “absent” code “0”.
- If “present” code “1”.

15. Website address in profile: Write the number to indicate the absence or presence of website address in profile.

- If “absent” code “0”.
- If “present” code “1”.

16. Biography in profile: Write the number to indicate the absence or presence of biography in profile.

- If “absent” code “0”.
- If “present” code “1”.

17. Contact addresses (telephone, email) in profile: Write the number to indicate the absence or presence of contact addresses in profile such as phone number, e-mail address etc.

- If “absent” code “0”.
- If “present” code “1”.

18. Social media addresses: Write the number to indicate the absence or presence of other social media addresses.

- If “absent” code “0”.
- If “present” code “1”.

19. Business category in profile: Write the number to indicate the absence or presence of business category in profile.

- If “absent” code “0”.
- If “present” code “1”.

20. Blue tick for official account: Write the number to indicate the absence or presence of blue tick for official account.

- If “absent” code “0”.
- If “present” code “1”.

V. Please code the fourth section: “conservation of visitor”.

21. Sharing photos and videos in posts 1 (photo=, video=, carousel=): Write the number to indicate the absence or presence of sharing photos and videos in posts.

- If “absent” code “0”.
- If “present” code “1”.

22. Sharing photos and videos in stories: Write the number to indicate the absence or presence of sharing photos and videos in stories.

- If “absent” code “0”.
- If “present” code “1”.

23. Link to other social media accounts 1(n=): Write the number to indicate the absence or presence of links to other social media accounts.

- If “absent” code “0”.
- If “present” code “1”.

24. Update (in the last 24 hours) : Write the number to indicate the absence or presence of recent update within last 24 hours.

- If “absent” code “0”.
- If “present” code “1”.

25. Link to organization website (via see more, get more information features, see services, read more): Write the number to indicate the absence or presence of link to organization website with the directive suggestions such as see more, get more information etc.

- If “absent” code “0”.

- If “present” code “1”.

26. Use of stories highlights feature (recently updated): Write the number to indicate the absence or presence of use of stories highlights feature.

- If “absent” code “0”.
- If “present” code “1”.

27. Sharing feed posts to stories: Write the number to indicate the absence or presence of sharing feed posts to stories.

- If “absent” code “0”.
- If “present” code “1”.

28. Mention / hashtag usage (if tagging themselves): Write the number to indicate the absence or presence of mention or hashtag usage if tagging themselves is available.

- If “absent” code “0”.
- If “present” code “1”.

V. Please code the fifth section: “generation of return visits”.

29. Link to other websites / Link to other Instagram accounts: Write the number to indicate the absence or presence of link to other websites or other Instagram accounts.

- If “absent” code “0”.
- If “present” code “1”.

30. Message / link to calendar of events: Write the number to indicate the absence or presence of option to direct message or link to

- If “absent” code “0”.
- If “present” code “1”.

31. Links to frequently asked questions and discussion sections, such as websites, blogs: Write the number to indicate the absence or presence of links to frequently asked questions and discussion sections such as websites or blogs.

- If “absent” code “0”.
- If “present” code “1”.

32. Links to the news in the media: Write the number to indicate the absence or presence of links to the news in media.

- If “absent” code “0”.
- If “present” code “1”.

33. Follow calls to non-followers: Write the number to indicate the absence or presence of the appealing message for following to non-followers.

- If “absent” code “0”.
- If “present” code “1”.

34. Promotions and Sales: Write the number to indicate the absence or presence of announcement of promotions and sales of services or products.

- If “absent” code “0”.
- If “present” code “1”.

35. Mention / Hashtag usage (if not tagging themselves): Write the number to indicate the absence or presence of mentioned / hashtag usage where if tagging is not possible by the visitors.

- If “absent” code “0”.
- If “present” code “1”.

36. Regular story sharing (15 days out of 30 days): Write the number to indicate the absence or presence of regular story sharing.

- If “absent” code “0”.
- If “present” code “1”.

37. Regular post sharing (15 days out of 30 days): Write the number to indicate the absence or presence of regular post sharing.

- If “absent” code “0”.
- If “present” code “1”.

VI. Please code the sixth section: “dialogic loop”.

38. Sharing links to participate in a survey or study on an organizational topic: Write the number to indicate the absence or presence of sharing links to participate in a survey or study on an organizational topic.

- If “absent” code “0”.
- If “present” code “1”.

39. Asking simple and clear questions: Write the number to indicate the absence or presence of possibility of asking simple and clear questions.

- If “absent” code “0”.
- If “present” code “1”.

40. Encouraging followers to submit their posts: Write the number to indicate the absence or presence of encouragement to followers to submit their posts.

- If “absent” code “0”.
- If “present” code “1”.

41. Sharing followers' posts in posts / stories: Write the number to indicate the absence or presence of shared posts by followers in posts or stories.

- If “absent” code “0”.
- If “present” code “1”.

42. Answering a question (by responding or like): Write the number to indicate the absence or presence of response to the questions as a textual answer or like.

- If “absent” code “0”.

- If “present” code “1”.

43. Using emoji or GIF: Write the number to indicate the absence or presence of use of emoji or GIFs.

- If “absent” code “0”.
- If “present” code “1”.

44. Using of ask me a question feature: Write the number to indicate the absence or presence of using of “ask me” question feature through the stories.

- If “absent” code “0”.
- If “present” code “1”.

45. Use of poll feature in stories: Write the number to indicate the absence or presence of use of poll feature in stories.

- If “absent” code “0”.
- If “present” code “1”.

46. Use of emoji slider in stories: Write the number to indicate the absence or presence of use of emoji slider in stories.

- If “absent” code “0”.
- If “present” code “1”.

47. Use of the quiz feature in stories: Write the number to indicate the absence or presence of use of quiz feature in stories.

- If “absent” code “0”.
- If “present” code “1”.

48. Creating interpersonal interaction in comments: Write the number to indicate the absence or presence of interpersonal interaction in comments.

- If “absent” code “0”.
- If “present” code “1”.

49. Open to comments (Comments can be open or closed): Write the number to indicate the absence or presence of availability to comment.

- If “absent” code “0”.
- If “present” code “1”.

****The Codebook for Instagram is adapted from the research by Bilgilier and Kocaömer (2020).