

Blurred boundaries and the solidarity to be reconstructed: the transformation of the individual and the community in digital society

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Abstract. The technological evolution of the digital age has reshaped the macro-level fabric of social operation and profoundly transformed the micro-level mode of individual existence, with profound implications for very foundation of human connection. The "disembedded" connection of spatiotemporal structures, together with the algorithmic turn of power structures, ultimately converges in individuals' anomie and existential anxiety. When individuals lacking subjectivity attempt to form communities, the predicament extends from the personal to the collective level. From "fictitious boundaries" to "solidarity that demands reconstruction"—that is the core proposition of the transformation of the individual and the community in the digital age.

Keywords: digital society, structural transformation of society, transformation of individual existence, digital community

1. Introduction

"All real life is meeting." More than a century ago, the Jewish philosopher Martin Buber asserted that the meaning of a person is not derived from an isolated self, but rather from the continuous establishment of living, unmediated dialogue with nature, others, and the divine. This assertion has found new resonance in the digital age: as technological developments continually erode the boundaries of physical space, connections among individuals become ubiquitous, yet people in this new era experience a pervasive sense of "loneliness" and "atomization." The convenience of connectivity does not necessarily lead to genuine encounters—a paradox that has become a central issue in digital sociology.

From Jonathan Wynn's introduction of the concept of "digital sociology," to Orton-Johnson and Prior's *Digital Sociology: Critical Perspectives*, and Deborah Lupton's *The Digital Sociology*, these works all describe a state in which individuals appear to wander among digital communities yet struggle to find stable belonging; communities assemble instantly online but, lacking deep ties, prove fleeting [1-3]. However, existing research tends to focus either on macro-level structural analysis or micro-level individual experiences, rarely bridging the two to ask: in digital society, how is genuine meeting possible, and what kind of transformation are the relationships between the individual and the community undergoing?

In light of this, this paper seeks to address the questions raised above. Specifically, it will begin by examining the structural changes brought about by digital technology in society, and then explore the realities created by "blurred boundaries" and "the solidarity to be reconstructed." On this basis, it will then investigate the transformation of individual modes of existence and the evolution of community forms in the digital society.

2. The structural transformation of digital society

2.1. The "disembedded" connection of the spatiotemporal structure

Regardless of the era, any discussion of social structure inevitably revolves around the two fundamental dimensions of time and space. Whether it be village life in the agricultural age or workshop production in the industrial era, people's social actions have always been highly dependent on the prerequisite of "co-presence" [4]. Digital technology has undermined the dependence of social actions on physical space and reconfigured the way people utilize and perceive time. At the end of the 20th century, the British sociologist Anthony Giddens defined this transformation of the spatiotemporal structure as the "disembedding" of social systems [4]. Although strictly speaking, digital technology does not fall neatly into any of Giddens' categories of disembedding mechanisms, it nonetheless serves as a mediator that "lifts out" human social actions, social relations, and social institutions from concrete spatiotemporal conditions, thereby enabling universal interaction and integration once freed from the constraints of real-world conditions. Undoubtedly, owing to the development of digital technology, people's daily social production and life have gained tremendous flexibility at the levels of both time and space. However, such transformations inevitably come with a series of new problems.

First, the "disembedding" of the spatiotemporal structure gradually blurs the boundary between public and private. As digital technology becomes the mediator for "co-presence," the concepts of "presence" and "absence" in people's social production and daily life become increasingly "emptied," giving rise to a new pattern in which public events intrude into the private sphere, while private life is simultaneously made public through social media. On the one hand, in the context of digital society, productive labor easily encroaches upon private life. Take remote work as an example: in traditional industrial society, factories and offices—characterized by their public and instrumental nature—were functionally distinct from the private, affective space of the home, and the "eight-hour workday" further emphasized the boundary between work and life. However, digital technology has "disembedded" the two from physical constraints, enabling workers to complete tasks in any non-fixed space or time interval. Under such circumstances, business operations and production become more flexible thanks to digital technology, but for the individual worker, mobile work devices allow work to arbitrarily intrude into non-work domains, making "work spillover" the norm [5].

On the other hand, digital technology makes private lives increasingly public via social media. In traditional society, displays of private life tended to occur primarily within acquaintance circles, where people shared their daily lives in a relatively closed environment. However, the operational logic of social media is markedly different: digital technology "disembeds" the content of private life from the specific time and space in which it occurs, and media platforms, through mechanisms such as likes, trending lists, and algorithmic recommendations, continually prompt users to publicize expressions that would otherwise belong to the private domain [6]. This is not a matter of "privacy leakage," but rather a form of "self-presentation" that social media platforms actively encourage users to perform through incentive mechanisms.

Second, the "disembedding" of the spatiotemporal structure has reconfigured the perception of time. Today, the development of digital technology has enabled unprecedented instantaneity in the speed of information

transmission. Digital communication tools can transmit information thousands of miles away within milliseconds. The proliferation of such instantaneous communication technologies has created an expectation of "immediate response"—send-ers expect recipients to receive messages quickly, while recipients feel pressure to reply promptly. In the case of traditional communication methods or face-to-face conversations, this pressure for immediate response does not exist. However, in digital society, digital devices such as smartphones act as extensions of the human body, continuously anchoring people to the internet. The state of being perpetually online and ready to process information persists, and over time, this gives rise to a diffuse sense of anxiety.

The direct manifestations of the "disembedded" of the spatiotemporal structure—whether the blurring of the public-private boundary or the reconfiguration of the temporal perception—ultimately converge at the level of individual experience and psychology. Drawing on Arlie Russell Hochschild's concept of "emotional labor" [7], the "disembedding" of time and space leaves individuals without a clear temporal or spatial node at which to disengage from such emotional labor. People must meet the demand for "round-the-clock presence," and may even need to frequently perform different social roles within the same time and space. This significantly increases the cost of emotional switching, gradually eroding the opportunities for emotional recovery. This is a structural factor behind issues such as occupational burnout in digital society.

2.2. The algorithmic turn of the power structure

If the "disembedded" connection of the spatiotemporal structure brings about the blurring of boundaries and the reconfiguration of time perception, the algorithmic turn in power structures introduces another dimension—traditional forms of solidarity are being repositioned within algorithmic logic. In *The Division of Labour in Society*, Durkheim distinguished two forms of solidarity: "mechanical solidarity," based on a strong collective consciousness and a high degree of homogeneity among members, and "organic solidarity," based on the social division of labor and heterogeneity among members. Yet, whether mechanical or organic, these two forms share a common precondition [8]. In other words, this precondition consists in social members are able to form mutual recognition and trust within a relatively transparent power system. The rise of digital technology, however, is gradually undermining this premise.

First, digital technology has enabled panoramic data surveillance of technology users [9]. When a user performs a search or shares their location on a mobile device or digital platform, every piece of data generated is recorded and analyzed, often without their explicit awareness. In the digital world, users' behaviors, preferences, social interactions, and locations are reduced to data points, aggregated into individual data profiles, and thus enable panoramic surveillance of each user.

Second, on the basis of panoramic data surveillance, algorithmic programs discipline and guide social members implicitly and pervasively. In traditional societies, whether through laws and regulations or moral norms, the exercise of power is typically perceptible and accountable, conveyed to each social member through explicit means such as education, indoctrination, and punishment. Algorithmic programs in digital society operate in exactly the opposite way. Richard Rogers has conducted a series of studies on the Google search engine. He observes that algorithmic programs sort content based on various preconditions—such as language, text, and geographic analysis—presenting specific information to users on a preferential basis. In doing so, they imperceptibly guide the focus of people's attention and cognition [10]. Thus, algorithmic recommendation does not issue direct commands; rather, it subtly guides people's perceptions and choices by shaping the information environment. On this basis, algorithmic systems also exhibit a "black box" problem: their internal operational models and decision-making logic are highly opaque to external users, with a corresponding lack of accountability mechanisms [11]. This leaves users completely unable to know how the

data they generate will be handled, and also means that the exercise of power lacks a clearly identifiable responsible subject.

In fact, this mode of power operation has largely left traditional forms of solidarity in a predicament. Traditional solidarity has always been built upon mutual recognition and trust. However, when algorithms position members of society under monitoring and observation—when people know that their thoughts or behaviors will be recorded, analyzed, and guided, yet do not know how these data will be used or whether they will affect them—uncertainty hangs over them. Under such circumstances, trust between individuals becomes difficult to sustain, and a sense of community becomes equally difficult to cultivate.

In summary, the structural transformation of society in the digital age does not reside solely in a technological leap at the level of tools and devices. Rather, it reshapes, at a deeper level, the spatiotemporal framework and the underlying logic of power by which society operates. On the one hand, the "disembedded" connection of time-space structures brings about the blurring of boundaries and the reconfiguration of temporal perception, granting individuals unprecedented flexibility in social action while simultaneously imposing the emotional and perceptual burdens of meeting the demand for "round-the-clock presence." On the other hand, the algorithmic turn of the power structure affects the very foundation of social solidarity from a deeper dimension. Panoramic data surveillance and the implicit guidance of algorithmic programs transform the exercise of power from a visible, perceptible, explicit form into one concealed within the "algorithmic black box." Beneath this contemporary configuration of blurred boundaries and shaken solidarity, the modes of individual existence and the forms of community are accordingly transformed.

3. The transformation of individual existence in digital society

If the "disembedded" connection of the spatiotemporal structure and the algorithmic turn of the power structure outline the contours of structural social change, then both ultimately converge on every individual existing within the digital society. When digital technology transforms the social structure on which people depend for survival, how can individuals in such an environment situate their inner spiritual lives? Based on this question, this section will proceed with a progressive analysis from two levels.

3.1. Digital "enframing" and anomie

The reason why the development of digital technology can affect the mode of individual existence lies at a deeper level: the positioning of digital technology in social life has already surpassed the traditional category of "tool" and has instead formed a vast, implicit net that permeates every corner of people's daily lives.

In the early days, electronic devices functioned merely as "tools" for daily use. Whether a landline telephone or a desktop computer, people operated them only when needed and then set them aside in a corner of the room without further concern. At that time, electronic devices existed as modern technologies external to the user's everyday life, with a clear and distinct boundary between the two, ensuring that technology remained under human control. Today, however, the significance of digital technology no longer lies merely in being a "tool" that people can pick up and put down at will. Every social action in people's lives is now mediated by it; people can only understand the world, perceive the world, and make choices through digital technology. The German philosopher Martin Heidegger used the term "enframing" (*Gestell*) to describe the essence of modern technology: Enframing means the gathering together of that setting-upon which challenges man forth to reveal the real in the mode of ordering as standing-reserve. Enframing means that way of revealing which holds sway in the essence of modern technology and which is itself nothing technological. On the other hand, all those things with which we are acquainted—the transmission rods, the gears, the suspension

chains, and the struts—belong to the technological. But even the assembly itself, along with the aforementioned parts, falls within the sphere of technological activity; technological activity is always only a response to the challenge of enframing, but it never constitutes or even produces enframing itself [12]. In Heidegger's view, when technology takes the form of "enframing" (Gestell), it ceases to be a passive "tool" and instead becomes an invisible force that "challenges forth" (Herausfordern) human beings. It demands that people reveal—or disclose—the world in a specific way, abstractly treating everything around them, including human beings themselves, as "standing-reserve" (Bestand)—objects to be calculated, stockpiled, and utilized [12]. For this very reason, digital technology is no longer a "tool" to be controlled by humans, but rather an "enframing" that controls humans. Algorithmic recommendations dictate what deserves attention, and the screen presents what is considered the "real" world. Behind the convenience and efficiency that digital technology brings to people lies its true essence: a digital "enframing" force that challenges forth and compels human beings.

As the digital "enframing" systematically governs individual perception and action, a profound transformation also takes place in people's spiritual worlds. Here, Durkheim's concept of "anomie" (or "state of normlessness") [8] served to describe this transitional period when traditional norms have disintegrated and a new order has yet to be established. In digital society, the spiritual "anomie" of the individual manifests mainly in the following two aspects.

First, the most direct "anomie" that digital enframing brings to the individual's spiritual world is the increasingly narrow range of individual spiritual needs. Through the data profiles collected by panoramic surveillance of users, digital technology continuously pushes content that is highly consistent with their preferences, thereby progressively narrowing the range of information individuals receive, ultimately forming "filter bubbles" [13]. Within the information flow meticulously orchestrated by algorithmic logic, people often see what they "want to see" rather than what they "need to see." This preference-driven mechanism amplifies the "echo chamber effect," causing individuals to continuously confirm and deepen their own biases within a homogeneous cycle of content.

Moreover, even when people are exposed to diverse information on social media and thus break out of this "echo chamber," it does not necessarily lead to a reconciliation of differing viewpoints. On the contrary, those with similar stances often choose to form small groups, strengthening their sense of belonging through mutual reinforcement, thereby moving toward further intellectual narrowing [14]. Thus, it can be seen that under digital "enframing," individuals appear to autonomously selecting information, but in fact, under the implicit guidance of algorithmic logic, they continuously reaffirm themselves and gradually losing the spiritual space for embracing diversity.

Secondly, digital "enframing" also brings about the virtualization of spiritual communication for individuals. The most immediate convenience that digital technology offers people is the unprecedented expansion of the scope of interpersonal interaction. Through social media and online communities, people can communicate at any time with friends and family thousands of miles away, share their lives with strangers they have never met, and even exist simultaneously in multiple social arenas at the same time. However, as the scope of social interaction expands, the depth of social interaction is gradually eroded [15]. In communication mediated by the metaverse, people cannot directly encounter or perceive others; instead, they are mediated by symbolic signs such as text, emoticons, likes, and so forth. While these signs certainly convey information, they filter out the spontaneous, vivid, and uncontrollable "non-verbal cues" that are present in face-to-face co-presence. As a result, it becomes difficult for individuals to truly be present with a "real" person within the interface. This lack of embodied presence further prevents individuals' deeper emotional needs from being met over the long term. In the long run, individuals are thus prone to fall into spiritual emptiness and alienation.

3.2. The loosening of anchoring points of meaning and existential anxiety

Beneath the surface-level spiritual anomie triggered by digital "enframing" lies a more profound crisis: as traditional anchors of meaning loosen, existential anxiety diffuses among individuals. The human search for meaning never takes place in a vacuum; rather, it is constructed through real-world anchoring points [16]. Among the various anchors of meaning that people need in contemporary social life, the most central and influential one is undoubtedly professional identity. However, this anchoring point of meaning is continuously loosening in digital society, ultimately giving rise to a widespread anxiety among individuals about why they strive and why they exist.

The core of the loosening of the professional anchor lies in the quantification of labor forms. Entering the digital age, the individual's labor process has been brought under the control of digital technology, and labor outcomes have been fully quantified. Through mechanisms such as wage systems and incentive schemes, platforms successfully convey to workers the value belief that "more work, more pay, self-actualization." Under the halo of such performativity, all excess labor appears, on the surface, to be an individual's autonomous choice. This effectively transforms traditional external coercion into an internal driving force for the individual. It is precisely this "flexible regime" that makes individuals prone to endless self-exploitation without even realizing it. However, when all labor is reduced to quantifiable data, it paradoxically tends to create a void of meaning for individuals. On one hand, this stems from the narrowing of value by performative logic: within the framework of digital platforms, only that which is quantifiable is recognized as valuable. Intangible aspects of labor—such as emotional investment, creative inspiration, and the like—are excluded from the system of value evaluation. On the other hand, the endlessness of performative logic also leads individuals to doubt the very meaning of their efforts. In traditional forms of labor, work had a state of "completion." Under the division of labor on digital platforms, however, labor power is infinitely allocated. Individuals are perpetually presented with the "next goal," and workers largely lose the experience of "finishing" their work. The individual becomes like Achilles chasing the tortoise—an endless pursuit that gradually erodes the possibility of generating a sense of meaning.

In fact, a profession has never been merely a means of making a living; rather, it serves as tangible proof through which individuals confirm their position within the social division of labor and feel their own worth. However, when the anchor of professional identity loosens, this form of confirmation is emptied. When individuals can no longer feel their self-worth through labor, the existential question—"Why do I exist?"—is thrown back upon them. Yet individuals find themselves unable to answer it, and from this incapacity, existential anxiety arises.

In summary, when the structural transformation of digital society converges upon the individual, it profoundly alters the mode of existence of their inner spiritual world. From spiritual anomie to the erosion of a sense of meaning, these two dimensions together outline the deep landscape of the transformation of individual existence: individuals appear to enjoy unprecedented freedom of choice, yet their spiritual world becomes increasingly narrowed, emptied, and left adrift without anchorage.

4. The transformation of community in digital society

The development of digital technology not only drive the transformation of social structure at the macro level and reshapes the mode of individual existence at the micro level, but more fundamentally raises a question: when both the social structure and individual circumstances have undergone such tremendous changes, what basis remains for people to form connections with one another? To answer this question, we must first look

back at history and examine the two bases of human community formation that emerged in different eras before the advent of the digital age.

4.1. The transformation of the foundational bases of community bonding

First, in the original forms of community, "shared ideas and beliefs" constituted their most fundamental basis for bonding [17]. These "shared ideas and beliefs" generally existed in two forms: blood lineage and sacred worship. In the classical era, communities primarily took two basic forms: the family and the polis (city-state). The foundational basis of the former is self-evident—blood lineage. Individuals naturally belonged to a particular family by birth; this belonging was pre-existing and independent of personal will.

The latter—the "shared ideas and beliefs" of the polis community—deserves closer examination. The polis was first and foremost a concept of physical space. Citizens living within it did not possess any inborn bonds. The British sociologist Larry Siedentop argues that this force derived from a unified "sacred worship." Moreover, in the classical era, the polis did not recognize the modern notion of individual autonomy. No single individual had the right to choose whether to join the sacred worship or to become a member of a particular polis. Even foreigners had to undergo sacred rituals in order to gain citizenship and become full members of the community [18].

Secondly, with the outbreak of the Industrial Revolution, a functional form of "organic solidarity" binds individuals together into an inseparable new community. The maturation of industry and technology gradually removes the labor force from traditional communal models; individuals, freed from the constraints of blood ties and sacred worship, are functionally reassembled into a new community, which Tönnies refers to as "Gesellschaft." At this stage, individuals possess an independent status, yet they cannot exist in isolation within the new community. Instead, they must rely on functional division of labor and cooperation to survive. Durkheim's concept of "organic solidarity" offers a detailed explanation of this phenomenon [8].

4.2. The "to-be-reconstructed" digital solidarity

Now, as we enter the digital age, individuals appear to enjoy a broader space for choice within the online world, and their subjective status seems to have been thereby consolidated and strengthened. However, as analyzed above, individuals deeply ensnared in "panoramic data surveillance" and "digital cocoons" are confronted with the dual crisis of spiritual anomie and loss of meaning, which makes genuine subjectivity difficult to achieve. Precisely for this reason, the digital communities constructed by such individuals lack a fundamental basis of bonding from the very beginning, and ultimately can only remain in a suspended state of "yet-to-be-solidarity." As traditional blood ties are fragmented by geographical distance, sacred beliefs have faded, and modern functional interdependence is dissolved within algorithmic logic, the digital community finds itself in a long-term state of suspension. Today, it can neither return to past forms of solidarity nor has it yet determined its own basis of bonding. How to reconstruct genuine, tangible communal life on this digital terrain has thus become an unavoidable new mission for the digital age.

5. Conclusion

Following the trajectory of "structure—individual—community," this paper has sought to provide an integrated analytical framework for understanding the transformation of individual existence and community in the digital society.

The "disembedded" connection of the spatiotemporal structure has blurred the boundary between public and private and reconfigured the perception of time. While gaining unprecedented flexibility, individuals are

also forced to bear the emotional burden of "round-the-clock presence." The algorithmic turn of the power structure, through data surveillance and implicit discipline, gradually erodes the mutual recognition and trust necessary for traditional forms of solidarity. These structural changes do not remain suspended in abstraction; they ultimately act upon the inner spiritual world of the individual, subjecting the individual to a double predicament: the progressive narrowing of spiritual needs and the virtualization of communication, along with a diffuse existential anxiety arising from the loosening of anchoring points of meaning. Moreover, the lack of genuine subjectivity in such individuals further obstructs their efforts to form communities.

However, this study remains limited. Western theoretical frameworks have served as the primary analytical tools of this paper, and the discussion of "how to reconstruct" remains only at a preliminary stage. In an era of rapidly evolving digital technology, how new forms of the digital will reshape the relationship between the individual and the community remains an open question. Ultimately, the issue this paper addresses—"how human beings can truly meet one another in the midst of technology"—is an age-old yet perpetually renewed question. At present, it seems that no final, once-and-for-all solution is in sight. Yet the very act of questioning is itself a step forward on the path toward an answer.

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