

# Exploring the Influence of Computer-Mediated Environments and Social Aspects on Self-Representation in Virtual Spaces

Yuning Zha<sup>1,\*</sup>

<sup>1</sup> School of Humanities and Economics, China Agriculture University, Beijing, 100000, China

\*Corresponding author. Email: ynzha@cau.edu.cn

## ABSTRACT

With the advent of the digital age, virtual spaces become people's indispensable living sphere and social networking sites become the salient vehicle for people to present themselves. To figure out key factors influencing individual behaviors in the new context, this paper uses a comprehensive view to examine how CMEs (computer-mediated environments), gender, and culture exert influence on virtual self-presentation. As a review of prior findings, this paper presents factors of virtual aspects and social aspects simultaneously, thus providing a new perspective to understand the influential mechanisms on virtual self-presentation, which may facilitate future research. This study synthesizes 19 articles from 1999 to 2020 related to the keywords on Google Scholar. The results manifest there is an association between CMEs and social aspects, the two of which exert influence on virtual self-presentation comprehensively.

**Keywords:** *Self-presentation, Computer-mediated environments, Gender, Culture.*

## 1. INTRODUCTION

As the Internet permeates through people's life, virtual spaces become a salient arena where people engage in constructing a persona. With concepts of self-presentation applied in CMEs (computer-mediated environments), a series of research examined interconnections between self-presentation and other elements.

The concept of self-presentation was famously proposed and elaborated by Erving Goffman. He formed a theatrical metaphor in defining self-presentation in which individuals create an image of themselves based on cultural values, norms and beliefs [1]. Other scholars interpreted and developed the concept as well. Baumeister and Hutton described the process of self-presentation as the act of conveying accurate or inaccurate information to others [2]. Schlenker referred to self-presentation to impression management and online identity projecting [3]. In the digital age, Papacharissi expounded that the process of self-presentation becomes "an ever-evolving cycle through which individual identity is presented, compared, adjusted, or defended against a constellation of social, cultural, economic, or political realities" [4].

The paper examines how CMEs, gender, and culture influence online self-presentation, providing a comprehensive view of prior research and exploring inherent relationships among them. The findings of interlocked relationships among the factors can help future research better conduct variable control. More significantly, a new perspective is speculated to understand virtual self-presentation. It should be noted that the concept of self-presentation in this paper is referred to more as individual behaviors in online public sphere where multiple audiences exist instead of narrowcasting online chat.

Prior studies have examined relationships between online self-presentation and personality, technology affordances, gender, culture, occupation, age, etc., the perspectives of which included but are not limited to sociology, psychology, human-computer interaction, behavioral science, and mass communication. However, significant factors have not been listed as a whole, and their comprehensive influential mechanisms on virtual self-presentation have not been analyzed from an interdisciplinary view. The paper tries to fill this gap.

This paper took online, self-presentation, social media, virtual spaces, affordance, gender, culture etc. as

key words, searching related articles from 1999 to 2020 on Google Scholar. After screening, 19 articles were synthesized and analyzed.

The paper synthesizes 19 articles related to how CMEs and social aspects influence individual virtual self-presentation. The classification can be seen in Table 1.

**2. INFLUENTIAL MECHANISMS**

**Table 1.** Analysis of 19 papers of the factors influencing virtual self-presentation

No. of papers	Factors affecting online self-presentation	References
10	computer-mediated environments	[1], [5], [6], [7], [8], [9], [10], [11], [12], [13]
7	gender	[11], [14], [15], [16], [17], [18], [19]
6	culture	[10], [11], [20], [21], [22]

**2.1. Computer-mediated Environments**

In accordance with Goffman’s theory, self-presentation includes two sorts of semiotic activities. One is what individuals give, and another is what individuals give off. Given cues are easier to manipulate, while given-off cues are trickier to control [1]. In CMC (Computer-mediated communication), given-off cues like facial expression and voice tone, which are often nonverbal, are diminished, whereas given cues take a much larger amount [5]. That indicates verbal information play a more salient role in individual self-presentation in virtual spaces, thus easier for users to manipulate their impression. Other findings prove the assertion as well. According to prior research, even spontaneous language composition is of greater malleableness and controllability than physical expression in face-to-face communication, let alone well-designed texts in virtual spaces [6]. People can even simulate offline experiences but make them convincing by managing given and given-off cues [7]. As such, better concealing what they are not willing to convey while accentuating what they do, CMC users can express themselves in a more discretionary front [8]. The reasons why nonverbal cues in virtual spaces are reduced have relationships with another characteristic of CMC, which is asynchronicity.

Notwithstanding now the mushrooming livestream offers face-to-face communication scenes, most SNSs (Social Networking Sites) are asynchronous systems—that is, communication doesn’t necessarily occur simultaneously, and individuals have physical isolation. For the former, users are offered much more time to edit, revise and polish contents before transmitting based on editability of CMC [5]. Although still limited by knowledge, skill or even subconsciousness, incontrovertibly individuals have sufficient time to select elements based on their preference for semiotic potential. For the latter, physical isolation sets boundaries for senders to exude involuntary physical cues to the perception realms of receivers [8]. That partially explains why nonverbal information is reduced.

Online presentation is a one-to-many, or broadcasting mode, that is, when a virtual actor present

himself/herself, he/she is exposed to multiple audiences [9]. Angeli’s cross-culture finding revealed that netizens in collectivistic and individualistic culture both allow audiences to interact with them, which suggested interactivity as a fundamental motivation of online self-presentation [10]. When composing contents, the perception and reaction of multiple audiences are considered by individuals. Nonverbal information of perception and reaction is conveyed by CMC feedback mechanisms—basically, like and comment. For the purpose of interactivity and attention seeking, individuals endeavor to get likes and comments. Audience diversity motivates SNSs users to construct positive personas, which is consistent with effort of avoiding negative impression when in offline broadcasting [9, 11]. A possible explanation for protective self-presentation is that diverse audience feedbacks are diverse, increasing the probability of which contradict expectations of different social spheres. Besides, audience size has positive association with benign self-provided information and frequency of benign posts due to the need of relationship maintenance in large networks [11]. However, multiple audiences in public spheres bring to tense relationships between the desire for being watched and security for privacy as private space and relationships become objects of consumption and show, which blurs the boundaries between private and public spheres [12].

What discussed above are general characteristics of CMEs. Besides, specific platform affordances also affect online self-presentation. Many studies examined user behaviors on specific SNSs. Nevertheless, it is not adequate to just link individual expression with specific platforms and list them in separate paragraphs. On that account, the paper suggests a perspective transcending specific platforms by using the vocabulary proposed by DeVito et al. In the vocabulary technological features and user perception are bonded. The affordances of presentation flexibility, content persistence, identity persistence, feedback directness, audience transparency and visibility control vary among different platforms, thus influencing discrepant user perceptions [13].

**2.2. Gender as Socially Constructed Roles**

Gender here is referred to as identities socially constructed. The following parts discuss how self-presentation varies in aspects of motive, effort, privacy and topic, and try to interpret contradictory findings.

The main motive of men to use SNSs is pragmatic interpersonal information seeking like establishing new relationships, whereas women reveal more hedonistic motives, concentrating on entertainment and self-display [14]. Previous social-psychological studies indicated that females focus more on others' perception on them, and they are more vulnerable to criticism [11]. Besides, women are more strongly influenced by social comparison, that is, they are inclined to compare their presentation with other users' more when browsing others' virtual self-display contents [14]. As such, it takes more time for women to manage impression through their profile pictures than do males [15]. The finding is consistent with the research revealing that females made more efforts to manage visual images [11].

When it comes to information disclosure to strangers, males present more information than women, while females are more engaged in assuring privacy [16]. The concern of privacy can be embodied by visibility of profiles. Research found that girls often restrict the permission of people who are not their contacts to view their profiles, whereas boys' profiles are often public, the difference of which is partially due to more risks for women to encounter harassment [17]. This study also assumes that women are more likely to be exposed to judgements, thus setting boundaries to protect themselves. Some research found women include more personal information, which seems contradicts with the findings mentioned above. However, the conclusion is not accurate. The more precise version is that women tend to focus on personal topics in online arena within the security of privacy. The topics preferred by men and women are discrepant. Females included information about more personal topics such as families and romantic relationships than do males [18].

It is worth noting that there exist two phenomena which are seemingly contradictory. Females use dominative and powerful metaphors like warrior world, tigress' lair and kingdom to describe their personal web page, whereas males use normal metaphors like residence, swamp and small pond [18]. On the contrary, online impression of different genders still comply with conventional gender norms – that is, women are affiliative and attractive, while men are featured with dominance and power [19]. Take linguistic style for example, girls tend to please boys and facilitate conversations, whereas boys reflect assertiveness [17]. The contradiction may be partially explained by women's high regard of privacy mentioned above. By

privacy control, personal page becomes a more enclosed arena than offline venues, thus bringing women more sense of security. However, Myspace is much more interactive, dynamic and life-like than personal page. In view of that, offline societal structures are reproduced to Myspace and face-to-face stereotypes behavioral expectations induce different construction of online identity.

### **2.3. Culture Norms**

Ting-Toomey defined culture as “a complex frame of reference that consists of patterns of traditions, beliefs, values, norms, and meanings that are shared in varying degrees by interacting members of a community” [20]. Culture norms affect how individuals perceive themselves and others, further influencing communication ways [11]. There are some fundamental concepts commonly used to understand cross-cultural differences in virtual self-presentation, which are individualistic/collectivistic culture, self-construal and high-context/low-context culture. Most of studies conforms to the dichotomy of individualistic culture and collectivistic culture to explore how online self-presentation is influenced. On the basis of this bi-polarized concept, self-construal is further used to interpret individual behavior, considering that online self-presentation focuses on self-identities [21]. Markus and Kitayama distinguished construal of the self as independent and interdependent. Independent self-construal displays uniqueness, while interdependent self-construal seeks for connectedness among individuals [22]. Besides, context is strongly influenced by culture background, in which people share the understanding of effective communication. The distinction of high-context culture and low-context culture is a paradigm to interpret the way of communication. High-context culture emphasizes nonverbal aspects of communication, relying on the ability of the receivers' interpreting, featuring as implicit, reserved and ambiguous, whereas direct verbal cues are laid more emphasis in low-context culture, the speakers are encouraged to express themselves by direct verbal cues, characterizing as explicit, open and clear [10]. These concepts have inherent relationships—that is, collectivistic culture is usually associated with interdependent self-construal and high-context communication and vice versa [21].

In concrete analysis, culture can be operationalized as nation identity. Located in Asia, Korea, China and Singapore are representatives of collectivistic culture. USA and Britain are typically western countries featuring individualistic culture. The following results are embodiments of cross-cultural differences in virtual self-presentation. The analysis synthesizes findings of three emblematic papers, demonstrating how culture

differences are formed from the view of specific concept. The classification can be seen in Table 2.

**Table 2.** Analysis of cultural differences on virtual self-presentation

Country	Differences on virtual self-presentation	Concept applied	Influential mechanisms
Korea	interlinks; agents; presentation of indirect information	interdependent self-construal	tendency to establish connections with certain communities; use of socio-cultural boundaries with others to signify identity;
USA	direct description of oneself	independent self-construal	self-ascribed identity
China	famous quotes and some other less personalized lists; lower with-in group variability; designed personalized modules list for friend list	interdependent self-construal	emphasis on convention and compliance; more stress on friend list which demonstrates direct connections with social network
Britain	items reflecting unique interests; more design variation	independent self-construal	more openness on expression of individual differences; affirmation on unique identity
Korea	more manipulated graphics	collectivistic culture	not mentioned
USA	more non-manipulated photos	individualistic culture	not mentioned
China	more controlled and elaborated communication style	collectivistic culture;	more concern about others' perception on them
Britain	informal communication style including slang and swearwords	individualistic culture	less care about others' evaluation
Singapore	cautious to maintain positive public impressions;	collectivistic culture	purpose of relationship maintenance
America	active impression management among light promiscuous followers but not among heavy promiscuous followers	individualistic culture	competitive attention seeking as primary goal
Korea	more visual information	high-context culture	fondness implied through visual imagery
USA	more direct textual expression	low-context culture	declaration of likes by texts

### 3. CONCLUSION

It can be seen that gender and culture are product and discourse of socialization. Tracing back the reasons for people's behavioral differences in virtual spaces from the analysis of influential mechanisms of gender and culture, what mostly stands are the findings that sociology and psychology have already discovered. It shows that prior research in offline context still has immense value in analyzing people's behavior in virtual spaces. That brings to necessity to exploit prior sociopsychological findings to facilitate human behavior research in the new context of CMC. Nonetheless, that is still not enough. The paper highlights CMEs, gender and culture as factors affecting individual self-presentation online. But rather than independent, the factors are interlocked to exert influence. This finding indicates future research that when exploring online self-presentation, it is significant to consider

comprehensive effect of multiple factors and control variables. Considering the strong influence of conventional social aspects on virtual self-display and virtual communication structure sculpted by Internet, the paper proposes a new perspective that it needs to emphasize how CMEs change the way social aspects influence virtual self-presentation. Digging how CMEs change people's perception of social norms may be a stronger tool to understand virtual self-presentation.

As discussed above, reduced nonverbal cues and asynchronous affordance make online self-presentation more malleable and controllable. However, such freedom may be superficial, excessed capacity for impression management actually deprive individuals' freedom from social discipline. When individuals make choices for self-presentation, they may obey social expectations more, or in other words, be more deeply disciplined by underlying social norms. It is a question

worth exploring in future research. Besides, the results manifest that audience, gender and culture has relationships with positive expression. Research questions related to positive virtual images, authenticity and mental problems are worth examining.

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