**The new pattern of social relations in the digital age: logical structure and behavioral mode**

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**[Abstract]** Social relations in the digital age have a new representation, showing six major characteristics: digital embodied interaction, social avatar communication, differentiation of interest circles, professional vertical segmentation, polarization of emotional interaction, and digital loneliness. It shows three logical structural forms of digital sociality: the virtual-real interaction structure of "people-cloud-shadow", the self-difference structure of "I-him-I", and the vertical clustering structure of "point-network-knot", as well as four behavioral modal representations of digital sociality: multi-platform swaying, subjective decision-making, emotional drive, and clear sense of boundaries.

**【Key words】** digital social networking, social pattern, logical structure, behavioral mode

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With the advent of the digital age, social interaction has undergone an important transformation from unmediated face-to-face interaction to mediated remote interaction through print or electronic media, and then to today's deeply mediated "digital interaction". According to the 54th "Statistical Report on the Development of China's Internet", as of June 2024, the number of instant messaging users in my country reached 1.078 billion, accounting for 98% of the total number of Internet users. [1] Digital interaction is increasingly becoming the mainstream social interaction method. Anthony Giddens's theory of time and space disembarkation points out that technological progress has revolutionized the relationship structure of social interaction, shaped new social interaction methods, and human interaction actions are also carried out under the new relationship structure. [2] From the social "pre-digital age" dominated by oral language, text, print, and electronic media, to the social "digital age" dominated by digital technologies such as information and the Internet, [3] the evolution of technology has been constantly shaping the structure of social relationships and behavioral dynamics, profoundly affecting the socialized survival status of human beings.

**New characteristics of social relationships in the digital age**

The new characteristics of social relationships in the digital age are the first elements that individuals perceive and experience in the process of digital social interaction, and are also the prerequisite for understanding the logical structure and behavioral patterns of digital social interaction. "Digital communication" based on deep mediatization mainly presents six new characteristics.

Digital embodiment. The “remote presence” type of interaction in the digital age makes “virtual face-to-face communication” possible, thus forming the unique new feature of “digital embodiment”. “Digital embodiment” refers to the materialization of identity, experience and interaction achieved by individuals through technical means (such as VR, AR, etc.), which enables users to have physical perception and interaction capabilities in digital space similar to those in the real world. [4] The “body” as a carrier of consciousness was once absent in the communication theory of the pre-digital era. On the one hand, communication is considered to be a spiritual interaction of the mind, and the body becomes an obstacle to communication; on the other hand, the stereotyped thinking of mediated communication obscures the role of the body. Digital communication has rediscovered the fundamental status of the body. The perception, emotion, social relations and cultural norms in virtual communication are essentially the “technological extension of the presence” of the body. [5] Taking the “metaverse” as an example, it is precisely because it introduces the “digital body” into the process of virtual communication and replicates the communication practice of the real world that the metaverse has the potential to become an ideal home for future digital dwellings.

Social avatar communication. In the digital world, individuals are freed from the limitations of their physical bodies and use the unique "avatars" of digital bodies to communicate with each other. "Social avatars" refer to virtual selves with multiple identities created by real users in digital space, such as digital people and virtual people. This kind of avatar communication accelerates the "cyborgization" of human-machine integration, allowing individuals to flexibly carry out social activities with multiple identities. [6] As pointed out by dramaturgy theory, social interaction is essentially a performative interaction in which individuals play different social roles. Therefore, individuals in digital space can create avatars with different identities to carry out social activities in different social scenarios, thereby meeting the need for self-presentation in the virtual world. For example, the virtual social platform Horizon Worlds launched by Meta allows different digital avatars to be embedded in different scenarios such as work, study, and making friends, opening up differentiated virtual communication and showing people the infinite possibilities of digital avatars in future social interactions.

Differentiation of interest circles. The homogeneity theory of interpersonal interaction holds that "selective contact" between individuals with similar attributes (such as interests and hobbies) promotes the formation of homogeneous circles. In the pre-digital era, due to the limitations of technology and channels, the content productivity within homogeneous interest circles was not strong, the information dissemination efficiency was low, and the organizational structure was relatively loose, so they were insufficient in terms of aggregation depth and distinctiveness. However, in the digital era, with the help of precise algorithm recommendations and convenient social media connections, people can choose and integrate into like-minded social circles according to their interests, [7] thus forming the unique differentiation characteristics of interest circles in digital social networking. Under the organization of digital connection methods, members of the circle can not only maintain a high level of attention to content of common interests, but also form a more distinctive and cohesive cultural atmosphere, values ​​and behavioral norms. For example, on the video social platform "Bilibili", a distinctive "intangible cultural heritage" interest circle has been formed around bloggers such as "Jiang Xunqian" and "Guixiangrenshanbai", with a cumulative popularity of more than 10 million. These intangible cultural heritage elements have become the connection points for user social interaction within the interest circle, enhancing its social visibility in digital communication.

Professional vertical segmentation. Market segmentation theory points out that companies need to segment the market based on the diverse needs of consumers and select target markets for targeted marketing. Social service providers in the digital age focus on exploring niche needs and building a professional, vertical social ecosystem, forming a professional vertical segmentation feature unique to digital social networking. This feature helps to reduce information screening costs, improve social efficiency, and meet users' social needs in niche vertical fields with precise social services. [8] For example, the "Intangible Cultural Heritage Partner Program" launched by Douyin encourages users to create and share intangible cultural heritage content in social interactions, opening up a new vertical digital social market. According to the "2024 Douyin Intangible Cultural Heritage Data Report", since 2023, the intangible cultural heritage vertical content field on Douyin has attracted more than 13 million creators, forming a large-scale user community around intangible cultural heritage vertical content, and the cumulative social interaction volume has exceeded 100 million. [9]

Polarization of emotional interaction. The theory of "emotional contagion" points out that members of a community are more likely to resonate emotionally due to their similar identity attributes. In addition, due to the differentiation and vertical segmentation of digital social circles, users in homogeneous groups are more likely to enter a state of emotional involvement and concentration during deep interactions, triggering a unique "emotional polarization" phenomenon in digital interactions. Emotional polarization in digital social interaction is an effective means for individuals to integrate into the community and establish relationships. For example, communities such as Weibo's "super topic" and "group chat" use "emotional compatibility" as a key indicator for recommending communities to users, aiming to stimulate the effectiveness of emotional polarization, help users go deeper into the community, and improve the effectiveness of community recommendations. However, emotional polarization may also exacerbate the opposition and division of social interactions. For example, polarized phenomena such as "cyberbullying" and "keyboard warriors" that incite negative emotions interfere with normal social order. [10]

The phenomenon of digital loneliness. The three-dimensional theory of interpersonal needs points out that satisfying the needs of inclusion, dominance, and emotion is a necessary condition for ideal social interaction. However, due to factors such as information fragmentation, asynchronous communication, and weak social presence, digital social interaction has become increasingly superficial (such as "friendship socialization" and "like-based socialization"), making it difficult to establish high-quality interpersonal relationships. [11] In the long run, this superficial digital social interaction has led to the phenomenon of digital loneliness. As Sherry Turkle describes, the development of technology has made individuals increasingly dependent on virtual social network spaces to maintain interpersonal interactions. Once they are separated from the virtual world, loneliness will follow. [12] Turkle's point of view shows that digital loneliness has become an increasingly common symptom of social interaction in the digital age. For example, although digital nomads use the Internet to carry out work and maintain social interaction, due to the lack of a sense of belonging created by real community spaces, while they rely on digital social interaction, their deep social relationships with the real world are easily broken.

The new characteristics of social relations in the digital age are embedded in the practice of digital social interaction, which are closely linked and progressive. Specifically, digital embodied communication, as a basic feature, has given rise to the social avatar communication method, and its communication advantage of "time and space delocalization" has accelerated the differentiation of interest-based circles. On this basis, professional vertical segmentation has become a trend, enhancing the professionalism and pertinence of social interaction. With high differentiation and specialization, deep interactions within the group deepen emotional connections, while the gap between groups may increase, leading to digital loneliness. These six characteristics interact in a systematic way, jointly revealing the deep logical structure and behavioral patterns behind digital social interaction.

**The logical structure of social relationships in the digital age**

From the perspective of sociological theory, "structure" as a compulsory force shapes the overall style of an era and stipulates the dominant rules of action in a specific era. For digital social networking, its unique structural force also determines the interactive state of social relations in the final digital era. Therefore, understanding the new logical structure formed by social relations in the digital era has become the key to insight into the overall pattern of digital social networking. Specifically, the new logical structure of digital social networking is mainly manifested in the following three aspects.

The virtual-real interaction structure of "people-cloud-shadow". Social heterogeneous construction theory believes that the social construction of reality does not simply depend on the single power of people or technical objects, but is jointly determined by the "heterogeneous network" composed of people and non-people (such as technical objects, other action entities, etc.). In other words, in the digital social process between subjects mediated by technology, multiple subjects such as people, technical objects and other "non-human actors" (i.e. virtual subjects enabled by technology, such as social avatars, AIGC intelligent bodies, etc., mainly referring to social avatars in this article) participate together. In digital social interaction, the virtual-real interaction process between people and non-human actors is carried out continuously with the "cloud" platform as the carrier. This phenomenon is unique to digital social interaction. Therefore, the virtual-real interaction structure of "people-cloud-shadow" describes a new interpersonal interaction structure between people, between people and social avatars, and between social avatars and social avatars, which individuals rely on digital platforms to carry out.

In this structure, “people” refers to “people” in the physical sense, who have the subjective will, social identity, and emotional function to participate in digital social interaction. In the digital space, the physical “people” interact socially in a digital embodied way. Although the individual is based in reality, the boundaries of the physical body are extended in the digital space. “Cloud”, as a technological metaphor, symbolizes the universally connected digital infrastructure and social platform, and is also the “transfer agent” for the interaction between people and social avatars,[13] to ensure that both parties can smoothly conduct meaningful connections. “Shadow” refers to the digital avatar of an individual, represented by the avatar and nickname in the individual’s social account. With the rise of intelligent communication technology, “intelligent actors” empowered by cultural twins are expected to become the mainstream technical subjects in human-computer interaction.[14]

The virtual-real interaction of the trinity of "people-cloud-shadow" is a basic relationship structure unique to digital social interaction. The media equivalent theory points out that with the continuous development of technology, it is increasingly difficult for people to distinguish the boundaries between mediated information and the real world, thus producing an "equivalence effect" in psychology and behavior and establishing social relationships, for example, regarding social avatars as real friends or partners. The virtual-real interaction structure of "people-cloud-shadow" demonstrates the mediated social interaction process of individual virtual-real integration described by the media equivalent theory. Among them, "people" control virtual images with multiple identities to complete the construction or dissolution of social relationships. For example, on social media platforms such as WeChat and Weibo, people are actually "disconnected online" with the person who controls the account. When switching to virtual reality social platforms such as Second Life, individuals enter the platform in person, simulate offline communication scenarios, and conduct digital embodied interactions that are virtual and real.

The self-differential structure of “I-him-I”. In digital social interaction, the interaction between “people” and “shadows” is the norm. So how do we understand the specific connotations of “people” and “shadows” in the context of digital social interaction? Fei Xiaotong proposed the “differential pattern” of interpersonal relationships, describing the social process centered on “self”, which spreads from the inside to the outside like ripples, forming a “concentric circle” social pattern from near to far, from close to distant. [15] In the digital age, this social differential structure based on the micro-self is reshaped and strengthened by digital technology. Specifically, “people” and “shadows” represent “self” and “others” respectively. Digital social interaction begins with the social needs of “self”, and then interacts with various “others” in society, and finally returns to the pursuit of self-realization, forming a distinctive “I-him-I” self-differential structure.

In this structure, the first “I” refers to the individual’s initial self, which is synonymous with the initial “ego” (Ego) that has not been socialized as pointed out by Sigmund Freud, and is the starting point for constructing digital social relationships. The second “he” represents the other with whom the self interacts socially, which can be either a social member in real life or a non-human actor enabled by technology such as a social avatar. [16] The mirror self theory points out that individuals reflect and improve themselves through interaction with others. As a bridge connecting the two “I”s, the “other” influences and shapes the self’s cognition and social relationships. The second “I” is the self that the individual reconstructs and recognizes after interacting with others, which is synonymous with the “id” after socialization pointed out by Freud. The “id” not only includes the initial self-cognition, but also incorporates the social expectations and cultural norms obtained through feedback from interaction with “he”, so that individuals can fully and comprehensively understand their position and role in the social network.

The traditional differential order structure has been reshaped into a social closed loop of "I-He-I" in the digital age, highlighting the key position of "I" in digital social interaction. Formal sociological theory points out that social individuals exist for their own purposes and spread because of their own charm. Therefore, in the social structure of self-differentiation, individuals constantly adjust their relationships with others based on their own needs. On this basis, individuals can access diverse information and opinions (such as social cues such as comments, likes, and reposts on social media), promote the diversification of self-cognition, and ultimately form a self-centered social differential order structure: "others" with close relationships with individuals occupy the core layer, while "others" with more distant relationships are in the marginal layer. For example, the transition from "group chat friends" to "address book friends" in WeChat is often a selective construction process based on individual relationship needs, and ultimately constructs WeChat friend circles with different intimacy.

The vertical clustering structure of “point-network-knot”. The relationship construction with “self” as the center in digital social interaction meets the personalized social needs, but “self” is not the whole of digital social interaction. The uniqueness of digital social interaction lies in that individuals are not only “self-individuals” in the sense of mind, but also “networked individuals” in the sense of relationships. The theory of networked individualism points out that individuals in the digital age are both the center of their own social network and a part of the social network of others. [17] Therefore, from the perspective of the macro network, on the basis of the self-differential structure, the digital social structure connects “points” into “networks” and gathers “networks” into “knots”, ultimately constructing a multi-level and multi-dimensional social system unique to digital social interaction.

In this structure, "points" are the basic units that constitute the entire system. In digital social networking, they mainly refer to people and their virtual avatars. As the initiator and recipient of social relationships, individuals establish connections with other "points" through activities in the network. "Network" refers to a complex network structure composed of connection relationships between "points" (such as friendships, common interests, etc.). Such connections carry the flow of information, emotions or resources, and are the basis for the maintenance and development of social relationships. "Knots" refer to communities formed by multiple closely connected "points" through the network. They are highly cohesive, with members sharing values, interests or goals, and strengthening their connections through frequent interactions and collaboration. At the same time, considering the circle differentiation and vertical segmentation characteristics of digital social networking, the node network of individuals follows the principle of verticality to aggregate circles.

The “point-network-knot” construction process is closely linked to the “small-large-medium” transformation process. As a node, “I” has extensive access to multiple social networks through digital platforms, achieving expansion from “small” to “large”. As network contact deepens, individuals gather into groups based on common interests or needs, becoming “knots” in social networks, achieving the transformation from extensive contact to belonging to vertical communities, that is, focusing from “large” to “medium”. Since the “clustering” process is the process of social resource allocation,[18] communities show obvious hierarchical nature. High-level communities often have more resources and influence, and can lead the development direction of low-level communities. For example, the high-level community “Zhihu Live” has successfully attracted a large number of professional resources from experts and users with its professional sharing content and broad user base, and can output valuable information and opinions to low-level communities composed of ordinary users (i.e., ordinary question-and-answer communities), thereby leading the direction of knowledge-based social relationships in low-level communities.

In general, the above three social structures are unique innovations in digital social interaction, which are interdependent and mutually influential. First, the "people-cloud-shadow" structure provides the basic technical framework and interactive mode for digital social interaction, and also provides the necessary technical and environmental support for the other two structures; secondly, the "I-he-I" structure reflects how individuals recognize and reconstruct themselves in digital social interaction with others. The individuals in it not only exist as "people" in the "people-cloud-shadow" structure, but also as the basic components in the "point-network-knot" structure; finally, the "point-network-knot" structure depends on the self-exploration and interaction of individuals, but also requires the platform and technical support provided by the "cloud". Therefore, the three structures are intertwined and together constitute a dynamic and mutually influential digital social structure.

**Behavioral patterns of social relationships in the digital age**

Social relations in the digital age are based on the transformation of actions reshaped by structures. The "structure-action" framework of structuration theory points out that structure has a "duality", which can provide favorable conditions for actions, but also restrict the boundaries and norms of actions. In short, the new social structure of virtual-real interaction, self-differentiation and vertical clustering formed in the digital age has shaped a new logic of cognition, connection and interaction, and thus laid a new tone for digital social actions, and gave birth to a new behavioral mode unique to the digital age, which is specifically manifested in the following four aspects.

Mobile Station: From limited to multiple platforms of multiple social interaction. As digital social platforms become increasingly diversified, social interaction is increasingly showing the characteristics of "cross-platform". In the pre-digital era, due to the difficulty of the body to transcend the limitations of time and space, coupled with the quality problems of electronic analog signals, the scope of social interaction was relatively limited and fixed. In the early digital era, limited by technical conditions and network penetration, digital social platforms had simple functions, inconvenient access, and limited user choices. With the development of the Internet and social media, users have more choices. Social platforms such as WeChat, Weibo, and Douyin continue to emerge with different functions, promoting the formation of diversified social networks. The "polymedia" theory of interpersonal communication believes that the digital media environment is a comprehensive configuration, and users' simultaneous use of multiple media has become the norm. In this process, various types of media work together to build a social ecology. [19] The "platform swaying" theory further points out that the polymedia environment has created diversified and vertical digital social platforms, and users are accustomed to using multiple platforms to manage social relationships. Therefore, social actions in a complex media environment increasingly feature the cross-platform "plural social" behavior mode unique to the digital age: individuals are able to transcend the spatial and cultural boundaries of different platforms and use multiple platforms to establish and maintain personalized social relationships with heterogeneous individuals or groups at the same time.

Multi-platform "plural social interaction" can help users create "plural selves" with multiple personas in different cultural contexts and occasions, and improve the flexibility and adaptability of digital social interaction. Ilana Gershon pointed out that different social platforms have their own unique "media ideology", and individuals in them will be influenced by the platform's temperament and thus form a "personality" that adapts to the platform. [20] As individuals use more platforms, their "personas" in digital social interaction will also increase accordingly, thus forming a "plural self" under "plural social interaction". Taking WeChat and Weibo as examples, WeChat usually gathers more strong relationships and interpersonal relationships that need to be maintained, so people's expressions in WeChat Moments are often positive and restrained; in contrast, the anonymity and openness of Weibo allow individuals to express themselves more freely and casually, and are less constrained, thus shaping a "plural self" with multiple personas in a cross-platform environment.

Connection reconstruction: relationship construction from conformity to subjective choice. In the digital age, individuals' social interaction actions are gradually changing from conformity to subjective choice based on personal interests and needs. The reference group theory in interpersonal communication holds that individuals tend to imitate, learn and adapt to the behaviors and ideas of people around them in social interactions, showing a social behavior pattern of conformity and following the crowd. Therefore, in the pre-digital era when communication was relatively inconvenient, social norms and the expectations of others became important references for social interaction. With the rise of social media and the popularity of mobile devices, users' social initiative has been enhanced, and the requirements for social quality have also increased. Self-determination theory holds that in the process of pursuing psychological needs such as autonomy and competence, people will actively seek social relationships that match their own interests and needs. Thanks to the rich information resources, personalized service experience, enhanced self-awareness, strengthened media literacy and diversified social methods in the digital age, the information gap between the public and the public has been continuously narrowed, [21] allowing individuals to give full play to their self-determination effectiveness, thus forming a unique behavioral mode in digital social interaction that is self-centered and no longer conformist.

In the individual sense, the reconstruction of social connections from conformity to subjectivity has enhanced the autonomy of individual social choices; in the social sense, this change has a more far-reaching impact: it deconstructs the traditional concept of social authority. The digital empowerment theory points out that the equality and openness of digitalization, on the one hand, weaken the importance of traditional influence factors such as status, wealth or power, and on the other hand, enhance the individual's sense of self-efficacy, so that individuals pay more attention to their own subjective judgment in social interactions, rather than blindly following the crowd or opinion leaders. Therefore, traditional social authority has gradually been weakened, and users are more inclined to join small professional forums rather than popular social platforms to obtain more professional support and meet the diverse subjective needs of individuals.

Value community: group selection from function to emotional satisfaction. The social support theory of interpersonal communication holds that the motivation for interpersonal interaction lies in obtaining information, material or emotional support from a specific social group in order to maintain the individual's social activities. [22] This raises the question of what value criteria should be used to select and integrate into a community. In the pre-digital era and the early digital era, the functionalist view of interpersonal communication was dominant. The social value of the community was mainly reflected in functional aspects such as information acquisition, establishment and maintenance of interpersonal relationships. This functional social interaction was highly utilitarian and aimed at accumulating social capital and improving social adaptability. With the rise of digital social interaction, the value of the community is no longer limited to the functional level, but is more reflected in "emotional value". Jonathan Turner pointed out that emotion is the catalyst and adhesive of social interaction. It can promote understanding and support between individuals and enhance community cohesion. [23] Digital technology has reconstructed the emotional structure of the current community and the social relationships it contains, making emotion a leading factor in perception and decision-making before the actual content, thus forming a behavioral mode of pursuing community emotional value that is unique to digital social interaction.

In digital social interaction, the satisfaction of unique emotional values ​​is an important way to form a sense of community belonging and enhance social adaptability. The interactive ritual chain theory points out that the "need for community belonging" in interpersonal interaction is an important motivation for individual emotional awakening. It is in emotional communication that the "self" can enter the socialized life world. In other words, the satisfaction of emotional values ​​in digital social interaction is important because it helps to strengthen social connections, meet the needs of belonging and identity, and thus better resist negative emotions such as digital loneliness and anxiety. Digital social interaction can satisfy the emotional value of community selection because in an open digital community, digital emotional expression can be transformed into a usable "emotional discourse resource". This discourse resource can realize the presence of "attitude" in digital social interaction, enhance the perceptibility and mobilization ability of digital emotions, enrich emotional experience, and thus realize the satisfaction of individual emotional values ​​in digital social interaction. [24] For example, in August 2024, the first domestic 3A game masterpiece "Black Myth: Wukong" was launched, which quickly sparked heated discussions and the number of social media interactions exceeded 10 billion. The game not only has an intriguing plot, but also incorporates elements of traditional Chinese intangible cultural heritage, architecture, and mythology, allowing players to enjoy the game experience while deepening their love and pride for traditional culture. Discussions around the game have formed a wide range of communities on gaming platforms such as Steam and WeGame, where players exchange experiences and discuss skills, gain a sense of identity as players, and use games as a medium to form emotional satisfaction through social interaction, which also attracts more players who pursue emotional value to join.

Clear boundaries: From vague to clearly defined boundary management. With the advent of the digital age, individuals' "sense of boundaries" in social interactions has become increasingly clear. In the pre-digital era, in order to establish and maintain social relationships, individuals would actively lower their guard in offline communication and show more of their true selves as an effective strategy to quickly draw closer relationships. Social exchange theory reconceptualizes interpersonal communication as a "social exchange" phenomenon, arguing that individuals can achieve a win-win situation through social exchange. Therefore, in face-to-face interactions without technical mediation, this strategy helps to quickly establish connections. In the early days of the Internet, due to the anonymity of the Internet and the immaturity of privacy protection measures, blurring personal boundaries in exchange for a larger social network and more information became an important strategy for digital social interaction. With the maturity and development of social media, the "sense of boundaries" in social interaction has received increasing attention. A digital social survey conducted by China Youth Daily in 2024 showed that 50.4% of the young people interviewed paid more and more attention to the maintenance of boundaries and private space in digital social interaction. [25] In digital social interactions, individuals will take appropriate information protection actions, such as setting privacy permissions for social accounts, blurring sensitive information, and setting the “visible for only three days” function on WeChat Moments, in order to maintain personal privacy and boundaries.

The boundary of the self is a range defined by the individual subjectively, which is used to distinguish between the inner and outer worlds and ensure the independence of individual thoughts and lives. The theory of communication boundary management in interpersonal interaction believes that individuals can control the scope of sharing private information in digital interpersonal communication. Clear boundaries can effectively guide individuals to prudently carry out social practices, help individuals maintain independence in interpersonal interactions and enrich personal experiences. This clear understanding and effective control of the sense of boundaries in digital social interaction reflects the improvement of people's digital literacy in the digital age. Digital literacy refers to the ability of individuals to effectively use digital technology. In digital social interaction, the improvement of digital literacy can help individuals enhance information discrimination and critical thinking ability, enhance privacy protection awareness, promote healthy social interactions and interpersonal relationships, and ultimately more clearly define and maintain social boundaries. Therefore, clearly defining the social boundaries between "self" and "others" has become one of the unique behavioral modes of digital social interaction.

In general, the above four behavioral modes constitute a new action representation of digital social interaction. They are interrelated and together constitute a dynamic evolution process. First, the multi-platform plural social interaction of the "mobile station" type provides a basis for "connection reconstruction". Individuals can choose and build social relationships more independently according to their personal preferences and needs; secondly, with the improvement of individual social initiative and selectivity, the pursuit of social quality makes people tend to join those communities that can not only provide instrumental functions but also provide "emotional value". Finally, in a highly interconnected and choice-filled digital world, people are increasingly aware of the importance of boundary management in maintaining social order, and the action of "clear boundaries" has emerged.

**Conclusion**

This paper takes social interaction in the digital age as its theme and analyzes the new representation of digital social interaction in terms of logical structure and behavioral modality. At the structural level, digital social interaction, as an irreversible trend of the times, has profoundly influenced the understanding of social interaction by the "self" in the spiritual sense and the "individual" in the social sense, helping social members to achieve the harmonious state of "poetic dwelling" in the digital age. Under the influence of digital technology, the components of digital social interaction, such as individuals, platforms, and groups, have completed the reshaping of relationships and realized the innovation of the logical structure of digital social interaction. At the action level, digital social interaction, enabled by technology, has also changed the action habits of social members in platform selection, relationship construction, community integration, and boundary demarcation, realizing the action upgrade of social "connection" in the digital age. Of course, with the continuous evolution of social relationships in the digital age, the deep connotation of the logical structure and behavioral modality of digital social interaction still needs to be further explored.

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**Notes**

[1] China Internet Network Information Center: “The 54th Statistical Report on the Development of China’s Internet”, August 29, 2024, https://www.cnnic.net.cn/n4/2024/0829/c88-11065.html.

[2] Anthony Giddens, The Consequences of Modernity, translated by Tian He, Nanjing: Yilin Press, 2000, pp. 18-25.

[3] In order from ancient times to the present, oral media, written media, print media, electronic media and digital media have successively become the dominant media for human social interaction. This article refers to the historical era in which oral media, written media, print media and electronic media dominated social interaction as the "pre-digital era", and the era in which digital media is the dominant form of social interaction as the "digital era".

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