

A R A Ş T I R M A M A K A L E S İ / R E S E A R C H A R T I C L E

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**THE RISE OF AUDIO-BASED COMMUNICATION TECHNOLOGIES:
A RESEARCH ON PODCAST, CLUBHOUSE AND AUDIOBOOK
APPLICATIONS**

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ABSTRACT

Due to development of digital technologies traditional cultural forms have been transferred to digital platforms and old forms are being re-used by being adapted to digital sphere. Recently, the use of digital technologies based on sound has become widespread. During the COVID 19 epidemic, the use of audiobooks, podcasts, and voice messaging applications has increased, and a voice-based social media platform called Clubhouse has emerged. In the last decade, although new media technologies have enabled uninterrupted and social media has created a new digital culture, the demand for applications based only on sound is in need of academic inquiry. Based on the qualitative method, this research aims to understand why these technologies are preferred and the reasons for their increased use, through in-depth interviews with individuals who use voice-based digital communication opportunities. Individuals using audio digital technologies prefer to use these technologies because they allow them to do more than one job at the same time, can be listened to anywhere at any time, and are based on speech. The results of the research showed that digital communication possibilities based on sound on the basis of the techno-determinist approach are the latest milestone in the development of "secondary oral culture".

Anahtar Kelimeler: Verbal communication, Podcast, Clubhouse, Audiobook, Techno-determinism, Multitasking

**SESE DAYALI İLETİŞİM TEKNOLOJİLERİNİN YÜKSELİŞİ: PODCAST, CLUBHOUSE VE
SESLİ KİTAP UYGULAMALARINA DAİR ARAŞTIRMA****ÖZ**

Dijital teknolojilerin gelişimi, geleneksel biçimlerin dijital platformlara taşınması ve eski formların dijital uyumlanarak yeniden kullanıma girmesine imkân tanımıştır. Son yıllarda sese dayalı dijital teknolojilerin kullanımı yaygınlaşmaktadır. Özellikle COVID 19 salgını döneminde sesli kitap, podcast, sesli mesajlaşma uygulamalarının kullanımı artmış, Clubhouse isimli sesli iletişim temelli bir sosyal medya platformu da ortaya çıkmıştır. Özellikle son on yılda yeni medya teknolojilerinin kesintisiz ve net görüntülü görüşmelere imkân tanınmasına, sosyal medya mecralarının görmek ve görülmeyi yücelten yeni bir dijital kültür yaratmasına rağmen, yalnızca sese dayalı dijital teknoloji ve uygulamaların gördüğü rağbet akademik sorgulamaya muhtaçtır. Nitel yöntemi temel alan bu araştırma sese dayalı dijital iletişim olanaklarını kullanan bireylerle yapılan derinlemesine görüşmeler üzerinden bu teknolojilerin neden tercih edildiklerini, hangi ihtiyaçlara karşılık geldiklerini ve artan kullanımlarının nedenlerini anlamayı amaçlamaktadır. Sesli dijital teknolojileri kullanan bireyler aynı anda birden fazla iş yapmaya imkân tanınması, her an her yerde senkronize ve asenkronize şekilde dinlenebilmesi ve doğal bir iletişim biçimi olan konuşmaya dayanması nedeniyle bu teknolojileri kullanmayı tercih etmektedirler. Araştırma sonuçları tekno-belirlenimci yaklaşım temelinde sese dayalı dijital iletişim olanaklarının "ikincil sözlü kültürün gelişimindeki son nokta olduğunu göstermiştir.

Anahtar Kelimeler: Sözlü iletişim, Podcast, Clubhouse, Sesli kitap, Tekno-belirlenimcilik

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INTRODUCTION

Digitalization has diversified the modes of communication of people who are not physically present in the same place. Even though they are in different places, it is possible for individuals to see each other owing to the “interactive web” facilities offered by the Web 2.0 technology.

As face-to-face communication is currently regarded as a risk due to the COVID 19 virus which emerged in Wuhan, China in December 2019 and declared to be a pandemic on March 12, 2020 by the World Health Organization, the new media platforms became the principal means of communication. The recent increase in only the audio-based applications of the new media platforms has gained acceleration during the COVID 19 pandemic. Audio book applications started to rapidly spread while the number of broadcasted podcasts went up. The most recent development, on the other hand, as to the rising significance of sound during the pandemic became an audio-based social media platform called Clubhouse. Although the new media technologies of the 2020s ensured uninterrupted and clear video calls and the social media platforms created a digital culture based on seeing and being seen, there is an escalating popularity of podcasts, Clubhouse, audio books and similar other applications where sound is the distinguished element and which require an academic investigation.

When we consider the history of human communication, we can speak of two kinds of communication: Natural communication requires face-to-face interaction. On the other hand, the communication mediated by technology started with the use of writing as Walter Ong specifies. As a communication technology, writing rendered it possible to transfer information without face-to-face interaction. After the invention of writing, humans started to write everything that required recording, reproduction and distribution and, therefore, had the opportunity to transfer information to far-away places or the future without any change. Later on, the use of electronic communication tools enabled the transmission of sound with radio and then image with cinema and TV. In this sense, the new media technologies are capable of transmitting both sound and image and, therefore, moved societies more rapidly than the previous electronic tools (despite the former’s use of the facilities offered by the latter).

Considering social organizations and communication systems, it is observed that primary oral culture and then, owing to printing, a written culture emerged. Similarly, the Internet and digitalization are witnessed to create a new culture following wire communication and the electronic revolution. Digitalization transforms everything while former cultural forms are retrieved in a different mode with digitalization. In this regard, the most popular of these retrievals is audio-based technologies.

This study focuses on the expressions of individuals who apply to the opportunities offered by audio-based digital communication tools in order to comprehend what needs these opportunities correspond to, why they are preferred or the reasons of their increased use. The research employs qualitative research method while the data will be collected with in-depth interviews. The analysis of the data to be acquired from a sample group of 15 will offer insight for the quantitative questionnaire to be created in the second research.

It may offer a useful perspective to touch on the techno-deterministic approach by building a theoretical framework, so that we may comprehend the reason behind the return of the sound and audio-based technologies.

1. The Techno-Deterministic Approach and Sound

In his 1962 work called the Gutenberg Galaxy, Marshall McLuhan, Canadian media and culture theorist, analyses the evolution of humans under four stages which are tribal societies, mechanical age, electronic age and return to tribal societies.

Tribal societies maintained a life in oral culture. Pointing out to a pre-literacy period, tribal societies consisted of members who were connected and close to each other and who

experienced face-to-face communication to a great extent. McLuhan described the environment where tribal societies lived in as an “acoustic space” where the most important sense organ was ear. There was no other way than to listen to someone if one desired to get information (except for the information acquired with observation). After the use of phonetic alphabet, hearing and speaking started to lose their former gravity. Following especially the use of printing, it became widespread to get information by reading what was written and to distribute news using the writing system as of the 16th century. This replaced ear with eye as the distinguished sense organ.

McLuhan suggests that electronic media age commenced with the use of telegram. However, television was more important among the electronic media tools, according to McLuhan, for it simultaneously addressed more than one sense organ. Television and new media technologies gave birth to a new kind of tribal society. McLuhan analyses the return of the tribal society using the “rear-view mirror” metaphor. Similar to a driver who watches his rear-view mirror, it is possible to see what will come from the past and happen in the future by looking at the rear-view mirror of history. McLuhan discusses the history of communication in circular terms (Logan, 2010: 359). As a consequence of this circularity, McLuhan claims that humans returned to the acoustic space with electronic communication tools. Etymologically, the term acoustic derives from “acoustique” and means something “aural” or “audial” It is safe to assert that the acoustic space is categorically revisited with the applications such as podcasts, audio books and Clubhouse.

Another theorist who discusses the history of communication with a techno-deterministic point of view is Walter Ong. He reminds that oral culture dates as far back as 30,000 to 50,000 years with the first examples of written culture having a history of 6000 years. According to Ong (2021), humans could only comprehend the difference between oral and written cultures in the electronic age. This is because the electronic age is the secondary oral age. Ong specifies that language is based on sounds and that, although there may be non-verbal communication methods, the dominant element in communication is sound.

Walter Ong explains oral culture as the cultures that were composed only of a spoken language before the invention of writing and printing; and the secondary oral culture as the cultures that have left writing and texts, returned to spoken language and uses the oral communications produced by telephone, radio, television and other technological devices. He accepts writing as a technological development that changed the human consciousness most. In this regard, writing liberates speaking from oral-aural structure and associates it with the sense of seeing.

According to Ong, the discovery of printing was the most important development that positioned eye as the main sense organ in getting information. This is because manuscripts did not mitigate the dominance of sounds and ear although they preserved information in written. Electronic technology, on the other hand, moved humanity to the “secondary oral culture” with telephone, radio, television and various voice recording devices. However, the mass is more crowded in the secondary oral culture compared to the primary one. While a certain number of people came together to speak and transfer information in the primary oral culture, it is possible to speak of an unlimited mass in the secondary oral culture.

Sound is the oldest and the best tool to tell stories for humans. Before the invention of cinema, photograph and even pens, people used to tell each other verbal stories. Stories told evoke the imagination of an audience and transforms as images in the listener’s mind (Biewen, 2017: 2).

Recorded audio files, particularly such as podcasts, can access listeners every time and everywhere regardless of time and place. Before mentioning audio applications that circulate with the use of the Internet technology, it is useful to take a closer look at the acts of hearing and listening.

2. Hearing and Listening

According to Kline (1996: 7); "Hearing is the reception of sound, listening is the attachment of meaning to the sound. Hearing is passive, listening is active." On the other hand, Rost (2011: 12) defines hearing as a mode of perception and listening as an active and intentional process. Hearing forms the basis of listening. Although the terms hearing and listening are used interchangeably in daily conversations, there are basic differences between these two. Both hearing and listening refer to a perception of sound but differ from each other in terms of their intention. These two terms are triggered with the perception of sound while the main difference is the intention as regards to these acts. Intention is known to include a couple of levels. In this regard, listening is to accept what is heard and be willing to make sense of a message (Allwood as cited in Rost, 2011: 12).

A successful hearing facilitates the perception of a sound. Being a good listener does not only refer to the perception of sounds and words, but also to the comprehension of the meaning attributed to them. Hearing is defined as the reception of sound while listening is the attachment of meaning to the sound. Listening composes of a sender, a message and a receiver. It is explained as the psychological procedure of receiving verbal and/or non-verbal messages, including them in a process making sense, and responding to these messages. However, hearing consists of various elements such as distinguishing sounds, recognizing and making sense of words, defining grammatical word groups, identifying the expressions or groups of expressions that allow sense-making, linking linguistic clues with non-linguistic ones, anticipation of meaning and use of background information for its verification, and remembering important words and ideas (Tyagi, 2013: 1).

According to Rost (2011: 12), listening is defined as the recording of brain signals in a secure way. Owing to the changing technologies and developments, listening differentiated and varied as to meaning. As a result of the developments in the telecommunication industry in the 1940s, listening started to be defined as the "successful transmission and reproduction of messages" while, in the 1960s, it was asserted that the experience of listeners was also important to understand the intention of a speaker. O'Malley, Chamot and Kupper (1989: 434) define listening comprehension as "an active and conscious process in which the listener constructs meaning by using cues from contextual information and from existing knowledge, while relying upon multiple strategic resources to fulfil the task requirements." Vandergrift (1999: 168) defines listening as "a complex, active process in which the listener must discriminate between sounds, understand vocabulary and grammatical structures, interpret stress and intonation, retain what was gathered in all of the above, and interpret it within the immediate as well as the larger sociocultural context of the utterance."

Considering all the definitions of listening, it is not only a passive capability. Listening is an active and intentional process. If a listener takes an active part in the process of listening, tries to comprehend and manage the transferred message and asks or responds to questions, this is accepted as active listening. Comprehension comes into question not as a result of what is said by a speaker but when a listener establishes a connection between what is heard and already known and tries to comprehend. This allows transferring the experiences and specialties of people through listening (as cited in Yıldırım & Yıldırım, 2016: 2096).

According to Mendelson, "of the total time spent on communicating, listening takes up 40-50%; speaking 25-30%; reading 11-16%; and writing about 9%." The rate signifying listening shows its significance in human life (as cited in Yıldırım & Yıldırım, 2016: 2097).

2.1. Process of Listening

Brown (2006: 2) defines the process of listening as "using our prior knowledge and experiences; we know certain things about certain topics and situations and use that information to understand". In this sense, learners use their background knowledge in order to comprehend the meaning by considering previous knowledge and schemata, so that they may learn and comprehend by listening.

According to Tyagi (2013: 2); the process of listening mostly consists of five steps which are hearing, comprehension, remembering, evaluation and reaction. The basic elements that make up the process render the process of listening meaningful. The process of listening comprises of various elements such as distinction among sounds, recognition of words and comprehension of their meanings, definition of the grammatical groups of words, identification of the expressions that create a meaning, prediction of meaning, use of previous knowledge and experiences for attributing a meaning, and remembrance of important ideas to that end. Hearing is the physical reaction to the sound waves that stimulate the sensory receptors of ears. It is the perception of sound waves. One needs to hear to listen but doesn't need to listen to hear. Brain scans stimuli and focuses only on selected words and messages. This selective perception is also known as attention which is a significant requirement for effective listening.

On the other hand, comprehension is the process of analysing what is heard and of perception of not only words but also sounds. In case of interpersonal communication, it is necessary for a listener to comprehend the meaning intended by him/her and the context assumed by the sender.

2.2. Types of Listening

There are varying types of listening based on the process of listening, method of respond and purpose by a listener (Table 1).

Table 1: Types of Listening. Source: Tygai, (2003: 4,5)

Active Listening	Listening in a way that demonstrates interest and encourages continued speaking.
Appreciative Listening	Looking for ways to accept and appreciate the other person through what they say.
Attentive Listening	Listening obviously and carefully, showing attention
Biased Listening	Listening through the filter of personal bias, the person hears only what they want to listen.
Casual Listening	Listening without obviously showing attention.
Comprehension Listening	Listening to understand, seeking meaning.
Critical Listening	Listening in order to evaluate, criticize or otherwise pass judgment on what someone else says.
Deep Listening	Seeking to understand the person, their personality and their real and unspoken meanings and motivators.

Inactive Listening	Pretending to listen but actually spending more time thinking.
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Among all the types of listening, active listening stands out with which the processes of listening take an uninterrupted course. As part of active listening, listener is actually interested in what the speaker thinks about and feels and what are the meaning of given messages. In the process of active listening, a listener is able to provide feedbacks, express the same message in various forms, verify it or make sense of it based on his or her own experiences. This verification or feedback process differentiates active listening from the other types of listening. Anderson and Lynch (2003) suggest that active listening involves a sheer number of capabilities and enumerates four steps that make up the process of listening in case of face-to-face conversation:

1. The spoken signals have to be identified from the midst of surrounding sounds.
2. The continuous stream of speech has to be segmented into units, which have to be recognized as known words.
3. The syntax of the utterance has to be grasped and the speaker's intended meaning has to be understood.
4. We also have to apply our linguistic knowledge to formulating a correct and appropriate response to what has been said.

Basically dependent on active listening, the most important advantage of the Internet-mediated audio contents is that they allow use even during the performance of daily affairs and simultaneous multitasking without requiring a focus on an image or video. At this point, it is useful to analyse the term multitasking.

3. Multitasking and Audio Content

Penetrating into all the spheres of our lives, technological developments become a part of our lifestyles. The progressive quality that these developments have and the opportunities offered make them accepted by individuals and societies without questioning. However, all the novelties that are accepted lead to a linguistic and cultural change in our lives.

This age in which digital revolution is everywhere, the opportunity to perform more than one task at a time draws the attention of people as it renders it possible to use time economically and allows performed tasks to facilitate one another. The ability to perform more than one task at a time is called "multitasking" in the literature. Multitasking is defined as "the performance of more than one physical or mental function simultaneously, consecutively or with quick alternations" (İmren, 2021: 1). Here, the key point is that tasks are completed at the same time or with short transitions among them.

Multitasking is also integrated in mass communication tools which have become parts of media following the technological developments. Although the term was discussed in two different concepts as "task switching" and "dual task" formerly, today these are forged into one term.

Also tackled according to media perspective, it is useful also to approach multitasking as "media multitasking." Media multitasking refers to the environments where more than one task is performed through media devices. It means that the properties of media tools are used simultaneously or with short transitions. In the age of technology, the ability to get easy access to a lot of information ensures convenience for individuals especially with the new media tools. People are offered to simultaneously perform more than one task with the objects that are always with us such as customized tools, wearable technological products and similar other

devices. The history of media multitasking goes as far back as to the development of the technologies like radio and television. While watching television or listening to a radio, people are able to simultaneously follow the stream, listen to an audio content and perform their tasks. Following especially the modern Web 2.0 technology, individuals can also simultaneously perform multiple tasks in the context of social media tools. Using smart phones, tablets, computers and similar other devices, they can simultaneously carry out many processes such as reading e-books and listening to audio content with various applications in the same device and at the same time.

Media multitasking is practiced everywhere where there is a technological access and opportunity. Studies concluded that individuals preferred media multitasking themselves when they were allowed to make their choice. Today, media multitasking “is basically classified as the time management of tasks, the Internet use status (being online) and the involvement of media devices” (İmren, 2021: 6). The time management of tasks comes into question when multiple functions are performed consecutively, respectively, with short transitions or simultaneously. Based on the Internet use status, media multitasking refers to the actions which are carried out online or offline. This can also be conducted in a combined way. For example: Playing online games while listening to music downloaded previously to a mobile phone or attending an online meeting while surfing on social media are considered multitasking.

However, the involvement of media devices demonstrate that multitasking is not only limited to media devices. As part of studies, this was; “suggested to be discussed as “Media + non-media” (cited in İmren 2021: 6). In this regard, it was claimed that the circumstances where media products accompany offline activities (such as reading books, doing sports and cleaning) would offer a more realistic definition to reflect the media behaviour where daily life is integrated with media multitasking. This idea was first propounded by Baumgartner et al. (2014). One of the practices contained in multitasking is “multitasking facilitators” as explained by Baumgartner et al. in their studies (Baumgartner et al., 2014: 1122). It can be evaluated as the consolidation of a work during a task with another work.

Multitasking can also be assessed based on positive and negative aspects. Although, as specified above, it ensures time sharing and simultaneous advantages which are among the positive aspects, multitasking can also be considered to have negative effects for it decreases the coding of information in memory and individual’s productivity and performance among others.

The relevant literature discusses multitasking and media multitasking together with many concepts. One of these is cognitive control capacity. The studies that dwell on cognitive control capacity and media multitasking state that “the functions of cognitive control capacity such as the flexibility and change in mental framework, the focus on target stimulant, the filtering of irrelevant and distracting signals, the inhibition of the reactions that are irrelevant with a task and the retention of relevant information in memory have important roles in Media Multitasking (İmren, 2021: 2).

Multitasking which requires higher level of cognitive processes can also be understood as the attempt to perform more than one routine at a time. People are capable of creating a time period and managing their time by making frequent transitions among multitasking goals within the same period of time (Delbridge, 2000: 1). Asserting that task transitions can be fulfilled within one-tenth of a second which is very fast, researchers remark that this leads to an illusion that people think they can carry out more than one task at the same time (Meyer & Keiras, 1997; Frost & Bybee 2017: 458).

The studies which feature the listening function among multitasking elements claim that individuals use the listening tasks in connection with written or verbal duties (Frost & Bybee,

2017, p. 458). Multitasking studies mostly involved the experimental manipulation of multiple tasks. Tasks required participants to complete them at the same time. In many studies, the method of delivery of tasks was changed. It was inferred that mostly the listening task distinguished from among the others. The studies were conducted with applications to remember and recall the messages by transmitting the listened articles with the use of various platforms such as speakers, music, television programs and movie clips (Frost & Bybee, 2017: 459).

Eventually, multitasking and media multitasking stand out as they help to manage more time, support the performance of more than one task at a time, help to tackle a difficult task or accompany a work that is carried out.

The human life that has been gradually gaining speed with the influence of digital technologies on society increased the popularity of auditory applications that allow multitasking. On digital platforms, the most popular forms of mass auditory communication are podcast and audio book applications.

3. 1. Podcast

As a component of the Web 2.0 world, podcasts are accepted as an element of the new media (Holtz & Hobson, 2007: 303). In this sense, podcast is shortly defined as “a program (as of music or talk) made available in digital format for automatic download over the Internet” (Merriam-Webster, n. d.). Derived from the combination of ‘iPod’ and ‘Broadcast’ terms, podcast was first coined by Ben Hammersley, journalist, in 2004. In his *The Guardian* article, Hammersley states that online radio blew up with the introduction of iPods, cheap auditory softwares and weblogs, and that it combined “the intimacy of voice, the interactivity of a weblog, and the convenience and portability of an MP3 download” (Hammersley, 2004).

What renders podcast different from other auditory formats is that it provides opportunities to offer an intended message as a whole and allows subscription to ensure listening whenever convenient (Geoghegan et al., 2012: 8). As a timeless format independent of the date of broadcasting, podcast give auditory broadcasters an area to practice “self-broadcasting” (Tolan, 2017: 202). Similarly, it ensures that listeners also create their own radio. Although streaming Internet radios are also online, podcasts serve like a ‘do it yourself’ radio (Madsen, 2009: 1195). When tuning in to a stream in radio, ‘noise’ elements may appear. The advantage of being a podcast listener is that podcasts with quality contents are have high numbers of likes and, therefore, may appear on the top ranks of lists. Hence, it is simpler to find a good podcast content compared to radio (McElhearn et al., 2006: 9).

The shortening of podcast times brought along the term “Microcast”. Having gained popularity, microcasts can be defined as the Twitter of podcasts as argued by Semercioğlu (2019: 6). While average podcast time turned out to be 38 minutes 42 seconds with the inclination towards short, core and fast contents, the same is between 5 to 7 minutes for microcasts. Microcast makes contents more easily-accessible and consumable (Semercioğlu, 2019: 7).

Podcasts are, in principle, digital stories. Therefore, they require a mass of listeners who take active part in the storytelling process. As to podcasts, the deep connection between a storyteller and a listener ensure that both sides feel an affinity towards each other. Considering the research by Waldmann, a Podcast is an intimate auditory environment as a gripping narrative which is transmitted to a single user using earphones or listened to in a car or during a journey (Waldmann, 2020: 37).

3. 1. Audio Books

Establishing a connection with books through the sense of hearing is a mode or reading practiced throughout the history of books (Richards as cited in Tattersall Wallin, 2020: 2).

Today various reading experiences offered by audio books with applications and varying tools, the presence of sizable audio book libraries, easy accessibility and similar other facilities contribute to radical changes in reading practices. The development of digital devices enhanced the popularity of audio books. On the other hand, the act of reading and the properties of a book also started to differ. The conventional form of reading is a part of a routine for many people. This routine, in turn, emerged in consequence of reading in particular periods of time. However, audio books replaced the act of reading with listening which ensured various periods of time and routines in a day (Tattersall Wallin & Nolin, 2019: 3).

Audio books can be listened to while doing business that requires less attention in our daily life. Books don't require a special time allocated to them anymore. The act of listening moves individuals away from the effects of "boring" business. Audio books made stories portable (Saricks, 2011: 16).

3. 2. Clubhouse

Launched in April 2020, the auditory social media platform named Clubhouse was created by Paul Davidson and Rohan Seth. Initially made available for the IOS operating system, the application gained recognition as a semi-closed social network which worked on an invitation basis. As a result of the interest in favour of the application, an Android version also came out.

Reaching the market value of 1 billion dollars in January 21, 2021, the platform attained 10 million users as of February 2021 (Strielkowski, 2021: 1). However, the Clubhouse platform later became a matter of discussion in terms of data privacy and security. The application can gain access to contacts in mobile phones when a user becomes a member (Radcliffe, 2021: 3.).

However, Clubhouse doesn't record chats or stores them in the system. Although this poses advantages with regard to freedom of speech, it also invites disinformation as it may lead to anything said by anyone without any kind of control.

The application ensures socialization for users without forcing them to look at the screen or take care of their appearances. In this sense, the platform is quite eligible for multitasking.

Launched and spread during the coronavirus pandemic, it is not clear whether the application will lose popularity at the end of social isolation process (Strielkowski, 2020: 1).

4. Research Method

The purpose of this research is to understand the dynamics of use of digital auditory applications and platforms such as podcasts, audio books and Clubhouse. The data acquired with interviews from among qualitative research methods were analysed with thematic analysis method. The approval for the research was provided by the non-Interventional Ethics Board of Üsküdar University. As part of the study, 17 participants were taken to in-depth interviews in consequence of which the obtained qualitative data were engaged to create the relevant themes about the subject matter. As to thematic analysis, a research should identify the themes offered by and analyse data and report the findings of such analysis (Şad, Özer, & Atli, 2019: 875). To this end, the themes were clarified by separating the common points and other information that could be regarded significant. Each created theme was analysed and indicated in tables.

5. Results

The population of the research consisted of 17 participants (11 women and 6 men) and were contacted with snowball sampling method. The ages and the name codes assigned to the interviewees are given in Table 2.

Table 2: Demographic Information Table of In-Depth Interviewed Participants

Name Code	Gender	Age	Educational Status
K1	Female	22	Associate Degree
K2	Female	26	Master's Degree
K3	Female	24	Master's Degree
K4	Male	27	Master's Degree
K5	Male	24	Bachelor's Degree
K6	Male	25	Bachelor's Degree
K7	Female	37	Master's Degree
K8	Female	35	Master's Degree
K9	Male	56	Bachelor's Degree
K10	Male	35	Master's Degree
K11	Female	56	Bachelor's Degree

Table 2: Demographic Information Table of In-Depth Interviewed Participants (continued)

K12	Female	55	Bachelor's Degree
K13	Female	29	Bachelor's Degree
K14	Female	28	Master's Degree
K15	Male	35	Bachelor's Degree
K16	Female	28	Master's Degree

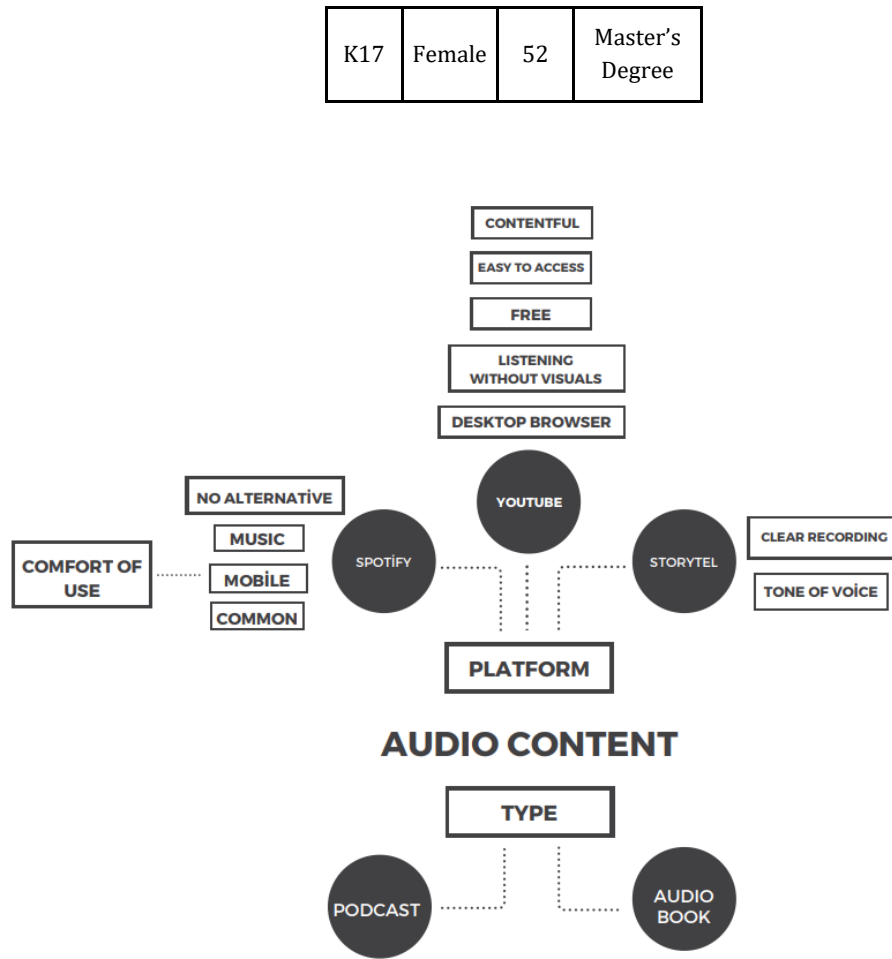


Figure 1: Statements Regarding Consumption of Audio Content

According to the findings obtained from the participants, there were two preferred auditory contents which were podcasts and audio books. Of the participants, only 4 listened to only audio books and 6 only podcasts while 5 listened to both audio books and podcasts. The participant P16 stated that s/he listened to both audio books and contents with calming sounds. The participant P11 remarked that s/he preferred to listen to audio books and radio programs (Figure 1).

Auditory contents are followed on social media applications such as Spotify, YouTube and Storytel. Among the participants, 7 stated that they applied to Spotify and YouTube while 5 used only YouTube and 2 only Spotify. The participant P5 said that s/he preferred only Storytel while the participant P4 used both Storytel and Spotify and participant P2 used all these platforms.

The auditory content listened to on YouTube is frequently opened on desktop browsers and consumed without any interaction with images. The participant P3 says the following as regards to why s/he prefers YouTube for auditory contents: *“It is both free and easily accessible. I can access to it on mobile devices, computer and any other device and play it in the background while doing another task. This is why the first option that comes to my mind is always YouTube. I mostly listen to on computer and, therefore, it plays on a tab in the background.”*

YouTube is preferred owing to the wide content, easy access and free qualities. On the other hand, the participants who used Storytel, an audio book application, suggested that they

preferred the application for they paid attention to clear voice recording and the voice tone of audio book readers. In this sense, the participant P2 said: *“As a consumer, I think that the most important thing is clear voice. To me it is preferable if especially intonation is descriptive. The reason why I prefer these applications is that I get a more quality hearing with these contents.”* Similarly, the participant P5 explained his/her reason for preference with the following words: *“I, most of all, take notice of content as a criterion, and then I pay attention to the tone of voice of a reader.”*

The participants who referred to the contents on Spotify stated that they preferred the application owing to various reasons such as easy mobile usability and prevalence. The inclusion of not only podcasts but also music content in its library and the belief that the application has no alternative were also among the reasons why users of Spotify preferred the application. The participant P8 said: *“I don’t even know where to listen to podcasts if not Spotify. I don’t have any idea about a platform which is easy to use and widespread and has no alternative.”* About the Spotify library, the participant P4 said: *“Spotify was not actually a special preference for podcasts. I used it for listening to music. Later on, I wanted to try and continued to use for podcasts when I encountered them.”*

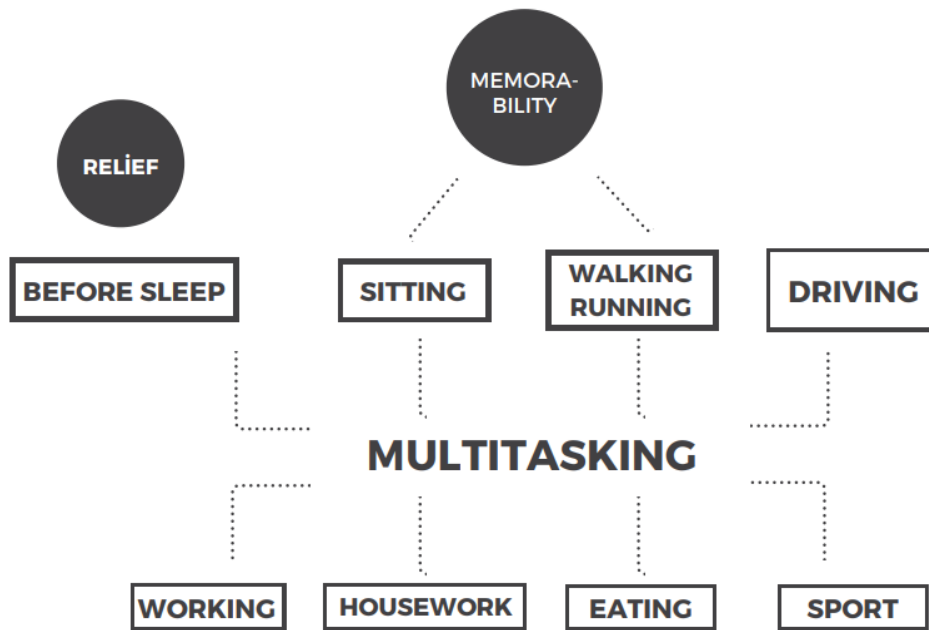


Figure 2: Statements Regarding Multitasking

According to the findings attained from the participants, auditory contents were mostly preferred as they enabled the performance of two or more works at the same time (Figure 2). This was explained by the participant P13 as follows: *“I usually prefer to listen to YouTube without watching it. I listen to auditory contents while I carry on a work and do what I need to do by that time. This lets me do a couple of tasks at the same time.”* In this regard, the participant P6 states the following: *“When I need to write something, I play a podcast because I don’t like silence. I don’t prefer music because it distracts me while podcast offers a controllable background voice. I prefer to listen to podcasts while both writing and playing.”*

In consideration of the foregoing, the participants prefer to listen to auditory content while doing housework, working, cooking, doing sports and driving a car. The participant P17 remarks the following about the subject: *“The reason why I listen to auditory contents is that it helps me to*

carry out multiple tasks at the same time. It saves time. Depending on the quality of the work I do while doing housework, having a journey or working, I absolutely prefer to listen to auditory contents whenever I can. I also prefer to listen to them before sleeping.”

Auditory contents were used by the participant for relaxing before sleep. In this sense, the participant P1 states “I actually spare time to listen to auditory contents. This is generally before sleeping. I listen to them in order to feel sleepy fast. Therefore, I listen to them less during daytime.”

According to the statements of the participants, the memorability of auditory contents increases while sitting, walking or running. The participant P14 explains this in the following words: “Whatever I do, the rate of my understanding auditory contents decreases except when I walk or sit. Of course, it also depends on the load of my work.”

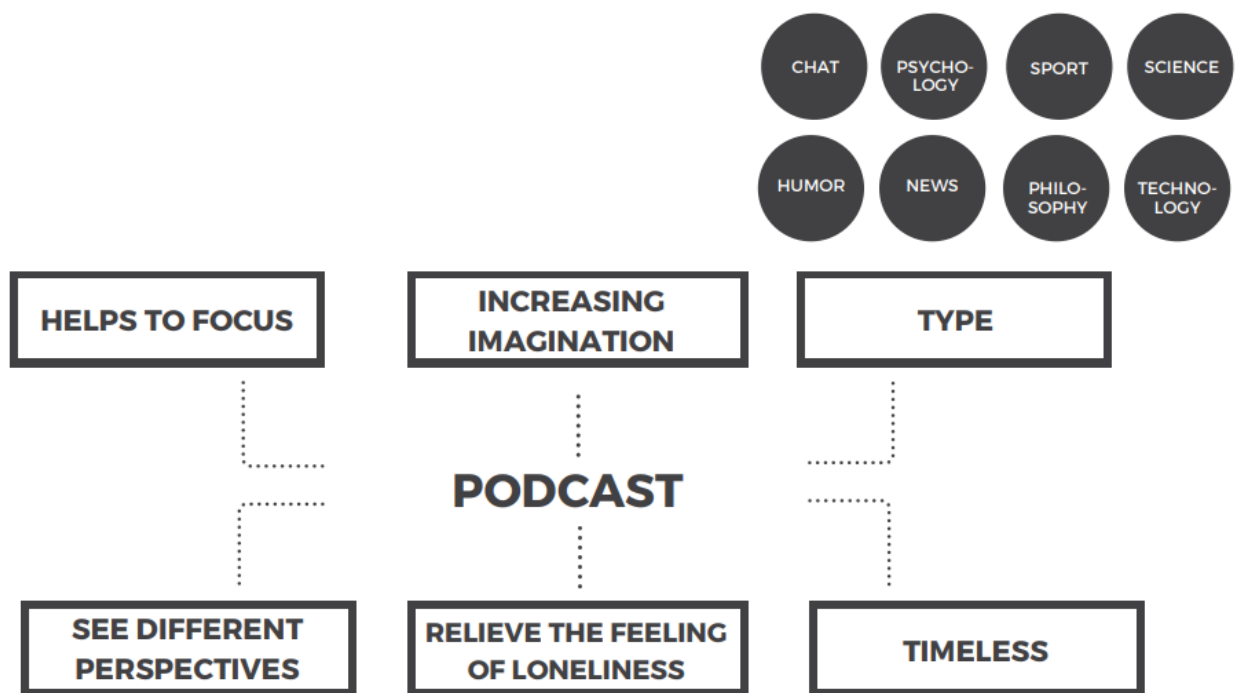


Figure 3: Statements Regarding the Podcast Listening Experience

11 participants who preferred to listen to podcasts as auditory contents specified that they listened to the contents that dwelt on humour, news, philosophy, technology, conversation, psychology, sports and science (Figure 3). To the participants, listening to podcast increases imagination compared to consuming a content with an image. They prefer to consume auditory content as they ensure focus on multiple tasks at the same time. The participants think that podcast is a “timeless” content and helps to learn and understand different perspectives. This is expressed by the participant P6 as follows: “I believe that podcasts are useful to understand different points of views.”

Listening to podcasts also help the participants to alleviate their feeling of loneliness.

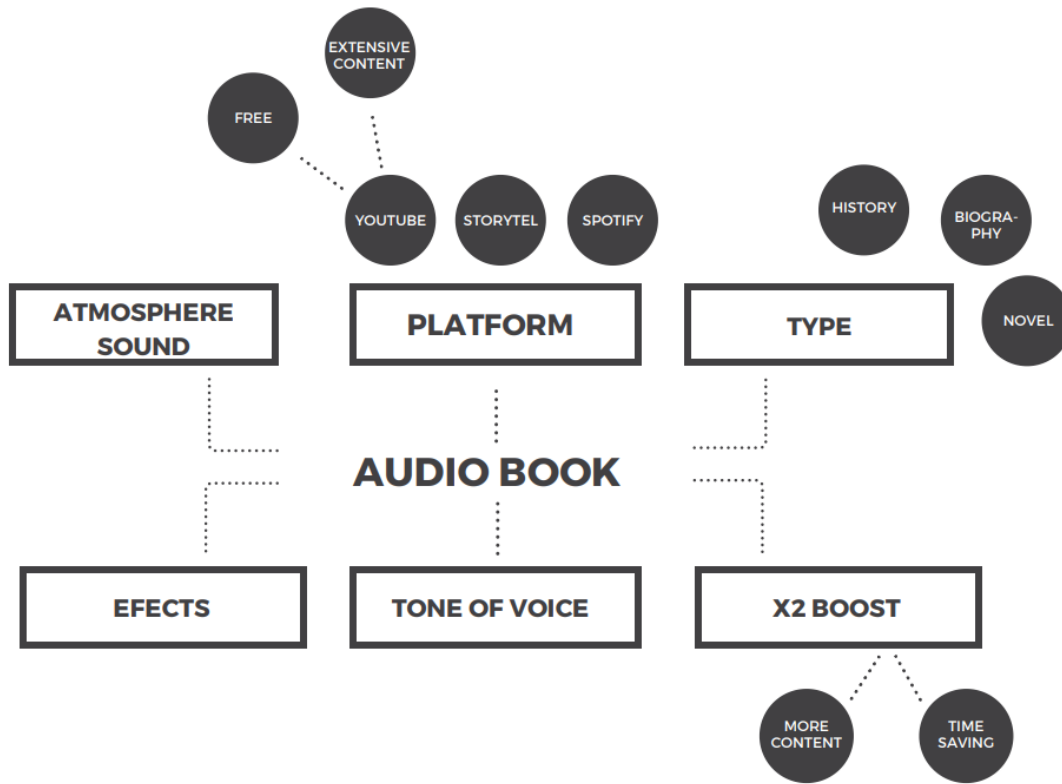


Figure 4: Statements Regarding the Audiobook Listening Experience

11 participants who prefer to listen to audio books stressed that they listened to contents on history, biography and novels (Figure 4). The participants claim that they listen to audio books on Storytel, Spotify and YouTube. In this context, the participants P1, P2, P3, P9, P11, P13, P15, P16 and P17 indicated that they preferred to listen to audio books on YouTube. However, the participants P1, P2, P4, P15 and P17 preferred Spotify to that end. The participants P2, P4 and P5 used Storytel for the same purpose. YouTube is more preferable because it offers free and a wide content as to audio books. The qualities that are taken into consideration by the participants while listening to audio books are sound effects, atmospheric sounds and the tone of voice of a reader. The participants who preferred to listen to audio books by accelerating them twice faster pronounced that thus they could save time and experienced more interaction with the content.

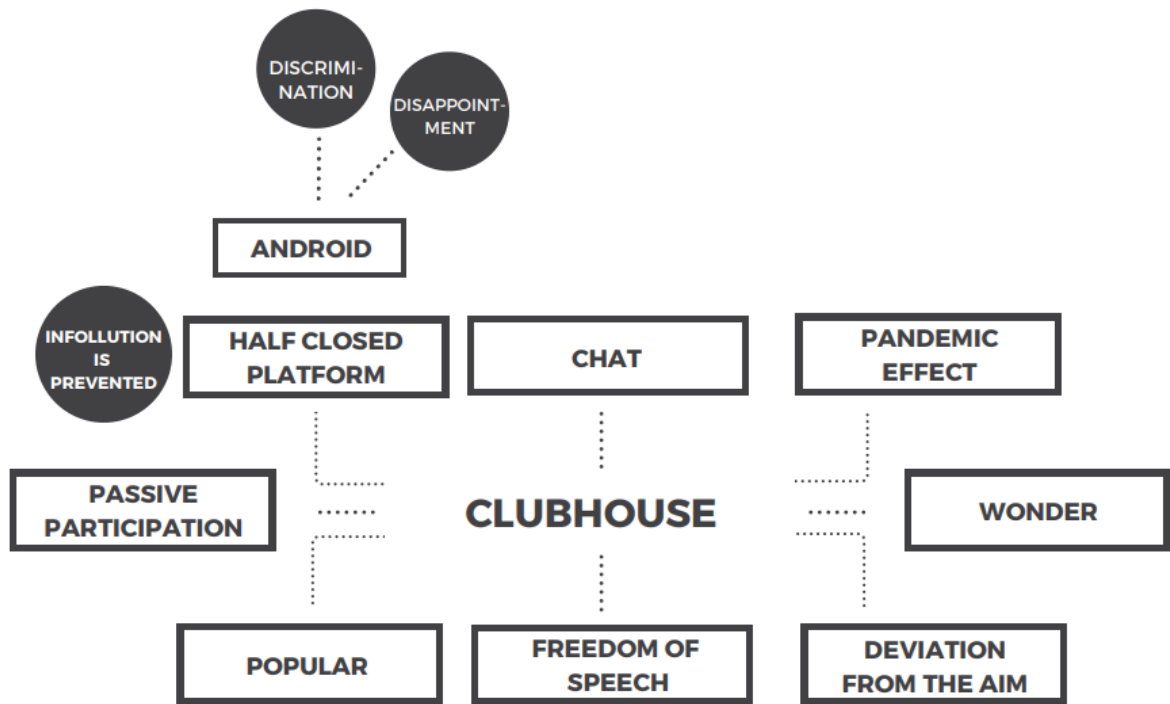


Figure 5: Statements Regarding Clubhouse

Clubhouse, an auditory chat application, was regarded by the participants as a platform which became popular with the Covid-19 pandemic. They said that they first checked the application out due to curiosity but it strayed away from the purpose of use in time. Although the application is known and preferred for chatting, it only permits users to listen by passive participation in what is being talked about in a chat room. According to the participants, it is an application that appreciates freedom of speech. The first version of the application ruled out Android users and was launched as a semi-closed platform. When Clubhouse was first launched, Android users could not take part in the research and this created a disappointment which made them think they were subject to discrimination. IOS users, on the other hand, expressed that the semi-closed system prevented a pollution of information (Figure 5).

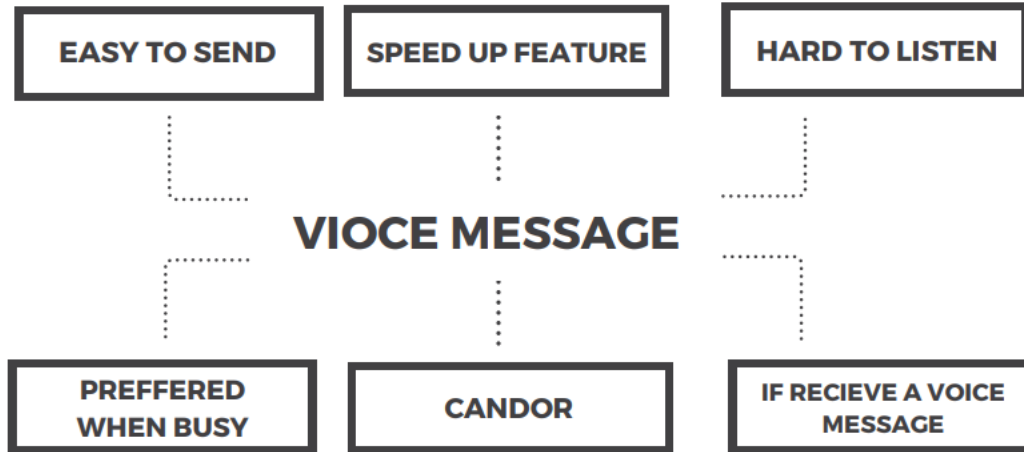


Figure 6: Use Of The Voice Message Feature

Concerning the use of audio messages, the participants said that they generally applied to audio messages they were busy. However, they also asserted that they replied with audio messages and that it was easier to do so if a contacted person had also sent them an audio message. The participants mostly think that audio messages convey sincerity as they feature voice of tone. They claimed that it was difficult to listen to audio messages and that they could not play them in all the environments. Clarifying that an update in Whatsapp application enabled audio messages to be played by speeding, the participants remarked that they believed this was a useful property as it saved time (Figure 6).

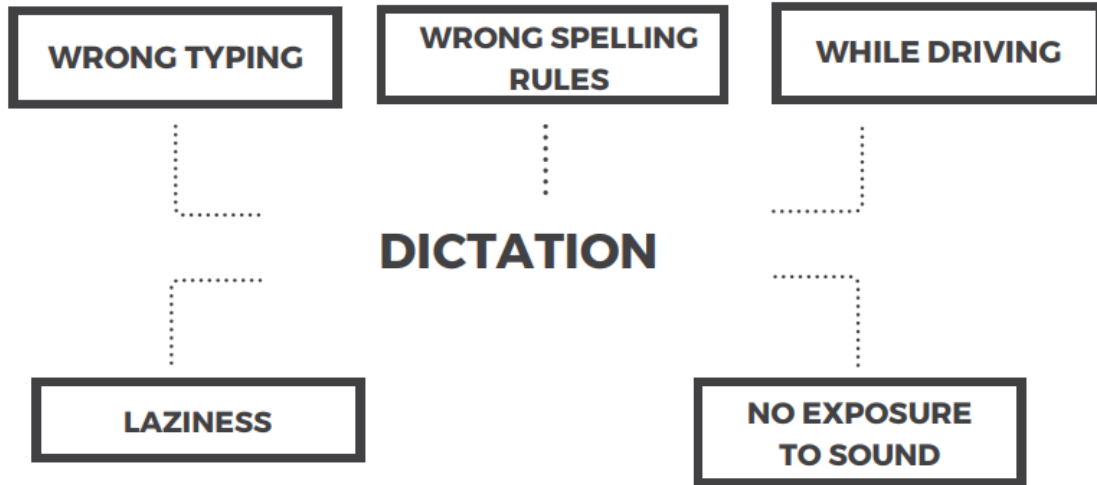


Figure 7: Use Of the Dictation

The participants who said that they used the dictation property on mobile devices expressed that it was not compatible with the Turkish language and, therefore, worked better in foreign language (Figure 7). In this subject, the participant P4 said: *“The spoken language looks strange when it is written. Also, I believe that the dictation property isn’t developed well in the Turkish language.”*

Having argued that they encountered incorrect typing and spelling, the participants declared that they mostly dictated their messages while driving so that they might not force the receiver to listen to an audio content. This was explained by the participant P3 as follows: *“I was speaking very slowly when I sent an audio message and, therefore, had my friends listen to long messages. Now I can both listen and be listened to by x2 speed. I also used the dictation property.”* Again, the participant P15 said *“I never use voice dictation. There are people who are too lazy to Tweet and, to add on it, they dictate the message,”* and claimed that dictation push people to laziness.

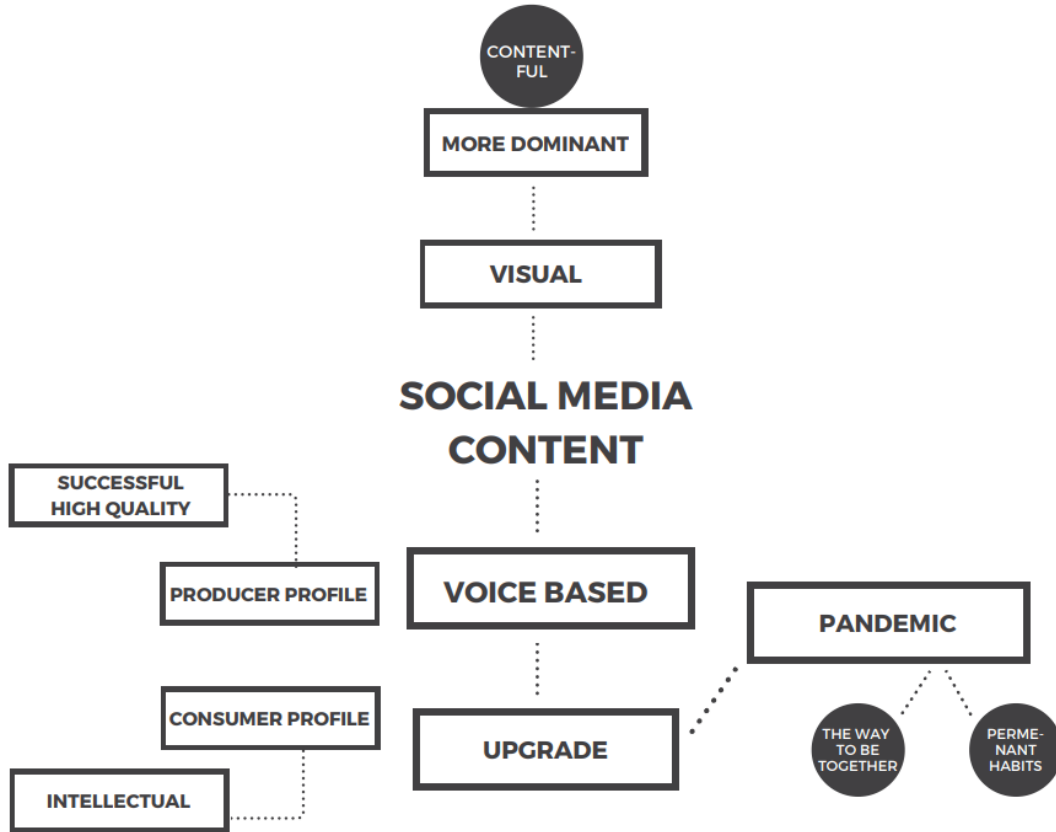


Figure 8: General Statements About Social Media Content

Based on the findings, the participants divided social media contents into two categories as visual and auditory and specified that visual contents were more dominant and richer in social media applications. Sharing that auditory contents were still on the rise, the participants suggested that the Covid-19 pandemic played a significant role in the recent popularity of auditory contents (Figure 8). They considered auditory contents to be an alternative to sharing time with other people during the process of social isolation. The participant P8 expressed his opinion as follows: *"Since we are locked up at home with the pandemic, our social life is also interrupted. Podcasts has served as a way to be together at a point. We started to listen to podcasts as if we were having a conversation with our friends outdoors or with our colleagues at the office."* The participants imported that the auditory contents that are on the rise would not downgrade after the pandemic but would persist and prove permanent together with the habits that were acquired during the process. The participant P10 put it as follows: *"The pandemic changed many habits but I believe that the changing and popular contents will remain permanent. Our listening habits will also maintain their presence."* The participants think that people who prefer to consume auditory contents exhibit intellectual traits. The participant P15 said: *"I regard the consumers of auditory contents as the meeting of intellectual people. The number of quality people who produced auditory content increase."* In this respect, auditory content producers exhibit a quality and successful personality.

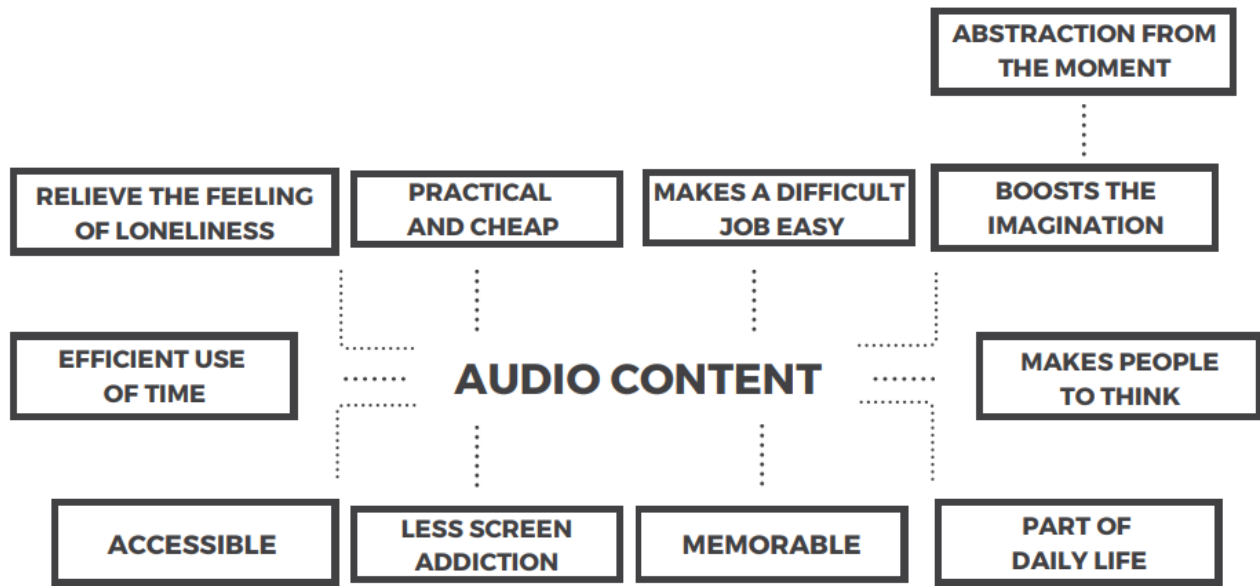


Figure 9: General Statements About Audio Content

Considering the opinions of the participants as a whole concerning auditory contents, it has been inferred that they opted for such contents for they were accessible, practical and cheap (Figure 9). Having claimed that auditory content consumption enables the performance of multiple tasks at a time, they said that they viewed these contents to be useful and that they became a part of their life. To that effect, the participant P10 said: *“To me, listening to an auditory content from YouTube is a part of my life. There is always a background sound which I play while I do my daily works.”* That being said, the participants are inclined to consume auditory contents in support of facilitating a difficult work. The participants suggest that this makes auditory contents more memorable. The participant P1 said: *“To me, the contents which we listen without an image are more memorable. They are easier to remember. They are etched into my memory because I listen to them with complete focus in a dark room.”*

The participants believe that consuming auditory contents decrease screen addiction and boost imagination by encouraging thinking. In this sense, the participant P9 explains the following: *“Listening gives me freedom. I can listen to it while I am doing or busy with something else, and it saves me from screen addiction.”*

The participants claim that they felt moved away from the moment they were in when they listened to contents such as podcasts and audio books. Again, some participants asserted that consuming auditory contents alleviated their feeling of loneliness.

DISCUSSION AND CONCLUSION

The in-depth interviews carried out as part of this research provided clues about the points of view on the auditory digital communication technologies such as audio books, podcasts and Clubhouse and on the motivations of the people who used such technological forms of communication.

In a 2010 questionnaire applied to 354 participants, McClung and Johnson revealed that the majority of podcast listeners consisted of well-educated and high income people and that they mostly listened to podcasts on mobile devices while they downloaded the programs they liked.

It was observed that the primary motivations why the participants listened to podcast were the opportunity to adjust the time of listening to a podcast, creation of an archive and socialization. Conducted with in-depth interviews, the results of this research are in line with a part of the findings of McClung and Johnson. In this respect, the motivations such as Entertainment and the Appointment of the time to access and listen to podcasts are coherent. Furthermore, the participants of the research by McClung and Johnson specified that listening to podcasts later on ensured socializing when they were discussed with other people while the participants of the present research considered podcasts as media contents that helped them feel less lonely. Also, the podcast listeners emphasized that listening this type of media addressed their imagination more than the other media forms. This view is coherent with the comparison by Walter Ong between oral and written cultures. While a written or visually shaped content offer less interpretation opportunities to receivers, sound increases the need for picturing in the mind. Considering the research results, the most important advantage of all the auditory contents is that they allow to simultaneously perform other works. Gaining more and more speed with globalization, the need for human life to use time efficiently mounts if we especially consider the urban and educated population. It saves time for the urban population to consume auditory content and/or to reach to information while, at the same time, walking, doing sports or going from one place to another. Looking at the fact that the auditory contents the participants claimed they used are mostly listened to while performing other tasks or before sleeping, it is safe to say that sound-based technologies are preferred when it is question of the contents which do not require close attention or detailed cognitive attempt for comprehension.

The research data show that YouTube are among the platforms the participants used to consume auditory content. According to the Digital 2021 report issued by We are Social and Hootsoutie the mostly-used social media platform throughout the world is Facebook while YouTube is still the most popular one in Turkey. This study suggests that the popularity of YouTube is partly owing to the fact that YouTube can also be listened to for auditory contents alone. The popularity of YouTube is also consolidated with the free and rich content of, access on a computer to and the ability to listen to YouTube while it plays on another tab in the background.

Employing a qualitative method, this research has intended to comprehend the consumption habits and motivations of auditory content users with in-depth interviews. Further studies may tackle with how auditory contents are perceived by wider populations and with their practices of use, by applying a questionnaire or scale to a wider sample group. Similarly, significant data may be achieved as to what the new digital sound technologies mean for individuals if the neural activities of auditory content consumers are examined during the perception of such contents using imaging technologies such as EEG and EMG from among the data collection methods of neuroscience.

EXTENDED ABSTRACT**GENİŞLETİLMİŞ ÖZET****SESE DAYALI İLETİŞİM TEKNOLOJİLERİNİN YÜKSELİŞİ: PODCAST, CLUBHOUSE VE SESLİ KİTAP UYGULAMALARINA DAİR ARAŞTIRMA**

Dijital teknolojilerin gelişmesiyle birlikte geleneksel kültürel formlar dijital platformlara taşınmakta ve eski formlar yeniden kullanım için dijital ortama uyarlanmaktadır. Son dönemde sese dayalı dijital teknolojilerin yaygınlaştığı görülmektedir. Dijitalleşmeyle birlikte fiziksel olarak aynı mekanlarda olmayan kişilerin birbirleriyle iletişim kurma yöntemleri çeşitlendi. Web 2.0 teknolojisinin sağladığı "interaktif web" sayesinde bireylerin farklı yerlerde olsalar bile birbirlerini görmeleri ve duymaları mümkün hale geldi.

2019 yılının Aralık ayında Çin'in Hubei Eyaleti Wuhan'da ortaya çıkan ve Dünya Sağlık Örgütü tarafından 12 Mart 2020 tarihinde pandemi olarak ilan edilen COVID 19 virüsüne karşı alınan önlemler nedeniyle yüz yüze iletişimin riskli görüldüğü bir dönemde yeni medya platformları baskın iletişim araçları haline geldi. Son yıllarda yeni medya ortamındaki salt sesli uygulamaların artması, COVID 19 pandemisi sırasında ivme kazandı. Sesli kitap uygulamaları hızla yayılmaya başladı ve yayınlanan podcast sayısında artış görüldü. Pandemi döneminde sesin artan önemine ilişkin son gelişme ise Clubhouse adlı ses temelli sosyal medya platformu oldu. Yeni medya teknolojilerinin kesintisiz ve net görüntülü görüşmelere olanak sağlamasına, sosyal medya kanallarının görme ve görülme yoluyla yeni bir dijital kültür oluşturmasına rağmen, yalnızca ses unsurunun olduğu podcast'ler, sesli kitaplar ve Clubhouse benzeri uygulamaların artan popüleritesine ilişkin akademik bir araştırma yapılmasına dair ihtiyaç oluşmuştur.

Nitel yöntemle dayalı bu çalışmada amaç, bu teknolojilerin neden tercih edildiğini, hangi ihtiyaçları karşıladığını ve artan kullanımın nedenlerini anlamaktır. Bunun için sese dayalı dijital iletişim olanaklarından yararlanan bireylerle derinlemesine görüşmeler yapılmıştır. McClung ve Johnson'ın 2010 yılında yayınladığı çalışmasında 354 kişiyle yapılan anket çalışmasında podcast dinleyicilerinin çoğunluğunun iyi eğitilmiş ve gelir düzeyi yüksek olduğu, podcast'i genellikle taşınabilir cihazlardan dinledikleri ancak en sevdikleri programları indirdikleri ortaya çıkmıştır. Söz konusu çalışmada, katılımcıların podcast dinlemeye yönelik temel motivasyonlarının eğlence, podcast'e ulaşmak için zaman ayarlayabilme, arşiv oluşturma ve sosyalleşme olduğu görülmüştür. Araştırmamız kapsamında gerçekleştirilen derinlemesine görüşmelerin sonuçları, McClung ve Johnson'ın bazı bulgularıyla uyumludur. Eğlence ve podcast'lere erişim ve dinleme süresini kişinin kendi belirlemesi gibi motivasyonlar bu çalışmanın bulgularıyla eşleşmektedir. Öte yandan McClung ve Johnson'ın çalışmasının katılımcıları podcast'leri takip etmenin kendileri hakkında daha sonra fikir alışverişinde bulunarak sosyalleşmelerini sağladığını belirtirken, araştırmamız kapsamında görüşülen kişiler podcast'i kendilerini daha az yalnız hissetmelerine yardımcı olan bir medya içeriği olarak gördüklerini belirtmişlerdir. Ayrıca podcast dinleyicileri, bu tür medyanın görsel içeren medya türlerinden daha çok hayal gücüne hitap ettiğini vurgulamıştır. Bu bakış açısı Walter Ong'un sözlü kültürü yazılı kültür ayrımına benzetmesiyle uyumludur. Yazılı veya görsel olarak şekillendirilmiş bir içerik, alıcıya çok daha az yorum yapabileme imkânı sunarken, yalnızca sesli olarak şekillendirilmiş içerikler hayal gücüne duyulan ihtiyacı arttırmaktadır.

Araştırmamızın sonuçlarına göre, tüm sesli içeriklerin en önemli avantajı, bireylerin aynı anda başka görevlerle uğraşmasına olanak sağlamasıdır. Küreselleşme süreci, özellikle eğitilmiş kent nüfusu düşünüldüğünde, zamanı verimli kullanma ihtiyacı artmaktadır. Yürürken, spor yaparken ya da bir yerden bir yere giderken aynı anda ses içeriği tüketmek/bilgiye ulaşmak, kentliye zaman kazandırır. Araştırma kapsamında, katılımcıların tükettikleri ses içeriklerinin genellikle başka bir iş yaparken ya da uyumadan önce dinlendiğini söylemek mümkündür. Ses tabanlı teknolojilerin, tam dikkat gerektirmeyen veya ayrıntılı bilişsel çaba olmadan tüketilecek bir içerik söz konusu olduğunda tercih edildiğini söylemek mümkündür.

Araştırma verileri, katılımcıların ses içeriklerini tüketmek için kullandıkları kanallardan birinin YouTube olduğunu ortaya koymaktadır. We are Social and Hootsuite tarafından yayınlanan Digital 2021 raporuna göre, Facebook tüm dünyada en yaygın kullanılan sosyal medya kanalı iken, YouTube Türkiye'de hala en popüler sosyal medya platformudur. YouTube'u yalnızca sesli içerik olarak dinlemenin bu popülerliği yaratan kullanımlardan biri olduğu bu araştırmanın sonuçlarından biridir.

Konuyla ilgili gelecekte yapılacak çalışmalar, daha geniş bir örnekleme anketler veya ölçekler uygulayarak sesli içeriğin geniş kitleler tarafından nasıl algılandığını ve kullanım pratiklerini ele alabilir. Nörobilim verilerinin toplanmasında kullanılan EEG ve EMG gibi görüntüleme teknikleri ile sesli içerik tüketicilerinin bu içerikleri alıcı olarak deneyimlemeleri esnasında sinirsel aktiviteleri incelenebilir ve bu da yeni dijital ses teknolojilerinin bireyler için ne anlama geldiğini anlamada önemli veriler sağlayabilir.

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