

# Media Convergence and Implication of Television Digitalization Creates a Change Audience Behavior

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**Abstract.** Media creates mass audiences and a strong influence as a social control that shapes media influence seen from the social conditions that occur. Technological developments that have triggered media convergence have given birth to new media which is increasingly difficult to place media as social control. The convergence of media and the implications of digitalization of television on changes in audience behavior are interesting parts to be researched. The research method used is a qualitative descriptive case study with the paradigm of developing media analysis from institutions to formats based on content and form and to audiences based on social constructs. The purpose of this study is to determine whether media convergence affects the mass media during the transition period as an implication of digitalization of television in Indonesia and changes in public behavior. The results show that digital technology has triggered media convergence to create new, easily accessible media. The slow migration of digitalisation caused by various factors and regulations encourages stakeholders to use the internet to create new media, the melting of mass media into a new platform that has a positive impact on changes in audience behavior in easy access to information

## 1. Introduction

The high level of human activity today demands supporting tools that can make it easier to complete all of its activities. Technology is here to make a very important device to meet human needs. Technology is able to convert natural resources into various tools. The presence of technology has provided comfort, changing from manual to machine, replacing human power with machines, as well as changing the human function as a controller and driver of technology.

Since the 20th century, the term technology has been used. Until now, technology has entered an increasingly complex world. Computing technology changes today's information technology. Computer technology (*information technology*), network communication, and digital content provide very significant changes to access to information and communication [1]. Ease, speed, and various advantages in disseminating information on new platforms. Today's technology has transformed, fused and blended many aspects. According to Mc Quail [9], in a period of time mass communication has a relationship with social change. There are three key elements that underlie the theory of media, namely; 1) communication technology, 2) media material in form and content, 3) social change refers to social structures, institutions and their development, as well as changes

in public attitudes and beliefs. Technology has given birth to convergence in various aspects, ranging from economic, social, cultural, technological convergence and global convergence. Based on this, media convergence was born, the mingling of various media including television, radio, newspapers, magazines and the internet. The development of information technology has shifted the mass media to personal media. The new media is able to access various forms and sources of information on one platform or device that is more mobile and more personal, giving freedom and convenience to each individual.

Jenkins states that media convergence is the distribution of content in various media and various platforms media, mingling industry into the media and activities of displacement media [8]. This phenomenon occurs due to the emergence of digital technology and new media. In the midst of the swift flow of media convergence and new media being adopted, television was also carried away by the swiftness of technology that was present. Establishment of television technology, from analog broadcasting, broadcast programs and broadcast quality, which has been presented so far, must undergo a transition with the presence of digital technology. Broadcasting regulations have also been affected by establishing new regulations. Television stations around the world have begun to migrate to digital television, including Indonesia. Step by step the migration process is carried out, until it reaches the point of optimizing digital television. Some countries have migrated completely and have turned off analogue broadcasts of digital television broadcasts. In Indonesia, the slow pace of implementing regulations has not fully switched all existing television stations to digital television. The ongoing optimization of television digitization encountered obstacles when information technology gave birth to new media which was growing rapidly and increasingly hampered television digitization. Stakeholders are addressing the birth of new media which has good prospects as an industry that has great benefits in engaging the mass media on certain platforms.

The speed with which new media is accepted by audiences is based on changes in behavior from changes in activities which are increasingly dynamic. Social change that refers to social structures, institutions and their development, as well as shifts in public trust and attitudes in responding to and consuming information. Mc Quail said, there are four key relationships between media culture and audiences that influence each other, namely; 1) idealism shows the influence of the media on the audience, both in terms of content or technological effects. 2) materialism shows the formation of the political and economic power of the audience from more or less the role of the media, as a reflection of change and formation. 3) interdependence shows the dynamics of the relationship between media and audiences that influence each other. 4) autonomy shows that there is no relationship between media and audiences. Media gives birth to a mass audience and a strong influence as a social control that shapes media effects seen from the prevailing social conditions. Technological developments that have given birth to media convergence have created new media which is increasingly difficult to place media as social control again. Information in the hands of each individual makes mass media a personal medium. Audiences have the freedom to access through the latest devices and platforms, so that the existence of television is no longer an absolute source of information in the form of audio-visual, but merges into certain platforms to make television a part of the new media. Changing content, improving cinematic quality, and supporting devices are demands that must be met by stakeholders. The audience has autonomy in determining their attitude.

Based on this background, it is necessary to study the convergence of media and the implications of digitalization of television on changes in audience behavior. Exploring the power of new media as the implication of media convergence, obstacles and opportunities for digitalization of television, as well as changes in audience behavior and media consumption. Previous research that has been carried out as a basis for developing further research on Media Convergence and Implications of Television Digitalization Creating Change in Audience Behavior. Previous research that has been done can be seen in Table 1 below:

**Tabel.1** Previous research

No.	Author and Year	Research Title	Result
1	Prof. M. Alwi Dahlan, PhD 2012	<i>Konvergensi Teknologi Dan Media: Implikasi Bagi Komunikasi Korporat Dan Pemasaran Masa Depan</i>	There was a change in communication due to technology, which then influenced media convergence. Various problems that arise because of technological changes must developed in managing communication between humans, because it cannot be avoided.
2	Julijanti, Dinara Maya 2012	Dinamika Digitalisasi dan Konvergensi Media Televisi di Indonesia	Needs regulation of media digitalisation and convergence of broadcast media to disseminate content that is better.
3	Danang Trijayanto 2015	Implikasi Konvergensi Media Terhadap Industri “Premateur Industri Penyiaran Televisi Digital Pada Teknologi Layanan Mobile Television Di Indonesia”	Dynamicization of mobile TV in the world, especially in Indonesia. The television and telecommunications broadcasting industry is integrated in the industry convergence on mobile TV services. Finally, the mobile TV industry depends on public acceptance.
4	Amry Daulat Gultom 2018	Digitalisasi Penyiaran Televisi Di Indonesia	Transition digital broadcasting in Indonesia faces several challenges in the regulation. The Broadcasting Law has not regulated the digital broadcasting system in more detail and the legal regulations related to digital broadcasting regulations which impact on the transition from analogue to digital television broadcasting cannot be fulfilled.
5	Irla Yulia 2018	Optimalisasi Penggunaan Media Sosial Dalam Pemasaran Sosial Dan Komunikasi Perubahan Perilaku	The advancement of internet technology makes it easy to communicate in two directions without any limitation of space and time. The communication created brings changes in behavior to the individual or the audience.

## 2. Method

Case study with methods of qualitative descriptive is metode research used. The paradigm of the development of media analysis from institutions to formats and to audiences based on content, form, content and audiences was used for the research. Assessing based social construction created by social groups on technology with research approach ber focus on the Social Construction of Technology (SCOT).

## 3. Results and Discussion

### 3.1 Technology

Starting from the Middle Ages, various forms of innovation continue to develop. The use of technology simple machines such as levers, screws, and pulleys assembled generate other equipment more complex. The invention of the printing press during the renaissance had an impact on documenting a wider range of information and knowledge. The discovery of new technologies during the industrial evolution period in 18th century England gave birth to technology in various fields

technology in the late 19th and early 20th centuries, had an impact on the acceleration and expansion of progress in various sectors in the world. 20th Century there are more and more new discoveries and the very rapid development of information and communication technology in the 21st century. The presence of the internet has brought major changes to the information media. Three aspects of today's technological acceleration, namely:

#### *3.1.1 Computing (information Technology)*

According Martin, information technology is the communication technology in the dissemination of information to process and store information using computer technology that consists of hardware and software used. Information technology is a facility to support and improve the acceleration and quality of information for the public [9].

#### *3.1.2 Communication Networks*

The definition of communication networks according to Rogers (1983) is a patterned flow of communication that connects networks consisting of interconnected individuals. Farace (Berbeg and Chaffee, 1987) sees as the communication network as a regular tone pattern on the relationship of each individual which is identified as an exchange of information.. This definition confirms that what is meant by communication networks is the relationship between individuals who are interrelated in the exchange of information, forming identified patterns.

#### *3.1.3 Digital Content*

Digital Content is information in text or written format, images, video, audio or a combination thereof is converted into code so that it can be read, displayed or played by digital machines or computers and easily sent or shared via digital media.

### *3.2 Convergence*

Convergence is digitization, converting analogue formats to digital formats. Convergence has spurred the creation of various applicable products that can perform both audio-visual and computational functions. With this technology, it is possible for the digital format of television broadcasts to have services such as internet services that can access information, entertainment, listen to music, and make phone calls. Media convergence has experienced a shift in technology and its processes, as well as a shift in industrial, social and cultural paradigms in seeking information. In general, it means the unification of various information and communication technology and services. The integration of technology that has led to the convergence of technology has resulted in the unification of various fields in life such as:

- a) Economic convergence
- b) Social convergence
- c) Cultural Convergence
- d) Technology Convergence
- e) Global Convergence

Technology convergence has become a new trend that will change people's way of life and business behavior.

### *3.3 Media Convergence*

According to Burnett and Marhsall, media convergence is the merging of the media, the telecommunications industry and all forms of communication media into digital form. K onvergensi media is closely related to the digitization process. Grand and Wilkinson argue that media convergence has a major influence on two types of technology, namely digital technology and computer networks. The convergence of technology itself occurs due to various reasons. The thing that underlies the convergence of technology is the change in technology from analog to digital. The

factors that drive the change from analog to digital are due to advances in digital technology with the costs required to be cheaper, the cost of developing digital network infrastructure is lower, and high user growth makes media grow rapidly and dynamically. The integration of the media industry in the form of print media, broadcast media and internet or digital media has the ability to create content that is faster, more diverse and dynamic.

### 3.4 Digitalization of television

Television in Indonesia mostly still uses analog wave broadcasting. Meanwhile, several television stations have migrated to digital but have not fully utilized digital technology. Changes in digital technology are not only for television stations and their broadcasts, but changes are necessary for broadcast receiver television sets in order to capture digital wave transmissions properly. A decoder is a device installed on a television set to convert analog signals to digital. If the transmitter still uses analog waves, of course, the signal change to digital via the installed decoder will not be optimal. Currently some television sets have implanted digital technology, it's just that television stations in Indonesia have not completely migrated.

Indonesia in 2007 has made a plan to start running digital television broadcasts. Various regulations have been put in place to gradually migrate to digital broadcasting until the end of analog broadcasting. There are many advantages of digital broadcasting, but there are also many infrastructure costs that must be prepared to make the digital transition. The digital format must be completely transformed from the station transmitter to the user's television set or to add a signal converter decoder. Digital television makes it possible to broadcast broadcasts with high definition broadcast quality.

A digital system that allows multi-channel broadcasting (*Multicast Signal, multiple compressed Digital Channel with HDTV format*), will drain television stations to create a lot of broadcast programs. Opportunities for more integrated programming, as well as more television commercials. Apart from that, other aspects will support the quality of television content production from its cinematic aspects. High-definition video formats are increasingly easy to reach for production at reduced costs, as well as support from the creative industry that can enliven the filling of quality content.

To digitize television, it is necessary to refer to Broadcasting Standards established in the context of digital television, which includes:

- a. Broadcast regulations
- b. Broadcast frequency
- c. Equipment technology
- d. Broadcast program

### 3.5 New media

The phenomenon of media convergence that is able to combine massive conventional telecommunication media with interactive internet media has entered the era of cutting-edge information technology. McQuail explained that new media are different electronic technology devices with different uses [2]. The new electronic media devices mentioned include several sets of systems that are interconnected to form a performance-function unit, including technology systems, transmission systems, miniaturization systems, storage systems and information retrieval. And also an image presentation system created using computer technology.

New media is a renewal of the previous large-scale media in production and distribution which focuses more on technological capabilities so as to present various forms of media formed from computer technology systems.

### 3.6 Audience Behavior

Audiences are individuals who consume media. Audiences receive information from various media in only one direction. Currently the audience can communicate with the media from any information received. Technological developments make many changes in audience behavior. Changes in audience behavior form new media with information technology that is continuously being developed. David Barrat's theory on the development of media analysis from institutions to formats and audiences, examines content, form, context and audience. Social Construction of Technology (SCOT) is a theory concerning the study of technology science. This theory states that technology does not change human actions, but human action itself shapes technology. The use of a technology needs to understand how technology is embedded in the social context. From the standpoint of this theory, new media merupakan form as a result of changes in human behavior increasingly want fast and responsive to a lot of things.

### *3.7 Media Convergence Barriers to Digitalization of Television*

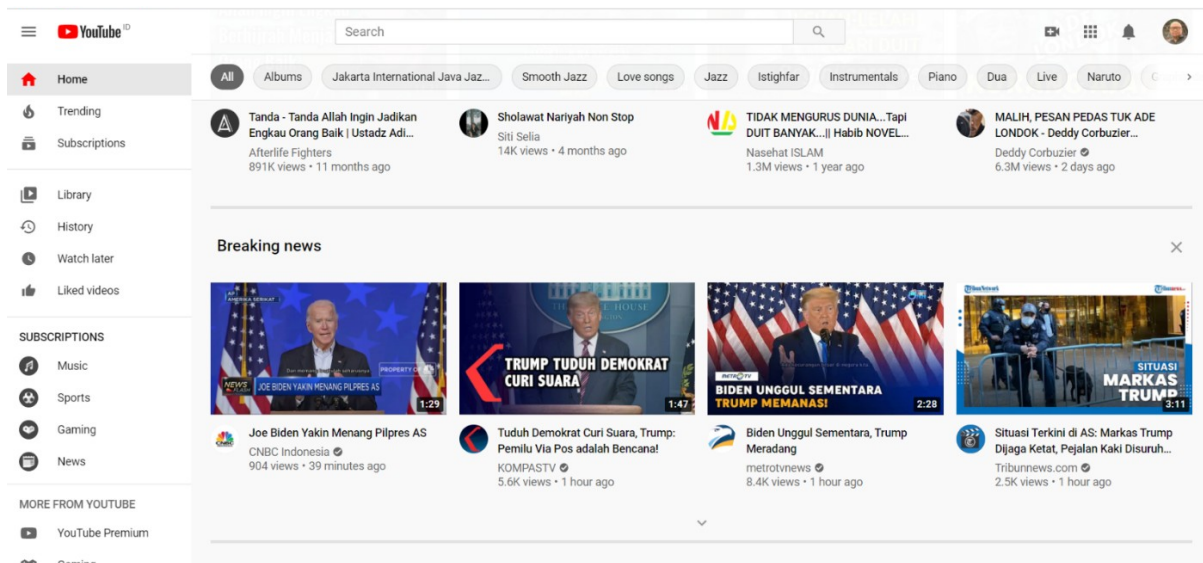
Various new media including platforms with all the content offered have become part of human activities. The merging of conventional media with digital media has further accelerated information and made it easier to access in various situations without the limitations of space and time. The audience is made easier by having all the information content they need in one hand and can access a lot of information.

Television as a conventional broadcasting medium has limited coverage and requires a large infrastructure to support the broadcasting process to be carried out properly. Changes in behavior and viewpoints of the audience continue to shift the existence of television as the main source of information. The government is trying to align with information technology and the acceleration of media convergence by migrating from analog television to digital television. Migration efforts that have started to run yet have not been able to fully migrate all television stations. Constraints on infrastructure transfer, broadcasting regulations, and readiness to manage broadcast programs are fundamental factors in migrating to digital television.

In 2007, plans were made from various aspects to carry out a gradual migration to digital television. Until the end of 2020, it is hoped that the migration to digital will end. The current reality when audience behavior plays a very important role in presenting new media certainly makes stakeholders think more about surviving in the media industry by engaging in media convergence by merging their media into a new platform.

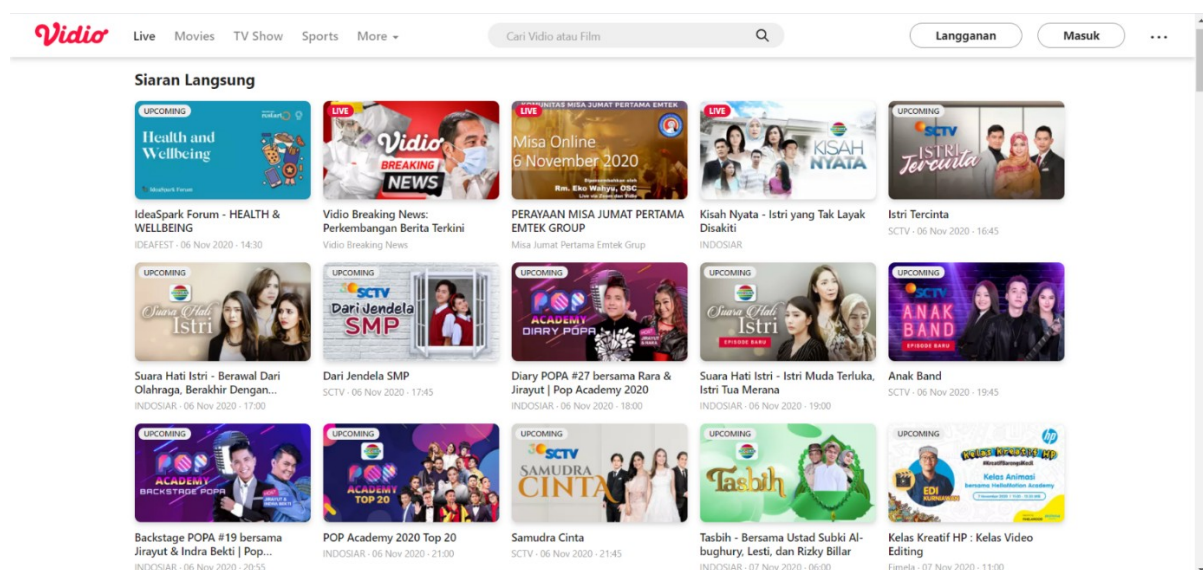
### *3.8 New media create behavior change*

The dynamics of activities in human life today require many things to find it easy to support their activities. New media answer all the needs in accelerating acceleration to solve problems in aspects of life. New media with an increasingly popular digital platform allows the audience to multitask only with the smartphone used. Without the limitation of space and time, free access to all content with the form of two-way communication which further strengthens the presence of new media as the media needed today (see Figure 1).



**Figure 1.** An interface of a YouTube platform that provides audio-visual content

Youtube is one of the platforms accessed by the audience in the form of audio visual. Youtube as a dynamic new media has replaced analog television as spectacle. Opening many types of viewing allows all groups and without restrictions to access YouTube (see Figure 2).



**Figure 2.** Audio visual application as a digital platform that provides various movie shows





**Figure 3.** Examples of quite popular digital platforms

#### **4. Conclusion**

The invention of digital technology demands media convergence and creates new media. Television is experiencing digitalization in broadcasting standards, especially in Indonesia. The slow pace of migration is due to various factors and regulations that encourage stakeholders to take advantage of the internet as a new medium, immerse the mass media in a new platform that is considered positive for changes in audience behavior in obtaining information. The audience prefers new internet-based media in utilizing information. Ease of access that is free of time and space, the breadth of getting information, and multitasking access from users. Most of the users prefer devices and more mobile platforms so the television was limited to a particular spectacle as a second choice to be accessed even a tendency to increasingly leave the television.

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