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Digital Governance of ICH:Generational Re-signification in Xiangtan Fire Dragon Dance

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Abstract. The inheritance and protection of intangible cultural heritage contributes to the revitalisation of rural culture and the formation of rural emotional communities. This study starts from the theoretical perspective of interaction ritual chain, constructs the interaction ritual chain of Xiangtan Fire Dragon Dance, reveals the double digital intergenerational gap formed by the lack of physical field and symbolic cognitive dispelling of the youth group, Furthermore, analyses the micro-cognitive process in the interaction of the Fire Dragon Dance by combining the theory of embodied interaction, discovers the main reason for the decline of Xiangtan Fire Dragon Dance is the huge change of the urban-rural structure of the modern society and the development of modernity, which disrupts the chain of interaction rituals. Through technical embodiment, reconstruct the rhythmic entrainment and, through multimodal feedback, strengthen the authority of sacred objects. A mediated approach is provided for the inheritance of rural intangible cultural heritage.

Keywords: interactive ritual chain, intangible cultural heritage, embodied cognition, interaction design, mediated communication

1. Introduction

The Xiangtan Fire Dragon Dance, originating in Zhubu Village, Xiangtan City, Hunan Province, dates back to the early Guangxu period of the Qing Dynasty, with a history spanning over 140 years. Initially rooted in religious rituals, it gradually integrated with the local farming culture and became an indispensable part of the blessing activities during the Spring Festival, Lantern Festival and other festivals.

To date, the Fire Dragon Dance has developed into a modernised dragon dance activity that is widely performed in Hunan. In 2016, the Xiangtan Fire Dragon Dance was listed as a provincial-level intangible cultural heritage through collaboration between the government, inheritors, and the community. The seventh-generation inheritor, Yin Guojun, has promoted its entry into schools, collaborated with Xiangtan University to develop cultural and creative products, and explored new modes of ICH education. In 2025, it was invited by the Changsha Municipal People's Government to perform with other Hunan Dragon Dance Teams to celebrate the Chinese New Year. The Xiangtan Fire Dragon Dance, which flourishes in Yinjia Village, is inseparable from the financial support of the Yin family. Villagers interact and produce emotional energy in the ritual of the Fire Dragon Dance. Year after year, the Fire Dragon that gathers emotional energy becomes a public cultural

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symbol that carries collective memories, satisfies villagers' spiritual needs, and builds up a rural emotional community.

With the social changes in the countryside, ceremonies such as the Xiangtan Fire Dragon Dance have been neglected, resulting in the interruption of cultural memory and the weakening of villagers' sense of cultural identity and belonging. In the context of the Party and the State calling for rural revitalisation in the new era, and cultural construction is an indispensable part of rural revitalisation, the breakthrough of Xiangtan Fire Dragon Dance can empower rural cultural revitalisation. Therefore, it is essential to realise the ICH breakthrough of Xiangtan Fire Dragon Dance in the digital era, to reconstruct the emotional community in the countryside, and to realise the emotional return of the native culture.

In the digital era, the promotion of mediated inheritance of ICH is an effective means to cross the digital divide and achieve a breakthrough, which provides a possibility to overcome the spatial limitations and realise "psychological presence". Starting from the theoretical perspectives of symbolic interaction theory and interactive ritual chain, this study analyses the emotional production process of Xiangtan Fire Dragon Dance, and ponders the way of awakening collective cultural memory by means of embodied interaction, and constructing a sense of cultural rituals in the virtual space in a collaborative manner. This study breaks through the technological framework of ICH research, emphasises the core position of emotional energy in cultural inheritance, and innovatively introduces the bodily dimension into cultural memory research, trying to put forward a digital embodied participation mechanism, to crack the problem of imbalance in urban and rural cultural development by providing theoretical thinking and transforming cultural inheritance into new media participatory practice.

2. Literature review

2.1. Interactive ritual chain

Contemporary American sociologist Randall Collins' theory of interactive ritual chain explores the inner operating mechanism of ritual communication. In Collins' theoretical framework, rituals include not only those with clear procedures, but also "natural rituals" that occur in daily life. When a large number of interactive rituals occurring in a specific situation are linked together, a chain-like structure is formed, which is called a chain of interactive rituals [1]. As the number and size of people increase, the chain structure can expand to the meso- and even macro-level of society. The underlying model of the interactive ritual chain is divided into two main parts: the constituent elements of the ritual and the outcome of the ritual, the core of which lies in the generation of emotional energy. After the completion of a single interactive ritual, participating members will choose to open the next interactive ritual or withdraw. The more critical influencing factors in this are symbolic capital and emotional energy [2]. The ability to obtain emotional energy and symbolic capital is also a judgment criterion that influences whether participants start the next ritual or quit the next ritual. With the rapid development of science and technology, the physical co-factor, which is the basis of the other four elements in the interactive ritual chain theory, has been affected. In the era of Web 2.0, many highly cohesive groups and organisations have emerged in the Internet environment. Therefore, scholars have begun to think about whether the interactive ritual chain still has the same theoretical explanatory value in the new media context as in the past.

After combing through the literature, it is found that existing studies on interactive ritual chains tend to develop only from a single scene, either online or offline. Online research on interactive ritual chains mostly focuses on online groups and online interaction contexts, and in terms of online

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groups, scholars mostly focus on the revision of interactive ritual chain theory itself. Scholar Jiang Zhenzhen focuses on the group of Fan circles and explains the generation mechanism of Fan circle culture from the perspective of interaction ritual chain [3]; scholars Li Junpeng and Ru Wenjun draw on Giddens's analysis of modernity and make amendments to Collins's theoretical model, to make it more explanatory for interpersonal interactions in virtual communities [4]. In terms of online interaction contexts, existing studies have focused on explaining interaction rituals that occur in virtual situations, such as Deng Xin's focus on pop-up videos, which she defines as a kind of virtual interaction ritual carried out by Internet-based netizens who self-identify as members of the ACG cultural community, with the non-physical presence of the body as the spatial station [5]; Huang Ying and Wang Maolin focus on the situation of live broadcasting on the Internet, using the theory of interactive ritual chain to analyse the interactions mechanisms within the live streaming room [6]. Most of the offline research on the theory of interactive ritual chain also explains offline interaction rituals from the perspective of the theory of interactive ritual chain, for example, in the field of sports scholars Wang Hongkun argues that the emotional energy is the fundamental motivation for the survival of traditional minority national sports, and that subsidence is the essential reason for the declining of traditional minority national sports [7]; Yin Yingmei and Zheng Xiangmin focus on the interactions between hosts and guests when travelling to accommodation, and argue that the ability of hosts and guests to acquire Emotional energy (EE) enhancement is an important factor in determining whether sharing accommodation can be sustained [8]; scholars Tian Youyi and Li Jingwei looked at the interactive process mechanism of home-school cooperation, and proposed that through constructing the community of parent-school education, Promoting the positive emotion sharing, creating the communication opportunities, and improving the institutionalisation of parent-schoolcooperation, and other paths to break through the situation [9]. Among the existing studies, the research related to the interaction ritual chain lacks attention to the path connection of the interaction ritual chain, both online and offline.

After combing through the literature, it was found that the existing studies pay insufficient attention to the study of ICH, and the past studies only focus on the unilateral perspective of online or offline. For example, scholars Zhang Jingpeng and Yumeng focus on Televised Cultural Programs on ICH, arguing that the interactive ritual chain these programs promote the ICH inheritance from unidirectional output to two-way dialogue, and continuously stimulates the audience's emotional resonance and cultural identity [10]. Scholar Guo Zhen focuses on the "Guan Di Hou Wang Outing" event in Guangdong, and proposes a strategy for ICH preservation that increases symbolic reserves and enhances emotional sharing from the perspective of interactive ritual chains [11].

Comprehensively, the above literature review concludes that there are more studies on online or offline dissemination based on the interactive ritual chain theory, but there is a lack of research on the connection between the online and offline interactive ritual chain paths. Simultaneously, there is a lack of care for ICH culture despite the variety of objects about the application of the theory of the interactive ritual chain, and there is even less attention paid to the soil of the birth of ICH - rural life and the mediatisation paths of ICH. Therefore, this study focuses on Xiangtan Fire Dragon Dance and the digitalisation of Xiangtan Fire Dragon Dance, and attempts to open up a path that connects the online and offline interactive ritual chain of ICH cultural inheritance, in the hope of providing some inspiration for the current research on ICH preservation and active inheritance.

2.2. Embodied cognition

There are two considerations for choosing this theory: firstly, from the perspective of the interactive ritual chain, both embodied cognition and interactive ritual chain are concerned with interaction. In

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the interactive ritual chain theory, interaction is carried out through symbolic media. And the theory of embodied cognition is concerned with the generation of cognition during the process of interaction, and the latter happens to be able to explain the former at a more microscopic level; secondly, from the perspective of digital technology, To realise the digital breakthrough of ICH in the modern society, it is necessary to examine it from the perspective of technology.

Embodied cognition is a concept of cognitive psychology that originated in the late 20th century. The interactive view in embodied cognition research opposes the dualism between mind and body. It is argued that the mind is formed in the interaction of the brain, the body and the environment, and that cognition is intrinsically linked to embodied structures and activity schemas [12]. The state of one's body plays a crucial role in the formation of cognition [13].

Embodied cognition has also profoundly influenced cognitive linguistics, which requires attention to the concepts of imagery schema and conceptual metaphor. Imaginal schema, a concept proposed by Mark Johnson, refers to a series of basic cognitive abstract patterns formed by people in long-term life experience (perception and movement), which determine the concrete manifestation of cognition as well as metaphorical linguistic expressions. Conceptual metaphor, on the other hand, refers to the use of concrete concepts, i.e., the source domain, to express concepts that are relatively abstract, i.e., the target domain. Therefore, the concept of embodied metaphors emphasises that the source domain in conceptual metaphors has a clear basis in bodily experience.

There is also a deep phenomenological basis for the emergence of embodied cognition theory [14]. This reflection on the relationship between technology and the body is noteworthy. The school argues that people are shaped by technology as they use it to perceive and transform the world around them. Technology extends one's faculties and also changes one's understanding of the world and one's relationship to it. The technologically transformed body can be called a "Technology Incorporation", expanding the boundaries of human perceptual experience through the mediation of Technology Incorporation. From another perspective, the basic process and mode of cognition are essentially restricted by the physiological attributes of the human body.

Interaction design based on embodied interaction is expected to engage with the virtual world through the embodied metaphorical mode of bodily perceptual experience and realise remote social interaction. Therefore, the theory of embodied cognition is chosen to provide theoretical guidance for interaction design solutions, with a view to promoting the digital inheritance of ICH.

3. Research methodology

The Xiangtan Fire Dragon Dance was selected as the research object in this study. This study adopts a multi-dimensional qualitative research method. It systematically deconstructs the interactive ritual chain mechanism of Xiangtan Fire Dragon Dance through the combination of literature research methods and field material collection. With the help of the literature research method, the research studied 101 domestic and foreign related research literature by using Zhi.com, Wipu, Wanfang search, sorted out the related concepts of rural public cultural space, ICH, embodied cognition, etc., and made a complete analysis of the interactive ritual chain according to the original work, which laid the foundation of conducting theoretical analyses for the writing of the paper. Based on the number of citations and the time of publication, 9 documents are cited to systematically analyse the current research status of the interactive ritual chain and try to clarify the current research gaps. At the same time, the paper searched the official website of Xiangtan Municipal People's Government, PENGPENG News and Hong.com with the keyword of "Xiangtan Fire Dragon Dance", read 12 news reports, 1 interview video and 3 video films about Xiangtan Fire Dragon Dance, and collected as much as possible the relevant investigation reports and statistics, and then read and analysed them

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in detail, to understand the history, ritual process and inheritance status of the Fire Dragon Dance. The focus was on observing the embodied experience of the ceremony, the differences in the perception of cultural symbols and the threshold value of acceptance of digital media.

4. Ritual chain generation: mechanism of cultural space integration of the fire dragon dance

4.1. Physical integration: group assembly provides interactive conditions

Group assembly is the foundation of IR, which provides the prerequisite for the mutual focus of attention and the rhythmic emotion entrainment. Even in the era of Web 2.0, embodied cognition still has an unparalleled advantage over other cognitive modes in transmitting emotional signals. On the spot, through body language, an individual's state can be optimally discerned, and others' feedback can be promptly known. These advantages and properties provide a solid foundation for all aspects of IR. Group assembly is a key factor in generating the mutual focus of attention and the rhythmic emotion entrainment. The very structure of the traditional village naturally provides the prerequisite for the physical co-presence of the participants and the basic conditions for face-to-face interaction. Face-to-face interaction makes it possible for emotions to flow between them, and the lively festival atmosphere and excited group emotions infect the participants.

4.2. Spatial integration: geographical patterns delineate identity limitations

The coupling of traditional belief spaces (specific temples and dance ranges) and physical village spaces forms a sacred public cultural space symbol, with physical boundaries as cultural identity limits, and the taboo of "no entry" from outside groups reinforcing community awareness. Through the examination of the Fire Dragon Dance, it can be learnt that the belief space shows the correspondence of "one territory, one temple, one dragon" [15], i.e., an area is guarded by a dragon god. Because the local authorities believe that the dragon gods only protect the people within their jurisdiction, and outside their territory, the corresponding other dragon gods exercise their powers. Therefore, when the dragon lantern goes out of bounds, it means that the powers of the dragon gods are misplaced. So although the festive atmosphere exists in common, the scope of the dragon lantern dances is also clearly defined, and the dragon dancers can only dance within the area governed by the local dragon god. This kind of rural public cultural space, constructed by coupling the spiritual space related to faith and worship and the physical space related to the geographical location of the village, is conducive to the formation of emotional connection and emotional identity through the interaction of the participants, thus forming the identity symbols of the group members. This identity symbol further strengthens the identity boundaries established for outsiders.

4.3. Cognitive integration: shared attention leads to mutual attention

In interactive rituals, people focus their attention on a common object or activity, and by communicating that focus of attention to each other, they become aware of each other's focus of attention. The Fire Dragon Dance has a rigorous ritual process. All participants are required to focus their attention on the ritual interaction as much as possible to circumvent all the accidents of the ritual. In the history of the Fire Dragon Dance, the calamities that did occur due to the Portentous omen of the fire dragon have been passed down by the villagers and the head of the council in the form of oral stories or written records, and these allegories and symbols have been reinforced. Among the villagers who share the common belief in the dragon, a set of conventional symbolic systems has been formed. Under the effect of intersubjectivity, intersubjective fields of meaning are

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generated among people. The fire dragon and the rituals of the fire dragon dance naturally become the common focus of all participants. The participants act in unison towards this common focus. This is a three-element interaction that includes two people and their common focus. This is what IR theory calls "mutual focus of attention", where participants not only notice something or an object, but also notice that others have the same focus as themselves [2].

4.4. Emotional integration: rhythmic connectivity adds to emotional sharing

The Fire Dragon Dance has 72 different dance routines, featuring a wide variety of intricate moves that require the nine dragon dancers to work together in perfect harmony. Accompanied by folk instruments, the dragon dancers combine walking, running, jumping and other movements to interpret various stories by rotating, flipping and interspersing the fire dragon lanterns held in their hands, constituting symbols that can be repeatedly interpreted, and becoming a ritual code that triggers collective memory. The audience also generates internal imitation of psychological activities, projecting their intentions onto the performers, and their dashing and spirited momentum during the dance continuously brings short-lived sensory and emotional stimulation. All the participants interact with the spectators and the spectators interact with the spectators with the Fire Dragon Dance as the centre, and the emotions are conveyed through symbols such as externalised body language to resonate with others around them.

This process is reinforced by a rhythmic entrainment of feedback from many micro-event streams. The rhythmic environment triggers a further release of collective breath [2]. These rhythmic symbolic interactions serve as mutual feedback, reinforcing the emotions of the group. The dragon dancers deploy the emotional atmosphere of the scene by dancing the dragons to garner cheers from the audience, who also respond at the necessary nodes. The audience's laughter and cheers are increasingly oriented towards a uniform rhythm, and all of them follow the group's emotional ups and downs with well-timed laughter. The process is unconsciously natural, as if regulated by a metronome. The formation of rhythmic synchronisation and emotional connection, high-intensity mutual attention and emotional connection between each other to strengthen, and ultimately to Collective Effervescence.

5. Ceremony chain breakage: the double dilemma of the inheritance of the Fire Dragon Dance

5.1. Group unity and emotional energy

The interaction chain of the ceremony site is mainly divided into two: one is the interaction between the viewer and the performer, and the other is the interaction between the viewer and the viewer. Among them, the performer, as the leading party of the ceremony, not only possesses more symbolic capital but also higher emotional energy, is in a proactive state in the ceremony, and has a high willingness to generate and participate in the "rhythmic entrainment". Therefore, the first one tends to drive and complement the second one. Interacting participants with a high level of 'affective energy' express their attention and willingness to give feedback to other participants, such as the audience, by actively 'increasing the rhythmic synchronisation of talk and body gestures' to "reward others" [16] and to expect to be "rewarded" again with feedback. This process of feedback and re-feedback between the performer and the viewer is cyclical, culminating in a rhythmic synchronisation of talk and gestural language between the participants. The experience not only responds to others in the crowd, but also influences them and thus becomes increasingly part of the interconnectedness as individuals become more fully integrated. Perhaps the most intense human

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pleasure comes from being fully engaged in synchronised social interaction [2]. The higher this level of entrainment, the more emotional energy is gathered, and the stronger the sense of unity and identity. So participation in fire dragon dance performances is not only a way of practising a pre-existing identity, but also a way of reinforcing, re-creating, and even making it. The ICH activity itself is a way of constructing a rural community in Zhubu village.

The formation and inheritance of the Fire Dragon Dance is predicated on the complete binding of people to the land. The land is the support of human existence, and everyone is born and dies in it [17]. It not only provides a physical basis for corporeal coexistence but also solidifies blood ties, forms a person's natural identity, and sets basic identity limits. As the position of land as the core resource of traditional rural societies is gradually replaced by industrialisation, the structure of urban-rural development changes, ultimately leading to the unbundling of people and land. If Zhubu Village disappears, the heritage of the Fire Dragon Dance will have no branches to rely on.

5.2. The birth of the fire dragon as a sacred object

The common attention develops into a common symbol [2], and the Xiangtan fire dragon is born as a group symbol for the villagers. The concept of one dragon corresponding to one realm was reinforced. Participants injected their feelings of veneration for the dragon god, their expectations for a better life, some of the emotional energy harvested from this ceremony, and pleasant experiences into the fire dragon with a view to prolonging this sense of unity experience. Therefore, the symbol of the fire dragon is also produced as a sacred object. Collins mentions that if a belief is shared by people without objection, it will not be allowed to be touched, denied, or opposed, and such forbidden criticism is like an injunction or something to guarantee the existence of something sacred [18]. A sense of morality is also created. After the completion of the series of interactive rituals of the Fire Dragon Dance, the participants' emotions, such as reverence and worship of the dragon god, are heightened accordingly. The fire dragon, as the most important symbol in the whole ritual, is honoured and defended by all participants. Such as at the beginning of the Reform and Opening-Up, when there was a fight between villagers of two villages triggered by an argument over who should give in first when the two dragons met.

Having a shared set of symbols is one of the factors that make an IR successful in promoting collective excitement, and the lack of shared symbols is one of the conditions for failure [2]. Collins mentions that one of the commonalities of failed rituals is that the attention of ritual members is drawn to another focal point. Contemporary people, who no longer rely on the land for their livelihood, don't need to pray to the dragon god for favourable weather. The worship of the dragon god has collapsed and is even regarded as a feudal superstition. Interviews mentioned that traditional lifestyles have been greatly impacted, and with urbanisation comes the development of a diversified entertainment industry, where symbols from other systems steal people's attention, and the emotional detachment from the symbols of the dragon god makes it impossible to re-accumulate emotional energy. Moreover, this series of entertainment behaviours for instant enjoyment has taken up most people's energy, which is similar to the paralysing effect of mass media on people. When people want to go back to the atmosphere of activities that used to be hard but joyful, they will find that their accumulated emotional energy is completely unable to support them in enduring the boredom of the rituals.

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6. Digital media path: technology embodied and symbolic sanctification

Collins points out that the decay of emotional energy stems from the absence of co-existence, and Anthony Giddens' theory of spatial and temporal separation provides a solution to the problem of technologically mediated co-existence. In terms of time and space, time and space in modern societies have been reorganised in new ways, resulting in conditions of 'presence' and 'absence' that are completely different from those of traditional societies [19]. Forms of social interaction are detached from the traditional spatial and temporal environment. Individual interactions or events in society are no longer confined to fixed scenarios, but are detached from specific places [19], which Giddens calls "virtualised space", and interactions on virtual networks are typical of this spatial-temporal detachment. Therefore, in the Web 2.0 era, the paper can consider digitising the offline interactive rituals of the fire dragon dance. Forming the correlation and interaction of the communication paths between the online and offline worlds is a key means for the fire dragon dance to break through and realise digital dissemination.

6.1. Interactive technology extends the human body

Although the unbundling of geo-relationships has left the element of bodily co-presence unfulfilled, it is in line with the characteristics of modern society, where social interaction is no longer confined to a fixed scenario. Borrowing digital technologies to realise technological embodiment makes social interaction at a distance possible. The core of incorporating technology into the body and extending it lies in the phenomenological unity of body schema and body intention. Body schema, as the body's pre-reflective capacity for action, requires technology to be seamlessly internalised at the functional level until it becomes a direct implement of the user's unconscious intentions.

At the same time, body intention, as the conscious perception and representation of the body, requires that the sensory feedback mediated by the technology, such as the form and movement of the virtual double, must be highly congruent with the user's self-perception and intention to act, thus confirming this extension in terms of subjective identity. Thus, the true extension of the body occurs at the intersection of schema and intention. When a functionally transparent action receives meaningful sensory validation that matches it perfectly, the externalities of the technology dissolve, and the body can break through its physical boundaries in a phenomenological sense.

When the bodies of multiple individuals are both extended through this unity of schema and intention, they are able to perceive and interact with each other in a shared virtual environment. As a result, the sense of co-presence is no longer a simple juxtaposition of visual symbols but stems from the real and dynamic interactions between extended bodies.

6.2. Embodied metaphors reinvent the Dragon God belief

After people leave the rural society, the fading of reverence for the symbols of the Dragon God is predictable. However, when analysed from the perspective of embodied cognition theory, it is clear that human cognition, emotion and meaning do not originate from abstract symbolic logic, but are deeply rooted in the body and its experience of interaction with the world. One's understanding of abstract concepts such as strength and guardianship is essentially a metaphorical extension of concrete bodily schemas such as up and around.

Therefore, to create a profound emotional experience, the core of the design is an active construction of a ritual process that is engaged and felt through physical action. Instead of directly illustrating the divinity of the Dragon God, this approach deconstructs and maps it onto the user's

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embodied metaphors. The user's gestures of looking up are used to experience the majesty of the Dragon God; a simple upward sliding gesture becomes a ceremonial act of sacrifice due to the physical patterns of lifting and dedication. The user's voice is visualised as the flow of energy to the deity. Through this design, each physical interaction is imbued with sacred meaning, while the dragon god's responses, such as light, vibration and sound effects, constitute immediate sensory feedback, creating a dynamic, responsive "me and you" dialogue. Ultimately, the interactive process itself becomes a practice of faith, no longer asking the user to believe in a god, but to feel the presence of the divine through their bodies in a carefully constructed digital sacred space.

6.3. Remote interaction with multimodal information

From the perspective of embodied cognition, mutual attention and emotional sharing in offline collective rituals are not purely psychological activities, but a microdynamic process driven by the body. Mutual attention arises from intersubjectivity, i.e., the participants not only perceive that others are looking at the same thing, but they also co-affirm a focus with others' bodies by sensing physical cues such as the orientation of others' heads and the posture of their bodies. Emotional sharing, on the other hand, arises from bodily resonance, as the participants can hear the exclamations of the bystanders and feel the collective rhythm of the crowd. These multimodal sensory inputs will unconsciously trigger their physiological arousal and gesture imitation, to make the bodies of all participants enter into an emotional state that is similar to that of the collective.

Therefore, the key to reproducing this process in interaction design is to transform these physical cues, which are lost due to the absence of the body's field, into explicit multimodal information through technological means. To achieve mutual attention, the design should not stop at juxtaposing virtual stand-ins, but rather visualise the act of paying attention: e.g. when multiple users look at the same object, their gazes can converge into visible beams of light, which together illuminate the target, making the fact that "we are looking together" palpable. To achieve emotional sharing, users' physical factors need to be captured and transformed into environmental feedback, e.g. users' collective applause can be captured through microphones, whose real-time intensity can directly change the colour saturation of the virtual environment or the excitement of the soundtrack; and users' synchronised body movements can drive the core ritual objects to produce even more spectacular visual effects. In this way, the design constructs a digitalised physical feedback loop: individual physical actions are rendered as visible symbols of the group, and the collective state of the group in turn shapes each individual's sensory experience, thus re-coalescing the isolated online participants into an embodied collective that can feel and act together.

7. Summary

When the paper analyses the principle of offline interaction in depth, the research finds that its success depends on the direct participation and feeling of the body. This principle can not only be borrowed online, but can also be uniquely applied and enhanced by digital technology. Many traditional offline rituals have been weakened by the impact of various shocks on the chain from "common concern" to "emotional sharing" in modern society. This provides an opportunity for online experiences: the interaction design can systematically strengthen or even rebuild this interactive chain through technological means.

The construction of online rituals begins by connecting our bodies to technology, allowing our movements and sounds to be translated into signals on the web, creating a technological "bodily presence". Based on this, an undisputed common focus is created through powerful visual symbols,

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which naturally lead participants to become aware of each other's presence and concerns. The next crucial step is to communicate with each other using rich audio-visual and other multi-sensory information that effectively calls upon our past physical experiences and emotional memories. This opens up feedback channels for emotional sharing, allowing emotions to be transmitted, superimposed and augmented across the crowd, ultimately achieving a strong collective resonance. Thus, online means are not a hopeless substitute, but rather a complete and powerful chain of online rituals by solving the inherent challenges of offline rituals and adding the unique advantages of the digital world.

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