Towards an Evaluation Framework of Videos: In the Health Context and Beyond

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1 ABSTRACT

People are spending more time on social media, including video-sharing platforms (VSPs), watching videos nowadays. According to digital 2021 [8], a typical user spends 2 hours and 25 minutes on social media every day, and 49% of social media users watch more than five videos per day [17]. The popularity of VSPs such as TikTok has influenced social media platforms that had primarily focused on text and image information, such as Instagram, Facebook, and Twitter to incorporate video sections. For example, "Reels" was added to Instagram as a dedicated place for users to generate, share, and watch videos [19].

The popularity of videos on social media may be because video content is advantageous in supporting learning and communication. The multimedia learning theory [16] has been used to guide the use of video for learning various topics on social media, such as programming [9, 12], cultural heritage [15], art skills [10], and language [4]. The media richness theory [6] suggests that video enhances contextualized disclosure, creator-viewer interactions, and community building [2, 18]. In the health context, studies have shown that health videos on social media can effectively disseminate health knowledge and raise awareness [1].

YouTube and TikTok, as two leading VSPs, have played an important role during the COVID-19 pandemic. Videos served as an important source for COVID-19 news, helping to alleviate loneliness, providing insight into the lives of doctors, and encouraging people to stay fit at home. However, existing research has focused primarily on video creators' motivations and practices, including managing chronic diseases, building supportive communities, disseminating educational materials, keeping personal diaries, and expanding visibility on social media. Creators use multiple platforms, such as instant messaging apps, social media, VSPs, video-editing tools, and e-commerce platforms, to engage viewers and manage fans, improve workflow efficiency, and promote e-commerce activities. These studies failed to examine the evaluation behaviors of viewers.

Health videos on social media and VSPs are incidentally playing a vital role in people's health information acquisition on a range of health topics, such as mental health, obesity, sexual knowledge, and physical exercise [3]. Health videos on social media influence viewers' real-world health behaviors. For example, existing research found that some health videos

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may have contributed to eating disorders [14] and wrong self-diagnosis of mental disorders [13]. Thus, investigating video evaluation on social media and VSPs - particularly in the health context - is an important area of research.

2 INTERESTED WORKSHOP TOPICS FOR DISCUSSION

2.1 Understanding video evaluation from the viewers' perspective

Many studies evaluated the quality of health videos on social media in general and VSPs in particular by inviting professionals to use pre-defined indicators. Most of the results indicated that the quality of these videos varied and was problematic. However, the protocols utilized in these papers were mostly adopted or adapted from evaluation frameworks developed from text messages, which may be insufficient for assessing video information [11]. For example, studies have revealed that visual elements have a significant influence on viewers' credibility perception of websites and news. According to the MAIN model [20], visual presentation like videos automatically signals credibility, raising great challenges for viewers to make credibility judgments. Gamage et al. [11], also pointed out that the existing credibility works center on text information and that emerging technologies such as deepfake makes evaluating the credibility of image and video challenging.

It is still unclear what criteria viewers adopt while browsing, searching, assessing, and using videos on social media and VSPs. Credibility may not be the most important criterion in viewers' evaluation system and other criteria, such as engagement and interestingness, may carry a higher weight.

2.2 Designing opportunities for assistive video credibility evaluation tools

The possibility that credibility may not be the most salient indicator in the viewers' evaluation system, makes credibility judgments, especially for health videos, crucial to ensure that viewers get accurate and truthful information. Innovating assistive technologies and tools that remind viewers to prioritize credibility versus other criteria in health and other contexts and tools that facilitate easier and better credibility judgment is necessary.

In 2010, Diakopoulos and Essa [7] designed and evaluated a video credibility assistant tool that visualizes the annotations, claims, and tags within the video-playing interface and found that it can have significant influences on viewers' evaluation. However, they did not have a systematic video credibility evaluation framework. A previous workshop by Coalition et al. [5] discussed the common practice of heuristics theory being the pragmatic tool for UX designers, which should be improved by providing non-judgemental and specific indicators of credibility, following proximity principle, and focusing on transparency, accountability, and the timing of the intervention.

3 BACKGROUNDS OF THE AUTHORS

Jiaying Liu is a PhD student in the School of Information at the University of Texas at Austin. She is interested in video modality and video-sharing platforms in the health context. She conducted studies about viewers' video consumption behaviors on social media and VSPs, including how they access, watch, interact with, evaluate, and use videos. She also studied conceptual similarities and differences among credibility, trust, and quality as reflected in their definitions and measures in the consumer online health information search context.

Yan Zhang is an associate professor at the School of Information at the University of Texas at Austin. Her research centers on consumer health information needs and information search behavior, with a focus on their evaluation of the quality and credibility of online health information. She is interested in designing user-centered interventions to enable

equal and easy access to high-quality online health information in various modalities (e.g., text and video). Dr. Yan Zhang has extensive research experience in consumer health information and credibility evaluation.

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