Broadcasting In The Inevitability Of Digital Media Technology

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Abstract.

The main driver of this revolution was the discovery and development of digital technology. The discovery and development of digital technology. The essence of digi- tal technology is the process of converting all forms of information (text, sound, and graphics) encoded into a code containing the digits 0 and 1. This research is a qualitative research with a literature review approach. The data sources used are secondary data from various journals, books, news, videos and other texts relevant to this study. The results of the study found, digital technology opens up the possibility to produce higher quality media content, both in terms of "physical" quality and content, as well as quantity. quality media content, both in terms of "physical" quality and content, as well as quantity. But, digital information that is so easy to manipulate, edit and engineer, opens up the possibility to commit public lies, both in terms of plagiarism and in terms of falsifying information. On the one hand, increasingly affordable digital technology makes it possible for everyone to have greater access to information, both to receive and to disseminate information. On the other hand, there is the danger of dependence on technology, which in turn can make people bound (to certain hardware or software), and no longer free.

Keywords : *Broadcasting, Inevitability and Digital Media .*

I. INTRODUCTION

Digital media are forms of media content that combine and integrated data, text, sound, and images of alls kinds; are stored in digital formats; and are increasingly distributed through network such as based upon broad-band fiber optic cables, satellite, and microwave transmission systems [1]. Basically, McLuhan assumes that media technology has created a revolution in society because society is very dependent on technology and the order of society is formed based on people's ability to use technology [2]. He saw that the media plays a role in creating and managing culture. From his opinion that we shape our tools and they in turn shape us, it shows that basically the technology we make has indirectly shaped us, especially in terms of communication. Communication technology has become a major cause of change.In addition to the ease of connecting with others virtually, the identity that shows the existence of these technology users seems to be an important thing to show. If we look a little bit from the study of communication and culture, in the virtual world we can see that people begin to form their social community to form an in-group to display social identity in the group. People strive to obtain or maintain a positive social identity, and when social identity is seen as unsatisfactory, they will join groups where they feel more comfortable or make the group they are currently in a more pleasant nice and lovely place. intellectual works and practices, especially artistic activities. [3]. Advances in computer technology and telecommunications networks have led to their unification or convergence with conventional mass media [4].Marcuse, the society that seeks the transformation of nature, which is achieved today especially by means of technology, alters the basic principles of domination, which changes its form.

Thus, society replaces the personal dependence (the slave's dependence on the master, the bond slaves' dependence on the atheling, the nobleman on the king) by a form of dependence of an "objective world order" (economic laws, the market etc.). In this context, technology becomes the main agent of objectification [5].he first industry to utilise digital technology was the computer games industry. dustry of computer games. The success of the games industry attracted the attention of traditional media industries (print and electronic) to start developing content and distribution in digital formats. On the other hand, new demands are being made on the media industry by audiences, who want information that is increasingly

specific in content and flexible in how and when it is accessed. Some CEOs of telecommunications companies use the term "Anything, anytime anywhere" to describe these consumer demands [6].In the end, digital technology becomes one of the infrastructures to achieve a certain goal. It even frames reality aimed at achieving domination in various lines, especially in the global realm. The Ge-stell of Heidegger, framing is the way used by humans being objectify the world and his experience, the object has been framed become available for the cultivation and manipulation of human beings for a specific purpose [7]. This study will take a look at the use of digital technology in electronic broadcasting media, in this context radio. The discussion will be focussed on the theoretical description of the strength and necessity of digital technology in radio broadcasting. In this context we need a critical thinking. That is about the process of analyzing existing problem of digital broadcast and ideas and examining them in detail [8].

II. METHODS

The type of research used in this study is descriptive research with a qualitative approach [9]. The data taken, identified in the following order: (1) data collection (2) data sorting (3) data analysis (4) conclusion making. As for data analysis, there is a predetermined sequence in accordance with the empirical steps taken, namely as follows: (1) Examination of data (2) suspected data findings, (3) Data confirmation (4) Diagnosis, (5) Action.

The description of the data, presentation, analysis and findings that will be obtained from this study will be written in the paragraphs below, in the research discussion segment. Digital technology fulfills its destiny to become a business instrument, which in the discourse of this study is the marketing of various products, both from the government and from the business world, from micro to multinational scale in the context of radio broadast. technology to play a major role in this aspect [10].

III. RESULT AND DISCUSSION

Radio digitization has three important elements, namely: (1) the use of (1) the use of digital technology in production, including storage, reproduction and editing; (2) the distribution of broadcast content (program, music and advertising) online (via the Internet); and (3) a significant increase in the number of people listening to radio via the Internet. The development of information technology is also not only able to create a global society, but materially able to develop a new space for life for the community, so that without realising it, the human community has lived in two worlds of life, namely the life of real society and the life of virtual society [11].A significant development of digital (broadcast) radio occurred since the mid-1990s. By mid-1999, BRS Media hosted about 2000 Web radio stations; and by the end of 2000, that number had increased to more than 4500 radio stations [12]. There are several reasons why digital systems are needed in the broadcast industry, namely Spectrum efficiency, quality, and reliability. By implementing Digital Broadcast Radio, one frequency channel can be used for several broadcast programmes. Thus, a Digital Broadcast Radio system is much more efficient than analogue broadcast radio which requires one channel for only one broadcast programme. The broadcast quality of digital broadcast radio is much better than that of analogue broadcast radio[13]. Based on research, digital broadcast radio broadcasts are noise-free, so the sound quality and reliability of digital broadcast radio is much better. Currently, FM-based broadcasting is no longer profitable. FM broadcasting requires high operating costs , but the sound quality is lower. Listeners will be able to access a wider range of radio content, complete with better sound quality and new features.

Digital radio also has a wider range of functions. Users can not only listen to sound, but also other attributes such as song information, traffic or weather conditions, as well as other light information that can be conveyed through digital radio[14].DAB is a digital radio broadcasting system that, through the application of multiplexing and compression techniques, combines a number of audio/data streams into one broadcast channel, which is referred to as a DAB MUX (multiplexer). Each station occupies a slot in the multiplexer with the same or different bit rate as required. With the use of compression on digital radio broadcasts, it improves the quality of broadcast sound and also widens the frequency range between stations because digital radio broadcasts only require approximately 60 KHz, while analogue radio requires 350 KHz.

DAB has a number of development variations including the DAB Eureka 147 project which is a standard from ETSI, IBOC which is a standard from NRSC, and ISDB is a digital radio standard from Japan. A number of advantages possessed by DAB include more resistance to interference compared to analogue radio, audio quality equivalent to CD (Compact Disc) [15], more efficient use of the frequency spectrum, lower transmit power, and a wider coverage area.The development of Indonesia's streaming radio has grown tremendously. This digital radio is also called Internet radio because to access streaming radio, you must use internet media.

The reach of internet radio is very wide because it is global, unlike conventional radio whose reach is limited because it uses an antenna to reach the signal range. Nowadays, there are many private radios in Indonesia that use internet radio as their broadcast media. With internet radio, there is no longer a problem of distance and time to listen to radio broadcasts that you want to listen to. Local radio business managers can switch to internet radio business because it is easier to recognise and the range broadcasted by internet radio is wider [16].According to Law No. 32/2002, there are three typologies of radio in Indonesia, namely (1)public broadcast radio, (2) commercial broadcast radio and (3) community broadcast radio. Community radio is distinguished from public radio by two characteristics: (1) Community radio serves the interests of a geographically limited community, while public radio serves large-scale interests that geographically cover the entire national territory, (2) Community radio is a legal entity that relies on ownership, funding and management from community loyalty factors, while public radio obtains official funding support from the government[17].Digital radio transmitted over the Internet has two main thrusts. two main attractions. Firstly, the technology allows for the emergence of highly varied and specific broadcasts; for example, home country broadcasts for immigrant communities living in other countries. Second, it enables audiences to access radio broadcasts without being constrained by geographical boundaries or government rules; a case in point is the failed attempt by the Serbian government to shut down Radio B92 during the Yugoslav civil war in the 1990s. Radio B92 continued to broadcast using digital radio over the Internet [18].

If we can only enjoy radio broadcasts from AM/FM radio, but now some radio stations in Indonesia are releasing ways that make it easier for listeners to listen to radio broadcasts. One of the easy ways is by releasing online radio broadcasts. The purpose of online radio is not only to make it easier for listeners to listen to radio, but also to reach more listeners.The concept of online radio is different from analogue radio. As the name implies, you can only enjoy online radio if your device is connected to the internet, aka streaming. Since it is streamed online, it is no wonder that the sound quality is much clearer than analogue radio. In addition, you don't have to worry about the quality of the radio broadcast. As long as your device is connected to the internet, the radio broadcast will be smooth. You can listen to this online radio from various devices, ranging from smartphones, laptops and tablets. This is much simpler than listening to analogue radio. To listen to online radio, you can listen to it through the Noice app. in Noice, online radio stations come from several cities.If we previously discussed online radio, then here is an explanation of digital radio. Digital radio is an updated form of radio broadcasting. Because AM/FM radio is often affected by network problems, this time radio began to explore digital signals. Broadly speaking, digital radio has the same concept as digital TV.Because it broadcasts on digital signals, the sound quality is clearer and more stable than analogue radio. Also, you don't have to worry about broadcast interruptions due to bad frequencies. Digital frequencies are different from analogue frequencies, as analogue AM/FM frequencies are affected by location and weather. Unlike online radio, digital radio can still be enjoyed even without an internet network.

IV. CONCLUSION

From the results of the research, it can be concluded that both publicly-owned and privately-owned radio stations are ready for digitalization. Both government and private radio stations are ready for the digitization of broadcast radio. The government itself is not so ready because there is no regulation supporting the DAB Family standard. Meanwhile, the public is also not ready due to lack of socialization and the unavailability of digital radio receiver. However, there is potential for the development of digital radio broadcasting if seen from the growth in the number of four-wheeled motorized vehicles and the use of

mobile phones with integrated radio broadcast receivers. Integration of digital radio broadcast receivers in new four-wheelers and mobile phones can increase the presence of digital radio broadcast receivers.

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