How Societal Change and Developments in Technology Have Driven Changes in Journalism

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Abstract
This article explores the significant transformations that have occurred in the field of journalism due to social and technological advancements. It outlines the shift from traditional journalism, where professional journalists were the sole providers of news, to the integration of user-generated content (UGC), where ordinary citizens play an active role in producing news. The article also discusses the impact of technological advancements on news presentation, with multimedia news in a convergent format providing a more immersive and adaptable experience. The integration of user-generated content and advancements in technology have been deemed necessary for the survival of journalism in a rapidly changing industry, but at the same time raises questions about the professionalism and viability of UGC. Overall, the article highlights the crucial role that social and technological developments have played in shaping the modern media landscape and the ongoing debates about its impact on the quality and credibility of journalism.

Keywords
Journalism, revolution, social change, technological advances, innovation

1. Introduction
Research on the revolution of the journalism field has a long tradition. For several years, Social change and technological advances have led to continuous innovation in journalism, which is always a lively topic of conversation. With the arrival of a new generation, traditional journalism has changed dramatically. The producers of news are no longer professional journalists but have moved more towards listening to the public (Ferrucci & Patrick, 2020). Communication channels have changed from traditional newspapers to multimedia (Çetinkaya, 2018). More modes of new media and mediums are gradually appearing in people’s lives, providing opportunities and representing more challenges for the development of classic journalism. This essay begins with the background and context of the times in which journalism developed a general science and technology environment. Secondly, it indicates specific changes and examples of the causes and manifestations of change in journalism. Last but not least, this article summarises the points listed and concludes that keeping up with the times is the only way to survive in fierce competition.

2. Journalistic Conflict Background
Journalism is an industry with contradictions. In the context of such a rapidly developing era, its contradictions are mainly manifested in two aspects: adaptation and evolution, persistence and innovation. In these twenty years, when technology is developing rapidly, the speed at which obsolete technologies have been replaced is no longer as slow as when black and white television was replaced a long time ago. New technologies such as AI and VR are
having a profound impact on people's lives as well as on the future of journalism. The media ecosystem has changed dramatically, leading to the traditional classic journalism industries, especially newspapers such as the Guardian and the Sun, having to find a new way out of the internet to keep their original style. Journalism professionals need to use available communication tools and technologies to integrate with the journalism that society needs (Xu & Liu, 2022). After research, some scholars gave their opinion that the main reasons for this drastic and fundamental change in journalism were: the ongoing improvements in communication technologies, Audiences and advertising revenues in high demand; dramatic reductions in the entry costs of some online outlets for news; the collapse of the traditional business model to resource journalism; an expansive role for social media as sources and drivers of the news; dynamic changes in government media policy (Franklin, 2012). These points provide a comprehensive overview of the reasons for the dramatic changes in journalism. The reasons for these changes can be summarised as the impact of the economic environment, advances in technology, and the competitiveness of journalism itself in the age of the all-media and internet.

3. Societal Change in Journalism

The transformation of journalism is shown in a variety of ways. Firstly, journalism is turning from organised production to social production. On the one hand, this is reflected in the fact that some traditional news media choose to set up their official news accounts on some emerging social platforms, such as Tik Tok, Twitter, to broadcast news in an era-adapted short message mode or short video mode to capture people's attention to news smoothly from the fierce war for attention. On the other hand, in integrating resources, journalism is starting to pay more attention to user-generated content and integrating it into journalism as a module of visual story-telling. Some of the user-generated content by self-publishing does not count as news but can be helpful to the journalism industry and the innovation of journalists' expressions when reporting. People have a right to know and interact with what is happening around them. Journalists are responsible for reporting the news related to people's thinking in an objective and unbiased manner. User-generated content (UGC) is defined as content that is voluntarily developed by an individual or a consortium and distributed through an online platform (McKenzie, 2012). Integrating user-generated content enhances the variety of content and shifts content creation to the co-creators. Nevertheless, at the same time, integrating users is a resource-consuming task and increases the complexity due to the revision of the content. Establishing efficient processes around UGC is essential for a successful business model (Zeng & Michael, 2016). Compared with traditional media, UGC has the features of faster and more time-sensitive transmission, which is not limited by the time of broadcasting and can obtain more traffic and attention at any time. This has helped journalists in their gathering work to a certain extent. The general audience has enough time to express their views and voices, but not to have the energy and time to collect pieces of information, interview both sides of a conflict, check the facts and present the real context of an event. Therefore, these tasks are only done by journalists and it is their duty to do so. In-depth journalism allows for a comprehensive and systematic presentation of the facts in relation to each other and the unearthing of the truth. However, the professionalism and viability of UGC are still questioned by some in the industry. As the BBC's Watson said, "the more the user can change the condition, the bigger question I would have about whether it is still journalistically valid". However, in terms of adapting to the needs of the times and increasing the stance of interaction with users, integrating user needs is a very good model for survival compared to no change at all.

4. Technological Change in Journalism

Journalism's evolution is reflected in how multimedia news is presented in a convergent format. Advances in technology have brought about advances in equipment. The news broadcast by the media has multi-dimensional and more adapted to people's needs with enhanced visual and auditory experiences. For example, many years ago, people used the radio to get their news. As time progressed, the radio was replaced by black-and-white television. Then black and white television were substituted by colour television. Now people are more comfortable using their mobile phones and computers to watch the news. It is possible to speculate whether our future experience of watching and listening to information could be transformed from seeing to feeling and experiencing through the development of VR technology.

VR journalism is mainly characterised by subjectivity and the affective turn (Mabrook, 2021). This is much more detailed than what was delivered in the previous phase of the news. It represents a continuous refinement of the quality of content produced by journalism to keep up with external conditions. High-quality audio-visual content ensures efficient communication. In the battle for attention, the winner is the one who can help people save more

DOI: 10.26855/jhass.2023.02.008

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Journal of Humanities, Arts and Social Science
time to get more information. However, youth are currently faced with the problem of being overloaded with things to do and needing more time to experience the news fully. Some media platforms are more inclined to develop double lines to broaden the audience. While launching audio-visual channels, they are beginning to use the internet to return to the old mode of listening to the news. Over the past few years, the media has invested strongly in podcasts. Through smartphones, podcasts can reach a wide range of young people. Many media are therefore looking to podcasts to expand their user base. For example, The New York Times has launched a podcast called The Daily to attract younger users. People's listening habits were also heavily influenced by the disappearance of the daily commute during Covid-19. The podcast listening figures bounced back after a period of decline, and news podcasts outperformed most other types of podcasts. Studies have shown that news podcasts hold up better than other podcasts in advertising revenue. Some media with strengths in this area have matched or even exceeded revenues before Covid-19.

Automated journalism is also a topical subject in the transformation of journalism. Due to the increased demands on production, producing news is often more costly in terms of time and money. To simplify a routine, automated journalism has emerged. A new notion emerged to unravel the accompanied conundrum: AI journalism, a trans-domain field of various categories deriving from journalism automation (Zhang, 2021). It attempts to rely almost entirely on AI to gather and produce news.

Nevertheless, at this stage, this is still an idealised model. Human-computer collaboration is an emerging technological achievement that is now highly relevant to journalism. Due to the expanding field of AI, automated writing news is now being gradually tried. It does not rely entirely on automation, as AI journalism does, but rather on human-machine collaboration to simplify some regular sentences and processes, thus achieving greater efficiency. Automated writing systems are preconditioned and afforded by technological development, normally through structured database retrieving, algorithmic writing, and natural language processing. It helps to simplify news writing by automatically retrieving common news languages through a set-up algorithm. It has been argued that the growing ability of machine-written news texts portends new possibilities for an expansive terrain of news content far exceeding the production capabilities of human journalists (Carlson, 2015). 5G communication and AI technologies are now widely used. In journalism, AI synthetic news presenters and 3D virtual studios are being widely experimented with and ready to be put into use. The development of technology has led to an increased sense of live news reporting. There is also automation in the collection of news data. Sensor journalism is a very important way of accessing information. Sensor journalism has been around since the early part of this century. It has developed to the point where there are now university courses on sensor journalism in the US, looking at issues such as water pollution, sea level rise, and air quality. Worth mentioning is the use of drones. The use of drones in journalism is increasingly the subject of research, as they carry sensors that can further expand the range of journalists to observe and document the world. Sensor journalism is an inevitable product of the advent of the internet and the Internet of Things, which analyses data to get the news, making it more accurate and authentic. When applied to traditional journalism, sensor journalism saves a lot of human and material resources and improves the quality and efficiency of journalism by increasing the accuracy of news and researching multiple fields and specialisms. Some opposing views have suggested that AI journalism will never be as perfect as what humans do, or that automated journalism has made journalists give up thinking. But there is no denying that this is a new journey in the history of human journalism. We will never want AI to replace the news that people write, but rather to do so in a way that will allow for human-machine collaboration, thus streamlining the fixed process to its barest minimum. No matter how complex the data, it is the people who publish the news, not the machines, who ultimately make the decisions. It makes perfect sense to use machines to help humans gather more data and learn more about the reality of the situation.

5. The Traditional Journalism in New Age

Under the influence of Covid-19, the new age has challenged traditional journalism. The repressive economic situation has made the survival of the media a priority. More media are beginning to adopt paywall's online revenue model by opening special online newsletters and using packaged sales to boost offline buying power. This is an essential result of the payment for knowledge (Pattabhiramaiah, 2019). From Pickard, Paywall is a virtual "barrier between an internet user and a news organisation's online content (2014). However, from the point of view of some traditional academics, the paywall is not necessarily a good thing. It has the potential to reduce people's desire to consume, thus reducing advertising revenue and making journalism even more unaffordable. Meanwhile, the broader context of the Russia-Ukraine conflict has worsened the global journalistic landscape. Due to the timeliness
and truthfulness required by journalism, it seems to have become a challenging and dangerous profession. With the triple whammy of salaries, epidemics, and war casualties, the requirements for young people will be even higher in the future. This shift in journalism is part of a shift in the external perception of journalism, which has affected the ecology of the industry. It has also led to strong thoughts on making journalism progress with the times while being as little affected by instability as possible. But analysed in another way, it is the uncontrollable situations which make journalism indispensable. When war strikes, journalism helps people to know the safe areas so that they can escape. When an epidemic strikes, journalism can help people understand what is going on outside so that they can prepare in advance. Time has influenced the mode of journalism. No matter what time it is, journalism will always exist to spread the information. The nature of journalism does not alter. The form of journalism will only ever change to fit the needs of human life.

6. Conclusion

The world is full of increasing uncertainty. As a result, there has never been a greater need for reliable information than today. The news media are now paying more attention to digital developments and are actively adopting new business models, story-telling methods, and ways of communication. As mentioned above, both social change and technological development have had a crucial impact on journalism. Firstly, journalism is gradually shifting from organisations to social production. Secondly, journalism will gradually move towards a multimedia news convergence presentation model. Thirdly, technological advances have brought about easier and more automated systems for journalism. Fourthly, the new era has brought economic crises and challenges to journalism, leading to a shift toward profitability. In this increasingly complex environment, old-fashioned ways of development will be abandoned, and the road to convergence will be the final destination for journalism. The emergence of new forms of media has placed greater demands on traditional journalism. Traditional journalism needs to actively learn from the strengths and reject the weaknesses of new media forms, integrate news elements from different fields and innovate to attract the public’s attention.

References