



How Designers Can Act Inside the Design Objects

A Preliminary Study on How Community Building Constituted Social Innovation as a Design Approach

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Abstract. When designers actively engage in social innovation, the object of Design turns to the complex socio-technical system in which the designer is also embedded. How does this new perspective on the relation between the design subject and the design object lead to changes in specific design actions? Using constructivism grounded theory, we analyze 20 cases of social innovation involving community building in mainland China and find that community building is an approach rather than an ultimate goal to continuous action toward a vision. Actors enter the community by reflecting on society-self and community-self relations, generating more common understanding through dialogue, proposing prototypes based on everyday life, transcending the constraints of existing meaning spaces, and creating new meaning spaces oriented toward the vision in the community.

Keywords: Active design · Community building · Reflexivity

1 Introduction

Designers actively engage their societies towards the vision of ‘design that changes the world’ [1] by focusing on community, political and social issues. In this transition period, the misinterpreted meaning of the design, symbolized by design in traditional creative industries and design thinking [2], is becoming more widely recognized. Furthermore, designers cultivated in the apprenticeship or studio-based educational environments are prone to personal monologic production. They tend to acquire a professional consultative perspective and simply act as system designers outside the mechanism or structure, and “just push the start bottom then go away.”

However, as designers have made it their mission to “inspire society as a whole, extending the concept of long-term human benefit to include the preservation and protection of the sustainability of all four systems (nature, humans, the networked world, and artifacts)” [3], can we still exclude the subject of design from the object being designed?

Design theory and practice have constantly focused on complex socio-technical systems [4, 5]. Whereas, multiple design approaches that work with complex systems

emphasize the technical performances that support them, while neglecting to recognize their social dimensions (which are often more difficult to represent graphically). These “ambitious” design theories have limited integration with evolving social science theories [6]. For example, common approaches to systemic design, such as the System Map, typically focus on a framed context, identifying the various components in an overgeneralized way, such as roles, materials, information, functions, and the relationships among them in a certain context, disregarding the difficult-to-represent intangible social “structure” and “agency”. “Structure” and “agency” are complementary forces that modern social theorists see as the driver of human behavior and relationships within the social system [7]. They influence the thinking and actions of design practitioners who are embedded within them as well. Thinking systemically from outside the system makes it easy for design practitioners to forget that they themselves should be embedded in the social structures and social systems they want to change.

The ensuing reality is a departure from the original intent of design practitioners as catalysts for social change. Even if some designers claim that they do social design, they tend to do “good” things in a privileged way [8]. Most participatory design is still substantially controlled by power or professionals [9]. Some design practitioners applied the design “Schema”, which operated in producing physical artifacts, to the context of society. The prevalence of consultative perspective makes the direct dualism between thinking and acting increasingly apparent, and this separation is also reflected in designers’ preference to produce a work - a metaphor for a subjectively created final product. It is still rooted in the positivist tradition of separating the subject from the object as a “cybernetic execution” [9].

How does this new perspective on the relation between the design subject and the design object lead to changes in specific design actions? This study adopts the constructivist grounded theory in qualitative research to demonstrate that community building constituted social innovation as a design approach, where actors see themselves as part of the complex socio-technical systems and have an awareness of reflexivity. In other words, actors, notably design actors engage in prototypes to make meaning in dialogic interaction beyond the existing commonplace in their everyday life actions.

2 Theoretical Background

Social theory and sociological research methods argue that in contemporary society, the boundaries between the researcher and the object of inquiry have blurred and are no longer as distinct as they once were [10]. The relational and reflexive nature of this context is being explored by some design researchers. The concept of reflexivity also shows that the so-called “society” is in fact an ongoing process of social construction, never a fixed objective entity that is completely unrelated to the individual.

2.1 Reflexivity in Design

By reflecting on the difficulties that Design Thinking encounters in taking substantial action, Kimbell [11] proposes two processes of design based on practice theory: “design as practice” and “practice in design.” She argued that practices are actions that,

people take in their interactions with others and things, and these interactions are often embodied, mundane, and contextualized [12–15].

Feminist-inspired technological visions and related discussions in anthropology have laid the groundwork for discussions of the reflexivity of design, and design practice has begun to engage in a series of “reflexive” reflections on “alternative perspectives, agency, and how, by whom, and under what conditions knowledge is produced” [16]. The design subject is asked to “position” his or her identity and analyze “the boundaries between technological production and internal use” [17]. The design subject needs to recognize “the invisible work that constitutes the production and use of technological systems, to embed itself in interlinked networks”, and to “take responsibility for our participation” [17].

Anthropological research on the relationship between researcher and research participant also provides an integrative perspective on the role and relationship in which the designer is placed [16, 18–20]. Suvi Pihkala and Helena Karasti [21] build on this by proposing a multiple and reflexive perspective of the “designer-researcher” in participatory design, in which the design subject is embedded in a multiplicity of participation in a generative way. In their participatory study of a participatory design process for a “social media” product, they identified four kinds of reflexive interventions based on the subtle interactions that occurred during the process: 1) negotiating designer-researcher position; 2) blurring the central design subject; 3) presenting a common sense of belonging to the issue; 4) Forming network through continuous “mundane” interaction.

2.2 Relational Design

Reviewing the social constructionist terms, Kenneth J. Gergen reveals the importance of relational processes. He states, all meaning is derived from coordination or joint action; relationships do not occur between individuals; the capabilities of individuals emerge within relationships [22]. In *Mapping Dialogue*, the authors distinguish between dialogue and other forms of conversation as the only and indispensable resource for social development and change [23].

In designers discourse, Fuad-Luke has provided a preliminary definition of “relational design” and proposed the concept of complementary relational designers, including designers and non-designers [24]. Accordingly, in the subsequent analysis, terms as design actors or actors will be used in response to “everyone’s potential contribution to reforming the political [24].” Kong believed that working within the community and moving relationally between making and action will dispel the narrowly portrayed perception of the designer as a celebrity [25]. Skou and Mikkelsen argued that despite the contradiction between the linear structures design methods and the unpredictability and ambiguity of relationships, the design still has the ability to facilitate the presentation of new relationships [26]. Lou proposed that sustainable social interaction design can drive society toward a sustainable future lifestyle through choice-based communities [3, 27].

2.3 The Ambiguity of Community Building

The concept of community (“社区” in Chinese) was introduced in China from America in the 1930s, when R.E. Park, a representative scholar of the Chicago school of urban human

ecology research, viewed community as “1) a group of people organized regionally; 2) who are rooted, to varying degrees, in the territory they inhabit; and 3) who live in a variety of dependencies.” This definition emphasizing the three factors of territory, common ties, and social interaction influenced American sociologists’ understanding of “community” and decisively influenced the Chinese translation. In mainland China, “community” is an administrative unit. It means an autonomous organization of residents under a certain sub-district. Therefore, the Chinese context’s concept of “community” is more interchangeable with “neighborhood.” Under this definition, community building (“社区营造” in Chinese) also have emphasized the regional characteristics, so the concept of “community building” in China is often superimposed or interchanged with “urban renewal,” “rural revitalization,” and “placemaking.”

However, with the development of modern communication technology and mass communication means, the rise of Internet communities has given people a more dimensional understanding of the meaning of the word “community”. People engaged in “Internet product operations” prefer to think that communities do not have regional attributes, and the concept of online communities as communities of interest is not considered to have geographical attributes; such entity communities or virtual communities can be “groups formed by knowing each other to some extent, sharing some degree of knowledge and information, and caring for each other to a considerable extent as if they were friends” [28].

When the subject of design action realizes that he or she is inseparable from the community, he or she incorporates the perspective of reflexivity in the design action. As actors become aware that they are in the communities they have constructed, their actions will change their relations to the communities and change them simultaneously. The specific way of action taken by the design actors will first deal with the relations between the actors themselves and the specific communities. Moreover this identity embedded in the relationship with the designed object (i.e., the community) is a metaphor of social-self recognized by design actors, which is also the socialization of the design actors.

3 Methods and Data Analysis

This paper adopts the constructivist grounded theory in qualitative research and selects the research subjects through purposive and theoretical sampling. As action researchers with similar practice experiences, we invited 20 design actors from Mainland China to conduct in-depth personal interviews and invite them to share their practice experiences and to conduct dialogues on related issues. All the interviews were recorded and transcribed into verbatim transcripts. The author’s participant observation notes and process data from the community-based social innovation case study were also used to construct the scope. The analysis process follows the initial coding, focused coding, theoretical coding, and constant comparison methods of constructivist grounded theory to construct the relationship between the categories and the inter-categories and arrive at the core categories that unify the whole picture.

3.1 Methods Positioning

Grounded theory is a systematic approach to qualitative research that constructs theories through strategies based on inductive analysis and continuous comparison of qualitative data [29]. Constructivist grounded theory [30] assumes a relativist epistemology based on these analytic strategies. This strategy acknowledges the multiple positions, roles, and real-world contexts that the researcher and research participants (i.e., the social innovation practitioners interviewed in this study) possess. It also requires the researcher to take a reflexive stance about his or her own background, values, actions, situations, and relationships with the research participants concerning their representations. At the same time the researcher needs to situate the research in the historical, social, and situational conditions in which it is produced [31].

Practice-oriented researchers argue that, “the inclusion of practice in the research process or as a research outcome helps to integrate and communicate those kinds or parts of knowledge that cannot easily be made explicit” [32, 33]. Our interaction with other practitioners as peers was able to unlock more credible data, and interpretations based on our own practical experience (reflecting on our own tacit knowledge) were able to uncover deeper meanings of their narratives. In addition, as design is typically a practice-led discipline, it is compulsory to recover the relationship between theory and practice [34]. The experiences of ongoing social innovation practitioners are more likely to be revealed by design researchers with similar experiences, and since we ourselves need the theory extracted from these experiences to guide the practice of our project, we will give more considerations to the interface between theory and practice.

Our team, composed of practitioners-researchers of community-based social innovation, has created a social context for the objects we are constructing and the practitioners we are working with or, to some extent, in competition with. We are constantly comparing ourselves with other practitioners, respecting each other’s ways of action and positions, and asking questions about the case referred to different stages of the reality. In the contrast, these relationships that we cannot set aside guide us in using constructivist grounding theory, viewing both data and analysis as coming from shared experiences and relationships with other practitioners [35].

3.2 Sampling

During the sampling phase, the ambiguity of “community building” gave us a new perspective. We relied on the evidence that “the social innovation project involves the creation of a community or their practice involving some form of ‘community’” as the criterion for selection. We used the snowball sampling approach to find cases, where we first contacted some of the actors whom we could identify as some similar cases. We identified a small number of cases, and asked them to recommend additional practitioners they considered to be actors involved in community building.

As a result, interviewees perceived different notions of “community” that they encounter. On the one hand, it reflects the semantic trends of community making in mainland China, and on the other hand, it provides us with a more flexible perspective when understanding the relationship between community and actors.

A total of 20 practitioners were interviewed in this study. 12 of the 20 practitioners have practiced in multiple social innovation projects. All 20 practitioners are highly educated, with 12 having majored in design or art, three having studied sociology, anthropology, education, and other similar disciplines, three having majored in literature and languages, one having a business background, and one having majored in computer science. The social contexts of these cases involved four first-tier cities, three second-tier cities, one county-level city, and four villages and towns in mainland China.

3.3 Interview Outline

We conducted semi-structured interviews with the interviewees (Table 1). In the design of the general interview outline, we focused on the following issues: 1) the motivation of the actors to engage in community building; 2) the specific actions that the actors took in the process of community building and the difficulties they encountered; 3) how the actors understood themselves and other stakeholders, their identity and role position as identified by the actors, and whether this role position changed in the course of the action; 4) the actors' understanding of community building and what they consider to be the competencies of the actors who engage in community building.

Table 1. The general interview outlines

Semi-structured interview questions

The interview should summarize the answer from public media, and ask additional questions if the information is not included or related to our research goal.

- Can you briefly talk about your practice experience?
 - Apart from the current practice, do you have any other previous practice? Did your previous practice have any influence on your subsequent practice related to community building?
 - What was the opportunity for you to start a community-building-related practice?
 - What are some of your primary responsibilities in general?
 - What do you think is your role in community building practice?
 - What do you think are the characteristics of the community you are working on?
 - What problems did you encounter? (How did you solve them?)
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3.4 Analysis Process

Firstly, in the initial interviews and data analysis, the ambiguity of the term “community building” became apparent. Due to the open-ended nature of the sample selection, we encountered responses like: “*Actually, at the beginning, we did not know whether it*

Example Quotation

Q: You said earlier that if you look at your role from the government's point of view, have you thought about what role your organization plays from the community's point of view?

A: *On the community side, it's about how the residents get along with us and how they perceive us. In fact, we are the residents. We are just like them. We are just residents who live here. Even our project may not be in the community we are in, it may be in other communities when our goal is to become residents first, that's who I am, and we have to cut in from the residents' perspective to really find out what the core issue itself is. I can build a communication relationship with them.*

Open Coding

Focused Coding

Theory Coding

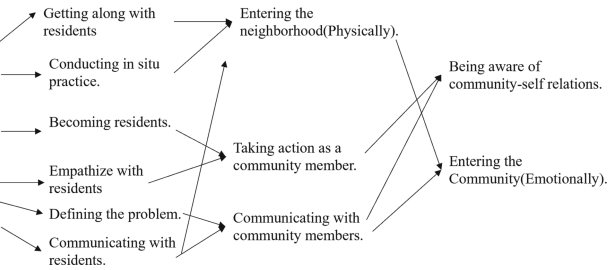


Fig. 1. An example of coding.

was called community or what it was called (P11)”, “In fact, we are not purely doing community building (P03).”

At the open coding stage, we discussed whether “community building” was the aim of action, but we did not go further into the idea itself. We focused on the specific types of difficulties encountered, the reasons for the difficulties, the correlation between the reasons and the educational background of the interviewees. We also analyzed the way in which the actions were carried out and the corresponding results as perceived by the actors (See Fig. 1).

During the focused coding phase, we developed the code “entering the community”. At first, we thought of this concept of the integration of outsiders into local communities. The actors indicated that “we move to the neighborhood [where we conducting community building] and we want to become them[residents in the neighborhood] (P14).” This formulation suggests that the actors perceive community as a more concrete concept, with geographical boundaries. Meanwhile, we noticed that the interviewees said “to become them”, which we think indicates that the actors consider entering the neighborhood as a symbol of entering the community.

As practitioners-researchers, we simultaneously reflect on our own practice situation. Since in our practice, individual actors or small groups usually form a temporary project team with our core team. This contingent group will work together on a project, so we would tend to think of us as both the enabling organization and an organization shaped by these individual actors and small groups, and these other participants also make up the informal members of our organization, in other words, together we form an informal organization, a new community. We are embedded in the community we construct.

Therefore, in theory coding, we further refined the perspectives within and outside the community, as well as the relationship between specific manners of actions and perspectives. And the key concepts were discovered to form the final code.

4 Community Building as a Design Approach

Reflection around the “initial issue” and access to the “prototypes that reveal the vision ahead of the issue” is essential to the actors’ determination to participate in actual practice. The focus on “initial issues” - such as youth development, education, sustainable development, local culture - motivates the actors to engage with social issues and participate in social innovation. These “initial issues” do not always revolve around issues such as “community building” and “community development”, but existing and new spaces of meaning¹, which can not be simplified as geographical or virtual community.

4.1 Moving from Initial Issue to Vision

When discussing why they wanted to start acting around the initial issue, several actors described the visions around the initial issue they had been exposed to (Fig. 2).

Among them, several were indirectly aware of the prototype project focused on the initial issue: “Our teacher at school introduced us to [a prototype], and I was influenced to start focusing on it [that issue] (P07).” “I felt that I agreed with [the vision around the original issue] that he described (P01).” Some actors who had directly experienced the prototype project and formed a vision for action “I was in [a certain area or scene] when there was [a certain prototype] there, and they did so with the purpose of [a vision around the initial issue], which I found interesting (P09).” After having carried out some practical actions around the initial issue, some actors further developed a vision involving community building according to other prototypes: “When I knew [a prototype], I thought what I wanted to do was community building (P02).”, “We started out just wanting to do [a vision around the initial issue], but after we talked to the people involved in [a prototype],” they felt that “We also have some similarities with community building (P08).”, P14 realizes that community is a context for realizing the vision that arises around social issues, he said: “At the beginning, I was very focused on [the initial

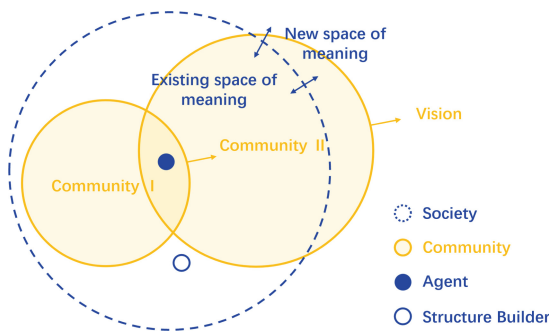


Fig. 2. The duality perspective in society-self and community-self relations (Illustrated by the authors).

¹ We recognized that these “meanings” formed a territory of, an area of knowledge, activity, or experience, we call them “meaning of space” or “meaning space”.

issue] [...] Then the big social problems, the big social issues, were slowly and gradually narrowed down to the community context."

The existence of an ongoing social innovation prototype is part of the reason why they are still willing to take actions: *"I see that my partner who was working on [a prototype] project with me is still going strong, and I get touched (P05)."*, *"[I have seen] some of the different cases around the world, [learn]some of the experiences from others, [I think we] can do this kind of 'on-the-ground' execution as well (P03)."* The discussion about the prototype will continue at 5.1.

4.2 Reflecting on Society-Self and Community-Self Relations

The actor engages in identity construction in two spaces of meaning - referring to society and community [36] - in search of an explanation for the social innovation practices he engages in. What the actors consider themselves for the community becomes a key distinction in how these actors act.

Reflecting on Social-Self Relation. When reflecting on motivation, some actors tend to explain social behavior in terms of "interests driven by rationality (value rationality or purposive rationality)," this reflexivity emphasizes the actor's self in "society."

This segment of actors cites the highly generalized social identity represented by the professional division of labor as an important reason for their actions. They tend to explain their "interventions" using a discourse of "previous personal experiences", including educational backgrounds and professional project experiences. Actors who have majored in education use the term *"teaching aids"* when defining empowerment tools. And those in the media industry considered that they were taking further action based on *"editorial"*. There are also actors who tend to state directly how this way of acting is related to their professions. The social identity that comes with the profession is constrained the way of action, *"Because we are [a certain profession], we will [...] (P19)."*, *"I probably realized more of a combination of my profession throughout the process of doing operations (P09)"*, *"I myself am [professional].... We just go to that village and do research and help them [with specific actions] (P11)."*

Rather than explaining their motivation by a highly generalized social identity, some actors tend to reflect on the relationship between society and the self or their former social identity, *"I was reflecting on the relationship between the whole industry I'm in and myself (P13)"*, *"Maybe I started to think about the relationship between these works and the space it's in and the small social relationship it's in (P06)."*, *"I don't want to do the same [professional] work anymore [...] I felt that this is problematic for my life, and that such a life is meaningless(P20)."*, *"I think it's more in the context of the rapid pace of work and [...] [participate in social innovation project] is more humanism (P09)."*

Actors reflecting social-self can define themselves or their team's way of acting as a third party, considering themselves as one type of stakeholder among society. They are acting in the social innovation as a neutral actor outside the community (whether they define it as a spiritual community or a geo-community). *"We intervene in a very fair and objective way to build a bridge between the different groups (P07)"*, when the actors, who pre-define themselves as "professionals", and reveal their "individual capacity to take

action". When confronted with the "complexity of reality," some practitioners return to the "planning" aspect of the work without consideration of practical execution. Moreover, in order to gain more support in the longer term, the actors need to interpret their actions in a discourse that is more easily recognized by capital or foundations.

Reflecting on Community-Self Relation. Another group of actors recognized the limitations of the predetermined role of the intervention. They reflect on their identity in the community and look forward to becoming insiders. When actors explained their motivation using the terms of "sense of belonging, common relations and participation" [36, 37], this reflexivity emphasizes the actor's self in "community".

In reflecting on the causes of the difficulties in practice, actors addressed their identity to the community. Actors think it may be since they are still outsiders: "*Although we started out there [...] it was bottom-up, but we were still an outsider (P11)*", "*At that time, our role was a bit like an invader (P07)*", "*Actually at first, we thought that we were good at this kind of thing, we should have no problem going to the community to do something... However, it's the process that you found your user group different [...] your youth identity is also different [from people in the community], [and therefore encountered difficulties] (P14).*"

At this point, actors often generate the concept of "moving from being outsiders to insiders in the community," seeing themselves as part of the community and adopting the reflexive perspective of the systemic self. They felt that "*we are really growing and learning in the community in this process (P14)*" and "*felt being nurtured (P19)*".

Some of the actors felt that a better way to carry out their actions was connecting with the community members: "*It only makes sense when you really make that connection with the people in the community (P07)*", "*some of the initiators of our [practice project] are residents of the community, they live in it [...] we can make some artistic production within the community together (P04)*", "*My colleague who is rooted in the community [...] get closer to the residents (P18).*" It takes a long time to become an insider, like P03 said "*we would [take specific actions] to get into the community [...] We may live in that place for two or three months... And then the locals will treat us like friends*" During the interviews, actors emphasize a strong emotional connection with the community.

Actors see their role as an instrument to build more relationships within the community, "*like what we've been doing is some exploration of the relationship between the city [which this actor sees as a community] and the youth [the group actor sees himself or herself in] (P08)*", they think they provide the opportunities for the new relationships in community: "*organizing activities where people can get to know each other and some of them [build new relationships] (P11)*". Some of the actors recognized that generating more new relationships can lead to the creation of a "spiritual community", like P9 demonstrated, "*[...] it can promote a [change in] community relationships, like cohesive consensus and so on [...]*". Although the concept of community was initially identified differently by different actors (neighborhood, social groups, or spiritual communities), the concept of community being coalesced was identified by the actors as the concept of spiritual community.

For actors who can be aware of community-self relation, the reflection of society-self and community-self is constantly shifted in the process of social innovation practice,

in other words, the actor will be thinking as an agent within the community on the one hand, and looking at the whole system from the perspective of a structure builder outside the community on the other. P05 mentioned the dual perspectives in metaphor: “*I can say that I am both a designer and a player*”, and P19 described her experience in detailed, “[...] *I was working ‘on the front line’ [...] you get access to the residents, to the store keeper [...] The project is gradually developing [...] My role became more of a coordinator and an organizer of the structure [...] To develop the overall layout of the large scale project, like the three-year plan[...] is a little bit higher [than before] [...] So for me personally, I usually make up for my lack of ‘front-line practice’ by participating in small activities on my own [...]*”.

5 Designers Act as Insiders in Community

The study revealed the cause of actors’ awareness of “entering the community”, and identified essential processes in the designerly way of action in community building. We identify how the “agency”- internal constructive perspective, and the “structure”-external consultative perspective are reflected in action in three phases.

5.1 Dialogic Interaction

Social constructivist scholars’ concept of “dialogue” inspires designing ways of acting into complex socio-technical systems. Dialogue refers to social action in which a certain number of participants work together to create meaning and relevance [22, 23].

Some actors interpret their actions in terms of “research” and “understanding needs” - interacting dialogically with the community, reaching new understandings, and in the process discovering a common ground of meaning and a basis for further thinking and action [38]. “[...] *We spend a long time [...] uncover those precious things, and that accompanies them in their ongoing transformation (P03)*”, “*We actually inspire each other [with the community residents] (P04)*”, “*I am actually looking at who [referring to individuals in the community] have the potential to be my partners in the future, and then the next thing you do is start talking, communicating [...] and we are going to do the companionship(P17)*.” When expressing the reasons for the difficulties in action, “[...] *we don’t know how to talk to the residents*” and “*it is hard to communicate with the residents*” emerged as a common difficulty. Therefore, among the key competencies of the actors, “*communication*” and “*Interacting with people*” were mentioned frequently, and being able to interact with members of the community in a dialogic way became a reason for the actors to appreciate other actors: “*They are amazing.... They [the interviewees considered good actors] were able to capture a lot of interesting things about the residents. Then he took it in some imaginative way and connected it to the site [...] (P11)*.”

Since neither party can create meaning alone, a shared understanding of meaning emerges gradually from the dialogue [39]. The actor realizes that the meaning he creates does not aim to persuade but to offer a possibility: “*[For the vision expressed in such an art project] I cannot ask everyone to have a deep understanding [...] (P04)*.”

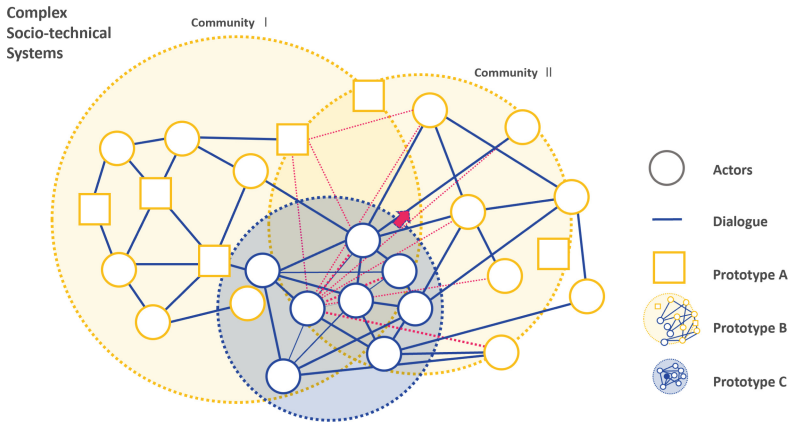


Fig. 3. Designers act as insiders in communities (illustrated by the authors).

5.2 Prototyping to Clarify the Meaning

Prototypes are part of dialogic interactions and the result of interactions, prototypes can bring “superordinate goals” to the confrontational conversations and help people experiencing the vision, even if there are many possibilities for further iterations of these prototypes. At the same time, prototypes build the environment for the actors to act (see Fig. 3). Prototypes that are closely connected to everyday life are a key concept in the process of building communities. Prototyping is also an important designer-like capability that has evolved from traditional design practices.

Prototyping in Dialogic Interaction. Prototypes are part of and a result of dialogic interaction. In the actor’s practice, prototypes can make invisible meanings visible, provide inspiration to both sides of the dialogue, and confirm or reject these proposed ideas based on both sides’ experiences [40]. At the same time, prototypes become the basis for shared understanding of meaning in dialogue, “helping to develop understanding about the essence or essential factors of an existing experience, enabling others to engage directly in a proposed new experience it provides a common ground for establishing a shared point of view” [40]. In the practice of social innovation, if the objects of design are viewed in the perspective of the four orders of design (the four orders), “media content”, “co-creation activities”, “workshops”, “place making”, “autonomous organization” are prototypes that are in accordance with the above concepts.

The actors first saw the prototype as possessing a certain symbolic value, representing the achievement of the actions. “*This community garden is there as a space, a proof of community co-creation, unlike some of the activities I did before, which were done [without physical outcome] (P17)*”. Prototype is also a manifestation of attracting more participants, like P01 said “*[the co-creation activities] made things happen and for others to see and come.*” Some actors can further realize that the prototype becomes the basis for subsequent actions to unfold, “*it [referring to some projects and outcomes] has the potential to stay in this community and do the construction of new services and mechanisms (P14).*”

The ability of the prototype to allow the actors in the dialogue to see more possibilities is key to the action being sustainable, “[referring to the project of doing] [...] *There are more fun, more interesting ideas* (P07).” The prototype can carry meanings that are always in flux. The constant clarification of meaning through the prototype provides more possibilities for the next conversation [39] “*The process is in flow, in change, in debugging* (P02).” And designerly way of thinking can embrace this ambiguity and construct new communities in clarification and understanding.

This process often requires additional communication efforts over time, so practitioners of relational design often need the help of government, companies or educational infrastructures to hire them as social organizations, corporate public relations, or researchers, at the first steps until a sustainable operating mechanism is explored. These influences can transform relational design back to a short-term movement or project, becoming a “cost of trial and error,” failing “socialization of design.”

Prototyping in Everyday Life. The prototype builds the scene for the actor, combined with the interpretation of the action scene in the ethnomethodology, the prototype is the component of the action, and it is also the external environment for the action after a common understanding. The scene itself is a part of the action and also meanwhile the result of the action [27, 41].

Everyday life is a crucial action scene that connects the two spaces of meaning: society and community. The concepts of “generator of everyday events” and “condensed social scenes”, as identified by the actors, point to “everyday actions” that are closer to the world of life. Therefore, when it comes to dialogue and creating meaning with residents, prototypes that are close to everyday life play a vital role “[...] *Through programs such as the Museum of Community story [...] [we can] get closer to this resident* (P18).” “[...] *How to develop individual self-drive in our existential scenario* (P05)”, “[...] *And I think the concept of community is a living space [...] S focus more on the people who live in it [...]* (P08)”. The actors believe that these ‘close to life’ prototypes can be further transformed in the community to “*meet or create the everyday life of the community* (P14)” and “*enable people to participate in life of the city* (P02)”, actors indicated that “[*Social innovation practices*] *that involve community residents are very much a part of everyday life* (P02).”

Not only do prototype plays an important role in internal community action, but actors need to explain the function of prototype and the rules of action in external space of meaning - the actors communicate with different stakeholders in society from the perspective of a “structure builder”. “Everyday life” also becomes a mediator of meaning connected to the whole community.

5.3 Constructing Roles

The delimitation of decision-making authority and role-building within the community are the products of the structure builder perspective. In continuous interaction, new common meanings are created and embodied in the prototype. The new prototypes change the role of actors in the community. The changes in roles bring about new communities. With this comes a change in meaning, and new interactions occur again.

Among them, the change of roles needs to be coordinated from a perspective outside the community. The actors, in this case, take structure-builder perspective and collaborate to initiate a collective reinvention as a “game-changer”.

A few actors were able to describe the process in its entirety. P14 shared the Mother’s Kitchen² project with us: “[*The project*]to be a fun community activity, and the cost of participation was low [...]by the end of the whole project, a community of ‘mothers’ was created.” In this project, the actors decentralized their authority, not defining their own behavior in a professional capacity, but creating new common meanings by defining their own roles and coordinating the relationship between other roles inside and outside the community: “*Three groups were formed among this community of ‘mothers,’ one group is self-employed, who open their own stores; the second group is specifically enabled to interpret the whole model of this project to the policymakers, and they have been executed the project for three years. There is also a group of mothers who have been involved in our everyday life activities for a long time. They have the ability to start a business, but they are willing to share their cooking experiences, so they have gradually built a very solid new community in this community.*” The actor establishes a new relationship in the community through a prototype in which he coordinates the different actors and their actions, resulting in the construction of the new community. In the ongoing construction of the new community, based on the common meaning basis, the dialogue continues: “*We are in the middle of a three-year process of continuous communication[...].*” The new project also clarifies the meaning of the prototype: “*A lot of new community services have been invented in the community, such as providing lunch to companies [in the neighborhood], providing cooking services to companies,*” and thus the identity of these participants is connected from the space of social meaning to the space of community meaning: “*The community was built from this group of ‘mothers.’*”

6 Conclusion

In conclusion, we suggest that design actors engaged in social innovation practices are often confronted with two spaces of meaning, the default space of meaning in civil society, and the meaning making by niches in relationships and coalesced in new space of meaning in communities. Actors need to create prototypes in the default meaning space and meanwhile bring new space of meaning. The prototypes can not only be approved by the larger socio-technical system, but also present visions. At the same time, these prototype needs to be understood by the community that is coalescing and facilitates the dialogic interaction. The prototype is also the basis on which a new meaning space will be constructed. And the new meaning space will, in turn, bring about a new dialogue medium that needs to be understood by actors in the community.

Therefore, the individual actor does not only need to be aware of the influence of society-self in the process, but also need to recognize the new community-self at any time. For the community being constructed, the position of the design actor needs to jump between the “agent” inside and the “structure builder” outside all the time.

² A program that allows retired women who come to live with their children in the metropolis to serve meals to commuters in their neighborhoods in their free time.

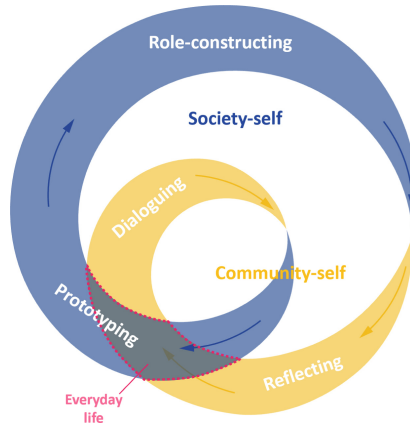


Fig. 4. A loop of designerly way of community building (Illustrated by the authors).

In these two meaning spaces, the design actor starts from an external perspective and reflects on the society-self in everyday life as a starting point. After realizing the identity in community-self, he or she enters the community and acts in a dialogic interaction in the community, clarifying the meaning in the dialog dynamically through the prototype. In this process, through the touchpoints from daily life, the design actor returns to the external perspective for coordinating the roles in continuous action. A loop of reflecting, dialoguing, prototyping, role-constructing is formed.

7 Discussion and Future Work

The context of this study is placed in the informal social structure of self-organized communities and networks, and the subject of the study is studied in a multicultural context and design situation to enrich the object and perspective of design research in the interdisciplinary field of sociology and design.

However, the constructivist grounded theory approach, which uses the researcher as a research tool, poses a high challenge to the researcher's competence. It requires the researcher to continuously reflect and remain sensitive to the theory. The lack of qualitative research experience leads to a certain degree of inaccuracy in the discourse analysis, and there are limitations in bringing in the perspective of the study with one's own practical experience.

We argue that research in design theory and practice needs to be integrated with evolving social science theories if it is to design the social systems in which it is embedded, and should enter the ongoing debates on "agency" and "structure" [7], in addition to a deeper understanding of sociological theoretical discussions of lifeworld and systems [42].

Further research will build on this study by conducting action research that continues to explore the following questions: How is the design subject's access to the situation of the design object validated by the design object when the design object of design practice is our own everyday life situations and organizations? How do the design subject's

decisions influence the system and are influenced by the conditions of the system in the present? How is the design subject able to envision the future of the whole system in the present system? What specific actions does the design subject take in the system to drive the whole transformation?

Acknowledgement. Supported by the NICE Commune and the Sketch Action, this study conducted detailed interviews and six online salon sessions with practitioners in mainland China. The team members who prepared and organized the events were very helpful in collecting and analyzing the data for the study. We would like to thank Zhou Lu, Bingling Huang, Yichen Meng, Bohui Cai, Haoyu Du, Jiachen Dai, Tinglei Cao, and others for their contributions to this study. We also thank all interviewees for their assistance with the study.

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