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The Role of Cyber Media and Public Science Education

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Abstract: The purpose of this paper is to describe the role of cyber media in educating the public about science. This is very elementary because practical science knowledge will provide construction of knowledge and experience to students and society in general. This research method is descriptive qualitative with a literature study approach. The data sources in this study are journal articles that are compatible with the research theme, other sources are manuscripts, thoughts, videos and others that can be substantially elaborated, so as to produce a complete picture of the theme of the study being discussed. The results of the study found how cyber media made a significant contribution to the science education of the community and students. the role can be detailed, namely it plays a role in cognitive effects, so that practical science can be absorbed by the wider community, in affective effects, cyber media is able to influence mental attitudes when people meet with various empirical realities day by day. Cyber media provides a wealth of information about science and technology to the general public. It is a form of technological devotion to humans, to create convenience in celebrating life, which is increasingly complicated in an overflow of unexplainable needs. In the end, this technological dedication provides a real mirror of how the civilization built by humans with the permission of the almighty, is the glory of humans equipped with qualified reason. In the context of this study, the content of cyber media provides three strata of effects, namely cognitive, affective and psychomotor, whose final result is an increasingly complex change in civilization.

Keywords: Science Education; Cyber Media; Public

Introduction

One of the effects of modern technology and the avalanche of internet-based media modalities is making the world a global village (Akinloye et al., 2020; Widjaya, 2020). One is connected to the rest of the world with a click of the mouse or a tap on the mobile device. This development and the emerging Cyber Media have brought a serious concern to the media industry as a whole. The question now is whether the traditional media, otherwise known as old media (print, radio and television) will be swept under the carpet with the emergence of Cyber Media-convergence of old media into one online platform (Olubunmi, 2019; Osepashvili, 2019).

As now the complex learning demand requires high learning motivation therefore learning becomes fun (Zeng et al., 2020). With high motivation, students become enthusiastic and have a strong drive to actively participate in learning and completing tasks well (Graciani Hidajat et al., 2020; Victoria, 2022). This is in line with who states that one of the most important factors that lead a person to achieve their goals is encouragement (Ali & Anwar, 2021; Mularsih & Hartini, 2020).

That is can be describe e learning science motivation given by cyber media (Makki et al., 2023; Zaharah & Susilowati, 2020). In addition to informative content useful for media users, news or opinions, both written and audiovisual, counselling journalism also provides space for interaction (Madonna & Reza, 2023). It is possible because of the correspondence features that complement the web, blogs, online media or voice notes for digital broadcast media. It is hoped that the level of

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audience participation for a community empowerment program will be develop and continue to increase so that the direction of state life towards improvement can be chosen and remember that community empowerment is the main key in the implementation of nation building (Madonna & Reza, 2023)

Cyber media, an emerging concept in media and communication has attracted different definitions in recent times (Gálik & Tolnaiová, 2020). As the concept takes shape, the true picture begins to unfold. But the avalanche of definitions of the concept point to Cyber Media as a new concept, yet to form, but with the potential of replacing the traditional media (old media) such as print media, television and radio. Going by these definitions, the expectation is that, by the time Cyber Media fully takes shape, there will be no print media-newspapers and magazines, television or radio-they must have all migrated to the Cyber Space. How soon this will happen is yet to be known (Olubunmi, 2019).

Method

The methods used in this research can be explained narratively and graphically as described in Figure 1. The explanation of the research method is carried out in a certain order according to the logic flow of the researcher in translating reality into something that is a proposed solution. This is about qualitative research as a case study and that has been associated with qualitative methods of analysis (Zhou & Wu, 2022).

In the first stage of the research method using actual and factual situation analysis, as well as considerations based on literature. The second stage by finding a problem, the problem raised in this research is how to implement a cyber media in public science education. In summary, a qualitative descriptive approach needs to be the design of choice when a straight forward description of a phenomenon is desired (Lambert & Lambert, 2013).

Figure 1. Research Logic Flow

Result and Discussion

Cyber Media: An overview

Cyber media exists after print media, mass media such as radio and television and other media that are considered unable to communicate aphoristically (Chesher, 2023). The relationship to communication for some people requires speed, convenience and cheapness (Nuuyoma et al., 2020). Correspondence can now be done in an instant via email. Offers and requests for products can be made anytime and anywhere through e-commerce. Even distance education without exclusive face-to-face contact can be done with cyber media.

Nowadays, armed with only a smartphone, people can do any kind of communication such as discussing, exchanging information, telling stories, confiding, creating, and so on practically (Yardha et al., 2023; Zeng Skovhøj, 2021). The development of Cyber Media is also used by the government, educational forums, business companies and even mass media providers such as newspapers, magazines, radio and television utilize cyber media for their interests. Using the presence of Cyber Media, the words E-mail, e-Goverment, E-Learning, E-Commerce, website, weblog and so on have emerged.

As the real Cyber Media begins to make inroad into the media industry and the traditional media such as newspaper, television and radio experiment with the new media by migrating into the cyber space, a new platform for the new media, it is imperative to reflect on the fate of the old media and the roles of vehicles for news gathering, reporting and dissemination such as News Agency and Foreign Correspondents in the emerging new media platform. So, this paper takes a closer look at what becomes of the traditional media, News Agency journalism and Foreign Correspondence when the Cyber Media finally becomes a reality (Olubunmi, 2019). When pundits discuss the major changes that characterize the latest phase of the information age, it is safe to say that few include "media effects" or the study thereof (Lin, 2009). With the innate characteristics of cyberspace, cyber communication has unique and different characteristics using other forms of communication. With a large degree of reach and unhindered by space and time.

Cyber communication has many advantages. This advantage is partly due to the characteristics of cyber communication that occurs in digital space. Adapting from (Fioravanti et al., 2021), the characteristics of cyber media are as follows Network. Connected to a network that is not limited to one geographical area. Through the virtual world, a person can connect without being hindered by space and time as long as the public is connected to the internet network. Information. Multimedia in nature, communication can be done

quickly using various forms, whether text, photos, audio, or even forms of adio visual and text simultaneously. Interface. is a translating device when affiliated through a computer. Through this character, the communicant can perform at his best. Archive. archives and various kinds of infotmative documents that have been published in cyberspace can be stored even though it has been years as long as the server is still functioning. This allows the public to access various past issues that are expected interactivity. Encourages social media actors to communicate interactively. Public Relations which results in public media becoming a communication tool can interact with its public to build intensive personal understanding. Simulation. Through virtual global, communication can do positive engineering with a maximum of how to image the company, either through text, graphics, or audio visual.

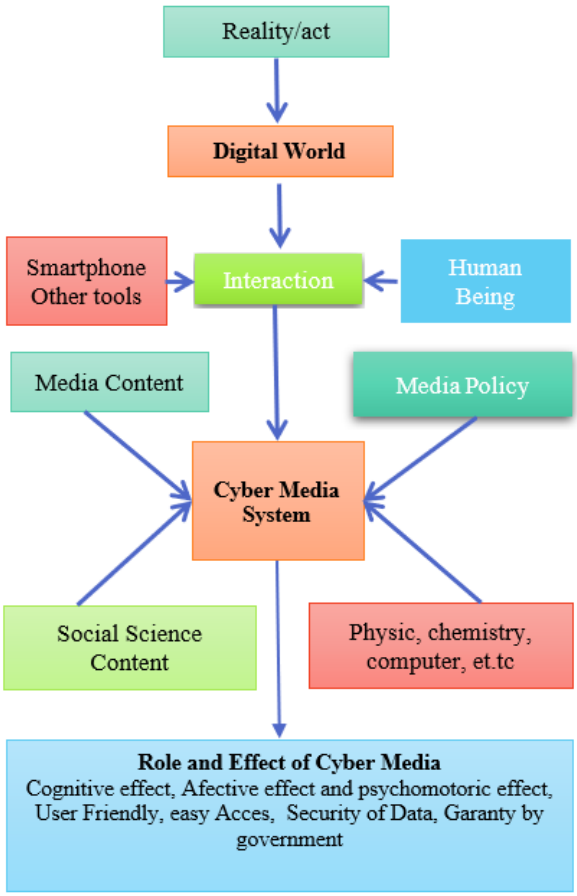

Figure 2. Figure of Cyber Media Role

The origin of virtual communication characteristics above, in the context of cyber society netwoks, gave birth to a new way of communicating as stated by Nicholas A. Christakis in his research results (Hyperconected), namely: Enormity, which is a massive increase in the scale of our networks and the number of people we can reach to join. Communality, which is the expansion of scale to share issues and contribute to a common endeavour. Specificity: a massive increase in the specificity of the bonds we can form, Virtuality: The ability to use virtual features.

Technology has changed the face of press. In 1600, when the printing machine is invented, the printing media spread the news. In 1894 the radio is invented, and in 1925, television is invented, then the news begins to spread by electronic media as the complement of printing media. The era of cyber media began in 1989 when Tim Berners-Lee invented World Wide Web, and in this era, news can easily spread with an Internet connection, people can access the news on their personal computer, laptop or even on their smartphone (Prahassacitta, 2017).

The Science People See on Cyber-Socialmedia

Millions of people see science-related information on their Facebook feeds or elsewhere on social media, but the kinds of science stories people most likely encounter are often practical tips with "news you can use" or promotions for programs and events rather than new developments in the science, engineering and technology world (Koltai, 2020; Kumar, 2022).

In an effort to better understand the science information that social media users encounter on these platforms, Pew Research Center systematically analyzed six months' worth of posts from 30 of the most followed science-related pages on Facebook. These science-related pages included 15 popular Facebook accounts from established multiplatform organizations for example National Geographic and the Discovery Channel – along with 15 popular Facebook-primary accounts from individuals or organizations that have a large social media presence on the platform but are not connected to any offline, legacy outlet (Takhshid, 2021).

Scientific communication comprises two basic aspects or processes: reading and writing or in terms that are more machine-friendly analysis and production of the text (Van Meenen et al., 2022). I will recapitulate the current state of affairs in several areas of machine-related text production and analysis (Tokar et al., 2012). While these 30 Facebook pages with a self-described focus on a science-related area cover a range of topics (Rauchfleisch et al., 2020), just 29% of the Facebook posts from these pages had a focus or "frame" around information about new scientific discoveries. Some pages used a new-discovery frame in the bulk of their posts. For example, that was true of ScienceAlert, IFLScience, NASA Earth and New Scientist. But that framing was rare on other pages. Across the 30 pages, other frames were evident when researchers coded a representative sample of the posts. Fully 21% of posts featured the practical applications of science information, relying on a "news you can use" frame. Another 16% of posts were promotions or

advertisements for media or events, 12% of posts were aimed at explaining a science-related concept, and the remainder used some other frame.

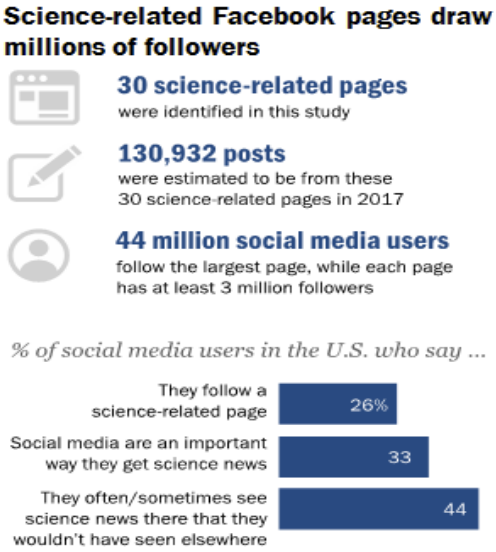

Figure 3. Science In the Internet

There is considerable variation in what topics these popular Facebook science-related pages focus on. Most pages in this sample specialized on posts connected with just one or two science topics (Mueller-Herbst et al., 2020). For example, pages such as Daily Health Tips and Health Digest focused a majority of their content on health and medicine topics, while NASA for the most part posted content related to astronomy and physics. Only four of the 30 pages covered a roughly even mix of posts on several topics, with no single topic making up more than one-in-five posts on the account (pewresearch.org) (Stocking et al., 2022).

Nearly all of the papers in this volume end with a brief summary of the remaining research questions that arise in connection with what has been discovered by the authors. The editors of the present volume thus hope that our book will instigate further important contributions to what will hopefully soon become a new established interdisciplinary field of study Science and the Internet.

Our study provides evidence that the Internet can bring many benefits to scientific software development practices. It may help scientists-developers to keep focus on their main aim, which is advancing their research by easing the process of software development. The Internet is a vast source of knowledge that is easily accessible. This may help scientists to speed up the progress with software development, and the saved time may be allocated to advancing their research. The Internet supports collaboration and communication in scientific software development projects that tend to be of distributed nature. At the same time, our findings indicate that there are some risks involved when it comes to using the Internet in scientific software development. These risks may not seem very apparent and obvious at first glance, but they may in fact have a negative long-term impact on scientific software.

Conclusion

Cyber media provides a wealth of information about science and technology to the general public. It is a form of technological devotion to humans, to create convenience in celebrating life, which is increasingly complicated in an overflow of unexplainable needs. In the end, this technological dedication provides a real mirror of how the civilization built by humans with the permission of the almighty, is the glory of humans equipped with qualified reason. In the context of this study, the content of cyber media provides three strata of effects, namely cognitive, affective and psychomotor, whose final result is an increasingly complex change in civilization.

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Conflicts of Interest
In this research, there is no tug of interest and or hidden interests among the researchers. In addition, this research is also not an order from any funder because it is an independent research or in other words, the research team itself plays a role in preparing proposals, selecting topics, conceptualizing problems, collecting data, analyzing problems, drawing conclusions until the publication stage in this tex.

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