

Research on the ethical issues of digital communication technologies in the context of new media and their countermeasures

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Abstract. This paper delves into various aspects of ethical issues surrounding digital communication technologies in the new media environment, including personal privacy breaches, the spread of false information, and intellectual property infringement. It proposes targeted solutions, such as improving laws and regulations, enhancing ethical education, and establishing robust oversight mechanisms to tackle these challenges. Furthermore, through case analysis, it reveals the potential threats that ethical issues pose to social order and public interest, emphasizing the importance of a healthy development of digital communication technologies in the new media context.

Keywords: New Media Environment; Digital Communication Technology; Ethical Issues.

1. Overview of Digital Communication Technology Development in the New Media Environment

New media, as a concept relative to traditional media, encompasses all forms of digital media. It features notable characteristics such as interactivity, immediacy, personalization, diversity, and accessibility. Interactivity allows users to participate in the creation, sharing, and dissemination of content, breaking the one-way communication pattern of traditional media and enabling real-time interaction between senders and receivers. Immediacy reflects the rapid pace of information dissemination in new media, allowing users to access the latest news promptly. Personalized content recommendations and services cater to diverse user needs, while diversity manifests in various formats, including text, images, audio, and video. Furthermore, with the widespread adoption of the internet and mobile devices, the user base of new media continues to grow, encompassing individuals of varying ages, professions, and regions.

The development of digital communication technology can be traced back to the postal era, when information dissemination relied mainly on letters and telegrams, which were relatively slow and limited in scope. The advent of the broadcasting era, marked by the emergence of radio and television, significantly enhanced the speed and reach of information transmission. The arrival of the internet era has further accelerated the rapid development of digital communication technologies, giving rise to emerging communication methods such as email, forums, and blogs. Today, we find ourselves in the mobile internet era, where the proliferation of smartphones and mobile internet has made digital communication technology more convenient, with social media and instant messaging tools becoming mainstream.

Under the new media environment, the application of digital communication technology reflects multiple aspects. First, social media platforms like WeChat, Weibo, and Douyin have become vital channels for people to obtain information and engage in interaction. Second, various news apps, video streaming sites, and knowledge-sharing platforms offer rich and diverse content services, catering to different user needs. The rise of online education has positioned digital communication technology as crucial in the education sector, allowing users to learn various knowledge and skills anytime and anywhere. Additionally, businesses utilize digital communication technology for online marketing, achieving brand promotion, product sales, and customer service. Government agencies also provide online public services using digital communication technology, enhancing administrative efficiency.



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and transparency. The trend of media integration is increasingly apparent, with traditional media merging with new media to form a diversified and multi-dimensional communication landscape. Collaborative models across different industries are also maturing, with partnerships becoming tighter and innovative business models continually emerging. In conclusion, within the new media environment, digital communication technology is developing at an unprecedented pace, bringing many conveniences to our lives and work. However, we should also pay attention to the challenges it faces and continuously explore the future development directions of new technologies to create more possibilities for human society.

2. Analysis of Ethical Issues in Digital Communication Technologies

The ethical dilemmas posed by digital communication technologies are increasingly prominent, particularly the issue of personal privacy breaches. For instance, the 2018 data breach involving Facebook and Cambridge Analytica highlighted the vulnerabilities of digital communication technologies in protecting individual privacy. Cambridge Analytica collected the personal information of tens of millions of users, including their friend lists, likes, and comments, through an application without obtaining explicit consent. This data was subsequently utilized for targeted political advertising. This incident not only violated users' privacy rights but also triggered a decline in public trust in social media platforms and raised concerns about personal data security.

The spread of misinformation represents another ethical challenge faced by digital communication technologies. During the COVID-19 pandemic, various false information and conspiracy theories rapidly circulated through social media, leading to public panic and misguided decision-making. The dissemination of this misinformation not only harmed public interest but also posed potential threats to public safety. For example, incorrect information regarding vaccine safety led to hesitation among certain populations about vaccination, thereby affecting the increase in vaccination rates.

The issue of intellectual property infringement is prominent in the realm of digital communication technologies. As content creation and sharing platforms multiply, creators often find their works replicated, disseminated, and altered without authorization. For instance, music and film are frequently uploaded to video-sharing sites without the copyright holders' consent, violating their legitimate rights. Such infringements not only harm the economic interests of creators but may also stifle innovation in the cultural and creative industries.

Moreover, the problems of cyberbullying and discrimination are equally significant in the digital communication environment. Under the shield of online anonymity, individuals often make aggressive remarks, launching personal attacks and discriminatory comments against others. Public figures and ordinary users alike face cyberbullying and malicious harassment on social media, severely impacting their mental health and social interactions.

Central to the ethical issues surrounding digital communication technologies are data security and privacy protection. With the advancement of big data and cloud computing, businesses and government agencies amass vast amounts of user data. Ensuring the security of this data and preventing leaks and misuse has emerged as an urgent ethical concern. For example, the 2017 Equifax data breach compromised the personal information of over 143 million Americans, underscoring the critical importance of data security.

In summary, the ethical issues surrounding digital communication technology encompass various aspects, including privacy, information authenticity, intellectual property, cyberbullying, and data security. The existence of these problems not only undermines user rights but also poses a threat to social order and the public interest. Therefore, we must implement effective measures across multiple dimensions, including legal regulations, ethical education, regulatory mechanisms, and technological approaches to address these challenges.

3. Exploration of the Causes of Ethical Issues in Digital Communication Technology.

The emergence of ethical issues in digital communication technology is multifaceted, and the underlying reasons warrant in-depth exploration.

Firstly, the rapid advancement of technology coupled with the lagging of ethical standards is a significant cause of ethical issues. The pace of updates and iterations in digital communication technology is extremely fast, while the relevant ethical standards and legal systems often struggle to keep up. This time gap results in a lack of effective ethical guidance and legal constraints during the early application of new technologies, leading to a fertile ground for technological misuse and ethical violations.

Secondly, the inadequacy of regulatory systems also contributes to the emergence of ethical issues. In the field of digital communication, the imperfection of regulatory frameworks is reflected in insufficient regulatory strength, outdated regulatory methods, and unclear regulatory subjects. The existence of these problems causes digital communication activities to be in a rather chaotic state, thereby providing a breeding ground for ethical concerns.

Furthermore, the conflict between profit-driven motives and moral principles is a deeper reason for the emergence of ethical issues. In a market economy, the nature of enterprises is to pursue profit maximization; however, an excessive focus on profit can lead to problems such as invasion of user privacy and inadequate content review. When the pursuit of profit by companies conflicts with the moral expectations of users, ethical issues arise. This conflict is particularly evident in the commercial applications of digital communication technology.

Lastly, the anonymity of the Internet and the weakening of moral constraints is another important factor leading to ethical issues. The anonymity in cyberspace allows individuals to more easily escape the moral constraints of the real world in their virtual behavior. In such cases, some users may indulge in irresponsible actions, make reckless statements, and even engage in cyberbullying and discriminatory activities, thus triggering ethical problems.

In summary, the reasons behind the ethical issues in digital communication technology are complex and varied, involving multiple aspects such as technology, regulation, interests, and ethics. To address these problems, we need to approach them from various perspectives, including accelerating updates of ethical standards, improving regulatory systems, balancing interests and ethics, and enhancing moral constraints in cyberspace. Through these measures, we can gradually build a healthier and more orderly digital communication environment.

4. Countermeasures for Ethical Issues in Digital Communication Technology

To effectively address the ethical issues arising from digital communication technology, we must implement a series of comprehensive measures. Firstly, enhancing the legal and regulatory framework is crucial. We need to expedite the legislative process to ensure that laws and regulations keep pace with technological advancements, providing solid legal support for privacy protection and data security. Simultaneously, we must clarify legal responsibilities and increase the penalties for violations to deter misconduct. Secondly, strengthening ethical education is equally important. By introducing relevant courses in schools, community organizations, and vocational training, we can improve the ethical awareness of the public. Utilizing case studies and scenario simulations will help enhance users' understanding of ethical issues, thereby reducing instances of ethical deviation from the source.

Establishing a sound regulatory mechanism is also essential. Setting up dedicated regulatory agencies, formulating industry standards and self-discipline norms, and implementing regular audits and evaluations are vital tools for ensuring compliance in digital communication activities. Additionally, improving technological measures to prevent ethical risks is necessary. We need to develop and employ advanced technologies, such as encryption and anonymization, to protect user data, while

utilizing artificial intelligence and big data for content review to identify and filter harmful information.

Finally, we must enhance the social responsibility awareness of platform companies. While pursuing profits, these companies should fully consider the social impact and ethical responsibilities of their actions. Establishing transparent content review mechanisms and user complaint processing workflows, as well as participating in social welfare activities, are effective ways to improve corporate image and set positive industry examples. Through these measures, we hope to build a healthier and more orderly digital communication environment, safeguarding user rights and maintaining social harmony and stability.

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