

Design Process as Communication Agency for Value Co-Creation in Open Social Innovation Project:

A Case Study of QuYang Community in Shanghai

Dongjin Song¹(✉), Susu Nousala^{2,3}, and Yongqi Lou¹

¹ Tongji University, 281 FuXin Road, 200092 Shanghai, China
susan.sdj@gmail.com

² Aalto University, 135C Hameentie, 00560 Helsinki, Finland

³ Wuhan University of Technology, 1040 Heping Road, Wuhan, China

Abstract. Within the context of social innovation, this paper, builds on the established principle of ‘positive deviance’. The purpose of this approach was to identify design processes and tools that improved the communication within the QuYang Community, one case among many creative communities. In this practical context, the design process was conducted as the communication agency for decoding and recoding socio-space components as well as stimulating, externalizing, integrating and co-creating value in the creative elderly community. Open social innovation paradigm can be considered as one way to mitigate some of the risk associated with social innovation. Emerging “creative community [1]” cases were seen as the grounded dynamic laboratories for clarifying the emerging open social innovation paradigm.

Keywords: Open social innovation paradigm · Positive deviance approach · Design tools · Creative community

1 Introduction

Social innovation refers to innovative activities and services that are motivated by the goal of meeting a social need [2], which is considered as an approach to systemic change of the existing economic and social model. Social innovation has been gaining importance both in academic and practice arena in last ten years. However, most social innovative approaches are driven by enthusiasts and fail to achieve a wider impact [3]. To date, minimal research has been undertaken to explore the reasons for social innovation failure and how to minimize the risk of social innovation process.

From 2010, several scholars illustrated that the increasing “openness” paradigm of social innovation organizations could mitigate some of the risk associated with innovation [4, 5, 9–11]. Openness of social innovation paradigm also mentioned by Italian research literature, focuses on hybrid social innovation process (combining bottom-up

approach and top-down approach) and collaborative interaction among stakeholders [6, 14].

In this paper, the authors build on the established principle of ‘positive deviance’ proposing an approach of open social innovation paradigm in the real world context. Sternin (1990) used “positive deviance” to describe the approach which looked for solutions among individuals and families in the community who are already doing well, enabled others in this community to leverage these solutions across their local communities [7].

By analyzing one particular case (QuYang Community) and conducting a collaborative workshop with the community, the authors explored (1) How could we apply *positive deviance* approach to open social innovation paradigm. (2) How could design researchers take design process as the communication agency for decoding and re-coding socio-space components as well as stimulating, externalizing, integrating and co-creating value in this creative elderly community?

1.1 QuYang Community: Challenges and Opportunities

In China, social and political reality is associated with a top-down decision making model, which is often believed to restrict citizen from participating in social reforms. At the same time, the awareness of community value and social connectedness, lost in recent years needs to be reconstructed.

In QuYang Community, a group of ordinary people positively tried to organize themselves to solve problems and enhanced their awareness of wellbeing in this local elderly community for four years. But related activities were mainly initiated and organized by the elderly people with frequently moving (e.g. moved out to live with children or passed away). Our challenges were not only using design process as communication agency to understand and duplicate such “positive deviance” but also enabling the new residents to recognize and appreciate the value of QuYang Community.

Meanwhile, QuYang Community is one example of “creative community” which triggered by the real context, initiated by individuals or communities instead of experts to make good use of the local resources and promotes new ways of social exchange. The “positive deviance” approach and design tools that used in QuYang Community could also widely benefit the other creative communities.

2 Open Social Innovation Paradigm and Positive Deviance Approach

2.1 Open Social Innovation Paradigm

Social innovation, as one form of innovation (commonly seen with high failure rate behavior) has had limited growth regarding model development within the academic field after the Rome Club report in 1972 [8]. Chalmers (2011) draws from several empirical studies on social innovation and wider conceptual literature to identify

common barriers of social innovation: market protectionism, risk aversion, problem complexity, access to networks and access to finance.

With the rediscovery of social innovation trends, social innovation moved from margins to the mainstream (The Young Foundation, 2009). From 2010, several scholars illustrated that the increasing “openness” paradigm could mitigate some of the risk associated with social innovation organizations [4, 5]. Chalmers (2011) first argued that social innovation field would benefit by embracing the open paradigm both within the internal organizational structure of socially innovative firms and, in the knowledge searching activities in which such organizations were engaged. The terms “open social innovation” [9] or “open societal innovation” [10, 11] refer to the adaptation use of open innovation approach from business, adapted and utilized by public and society organizations to meet social needs. This open paradigm intended to apply inbound (inside-out), outbound (outside-in) or combined (coupled) open innovation strategies to include and engage all stakeholders equally, not only politics and public administration but also civil society organizations and the citizens, when social innovators account social change as the ultimate goal of their strategy. Five exemplary approaches have been identified for open social innovation paradigm: the lead user method, the open innovation tool kit, ideas and innovation platforms, special event formats, and competitions [10].

Manzini (2014) emphasized that the “openness” and “resilience” of social innovation process could help build collaborative, participatory and transparent relationships among stakeholders. Social innovation process usually is considered as two dominate approach: top-down process & bottom-up process. Manzini defined that top-down and bottom-up social innovation process by each oriented stakeholders: Top-down model largely considered that original drivers are experts, decision makers or political activists; Bottom-up model mainly oriented by people and communities directly involved.

With the limitation and challenges of detached top-down and bottom-up process, Bright and Godwin (2010) and Manzini (2014) argued that social innovation often depends on more complex interactions between very diverse initiatives, should be as hybrid process which integrated top-down and bottom-up process, a hybrid process observed in social innovation projects. The greatest barrier to achieve social impact of social innovation initiation comes not only from people and communities but also from “experts” who seek to help them and from the authorities that preside over them.

Social innovation process were requiring openness, this meant more stakeholders involvement with more complex interaction in real social innovation process.

Openness of social innovation organization in practice and research calls for extended research over the next decade. Patterns of innovation differ fundamentally by sector; firm and strategy and thus we would expect that the paradigm and outcome of open social innovation approach would show resilience in the real world context.

2.2 Creative Communities: Grounded Dynamic Laboratories for Clarifying the Emerging Open Social Innovation Paradigm

There are a series emerging social innovation project for every day life around world, e.g. Co-housing, Car sharing, CSA (community support agriculture) and so on. Each

project obviously with its own particular characteristics as well as sharing many distinguishing features in common:

- *Initiated by individuals or communities who usually are called “ordinary people” instead of experts;*
- *Triggered by the real context of needs, resources, principles and capabilities;*
- *Radical and dynamic innovations of local systems, making good use of the local resources and promoting new ways of social exchange;*

Manzini (2007) defined these communities as “creative community [1]”.

These creative communities grounded dynamic innovation of local systems which were triggered by needs, resources, principles and capabilities in real context. Creative community projects offered a broad range of concrete cases with issues, practices, knowledge and theories. Creative communities were also seen as the ideal laboratories for inspiring, exploring and defining emerging open social innovation paradigm.

2.3 Positive Deviance Approach

Positive deviance (PD) as a term was first introduced by Pascale and Sternin (2004), development of the notion comes from important research on nutrition in poor communities in Vietnam (1990). Comparing the other problem solving approach, PD is one among a broad set of participatory methods which focus on the successful exceptions, not the failing norm [7]. Individuals or group of community have discovered solution themselves, even through they share the same constraints and barriers as others. These practitioners can be called “positive deviants [12]” or “heroes [1]” in their communities.

Comparing positive deviance approach and “creative community” initiations, some of the key factors regarding community collaboration remained closely similar:

- *In real world context*
- *Initiated by ordinary people instead of expert*
- *Performing better even shared the same resource and barrier as the others*
- *Local solutions*

Positive deviance approach has been widely applied to a variety of complex social problems and achieved impressive results in these quite diverse fields: saving Antarctica, reducing gang violence, improving smoking cessation, reducing corruption, improving the end-of-life experience and quality of death, reducing the high dropout rates of minorities, the curtailment of sex trafficking of girls (www.positivedeviance.org).

PD process could be simplified as define, determine, discover, and design four basic steps, which comprise an iterative road map for the process [7].

Uncovering some of the PD approaches for creative communities, had significant elements that could be assimilated into open social innovation paradigm within the real social context.

2.4 The Role of Design

Design is recognized widely as a creative and effective catalyst of social innovation [13, 14]. In this case, the ‘object’ of design itself tended to turn into a ‘process’, and considered as knowledge exploration, generation and integration process more than a problem-solving activity.

Communities, both the physical local community and the community of the specific stakeholders, can be seen as a book written in social-space language. Once the social space code is deciphered, the community can be read. Design process could be seen as the communication agency for decoding and recoding socio-space components to understand and reflect the real world context. In such open social innovation context, new roles of design regarding the process and tools needs to be explored.

3 Marimekko-Tongji Collaborative Workshop

3.1 Contexts and Background

Marimekko-Tongji Workshop was a two weeks’ workshop on the theme of “Small Changes, Big Difference”, was an attempt to employ positive deviance approach and design methods to provide a platform for empowering community to tackle challenges. This workshop stimulated and externalized tacit knowledge of such a creative community, generating and integrated knowledge as a positive deviance approach towards an open social innovation paradigm.

QuYang Community, a local elderly community, located in an 18-storey old-style residential building with elevators in Shanghai, China. In this community, a group retired elderly residents organize themselves to solve problems and enhance their awareness of wellbeing. They turned the space (in front of elevators) into a community hub and named it “Warm House” in 2009.

A team of more than 40 volunteers was established to provide services, such as IT service, sewing aid and movie playing. Living in the cold concrete buildings, people can stay connected with each other and bring awareness to their daily life through such activities. This group of volunteers can be seen as positive deviance of QuYang Community and the QuYang Community as a positive deviance for other communities.

3.2 Positive Deviance Approach and Design Tools

Before the design researchers began community engagement the first author worked as coordinator involved in community leadership built a resource team of volunteers with the community in preliminary step. The general process, tools and expecting outcome to the lead group of volunteers, needed to listen to feedback and expectation of the community. The steps were modified from the *Basic Field Guide to the Positive Deviance Approach* [15]:

- *Get information on the organizational setting:* this self-government volunteer organization is named Warm House. One member of the lead group also takes

responsible of neighborhood committee. It is convenient to access to the PD group and extend an invitation to potential stakeholders in QuYang community.

- *Verify the presence of volunteer team in the workshop:* there are four volunteer and their families will cooperate with and open to the design researchers. These families acted as starting point, and scaled up to the whole community afterwards.
- *Achieve the common vision of the community with the lead group:* encourage the communication of the community to enhance the wellness of daily living via the medium of Marimekko fabric. This process also established mutual trust between community and researchers.

After given the general background and trained the basic methods of finding out demands, integrating and prototyping, each four groups reframed their own research plan with the support of the initiation volunteer family. Each group shared the iterative basic PD process but choose the proper design tools in each phase according the specific context of the volunteer family (See Fig. 1).

	Group One	Group Two	Group Three	Group Four
PD Challenges	Encourage communication among people from inside and outside of community	Encourage communication among people from different culture background	Encourage communication among PDs	Encourage communication among people of different generations
Define	Interviews	Interviews	Interviews	Storytelling
Determine	Interviews	Interviews	Focus group	Interviews
Discover	Design probe kits	Matching game	Prototyping	Prototyping
Design	Co-design workshop	Co-design	Prototyping	Prototyping
Outcome	Guide book Workshop prototypes	Mailbox Lantern	Curtain Container	Photo frame

Fig. 1. The design tools and main outcomes of each four group

3.3 Enabling the Community and Designers Through Co-Design Approach

There are several basic principles when initiating the PD process in a community: the community must own the entire process as the main actor, to take it a step further, discover existing uncommon, successful behaviors and strategies, reflect on these existing solutions and adapt them to their circumstances. The initiation and participation of community members are critical to PD process.

4 Preliminary Results

4.1 Design Tools



Fig. 2. The storytelling design tools

Design Tool: Storytelling. Directed storytelling is a tool for design researcher to explore PDs' behaviors without having to do long-term ethnographic research, yet still developing empathy with the people they are designing for and with. Unused life-experience stories of the PDs can be the treasure for the next generations of this community (See Fig. 2).



Fig. 3. The design probe kits and data analysis

Design Tool: Design Probe Kits. Design Probes were given to the community members with the aim to get insight into the daily life of PDs' activities as well as relationship and touch points with inside and outside of community. The probe kits included a single-use camera, a personal diary and guidance how to use the material. After three days, the probe kits were collected for the further exploration. A discussion with selected community members were organized in order to understand the meaning behind the pictures and diaries. (See Fig. 3)

Design Tool: Matching Game. Matching game was based on the attempt to use color and emotion perception to connect people from different culture background. Facing so many different unfamiliar materials and colors, design researchers and community



Fig. 4. The matching game

residents should build a corresponding relation between color and emotion perception first. In this way, participants can achieve general agreement on cultural awareness (See Fig. 4).



Fig. 5. Participatory decoration processes

Design Tool: Participatory Decorations. Design researchers aimed to create scenario where constructive and meaningful communication could happen. In order to enhance the communication among PDs and others in this community, making best use of the odds and ends of cloth, design researchers inspired by the PDs' hand written good wishes on the wall, made small cards covered with Marimekko's fabric one side and left the other side blank (See Fig. 5).

The participants can realize and express their emotions and positive attitude to the others by choosing card, writing wishes, quotations or greetings on these cards back, putting them on the others' mailbox.



Fig. 6. The co-design workshop

Design Tool: Co-Design Workshop. A co-design workshop was organized together with the community – provided with fabric, paint, colors, cardboard and various other materials, the PD volunteers of community were guided to create useful everyday items. The aim of the workshop was to both find out items frequently used in daily life as well as get inspiration for communication inside and outside of the community.

During the process of co-design, roles with different capabilities occurred and reconstructed themselves, as old relationships between organizations and neighborhood based on family unit had broken down. New relations emerged, exploring and reconstructing the community value. Base. This improved the people’s awareness of their own capabilities that could be applied to the community. By way of design, ordinary people were able to participate in the process and come up with solutions in response to their demands (See Fig. 6).

5 Discussions

Creative communities that are mainly bottom-up interventions can be seen as the successful PDs among communities as well as ideal laboratory for exploring open social innovation paradigm. By using PD approach to creative communities, the change process goes from outside in to inside out, contributing to extending the boundary of social innovation organizations. PD is best suited for “problems embedded in social and behavioral patterns that resist technical fixes” [12] offering an alternative way to address certain types of social problems, which disturbing the top-down standard models.

Although the workshop didn’t clarify the value of community, it connect people or groups who hadn’t connected before, recognize and become aware of the shared environment and value of community. The co-design workshop process also added value by in social networks by creating healthier people who were no longer isolated.

In QuYang Community, the organized collaborative workshop encouraged the communication among people and involved more residents to raise their awareness as well as co-creating values. This aim achieved an experience for the community supported by the utility of PD approach in new settings. In each four basic phase, storytelling, design probe, matching game, participatory decorations and co-design workshop these design tools were generated, integrated and applied for different concrete context. The PD process and these design tools could be considered as a way of decoding and recoding the social-space components when design researchers and PDs actively participated in community.

Design tools, especially the co-design workshop were largely optimized for the PD process. The essential precondition of PD application was that the community defined the questions, invested time and energy to discover the answers by themselves. When design researchers organized co-design workshop and found that people needed inspiration to start the activities, but not too much guidance. Understanding context and translating individual successful solution to collective achieves is quite a hard adaptive challenge. With the active participatory of the residents and design researchers, prototyping emerged and developed out of the workshop, as an ongoing activity. As we can see, the co-design workshop created a platform transformed the social system and behavioral change by the emerging roles of stakeholders with diverse range of capabilities. There was also a role change of the design professionals from facilitators that were more concerned with processes than the objects.

Dissemination of PD depends on social systems, empowering the community to solve their own problems. However, the PD approach is a long-term process. Isolated PDs still need social process to disseminate their innovation and incorporate it into the community structure, including following up and evaluation of the ongoing process.

6 Conclusion

The process of PD approach is much more important than the PD results. PD approach is highly related to the concrete context that both the resources and barriers are unique, thus PD results of one community cannot be used as model to the others. In Chinese old saying “Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime”(Lao Tzu). Positive deviance approach process which defining, determining, discovering and design these basic iterative steps, involved and empowered the community to stimulate, externalize, integrate and co-create community value by encouraging the communication among people, especially between the PDs and the others.

Acknowledgments. Special thanks to QuYang Community and the students from Tongji University, Aalto University and Political di Milano.

References

1. Meroni, A. Creative communities. Milano: Polidesign (2007). <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Creative+communities+|#1>
2. Mulgan, G.: The process of social innovation. *Innovations: Technol. Gov. Globalization* **1** (2), 145–162 (2006)
3. Caulier-grice, J., Mulgan, G., Vale, D.: *Discovery, Argument & Action How Civil Society Responds to Changing Needs*. Young Foundation, London (2005)
4. Leiponen, A., Helfat, C.E.: Innovation objectives, knowledge sources, and the benefits of breadth. *Strateg. Manag. J.* **31**, 224–236 (2010)
5. Chalmers, D.: Why social innovators should embrace the “open” paradigm. In: EMES Social Innovation Conference (2011). <http://strathprints.strath.ac.uk/33561/>
6. Bright, D.S., Godwin, L.N.: Encouraging social innovation in global organizations: integrating planned and emergent approaches. *J. Asia-Pacific Bus.* **11**, 179–196 (2010)
7. Pascale, R., Sternin, J., Sternin, M.: *The Power of Positive Deviance: How Unlikely Innovators Solve the World’s Toughest Problems*, p. 256. Harvard Business Press, Cambridge (2013). <https://books.google.com/books?id=TWw7yXNfibEC&pgis=1>
8. Zhong, F.: Collaborative Service Based on Trust Building -Service design for the innovative food network in China (2008)
9. Chesbrough, H., Di Minin, A.: Open Social Innovation. In: Chesbrough, H., Vanhaverbeke, W., West, J. (eds.) *New Frontiers in Open Innovation*, pp. 169–188. Oxford University Press, Oxford (2014)
10. Von Lucke, J., et al.: Open Societal Innovation: The Alemannic Definition. Available SSRN 2195435 1–5 (2012)
11. Raffl, M.C., Katharina, G.: eSOCIETY across borders: regional identity and open societal innovation. In: 12th International Conference e-Society (2014)
12. Pascale, R., Sternin, J., Sternin, M.: The power of positive deviance: how unlikely innovators solve the world’s toughest problems. *Inform. Prim. Care* **12**, 139–145 (2010)
13. Murray, R., Caulier-Grice, J., Mulgan, G.: *The Open Book of Social Innovation* (2010). [http://desis-dop.org/documents/10157/12818/Murray,+Caulier-Grice,+Mulgan+\(2010\),+The+Book+of+Social+Innovation.pdf](http://desis-dop.org/documents/10157/12818/Murray,+Caulier-Grice,+Mulgan+(2010),+The+Book+of+Social+Innovation.pdf)
14. Manzini, E.: Design for sustainability. How to design sustainable solutions. *Sustainable Everyday Project* 1–11 (2006). <http://www.dis.polimi.it/manzini-papers/06.01.06-Design-for-sustainability.doc>
15. Tufts University: Basic Field Guide to the Positive Deviance Approach (2010). <http://www.positivedeviance.org/pdf/FieldGuide/FINALguide10072010.pdf>