

**DIGITAL PLATFORM RESEARCH & DESIGN FOR  
CHONGMING XIAOQIAO INNOVATION HUB**

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**Digital platform research & design for Chongming  
Xianqiao Innovation Hub**

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## ABSTRACT

With the change of paradigm from “physical design” to “strategic design”, design has become an important way for creating a “sustainable”, “human-centered”, “creative community” society. In terms of its reach of influence, design can increasingly provide solutions for some “big issues”. Design has evolved from previously providing a concrete and optimized “object” to providing holistic solutions, which are capable of inducing certain progress (enabling) with systems of services as well as objects. Thus, sustainable lifestyle, social innovation and co-service are being paid close attention to.

The “Sustainable Community Design Project in Xianqiao Village in Chongming” aims to propose a new sustainable development model driven by design and innovation in the context of imbalance urban-rural development in China. Through interdisciplinary and cross-cultural approach, the project tries to explore the potentials and characters of rural areas and rural ways of living, integrate social, economic and culture resources, promote “bottom-up” transformation through small but effective projects closely related to people’s daily life, and then connect these projects within the urban-rural context physically and virtually to establish a cooperative network. After 2 years of research, we plan to build an Innovation Hub as the first step to reach the goal.

When the collaborations in the physical sphere and digital sphere are merging and have great potentials to produce synergy effects. When digital, networked platform of Innovation hub is applied to the Chongming project, it can increase the accessibility and replicability of the given service, strengthening the social fabric and making a service more resilient, reducing the technological, bureaucratic and economical burden of creating and supplying a service respectively.

In the paper, through theoretic research and case studies, a set of designing collaborative services on the digital platform methodologies and typologies are proposed. Based on these methodologies and typologies, researches of Chongming project are conducted.

In the final outcome, the type of digital platform of Innovation Hub are confirmed, its promotion mode, social media and design framework are also proposed. We will design a digital platform of “3+N” parts. DESIGN Harvests web for

official information, Virtual Hub for co-design community, SMart for e-commerce and “N” for promotion on SNS. In the design process, service design tools are been used.

**Key Words:** Co-design, Chongming Xianqiao Innovation Hub, Digital platform design, ICTs, Service system design

## 摘要

当今的设计学科正面临从物质到战略，实践到思维的转型，可持续的生活方式倍受关注，社会创新和协同服务的概念开始兴起。在中国的设计语境中，城市化为中国带来经济腾飞的同时，也在相当程度上加剧了城乡社会经济失衡。Studio TAO设计团队自2008年以来，以崇明县仙桥村为基地展开研究，希望探索一个通过“设计思维”整合社会资源，发掘城乡可持续生产、生活方式的潜力，促进城乡交流的新模式，目前已经形成以崇明仙桥创新中心为原型的设计和建设，希望由设计创新引导中国城乡的和谐发展。

正是在这样的项目背景中，基于崇明仙桥创新中心的数字平台设计被提上日程。数字平台的设计可以为乡村可持续社区设计提供一种弹性的、低门槛的、具有更强可获得性和复制性的新方向，促进项目的有效开展。并为类似的项目开展一个的参考依据。

本文以笔者自身参与的崇明项目养活米兰项目的实践为基础，通过理论研究和案例分析，结合崇明仙桥创新中心项目的背景和实施情况，从技术、社会和设计三个方面整合各类资源，将理论成果应用于项目实际，提出了崇明仙桥创新中心数字平台研究模型，对于平台的类型，推广模式，所使用的信息通讯技术以及设计框架都进行了探讨。这些成果在一定程度上对于相类似的社会创新项目有借鉴和参考意义。

其后笔者结合用户调研，分析用户需求，进行了具体的服务设计，并将服务设计在数字平台上进行实施。为了更好的开展项目除了借助现有的平台（微博、flick等）进行宣传外，笔者还构建了“虚拟创新中心”网站的原型。在设计时，笔者将网站架构分为广播式信息传播、对话式问题探讨、设计项目孵化和电子商务4个部分，其中广播式信息传播中的热门话题会转化为对话式问题探讨，而探讨中产生的潜力项目则会进入项目孵化，而被成功孵化的项目则有可能进入商业运作，就是电子商务的平台，各个部分环环相扣，互相促进，互为补充，一定程度上实现了协同设计的理念，最后能够产生有效的解决方式和建立更为稠密社会网络。

**关键词：** 协同服务，数字平台设计，信息通讯技术，服务体系设计

## ABSTRACT

Contestualmente al cambiamento di paradigma da design del prodotto inteso come oggetto a progettazione in senso strategico, il design ha assunto un ruolo essenziale nella creazione di una società sostenibile, human-centered, e che valorizzi le comunità creative.

In termini di campi di influenza, il design può sempre più essere in grado di fornire soluzioni a questioni di natura sistemica. Il ruolo del design si è evoluto da strumento di progettazione di oggetti concreti a strumento di progettazione di soluzioni olistiche che mettono in grado l'utente di soddisfare i propri bisogni tramite sistemi di servizi ma anche oggetti. Per questo motivo i temi centrali ai quali viene prestata maggiore attenzione sono l'innovazione sociale, gli stili di vita sostenibili e la co-progettazione di servizi.

Lo scopo del progetto di comunità sostenibile nel villaggio di Xianqiao, a Chongming, è proporre un modello innovativo di sviluppo sostenibile design driven, nel contesto dello sviluppo non bilanciato del rapporto tra città e campagna in Cina. Attraverso un approccio multidisciplinare e interculturale, il progetto cerca di esplorare il potenziale e le peculiarità delle aree rurali e dello stile di vita associato, integrare le risorse sociali, economiche e culturali, promuovere un approccio di trasformazione dal basso attraverso progetti piccoli ma efficaci, relativi alla vita quotidiana degli utenti. Le singole esperienze vengono poi collegate tra loro all'interno del contesto rurale-urbano, sia a livello virtuale che fisico, allo scopo di sviluppare un network di cooperazione. Dopo due anni di ricerca, come primo passo per la realizzazione dei concept, è in pianificazione la costruzione di un Innovation Hub.

Quando la collaborazione all'interno della sfera digitale e quella fisica si incontrano, generano un elevato potenziale di creazione di effetti sinergici. Se una piattaforma digitale per il networking viene applicata al progetto di Chongming, essa può accrescere il livello di accessibilità e replicabilità dello specifico servizio, rafforzando il tessuto sociale e rendendo il servizio più resiliente, riducendo inoltre gli oneri burocratici, tecnologici ed economici del creare e provvedere un servizio.

Nella tesi, attraverso un percorso di ricerca teorico e differenti casi studio, vengono proposti una serie di metodologie e tipologie di servizi costruiti a partire da una piattaforma digitale. A partire da questi esempi vengono indagate possibili

applicazioni per il progetto di Chongming.

Come risultato finale, viene confermata l'importanza della piattaforma digitale associata all'Innovation Hub, e viene proposta una strategia di promozione, il design della piattaforma stessa e la struttura del social media associato. Viene ideata una piattaforma digitale di "3+N" parti. Il sito di DESIGN Harvests per la divulgazione di informazioni di natura ufficiale, il Virtual Hub per la community di co-designers, Smart come piattaforma di mercato e "N" per la promozione su servizi di social network. Nel percorso di design vengono utilizzati gli strumenti propri della progettazione dei servizi.

**Parole chiave:** Progettazione collaborativa, Chongming Xianqiao Innovation Hub, design di Piattaforme digitali, ICT, Service System Design.

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## Terminologies

### **Collaborative communities**

Communities that are engaged in any form of collaborative services at the individual or communal level.

### **Collaborative service**

Services where final users are actively involved and assume the role of service co-designer and co-producers based on peer-to-peer, collaborative relationships and, consequently, on a high degree of mutual trust. Services where the produced values emerge out of relational qualities, i.e. out of real and lively personal relationships (Jegou & Manzini, 2008, p32).

Services based on peer-to-peer, collaborative relationships and, consequently, on a high degree of mutual trust. Services where the produced values emerge out of relational qualities, i.e. out of real and lively personal relationships (Cipolla, 2008)

### **Community**

Networks of interpersonal ties that provide sociability, support, information, a sense of belonging, and social identity (Wellman, 2001).

### **Creative communities**

Groups of entrepreneurial people who, without expecting to trigger general changes in the system (economy, institutions, large infrastructures), manage to reorganize the existing state-of things.

Producing something new, often innovative solutions that fulfill their individual interests and at the same time social and environmental interests (Manzini in Meroni Ed. 2007).

### **Disabling systems**

Systems that promote user passivity and ignorance. People and communities are less and less able to solve problems by themselves.

### **Design for Social Innovation and Sustainability (DESIS)**

A network of schools of design and other schools, institutions, companies and non-profit organizations interested in promoting and supporting design for social innovation and sustainability ([www.desis-network.org](http://www.desis-network.org)).

### **Dual production of collaborative service**

The production of technical solutions to user needs and social networks of individuals or communities that are involved in a collaborative activity as a result of collaborative service.

### **Enabling systems**

Systems of products, services and organizational tools that enable individuals or communities to achieve a result using at best their skills and abilities (Manzini, 2008).

### **Product-Service System (PSS)**

A marketable set of products and services capable of jointly fulfilling a user's needs (Van Halen, Vezzoli & Wimmer, 2005, p21). PSS promotes a focus shift from selling just products to selling the utility, through a mix of products and services while fulfilling the same client demands with less environmental impact. (Manzini & Vezzoli, 2002)

### **Peer to peer (P2P)**

A specific form of relational dynamic and is based on the assumed equipotency of its participants organized through the free cooperation of equals in view of the performance of a common task for the creation of a common good, with forms of decision-making and autonomy that are widely distributed throughout the network. (Bauwens, 2005)

### **Relational qualities**

The expressions of the "genuine dialogue" established between the participants of collaborative service and include trust, intimacy, friendship and a common identity (Cipolla, 2007)

### **Service**

A useful performance, the values of which are recognized by one or more persons (DeMichelis, 1996)

### **Social capital**

The collective value of all 'social networks' and the inclinations that arise from these networks to do things for each other (Putnam, 2000)

### **Social innovation**

New ideas that work in meeting social goals (Young Foundation, 2006, p.9)

A process of change where new ideas emerge from a variety of actors directly involved in the problem to be solved: final users, grass roots technicians and entrepreneurs, local institutions and civil society organizations (Manzini, 2009)

### **Social media**

A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content (Kaplan, Haenlein, (2010)., Users of the world, unite! The challenges and opportunities of social media, Business Horizons, Vol. 53, Issue 1, p. 59-68.)

### **Social needs**

Needs relating to society or needs relating to individuals' relations and activities with others. In this thesis, the latter is used. Social needs are basic human needs and examples include sense of community, friendship, family and intimacy.

### **A social network**

A social network is a social structure made up of individuals (or organizations) called "nodes",

which are tied (connected) by one or more specific types of interdependency, such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships, or relationships of beliefs, knowledge or prestige (Wikipedia, 2010).

**Social network analysis**

The mapping and measuring of relationships and flows between people, groups, organizations, computers or other information/knowledge processing entities. The nodes in the network are the people and groups while the links show relationships or flows between the nodes. SNA provides both a visual and a mathematical analysis of complex human systems. (Social Network Analysis, 2010)

**Socio-technical framework**

In the context of service design, A Socio-technical framework is an approach to address social and technical needs of an individual or a community with service strategies that involve social and technical intervention.

**Socio-technical intervention for service**

The combination of social and technical intervention. Social intervention in a service refers to intervention to initiate and maintain the relations of stakeholders in a direction coherent with the service goal. Technical intervention in a service is intervention to improve the performance of a service with necessary tools and methods.

**Virtual settlement**

A cyber space of virtual communities. For a cyber space to be a virtual settlement, it needs to meet the following 4 conditions: (1) a minimum level of interactivity; (2) a variety of communicators; (3) a minimum level of sustained membership; and (4) a virtual commonpublic-space where a significant portion of interactive group-CMCs (Computer-Mediated Communications) occur (Jones, 1997).



## PROBLEMS AND APPROACH

As a result of the rapid development in China for the last 30 years, urbanization has brought economic boom to China, meanwhile, it has also aggravated the imbalance between urban and rural socioeconomic development. Especially since 1992, the status of imbalance has been deteriorated by the integration of the Yangtze River Delta region from slowness to acceleration. Since 2008, Studio TAO has launched researches based on Xianqiao Village in Chongming County, aimed to promote the communication between urban and rural areas through “design thinking”, integrating social resources, exploring the potential of urban and rural sustainable production and lifestyle, in order to propose a new model of China urban and rural harmonious development guided by social innovation based on the design and construction of “Prototype”.

As a member of TAO group, I participate in the “DESIGN Harvests” project at the very beginning, and show great interests on the ICT part of the project. After 2 years of research and study, we plan to build an Innovation Hub in Xianqiao village as a prototype, and then based on this physical space several collaborative services will be conducted. Digital platform design of Innovation Hub will highly accelerate the project and the services. As a significant research project, The “DESIGN Harvests” gets the Chinese National Natural Science Foundation of 2009.

### 1.1 Research background

#### 1.1.1 Design is changing<sup>1</sup>

In this era, the global design community is undergoing a silent revolution of transforming “design doing” to “design thinking”. Design thinking<sup>2</sup>, combined with science and technology thinking, allows design to explore new frontier and makes it possible for design to link itself to the future of the majority. Through design, information (concepts) can be turned into results through a series of

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<sup>1</sup> Design for sustainable social Innovation in Developing Countries(Lou Yongqi,2011)

<sup>2</sup> Design thinking is an approach that uses the designer’s sensibility and methods for problem solving to meet people’s needs in a technologically feasible and commercially viable way. (Brown, 2009)

decision-making process, which can be either physical (e.g. , products) or immaterial (e.g., services).

With the change of paradigm from “physical design” to “strategic design”, design has become an important ways for creating a “sustainable”, “human-centered”, “creative community”<sup>3</sup>society. In terms of its reach of influence, design can increasingly provide solutions for some “big issues”. Design has evolved from previously providing a concrete and optimized “object” to providing holistic solutions, which are capable of inducing certain progress (enabling) with systems of services as well as objects. In order to successfully undertake this role, the traditional elitist mainstream design value has to be reflected upon.

### 1.1.2 Sustainable lifestyle and creative community are blooming

Triggered by the current economic crisis, people have become more conscious of the alternative and sustainable ways of living that can substitute the traditional ones that fail to meet their needs. At the same time, advanced technologies are diffusing into our daily life, thereby democratizing and accelerating innovation. These two phenomena create a favorable condition to design and diffuse social innovation<sup>4</sup>. Having contributed to the consumption-oriented ways of living, we designers are both obliged and able to participate in changing our society. One possible role of a designer is to facilitate the on-going transition by creating conditions for people to use creativity and innovate at the local scale and that of design researchers is to identify the environment in which innovations are born, developed and replicated and to provide designers with appropriate methodologies.

In the past, a series of projects have been conducted to collect the cases of so-called creative communities around the world (Meroni ed. 2007, Manzini and Jegou 2007). Creative communities are groups of people who creatively solve social problems around them rather than complying with existing solutions that fail to meet their needs (Meroni Ed. 2007). They produce what is called collaborative service which is defined as a social service in which the final users collaborate to produce solutions to a wide range of social needs that have failed to be met by existing solutions (Jegou and Mansion 2008). Collaborative services exist in the areas

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<sup>3</sup> “Kyoto Design Declaration 2008”, Cumulus 2008 Kyoto Conference

<sup>4</sup> Social innovation is defined as “innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social” (Young Foundation 2006).



of housing, education, transportation, food and socialization. The Collaborative services designs are also widely conduct in “DESIGN Harvests” project. Although their main goal is to serve individual social needs, they contribute to the transition towards sustainable societies in the macro level because these radical innovations of local systems, i.e. discontinuities with regard to a given context, that challenge traditional ways of doing things introduce a set of new, very different and intrinsically more sustainable ones and that these micro transformations become the groundwork for great systemic change (Manzini in Meroni ed. 2007).

### 1.1.3 Collaborative service and ICT

Collaborative service is distinguished from other services in that it requires relational qualities as a prerequisite to function. Relational qualities as the expressions of the “genuine dialogue” established between the participants of collaborative service and include trust, intimacy, friendship and a common identity (Cipolla,2007). Figure 1-1 is a matrix that illustrates where collaborative service is positioned in relation to other services.

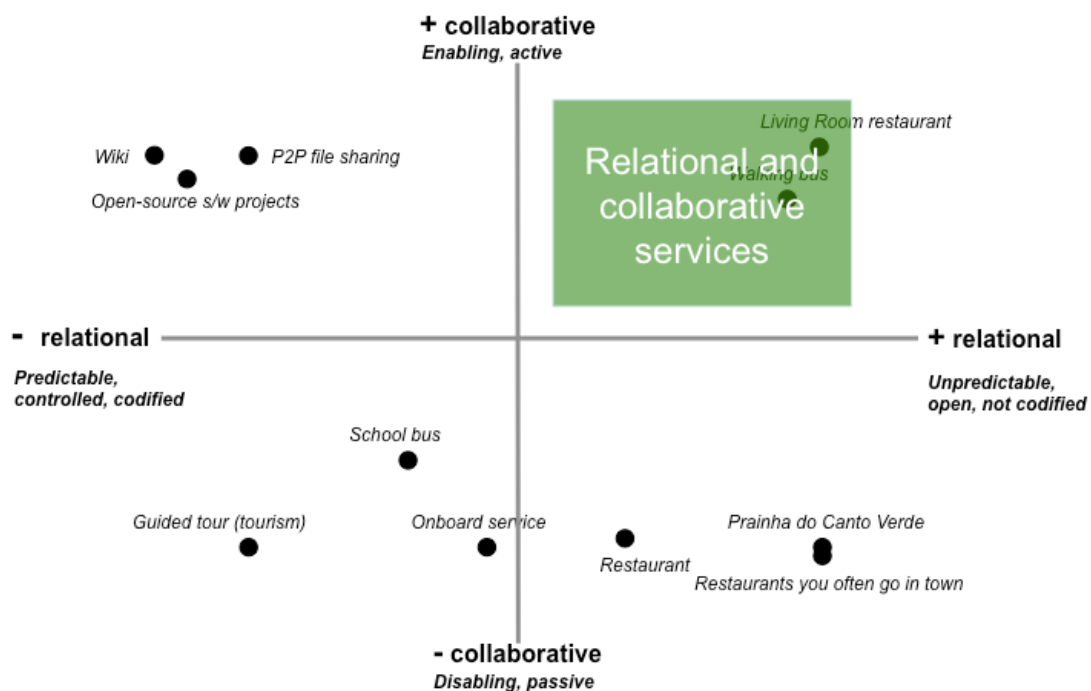


Figure 1-1. Positioning of collaborative service in service matrix model (Cipolla, Manzini 2009)

Similar - but not the same - collaborations exist in the virtual space based on a peer-to-peer network as the ICT does. Advanced and democratized ICT has brought to us new ways to collaborate and produce. To name a few, archives of distributed

knowledge, information and data; peer-to-peer platforms for sharing information and trading products and open-source software projects based on Creative Commons licenses. Exhibiting characteristics of anti-rivalry and inclusiveness (Cooper 2005), collaborative production in virtual space is distinguished from traditional ways of production in the market economy in that it is more democratic in political aspect and more efficient in economical aspect (Benkler 2006).

By definition, a collaborative service is a social service in which final users collaborate to produce innovative solutions to meet their social needs based on peer-to-peer (P2P) relations (Cipolla 2007). This definition implies that a collaborative service results in the production of two essential elements: solutions for social needs and relations between stakeholders, or in another term, a social network of the stakeholders.

Furthermore, empirical studies show that the two elements are interlinked with each other, supporting the production of each other. That is, in the process of collaboration, a social network of the service stakeholders are reinforced or created as a byproduct. The social network, in turn, creates a favorable environment for new collaborations, thereby creating a virtuous cycle between the production of a solution and a social network. This research argues that the production of the two elements can be amplified by ICT (Figure1-2).

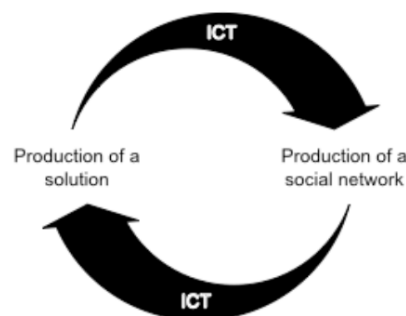


Figure 1-2. Production of a solution and a social network in a virtuous circle and its amplification through ICT

(Joon Sang Baek,2010)

#### 1.1.4 The DESIGN Harvests project

As a social innovation project, in the DESIGN Harvests project, co-service and ICT have been paid a lot of attention to. We tend to design co-service in our project, thus so far 3 types of co-services are in the prototyping phase.

Collaborative services can be empowered by digital platforms. A conventional

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approach to designing a digital platform for a collaborative service employs methods and processes developed in human-computer interaction and interaction design whose primary concerns are usability and emotional satisfaction.

A platform thus designed may effectively deal with the technical dimension of a service which relates to the performance of a service, but it hardly addresses the social dimension which relates to creation and reinforcement of relations among individuals who collaborate. Social relations generated through a collaborative activity are a unique characteristic of a collaborative service and it is also essential to the diffusion of social innovations. If a digital platform can be designed to fulfill social needs as well as technical needs of a collaborative community, a collaborative service will be more likely to succeed and its impact greater.

## **1.2 Significance and limitations of the study**

Collaborative service shares several aspects in common with collaborative production in the digital sphere. Both of them require collaboration rather than competition, inclusiveness rather than exclusiveness and are based on a platform that is decentralized rather than centralized. They also aim to improve the quality of the commons rather than privatized goods. Digital collaborative production aims to expand the repository of digital commons that are mainly information whereas the latter focuses on improving social commons such as relational qualities and social network. For this reason, the collaborations in the physical sphere and digital sphere are merging and have great potentials to produce synergy effects. Firstly, when digital, networked platform is applied to collaborative service, it can increase the accessibility and replicability of the given service, making it available to wider social and economical contexts. Secondly, it can enhance communication between stakeholders within a service and between similar services, thereby strengthening the social fabric and making a service more resilient. Finally, advanced ICT, collective knowledge and innovative business models in open networked platform can reduce the technological, bureaucratic and economical burden of creating and supplying a service respectively.

In summary, technologies, especially ICT, can be used an enabling solution that motivates and empowers people to collaborate and innovate. Which the outcome could be lead the DESIGH Harvests project to a positive results. When the

collaborations in the physical sphere and digital sphere are merging and have great potentials to produce synergy effects. When digital, networked platform of Innovation hub is applied to the Chongming project, it can increase the accessibility and replicability of the given service, strengthening the social fabric and making a service more resilient, reducing the technological, bureaucratic and economical burden of creating and supplying a service respectively.

As a brand new research area in China, the digital platform design of “Innovation Hub” project would provide a research prototype for this academic research area (digital platform design of social innovation and Co-service project).

However, the digital platform research & design for Chongming Xianqiao Innovation Hub is a specific design case, to how much extend it can be used in other cases is still unknown. And the co-service part of the project is just in prototyping, thus some parts of the digital platform is still in the concept step.

### 1.3 Research methods

In this research progress ,filed research、 theoretical and methodological research、 case study and interdisciplinary collaborative research have been used.

Filed research: The author use questionnaire、 personal interview、 group interview and observation etc as filed research methods, in order to have a better understanding of Xianqiao village and its residents.

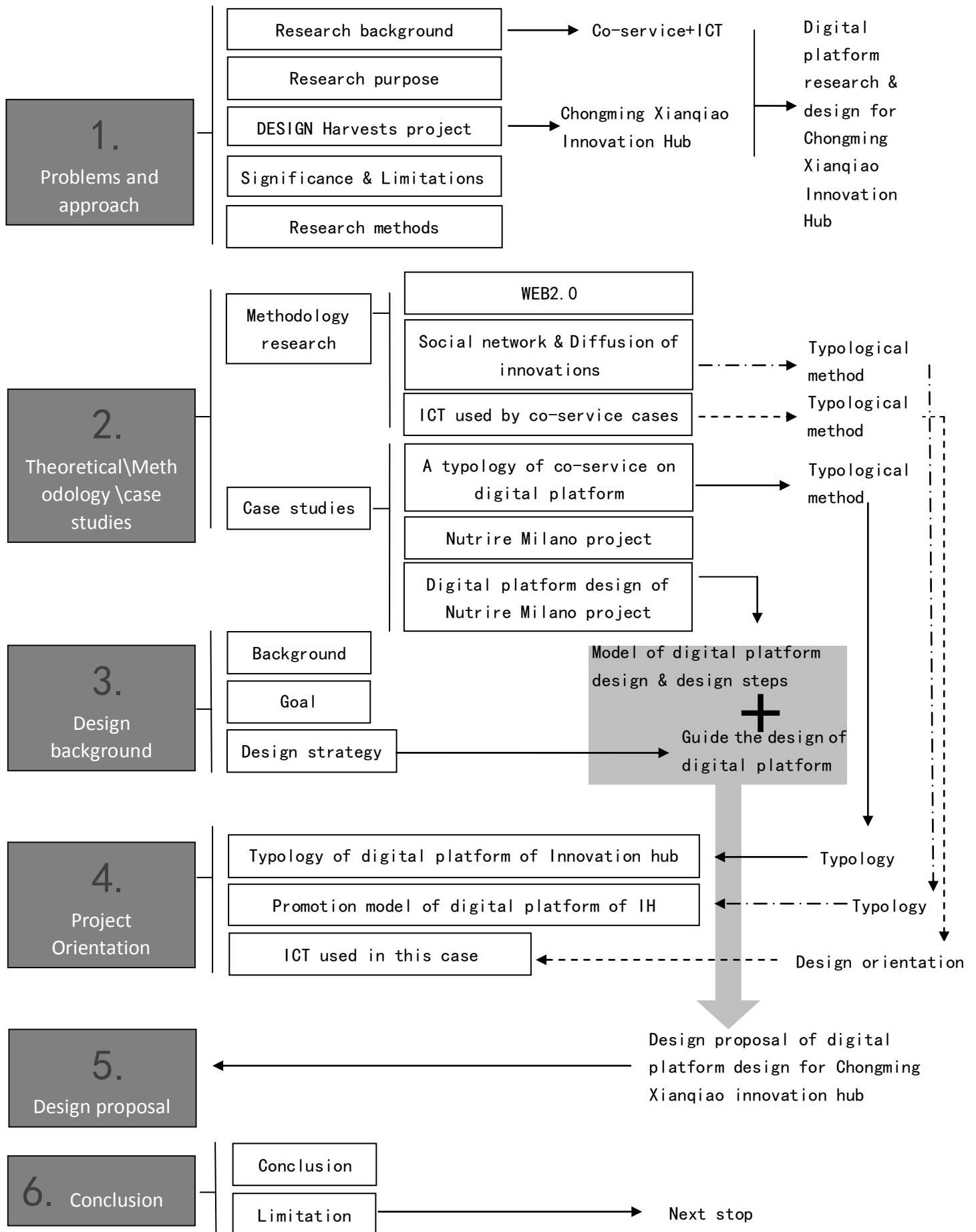


Figure 1-3. Filed research in Xianqiao village (Studio Tao, 2009)

Theoretical research: In the research progress, several sociology publication have been studied by the author, such as Clay Shirky <Here Comes Everybody The power of organizing without Organization>, Fei Xiaotong <Peasant Life in China>, books or papers about social innovation are also in my reading list, for instance, <Creative communities, a casebook of bottom-up social innovations> by Meroni Ed, and <CUMULUS working papers ,shanghai> etc. Due to these theoretical studies, I could have a better understanding about the project, and can think the design from the interdisciplinary view.

Case studies: I take the “Nutrire Milano” as the primary study cases, because it shares similar design context as our project, and it now runs pretty well. Furthermore, my internship experience in DIS-INDACO brings me some first-hand material about the “Nutrire Milano” project, which will be of benefit to our project. In addition, there are also some other cases have been referenced in the paper.

## **1.4 Structure of the thesis**



## **REVIEWS OF THEORETICAL, METHODOLOGICAL RESEARCH AND CASE STUDIES**

In this chapter, three research areas that constitute the theoretical and methodological base of this research are introduced.

The first area is introducing some notion which related to the digital platform design for social innovation project. Here, Web 2.0, social network and the diffusion of innovations, frequently used ICT in collaborative service are introduced. The second one relates to social network theories. A typology of collaborative services on digital platform based on social network structure is presented. The third area is case study of “Nutrire Milano” project, includes its background and digital platform design.

### **2.1. Digital platform design for social innovation projects**

#### **2.1.1. Web2.0**

The term Web 2.0 is associated with web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. A Web 2.0 site allows users to interact and collaborate with each other in a social media dialogue as creators of user-generated content in a virtual community, in contrast to websites where users (consumers) are limited to the passive viewing of content that was created for them. Examples of Web 2.0 include social networking sites, blogs, wikis, video sharing sites, hosted services, web applications, mashups and folksonomies.<sup>5</sup>

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<sup>5</sup> [http://en.wikipedia.org/wiki/Web\\_2.0](http://en.wikipedia.org/wiki/Web_2.0)

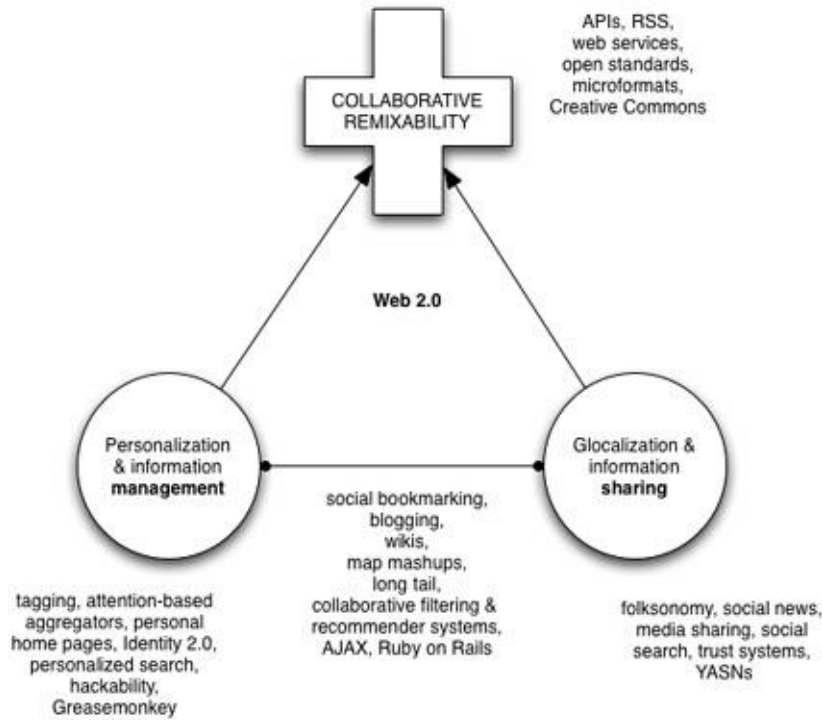


Figure 2-1 A definition of Web2.0 proposed by Barb Dybwad

By using Web 2.0, the personality and personal information of the user are easier to be presented, which highly increase the public transparency of the user, thus we are easily to be found and to be inspected. With the popularity of SNS (social network service), the social needs and business potential of Web 2.0 are more and more obvious.

Besides, Web 2.0 extend the way of the grassroots to show themselves and to deliver their perspectives, hence it enhance the transparency of social information, which is conducive to the public supervision.

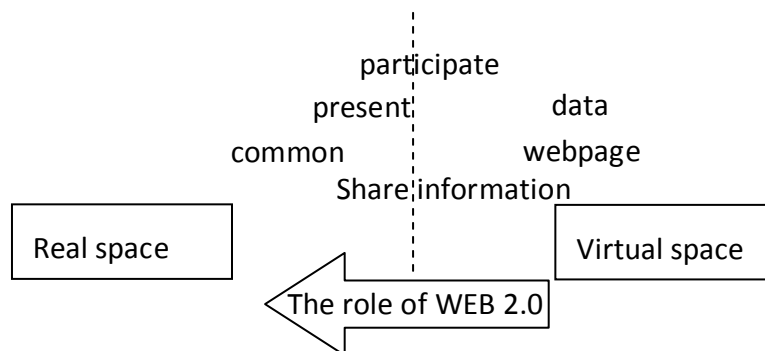


Figure 2-2 The role of Web2.0 in social and culture

Business trends come and go, but innovation never goes out of style. Ideas and collaboration are the fuel for innovation. And organizations that can tap into and



quickly leverage the collective creativity of their employees and customers have greater potential to disrupt the status quo and leapfrog the competition. They've created business approaches using a set of philosophies and technologies, known as Web 2.0, to foster innovation and responsiveness to customer and marketplace trends and to simplify communication and collaboration among members of the extended value chain. Web 2.0 is about using the Internet creatively, as a platform to foster innovation, speed and simplicity.

The social and business property point of view, the Web 2.0 somehow perfectly fits the need of social innovation and cooperative service, which explains why it is widely use in this area.

### 2.1.2 Social network and the diffusion of innovations

The first social network research to be introduced is related to how innovations diffuse through social networks, especially through a specific typology of interpersonal ties. Granovetter (1973) who first introduced the strength of weak ties claimed that personal ties can be categorized into strong, weak and absent. The tie strength can be measured in terms of a combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie (Granovetter 1973).

Table 2-1 Comparison of strong ties and weak ties (J.S.Beak,2011)

Strong tie	Weak tie
<ul style="list-style-type: none"> <li>• Formed between families, cliques, relatives</li> <li>• Takes arguably decades to be formed</li> <li>• Observed in a group</li> <li>• Information is self-contained</li> </ul>	<ul style="list-style-type: none"> <li>• Formed by any kind of interaction</li> <li>• Takes relatively short time to be formed</li> <li>• Observed in a network</li> <li>• Information diffuses</li> </ul>

Haythornthwaite (2002) introduced another category called latent ties, ones that exist technically but have not yet been activated and are often observed among individuals connected via new media.

According to Granovetter, information tends to remain isolated in a group formed by strong ties whereas it tends to diffuse through weak ties. It is because people connected through strong ties share similar social networks and as a result they tend to form an isolated group, in which information is likely to be self-contained and inaccessible by those outside the group. On the other hand,

people with many weak ties often play a role of bridges that connect groups and it is through these bridges that information, including difficult innovations, diffuses (Granovetter 1973). As a result, the social network of an organization whose members are connected mainly through weak ties forms an open network where information is widely shared among the members while an organization whose dominant ties are strong turns into fragmented cliques(Granovetter 1983).

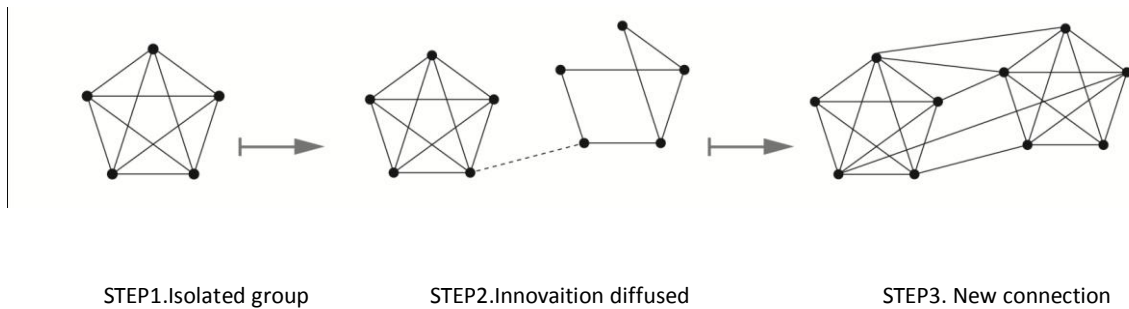


Figure2-3 Innovation diffused through weak ties

In short, the diffusion of collaborative services is an iterative process where the generation and incubation of an innovation are mainly achieved through strong ties and the development and the diffusion are achieved through weak ties.

### 2.1.3 ICT used by the co-service cases

Joon sang beak conduct a case study in 2010, in the case study, the investigation focuses on a specific issue related to sustainability, sustainable food consumption and production and analyzes how ICT is used by various stakeholders in this sector including consumers, producers, civil organizations, government-funded institutions and enterprises. Total 42 cases were selected and their websites were analyzed using web analysis. The cases were divided into categories according to their organizational goal. The outcome of the case study could give the Chongming project some guidance.

Tabel 2-2: ICT used by the co-service cases

	<b>ICT for social network (social media)</b> (cases/sum)	<b>ICT for solution</b> (cases/sum)
<b>Producer network</b> (7 cases)	Face-to-face meeting (7/7) Voice call (7/7) Email (7/7) Blog (4/7) SNS(4/7) Newsletter (1/7) RSS feeds (2/7) Social libraries (2/7) Social bookmarking (1/7)	E-commerce or E-donation (5/7) Map (1/7) Search (6/7)
<b>Consumer network</b> (7 cases)	Face-to-face meeting (7/7) Voice call (7/7) Text chat(e.g.SMS) (7/7) Email (7/7) Blog (4/7) Wiki (1/7) Internet forum (3/7)	Calendar (4/7) search (1/7)
<b>Information and guidance</b> (7 cases)	SNS(7/7) Internet forum (1/7) Newsletter (4/7) RSS feeds (2/7) Social libraries (4/7) Social bookmarking (2/7)	E-commerce or E-donation (4/7) Map (4/7) Search (6/7) Shared Calendar (4/7) user rating (1/7)
<b>Connecting consumers and producers (e.g. Solidarity purchasing groups)</b> (7 cases)	Face-to-face meeting (7/7) Voice call (7/7) Text chat(e.g.SMS) (7/7) Email (7/7) Blog (4/7) wiki (1/7) Internet forum (3/7)	Search (1/7) Shared Calendar (4/7)
<b>Individual local producers in Milan</b> (24 cases)	Face-to-face meeting (24/24) Voice call (24/24) Email (23/24) Blog (1/24) Internet forum (1/24) Newsletter (1/24) SNS(1/24)	Map (1/24) Shared Calendar (1/24)

In the table we can find the common used ICT in Co-service and their frequency, some of them are more popular than others, for instance blog, Wiki, SNS, RSS feeds, Internet forum, shared calendar etc. Nonetheless, there are also some Emerging media come into our sight, such as Microblog, Mobile Microblog, Podcast, Mobile Podcast. According to different Orientedness、openness and exposure of the ICT, we can choose the one fits our needs.

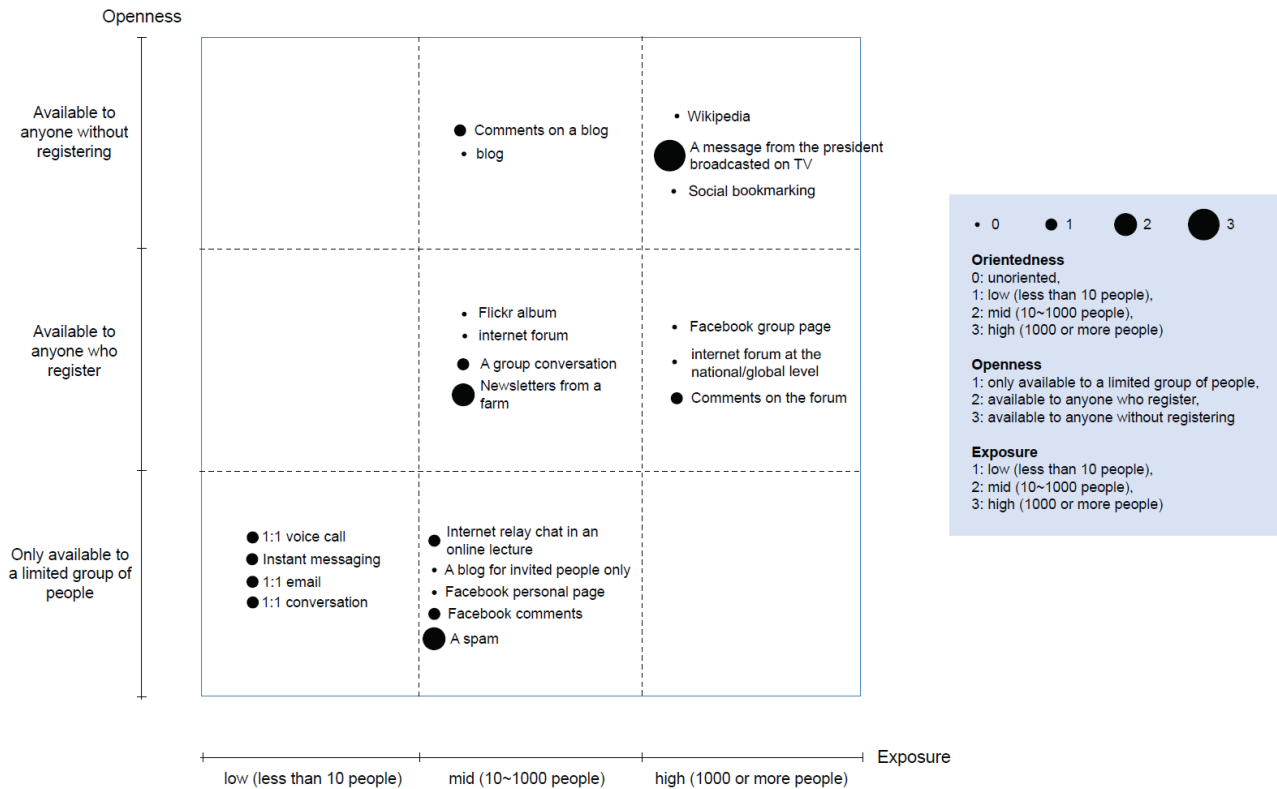

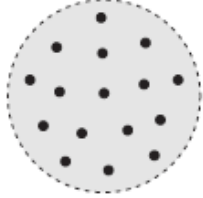
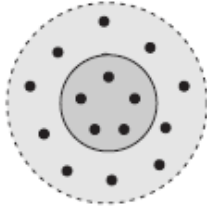
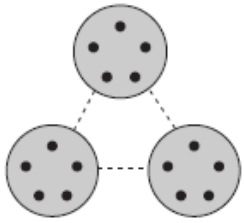
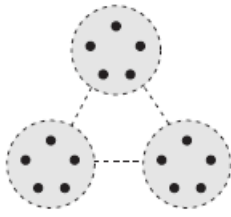


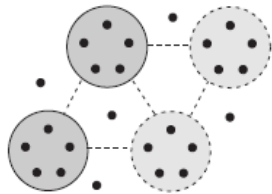
Figure2-4 Mapping of social media(J.S.Beak,2011)

## 2.2 A typology of collaborative services on digital platform based on social network structure

From an in-depth case studies conduct by Joon sang beak which aims to analyze how ICTs influence social network structures of individuals and communities involved in collaborative services, a typology was drawn. The typology consists of 6 types of collaborative services on digital platform based on the social network structures of users: a tightly knit group, networked individuals, a tightly knit group(s) and networked individuals, a network of tightly knit groups and a network of loosely knit groups, a network of tightly knit and loosely knit groups (Table 2-3).

Table 2-3 A typology of collaborative service on digital platform based on the social network structures of users

Type	Characteristic	Example
 <p>A tightly knit group</p>	<ul style="list-style-type: none"> <li>• A closed group in which members are connected via strong ties</li> <li>• No interaction with the outside</li> </ul>	
 <p>Networked individuals</p>	<ul style="list-style-type: none"> <li>• Members connected via weak or latent ties</li> <li>• Intermittent or one-time interaction</li> <li>• Members bounded by common values and interests but not necessarily by location</li> </ul>	Fix My Street Pledgebank No. 10 Petition Social Invention Center Zerorelativo Couchsurfing Hitchhikers.org Bookcrossing
 <p>A tightly knit group(s) and networked individuals</p>	<ul style="list-style-type: none"> <li>• Driven by a group of tightly knit members who share values and interests and often bounded by location</li> <li>• Supported and endorsed by individuals who are weakly connected to the core group and within themselves</li> </ul>	GROFUN
 <p>A network of tightly knit groups</p>	<ul style="list-style-type: none"> <li>• Composed of multiple groups of tightly knit members who share values and interests and often geographically bounded</li> <li>• Groups weakly or latently tied to other groups</li> </ul>	Meetup.com GAS Mapo Dure Activmob Timebanks Peladeiro
 <p>A network of loosely knit groups</p>	<ul style="list-style-type: none"> <li>• Composed of multiple groups</li> <li>• Group members are loosely knit and bounded by common values and interests and but not necessarily by location</li> <li>• Intermittent or one-time interaction</li> <li>• Groups weakly or latently connected</li> </ul>	Carrot Mob Shelfari

 <p>A network of tightly knit and loosely knit groups</p>	<ul style="list-style-type: none"> <li>• A mixture of type 4 and 5</li> </ul>	<p>WiserEarth Green Map Open green map Nabuur Vicini Vicini</p>
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## 2.3 “Nutrire Milano” project

“Feeding Milan, energies for the change” is a research program brought to you by Slow Food Italy, Università di Scienze Gastronomiche di Pollenzo (something like “Pollenzo University of Food Science”) and Politecnico of Milan – INDACO department. Aim of the project is to make the food production and purchasing chain in Milan area more effective and efficient, in order to create a sustainable and innovative urban-agriculture scenario.

“Feeding Milan, energies for the change” is a project that started after realizing that in the urban area of Milan province the demand of fresh high quality food is higher than the available production, regardless of the presence of a huge potential “urban food pantry” that is Parco Agricolo Sud Milano (south milan agricultural park)

The main idea, to support such a demand, is to use sustainable agriculture in defense of territorial quality. This means revitalize local networks, encourage tools and infrastructures sharing and create new territorial systems. The new scenario should be a rururban region in which agriculture flourishes because it feeds the city, and, in the meantime, offers to its inhabitants a portfolio of outdoor activities in the natural environment.

This scenario, based on the principia of agriculture “multifunctionality” and chain “deintermediation” is shaped through the implementation of pilot projects, that enhance the change towards sustainability.

In the first year of the project the following sub-projects have been implemented:

- The “earth market”: the first farmers' market in the city of milan, every third saturday of each month

- The “bread chain”: from wheat to “michetta” (milanese type of bread), that tries to redesign local production chain in the new purchasing/consuming contexts and retrieving historical infrastructures of flour processing

- the “production gardens”: with the aim to provide the city fresh fruits and vegetables, fostering the diversification of Park produce and activating product delivery services in the city.



Figure2-5 Structure of Framework project (DIS-INDACO Studio)

## 2.4 Digital platform design of “Nutrire Milano” project<sup>6</sup>

This Chapter introduces a socio-technical framework for collaborative service by expanding the experience of Nutrire Milano Project into a wider context.

The framework is a systematic approach to designing a digital platform for collaborative communities with a focus on addressing users’ social needs. The framework has the following characteristics:

(1) It integrates the development process of a digital platform into service design process;

(2) It provides designers with a systematic approach to design a platform that supports a collaborative service with socio-technical intervention, because socio-technical intervention could improve the dual dimension of collaborative service.

<sup>6</sup> A SOCIO-TECHNICAL FRAMEWORK FOR COLLABORATIVE SERVICES: DESIGNING A DIGITAL PLATFORM FOR COLLABORATIVE COMMUNITIES --- Joon Sang Baek

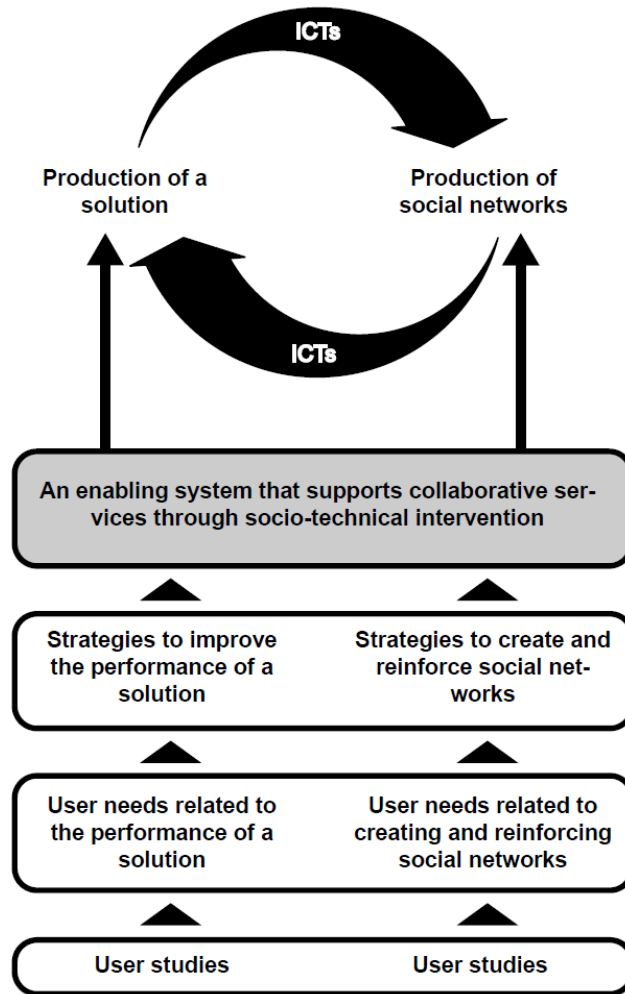


Figure2-6 Schematic process of designing a digital platform for collaborative services (J.S.Beak,2011)

(3) It focuses on facilitating the production of social networks of collaborative communities by analyzing their implicit social needs.

#### 2.4.1 Conceptual framework of “Nutrire Milano” project

Figure 2-7 describes a design process of a collaborative service on digital platform based on Archer’s prescriptive model of design process (1984). The light green area indicates a service design process and the light blue area indicates a process of designing a digital platform. The service design process described in this chapter refers to a process developed in service design curriculum at Politecnico di Milano. Inside the red-dotted box is the socio-technical framework for developing a digital platform for collaborative service.



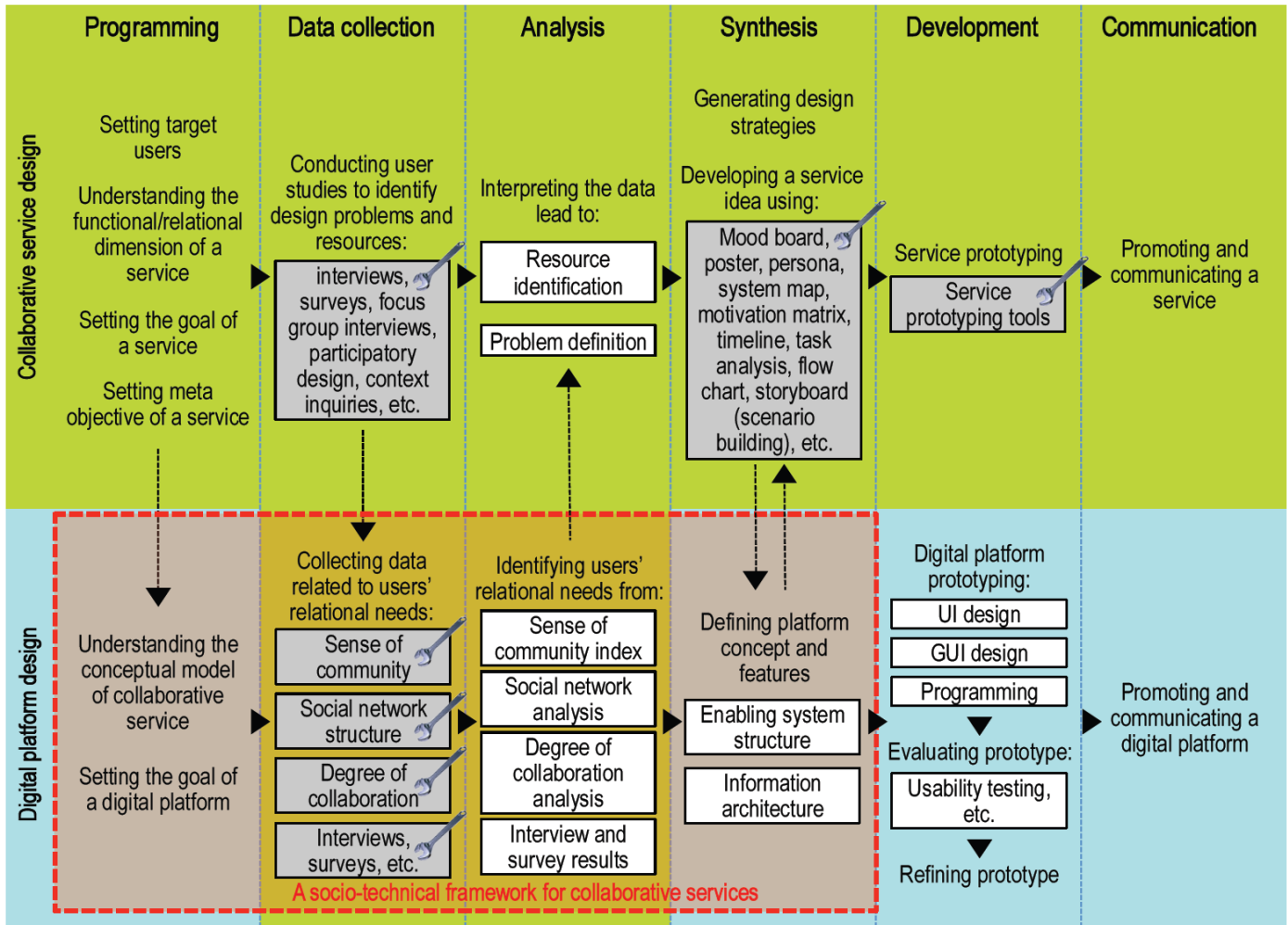


Figure2-7 A process of designing a collaborative service on digital platform (J.S.Beak,2011)

### 2.4.2 Programming of “Nutrire Milano” project

In programming phase, the concept of a service and a digital platform is defined. It means that, first of all, the notion of collaborative service and enabling system is comprehended and their relationship is clarified. Issues to be articulated the concept between service and enabling system are provided as a checklist in Table2-4.

As what we learn in PSSD courses, we will set the target users, understand the functional/relational dimension of the service, set the goal and meta objective of the service. While in the digital platform part, designers should understand the conceptual model of collaborative service and set the goal of the digital platform.

Table2-4 A checklist to articulate a service concept

<ul style="list-style-type: none"> <li>• Is your idea a collaborative service, i.e., do the final users play a role of co-designer and co-producer in fulfilling their needs? Does it involve collaboration of the final users and a certain degree of interaction between them? Use the conceptual model of collaborative service in chapter 1 (Figure 1-1) to position your idea and see which category it belongs to.</li> </ul>
<ul style="list-style-type: none"> <li>• What are the target users' needs? Categorize them into the technical and social needs.</li> </ul>
<ul style="list-style-type: none"> <li>• What do you aim to achieve through your collaborative service? Specify them into technical and social dimension goals. Technical goals are related to improving the technical quality of a service and social goals are concerned with connecting people and enriching their relations. Try to make them specific (e.g. to create a network of exchanging time, competences and resources among the producers in the farmers' market).</li> </ul>
<ul style="list-style-type: none"> <li>• What is the meta-objective of your collaborative service? What is the desired social network structure of your collaborative community? Use the typologies provided in chapter 2 as a reference to map your service on the service typology matrix (Table 2-3). If your service does not belong to any of these types, you can add a new one.</li> </ul>

### 2.4.3 Data collection and analysis

To collect data related user needs on the farmers' market, surveys and interviews were conducted for producers and consumers at the market. The data were collected for 3 months from August to October 2010. It aimed to collect the following data: basic user information, the extent to which they perceive the market as a community, how producers and consumers are connected, how they collaborate using which technologies, and what kind of new services they want to participate in the future. The survey was conducted both online and offline. The online version was distributed through email, the website of Mercati della Terra, the Facebook page of the market and printouts that include the link to the survey. The offline version was distributed at the marketplace.

In the case of the producers, the survey forms were distributed through email to those who had access to the Internet and paper copies were handed out to those who did not have access to the Internet at the market. 43 producers and 111

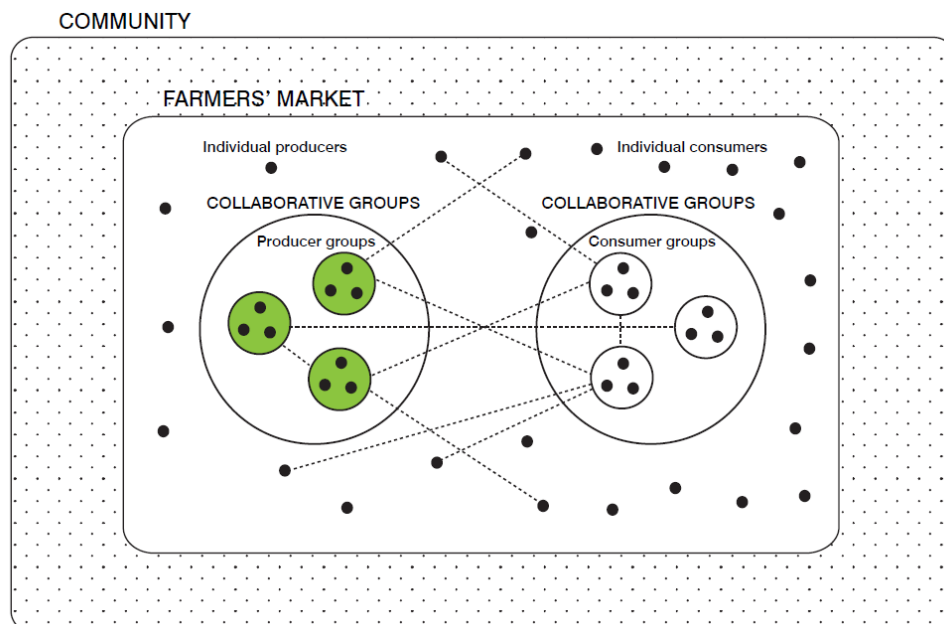
consumers responded to the survey during this period (estimated on October 22nd). The response rate for the producers was 91% with margin of error 5% and confidence rate 95%. The response rate for the consumers could not be calculated since the population size is unknown. The surveys were designed using Google® docs.

Separate questionnaires were designed for the producers and the consumers. The survey for the producers consisted of 75 questions and the survey for consumers consisted of 82 questions.

The questionnaires were composed of 5 parts:

- Basic information of users
- Sense of community in the market
- Social networks of producers
- Description of collaborative activities
- Feedbacks to new services proposed for the market

In the Nutrire Milano Project, the goal of a digital platform was to support collaborative services between local producers and consumers in Milan. (1) to reinforce the social networks of existing collaborative groups of the producers; (2) to facilitate creation of new collaborative groups that involve exchange of time, competences and knowledge.



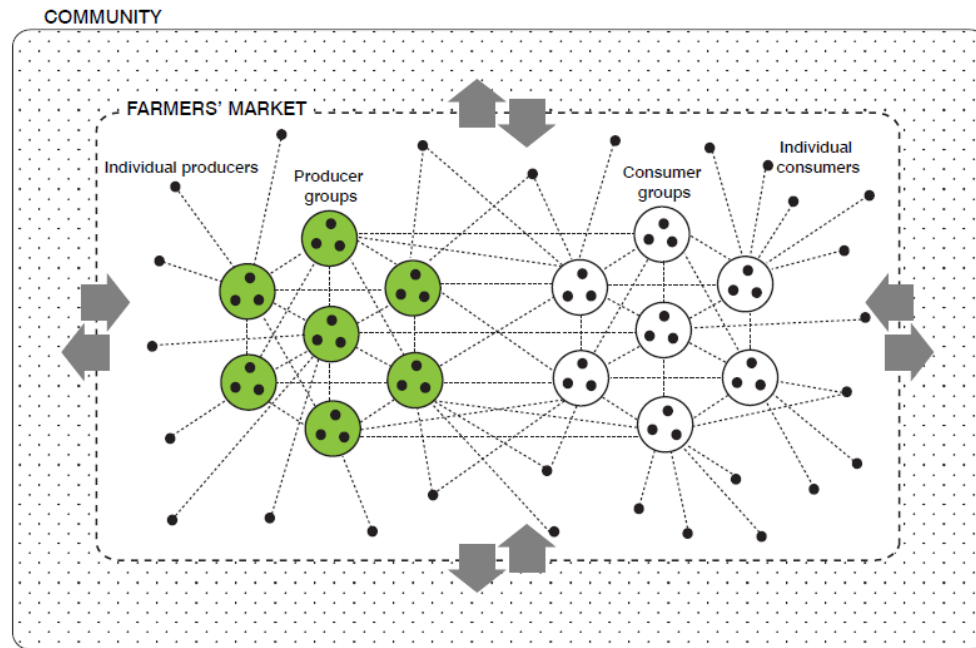


Figure 2-8 Diagrams that illustrate collaborative networks at the market before (top) and after (bottom) the socio-technical intervention (J.S.Beak,2011)

#### 2.4.4 Synthesis

In the analysis phase, the data collected from the previous phase are interpreted to identify user needs, which lead to defining design problems. Another information obtained from the data is the type of resources users possess – natural, social, technological and etc. The resources of target users and design problems are an input to generate socio-technical intervention or simply service strategies that successfully fulfill user needs. During the Nutrire Milano Project, a resource problem matrix was used to facilitate idea generation of socio-technical intervention to support dual production of collaborative services (Table 2-5). The matrix has the design problems in the column, and the resources in the row. In this table, service strategies were generated using a resource-problem matrix and then corresponding platform concepts were brainstormed.

Table 2-5 A resource-problem matrix for brainstorming socio-technical intervention(J.S.Beak, 2011)

		Social resources					Technological resources (Joomla CMS)							
		Existing consumer networks	Existing producer networks	Shared values and interests among consumers and producers	High level of SoC among producers	High level of SoC among consumers	Map	Online community	Forum	Email	Blog	e-commerce platform	Sync with other SNS's	..
Problems relating to the social dimension of a service	A fragmented collaborative network among producers	<p style="text-align: center;"><b>Service strategies</b></p> <ol style="list-style-type: none"> <li>1. Social events at the market such as tasting laboratories, demonstrations by producers, shared tables</li> <li>2. Brand Identity (BI) design of the market to improve the level of membership and to use it in promoting the market to the public.</li> <li>3. A neighborhood dinner club for producers to get to know one another and to share information, competences and resources.</li> <li>4. Occasional GAS</li> <li>5. GAS extended (for large organizations such as schools, offices or apartment houses)</li> <li>6. Shared logistics for producers to bring their products to the market</li> <li>7. A food box delivery service</li> <li>8. A voluntary counseling service for producers who need fiscal and technical advice for their business</li> </ol>					<p style="text-align: center;"><b>Platform concepts</b></p> <ol style="list-style-type: none"> <li>1'. A multimedia repository to share the records of events at the market</li> <li>2'. An online competition of the BI design</li> <li>3'. An online community for producers to continue discussions at the neighborhood dinner club.</li> <li>4'. A virtual settlement for occasional GAS</li> <li>5'. A social commerce platform for GAS extended</li> <li>6'. A platform to support organization of carpooling among the producers</li> <li>7'. An e-commerce platform for a food box delivery service.</li> <li>8'. An online forum to discuss fiscal and technical issues and to receive advice from volunteers (e.g. Nabuur)</li> </ol>							
	Many isolated individuals													
	Low level of membership due to inability to recognize other people													
	Low level of influence													
Problems relating to the technical dimension	...													
	The market is held only once a month.													
	The market is held in only one place in the city.													
	Many people do not know about the market and the promotion efforts are limited.													
	Many people believe that the prices are unaffordable.													
	The products lack diversity and quantity.													
	Management of the market heavily depends on the Slow Food.													
	A lack of information on fiscal and technical issues of business													
...														

### 2.4.5 Development and communication

In the synthesis phase of the Nutrire Milano Project,, the research team builds an archetype for designers to conceptualize a schematic structure for co-services digital platforms. Case studies of collaborative services on digital platform revealed that despite their diverse contexts, they exhibit a common structural system which is composed of four elements: a platform base, an enabling solution, a collaborative service, and an event. This archetype describes the composition of the four elements



## 2.4.6 Final outcome

In the final outcome, the team designed an website for the project as the first step. <http://www.nutrire milano.it/>

**Nutrire Milano. Energie per il cambiamento**

**Appello a sostegno del Mercato della Terra® di Milano**  
Firma anche tu perché diventi stabile e settimanale!

**Nutrire Milano, energie per il cambiamento**  
è un programma di ricerca promosso da Slow Food Italia, Università di Scienze Gastronomiche di Pollenzo e Politecnico di Milano – dip. INDACO. Il progetto ha l'obiettivo di rendere più efficiente e più efficace la filiera agroalimentare milanese, per poter dar forma ad uno **scenario** di metro-agricoltura sostenibile e innovativa.

"Nutrire Milano, energie per il cambiamento" parte dall'osservazione di un dato di fatto: nella regione urbana milanese la domanda di cibo fresco e di qualità sorpassa di molto la produzione disponibile, nonostante la presenza di un vasto e potenziale "verziere urbano" come il **Parco Agricolo Sud Milano**.

L'idea principale del progetto per poter supportare tale domanda è quella di usare l'agricoltura sostenibile come presidio della qualità del territorio. Ciò significa rivitalizzare le reti locali, incoraggiare la condivisione di beni e infrastrutture comuni e creare nuovi sistemi territoriali. La visione che emerge da tutto ciò è quella di una regione rur-urbana in cui l'agricoltura prospera perché alimenta la città e, allo stesso tempo, offre ai suoi cittadini una serie di opportunità per svolgere attività all'aperto e nella natura.

Lo scenario di progetto, basato sui principi di *multifunzionalità* agricola e *deintermediazione* della filiera, prende forma e sostanza attraverso l'implementazione di **progetti pilota**, che fungono da volano al cambiamento verso la sostenibilità. Fino ad oggi, durante il primo anno di vita del progetto, sono stati attivati questi progetti:

- **il Mercato della Terra di Milano**: il primo mercato dei produttori su suolo pubblico milanese, ogni terzo sabato del mese.
- **la Filiera del Pane**: dal grano alla "michetta", mira a ricostruire la filiera della produzione locale adattandola ai nuovi stili di consumo urbano e recuperando le infrastrutture storiche per la produzione delle farine.
- **gli Orti Produttivi**: con l'obiettivo di fornire frutta e verdura fresca alla città, favorendo la diversificazione delle produzioni nel Parco Agricolo e attivando servizi di consegna dei prodotti in città.

Commenti (1)  
Ultimo aggiornamento (Lunedì 09 Maggio 2011 09:27)

Nutrire Milano è un progetto realizzato con il contributo di:

fondazione cariplo | Milano Comune di Milano | Provincia di Milano

e promosso da Slow Food Italia, ufficio di Milano, via Piranesi 10 - Tel. 02.7381308 [info@nutrire milano.it](mailto:info@nutrire milano.it)  
Nutrire Milano - Copyright © 2010 Tutti i diritti riservati  
Powered by [Engineering Associates](#)

Figure 2-10: Main page of Nutrire Milano project

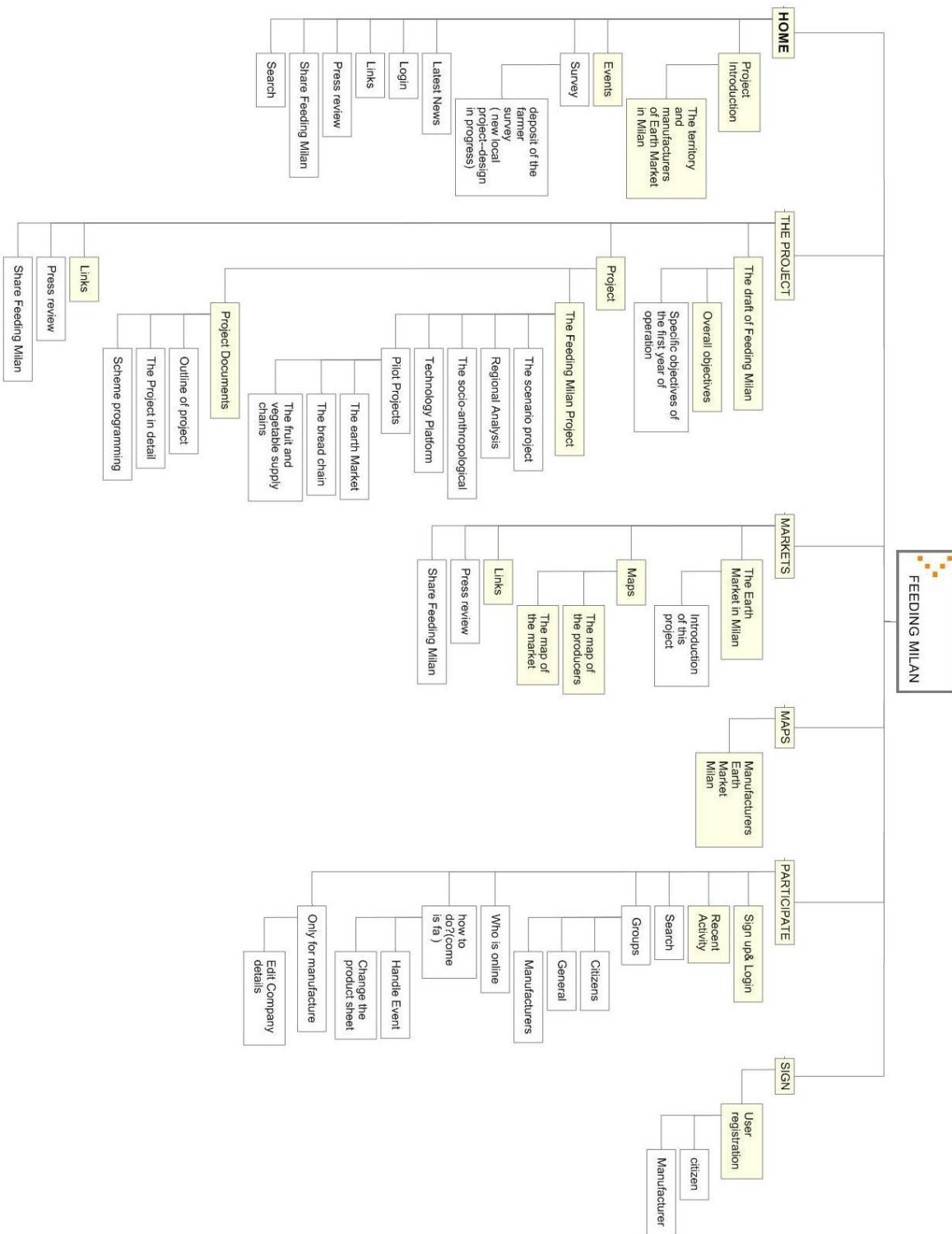


Figure 2-11: Site map of Nutrire Milano project





**NUTRIRE  
MILANO**





Slow Food Italia

HOME
IL PROGETTO
I MERCATI
MAPPE
PARTECIPA
REGISTRATI

### Itinerario Mi-Zibido - Visita alla Cascina Ca' Granda nel cuore del Parco Sud

**Rif.** km. Indicazioni

**Partenza** da via San Domenico Savio, davanti alla biblioteca comunale, si imbocca la Alzaia Naviglio Pavese in direzione di Pavia

**1** 0,9  
Svolta a destra, al ponticello sul Naviglio Pavese e si imbocca la pista ciclabile asfaltata, nella stessa direzione di marcia

**2** 9,1  
Svolta destra in via Zibido

**3** 10,2  
Svolta a destra in viale Longarone

**4** 12,0  
Rotonda Trezzano / San Giacomo, da cui si vedono i silos blu dell'azienda agricola Zipo

Sosta alla cascina Ca' Granda.

Percorso attorno al lago del Mulino di Cusico, area di interesse naturalistico, stazione di ambientamento della cicogna bianca.



**Percorsi**

Milano - Zibido San Giacomo  
Milano - Sorgenti della Muzzetta  
Milano - Bosco di Riazzo

**Caratteristiche**

**Itinerario ciclistico Milano-Zibido San Giacomo**

**durata:** 5 ore circa, comprensive di degustazione e rientro

**distanza:** 16,5 km circa

**dislivello:** 15 metri circa

**viabilità:** mista (i primi 10 km su pista ciclabile asfaltata, 2 km su strada poco trafficata e gli ultimi 4 km su strade bianche)

Il percorso non è molto frequentato e piacevole da percorrere nelle belle giornate. Lungo il tragitto ci si può imbattere in uccelli acquatici, soprattutto nel tratto che si snoda lungo i campi del Parco Agricolo Sud Milano.

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e promosso da Slow Food Italia, ufficio di Milano, via Piranesi 10 - Tel. 02.7381308 [info@nutrimilano.it](mailto:info@nutrimilano.it)  
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Figure 2-12: Important pages of Nutrire Milano project website

## INTRODUCTION OF “DESIGN HARVESTS” PROJECT

### 3.1 “DESIGN Harvests” project<sup>7</sup>

#### 3.1.1 Introduction of Xianqiao village and its challenges

Chongming Island is a huge agricultural land connected to the city of Shanghai by a recent built bridge or a short navigation. Still devoted mainly to conventional farming, it is likely to be taken over by urbanization, given the fragile nature of the local agricultural business. Actually many of the youth and adults increasingly left the village for work in Shanghai city, but are neither attracted to city work nor to village life on the island.

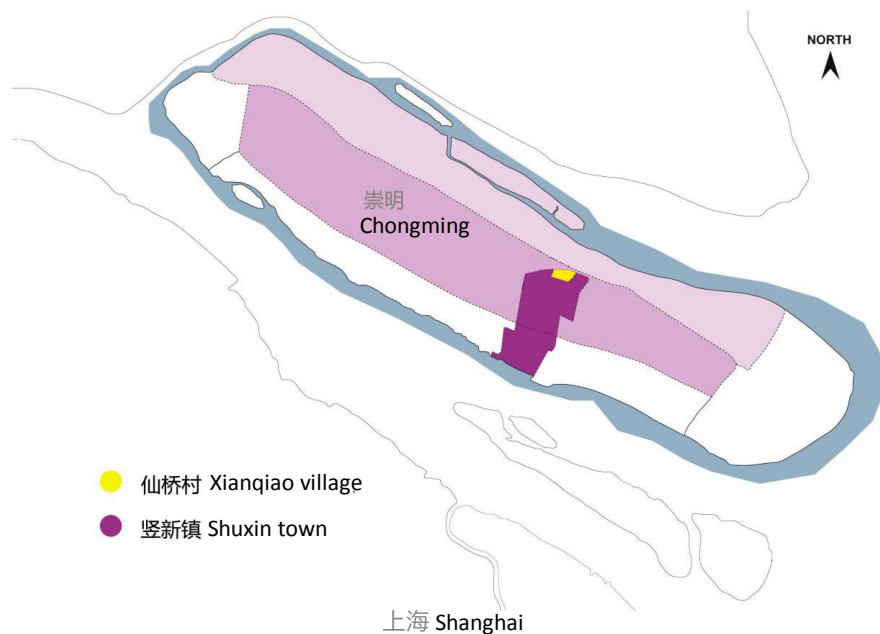


Figure 3-1: Location of xianqiao village(Studio Tao)

Suburbs like Chongming are facing with the same challenges as other rural areas in China. Apart from the increasingly rigorous environmental problems, numerous socio-economic issues are constantly affecting the sustainable development of the rural areas in China. Following are the problems in Xianqiao Village which was

<sup>7</sup> An Acupuncture Design Approach towards Sustainability: Sustainable Community Design Project in Xianqiao Village in Chongming ----- Lou Yongqi,2009

studied as the prototype, however, the phenomenon is rather common in rural area of China.

- Backward Agriculture and Low Income
- Lack of Job Opportunities
- Inefficient Utilization of Space and Land
- Environmental and Infrastructural Issues
- Unbalanced Social Structure
- Scarce Public Life
- Weakness of Rural Culture
- Gradually Reducing Liaison



Figure 3-2: Xianqiao village (Studio Tao)

### 3.1.2 New Role: From Material Design to Strategic Design

Chongming Island serves as an urban countryside and can be considered an alternative to the typical development associated with suburban sprawl, which is “rurban territory” (Donadieu, 1998). As meta-contexts, fringe locations are places for all kinds of radical social and economic change, where flexibility of an ambiguous territory can be pushed in a sustainable direction (Meroni, 2008). However, when “urbanization” turns into the synonym of development, rural values, lifestyles and behavior standards are further overlooked (LOU Yongqi, 2005). Therefore, “bottom-up” work is at least the same important as “top-down” planning. In this case, there is a wide range of application for new “design”.

Aimed at the exploration of rural resources and potentials in sustainable development through “design thinking”, the Xianqiao Sustainable Community

Project in Chongming upgrades the attraction of rural lifestyle, to find a way of development on contrary to “urbanization”.

Supposing that design innovation can bring about rural integration between macro and micro resources by creation of added value, to give birth new economy, new life and new environment, after which establish and intensify the rural interaction system built on the basis of a complete understanding of daily life, then the strategy on “away from land yet not away from home” raised by FEI Xiaotong has a new practical meaning in the new era. The only difference is the tool to realize the strategy, substituted design innovation for industry, the former the most revolutionary and the latter eliminated in the process of urban development.

### 3.1.3 Acupuncture Strategy: Attitude of Constructivism

Constructivism emphasized on “interactive construction” in order to realize the integration between system and lifeworld. To be specific, first of all, starting from “action”, based on subjective “lifeworld”, to begin this “bottom-up” transformation through improvement of detailed nodes directly related to people’s life and relative networking; meanwhile, to optimize subsystem in economy, social culture and ecology in the systematic level, whose process is similar to the “acupuncture” therapy in traditional Chinese medicine 11. At that moment, it is the crucial issue in the process of therapy to be familiar with meridian system, in correct search of acupoints and appropriate strategy of acupuncture.

Nowadays, throughout the world are numbers of potential projects on social and technical innovation, which are exploratory pilot projects in sustainable life and way of production, greatly significant in the process of sustainable development. These projects are just like acupoints in the human meridian system, even if in quantitative terms these cases are more or less marginal, in qualitative terms they are extremely meaningful to social economic structure and sustainable development in the area. With a much higher degree of connectivity around worldwide, then the small can be a node within various networks and the local can be open to global flows of people and information, the small is no longer small and a local is no longer local, at least not in traditional terms. (Ezio Manzini 2010)

In the process of promoting local projects to a wider range, or even in the worldwide, “network” is playing a most important role in the interaction and integration between the two levels. On the one hand, through networking, economic

and social cultural system can affect people's life; on the other hand, various tangible and intangible effects in resources, capitals, communities, ecology, environment, etc. existing in people's daily life are connecting with each other by means of internet. So how to improve the concrete lifeworld, and generate lasting positive impacts on the systematic level as well, should among strategic issues on rural sustainable development in China.

In such an "acupuncture therapy", there is an internal network of the body which functions or is inhibited function with a minor pressure. In the same sense, a small project intervention can impact the fluidity of societal system core the development of creative businesses derived from the initiatives of the people themselves (Pauli, 1996). In this process, Design becomes a dynamic promoter and catalyse of making something happen from the base of community rather than simply giving direct and inflexible top-down answers. In a word, design can be found executed anywhere and by anyone, giving increased significance to the designer's role (Manzini, 2008).

#### 3.1.4 DESIGN HARVEST: Acupoints and Network

The vision of Xianqiao Sustainable Project in Chongming is to build a developing model through "design thinking" to integrate rural resources and improve social environment, economic situation and social relations. All those design projects are prototypes of visions in the future. Hopefully based on the profound acquaintance to the economic system in the entire society, like acupuncture adequately stimulates in the key acupoints to generate affection on the whole meridian system, realize the adjustment to the entire social organism.

Blend design process into local situation and rural systems, through exploration, improvement, promotion and popularization to the potential of rural lifestyle, in which process framing a series of associated projects in rural development might be the first step towards the sustainable development. Then form a strong cooperative network with these projects, bring into play inspiration and leadership simultaneously in urban and rural fields, thus generate effects to the social system of the entire area.

In urban and rural areas, establish a cooperative network through construction of a series of closely related project bases, and finally build a rural complementary coupling system. The first step is to set up a series of Innovation

Hubs in rural areas based on local features and different social circumstances. According to local potential resources, the Innovation Hubs are to stimulate rural potentials through design and innovation. It's not only for providing cities with products and services, what's more important is to "incubate" and demonstrate a new economic model, promote local employment, attract urban intellectuals, capitals and resources to establish businesses in rural areas, to achieve complete interaction with communities.

The "community-based" innovative developing model is to improve overall attraction of rural lifestyle in the aspects of economy, culture, society, etc. A systematic network is formed among the rural innovation hubs, learning from each other and sharing resources, to produce a combined function.

Linked with rural innovation hubs is "lifestyle experience center" established in urban areas. Among the experience centers will establish a dynamic cooperative network, keeping close connection and communication with the cooperative network of the innovation hubs, to materialize related products and services through traditional Chinese culture and healthy, fresh and natural lifestyle in rural areas. The cooperative network composed of innovation hubs and experience centers support each other, covering urban and rural areas, push forward the interaction of the whole territory, in order to realize mutual infiltration in aspects of culture, economy, social personnel, etc, obscure boundary between urban and rural areas, and finally achieve the goal of balanced development.

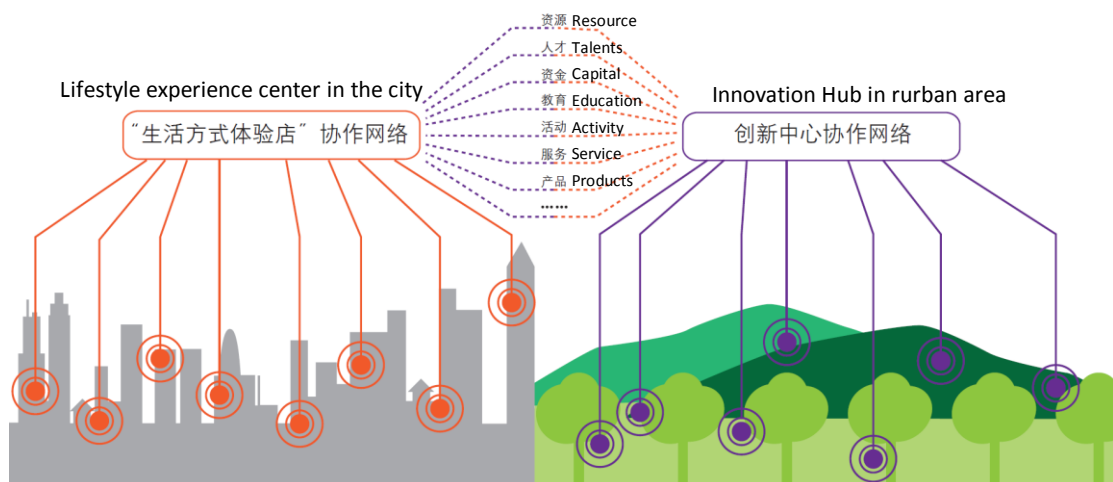


Figure 3-3 Network between city and rural (Studio Tao)

It is rather difficult to build such a cooperation system involving numerous items by individuals, single organizations or companies alone. Therefore, only on the basis of regional features and local cultures, in addition to cooperation with people

and organizations from various fields and backgrounds, could explore all kinds of possibilities of sustainable development to the utmost, bringing into play its potentials. Nowadays, society tends to be flattening and the world becomes smaller, besides, individuals or organizations can connect to the whole world by means of fiber and internet, accessible to people all over the world regardless of color, gender, religion and race, and can also cooperate and compete with different people, companies and nations throughout the world, which will become main method to promote the development in the 21st century.

In this sense, framework of innovation community network will be an important guarantee of rural interactive systematic construction. The cooperation system will be completed by innovation communities from various fields and backgrounds with multi-industrial, interdisciplinary and cross-cultural cooperation, based on which to establish an innovative platform integrating innovation, technology and industry. On this platform, Innovative Communities can deal with a wide range of systematic issues on sustainable development at the same time, integrate rural resources, explore market opportunities, and attract talents and capitals, in order to promote the rural construction of new economic model, new lifestyle and new living environment.

### 3.2 Innovation Hub

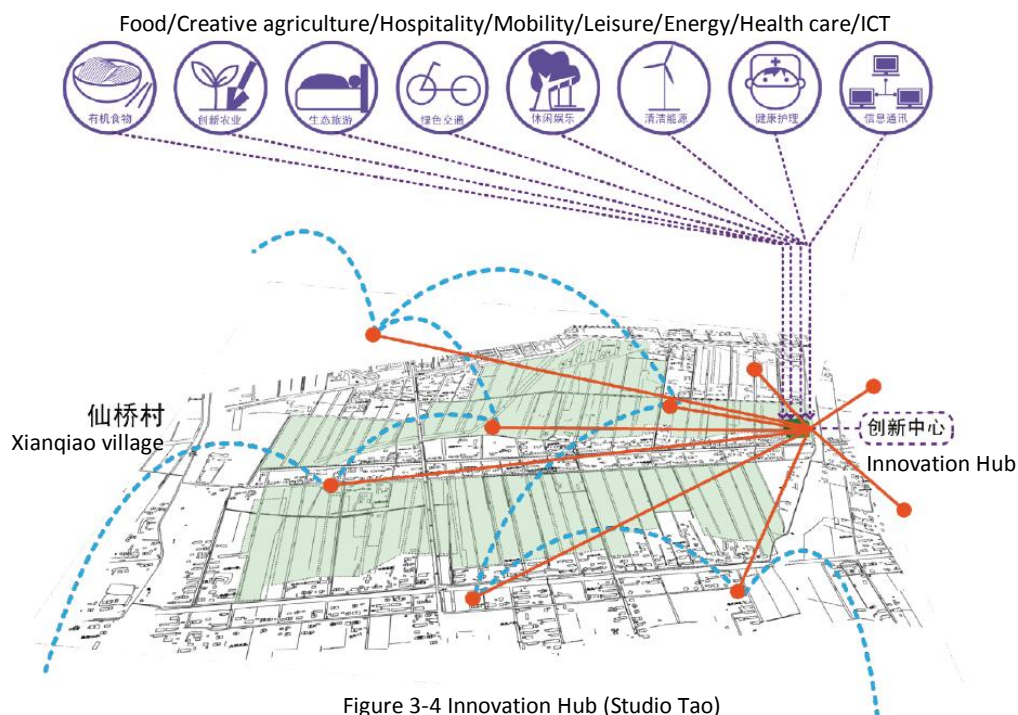


Figure 3-4 Innovation Hub (Studio Tao)

Innovation hub in village is a multifunction space based on local features.

According to local potential resources and social culture characteristics, the innovation hubs are using design thinking to develop a serial of connected projects, build interaction and cooperation between different communities, and become the connecting point itself. So that it “incubate” and demonstrate a new economic model.

In this hub, creative community who come from different backgrounds, will work together to form a network that connects and propels knowledge, culture and resource exchanges between urban and rural. Innovation hub will continuously provide products and services which represent rural healthy, leisure lifestyle in order to improve overall attraction of rural lifestyle and life philosophy in the aspects of economy, culture, society, etc. Meanwhile, a systematic network is formed among the rural innovation hubs, learning from each other, sharing resources, connecting with “lifestyle experience shop” in city, to push the development of whole territory.

Design Principles for the Hub:

- Small: scalable unit, human-centered point
- Local: integrated with village input and context
- Open: open to interaction with outsiders
- Connected: exchanging knowledge, skills, services and products
- Sustainable: managed and maintained by the innovative community

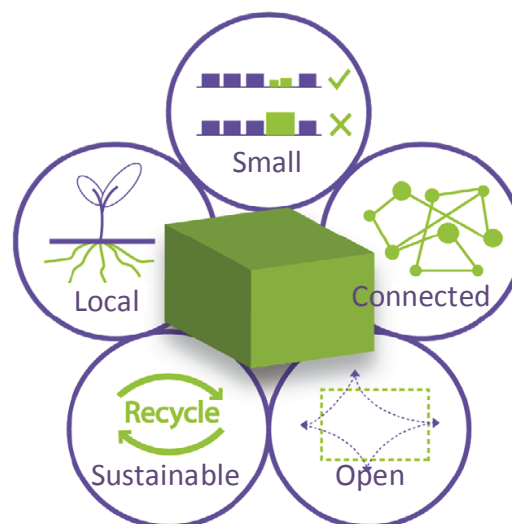


Figure 3-5 Design principles for Innovation Hub (Studio Tao)

The first innovation hub is under construction in Xianqiao village in Chongming. It's a small building with three floors. The entire outside wall of ground floor can be opened to outside nature space. And the main function is kitchen, dining room and a



open space for exhibition, communication and activities. Because kitchen is a very important activity centre in traditional rural lifestyle, so the open kitchen in the hub will be the centre which connects other function area.



Figure 3-6 Master plan of Innovation Hub (Studio Tao)

The first floor is office space which can be rented by other companies for working, and some public computer rooms for everyone to study, work, and share information. The second floor is living space with 6 separate rooms. The whole building is covered by wireless in order to keep connection and communication with outside world.



Figure 3-7 Master plan of Innovation Hub (Studio Tao)

The innovation hub is a centre for communication and interaction, which opened to local villagers and all other people from Shanghai or other places.

## **DIGITAL PLATFORM DESIGN RESEARCH FOR CHONGMING XIANQIAO INNOVATION HUB DESIGN**

### **4.1 Research model of digital platform for Chongming Xianqiao innovation hub**

Learning from the methodology of Nutrire Milano project, and localized it in the Chongming context, a research model of digital platform for Chongming Xianqiao innovation Hub is the proposed.

In this chapter, the design research part is introduced: type of digital platform\promotion mode\ICT used in the project and the design framework of the project.

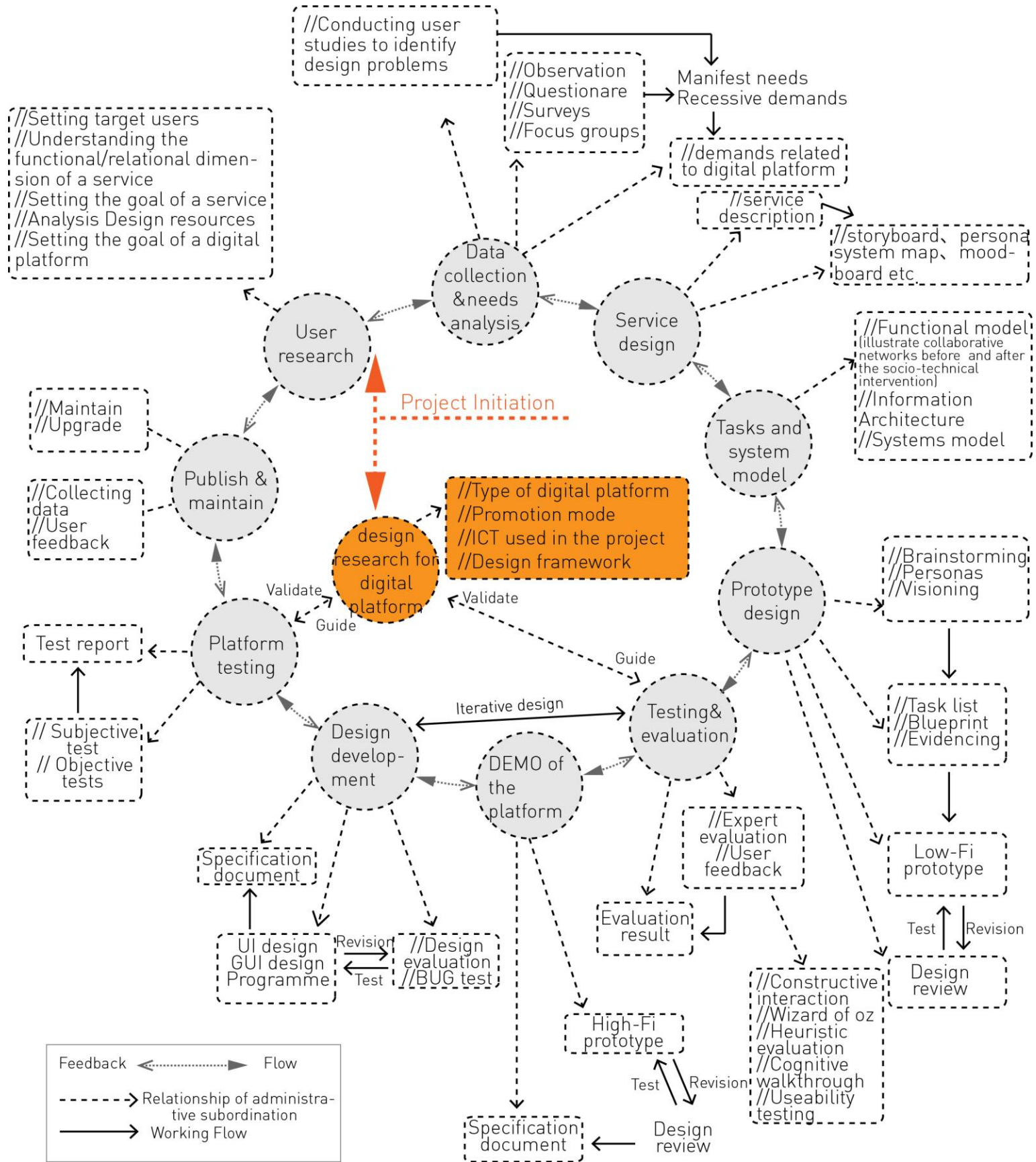
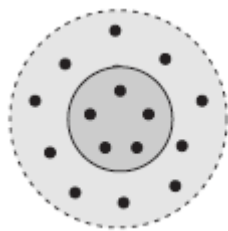


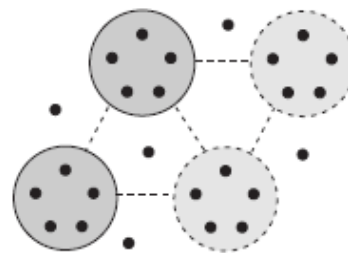
Figure 4-1 Research and design model of digital platform for Chongming Xianqiao innovation Hub

## 4.2 Typology of digital platform for Chongming Xianqiao innovation hub

According to the typology of collaborative service on digital platform (table 2-3), we can find that basically speaking the typology of digital platform of innovation hub is somehow similar to the type 3. Cause in this project, Studio TAO play a core rule here, but the other rules of project (such as farmers, NGO, academy etc) is not only connected by the weak tie as the type 3 proposed, but similar to what type 6 proposed, which means, they are network of tightly knit and loosely knit groups.



Type 3 A tightly knit group(s) and networked individuals



Type 6 A network of tightly knit and loosely knit groups

Thus, a new typology is proposed here. In this model, studio TAO play a center role and surrounded by tightly knit and loosely knit groups.

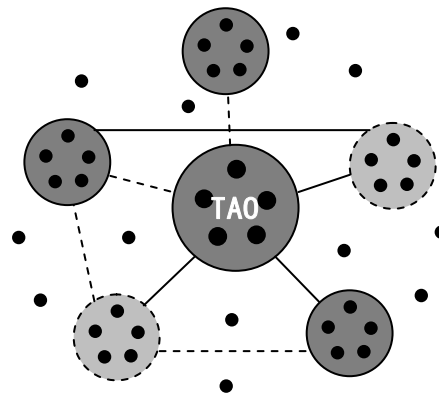


Figure 4-1 Co-service on digital platform of innovation hub

According to the network theory (Halpin and Summer 2008), a network with few hyper connected nodes, hubs, and a long tale of less connected nodes, is likely to be more stable and resilient in turbulent environments. Successful networks naturally evolve several or many important hubs having redundant functions and roles. Then, social motivation, the visionary intention to impact social and political patterns, is likely to be a distinctive point of the hubs: actually motivation is a

powerful driver that pushes nodes to constantly activate and test initiatives that make them evolve as hubs (Drayton 2010, Meroni 2007), and to move people in the name of ethical reasons.

For both Italian and Chinese projects, the network organization resulting from the connection of the specific services into larger patterns, is taking the shape of a system with diffused hubs and a long tale of nodes. Hubs have a multifunctional identity, as they play the role of operational support for the businesses gravitating around them, implement different kind of synergies and result from the convergence of social and human energies. Nodes perform mainly specific roles and benefit from few synergies with few similar identities.<sup>8</sup>

But sometimes in some project, the core role of the network will be switched.

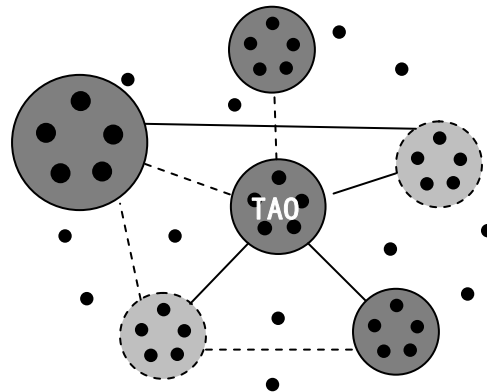


Figure 4-2 Switch of core role

And in different period, the model will be gradually changed.

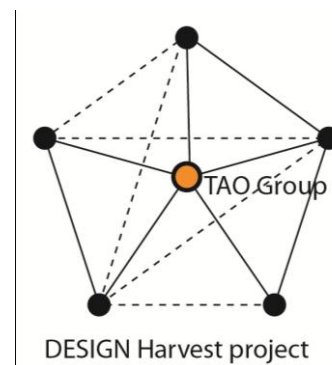


Figure 4-2 Beginning period 2008.9-2009.6

In the beginning period, there are only several groups take part in our project, TAO plays a core role, and other members (such as Tongji University, DESIS network etc.) are all connected to Studio Tao by strong ties.

<sup>8</sup> Milano and Shanghai: Agriculture is always greener on the edge of the town, services to create local food systems ---- Anna Meroni, 2010

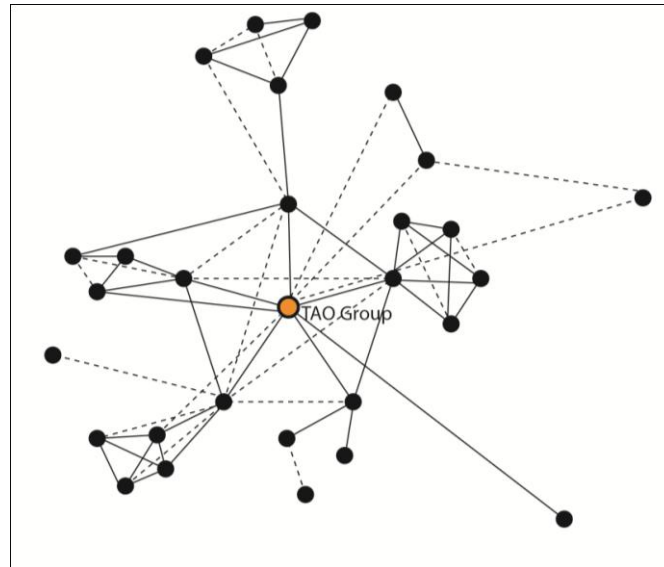


Figure 4-3 Develop period 2009.6-2010.6

With the development of the project, our partners bring us some new groups. Take DESIS<sup>9</sup> for example, it brings us DESIS-ITALY, which let us have chance to know Studio DIS-INDACO and the Nutrire Milano project.

On the other hand, our successfully held event done a great promotion job, which also bring us some new friends.

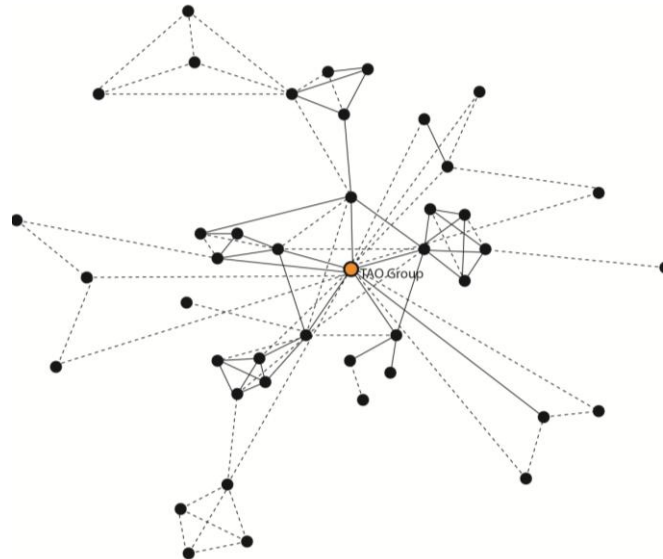


Figure 4-4 Mature period 2010.6-2012.10

In this period, more social media are used as promotion tools, and the network

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<sup>9</sup> DESIS has been founded in Italy and sub-networks (DESIS-Local) have been created - first in China and Brazil and then in the United States, Colombia and Africa. Each sub-network connects primarily local design schools but also other institutions, companies and nonprofit organizations around local projects, innovative teaching and research.

become more complex. These social media let the public know more about the project.

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Figure 4-5 Home page of the project


(<http://www.designharvests.politecalab.org/zh>)

# DESIGN HARVESTS 设计丰收

CHONGMING SUSTAINABLE COMMUNITY PROJECT 崇明可持续社区项目

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The Chongming Sustainable Community Project explores the relationship between the urban and the rural, considering those realities as complementary to maintain their identities, but promote exchanges of resources.




**28**  
3月

## black and white chongming photos

yesterday afternoon i got from the shop the scanned pictures i took in chongming the first time we went there to plow the land.

on my flickr page you can see the whole set.. now, i'm not a good photographer, but sometimes I can be quite lucky :)

<http://www.flickr.com/photos/8623805@N08/sets/72157626368229960/>



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**23**  
3月

## weekend of social media – 社会性媒体周末




Figure4-6 Blog page of the website

(<http://www.designharvests.politecalab.org/zh/blog/>)



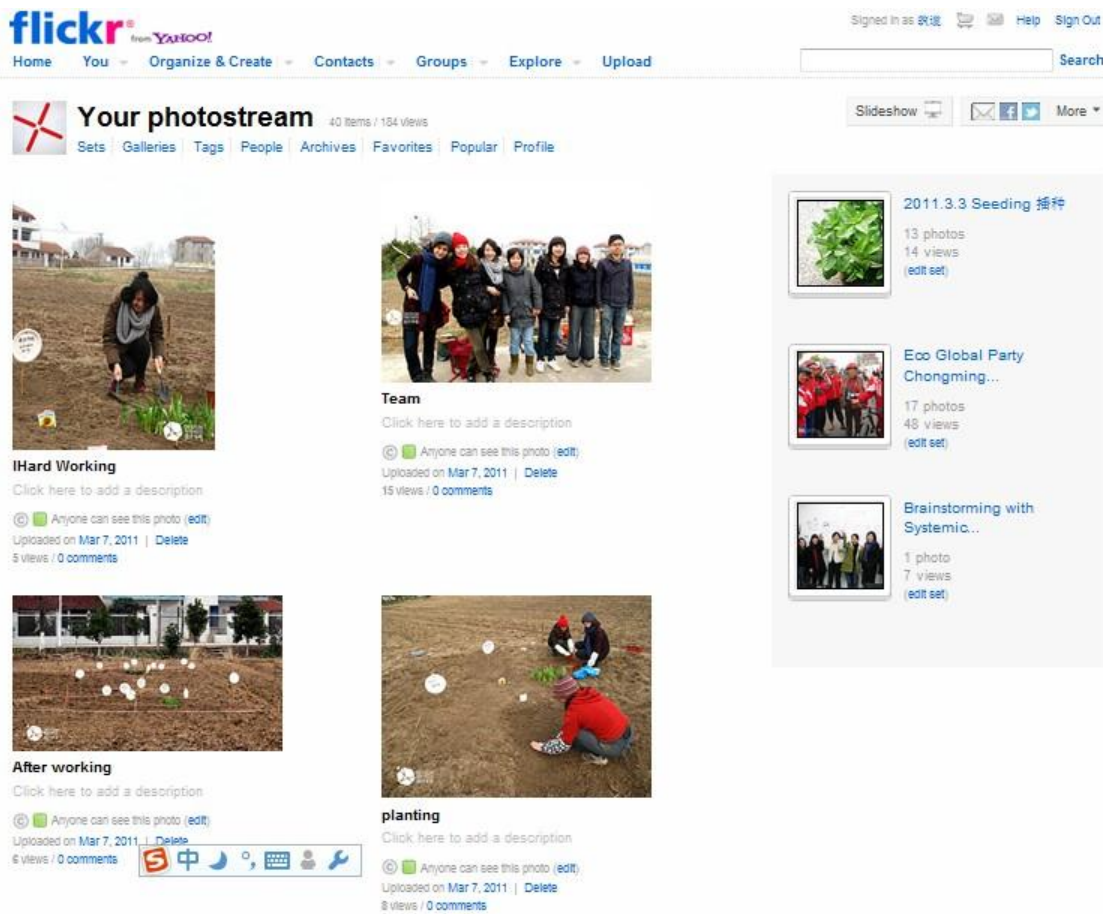


Figure4-6 Studio TAO on Flickr



Figure 4-7 Studio TAO on Sina micro-blog



Figure 4-8 Studio TAO on Douban

### 4.3 Promotion model of digital platform for Chongming Xianqiao innovation hub

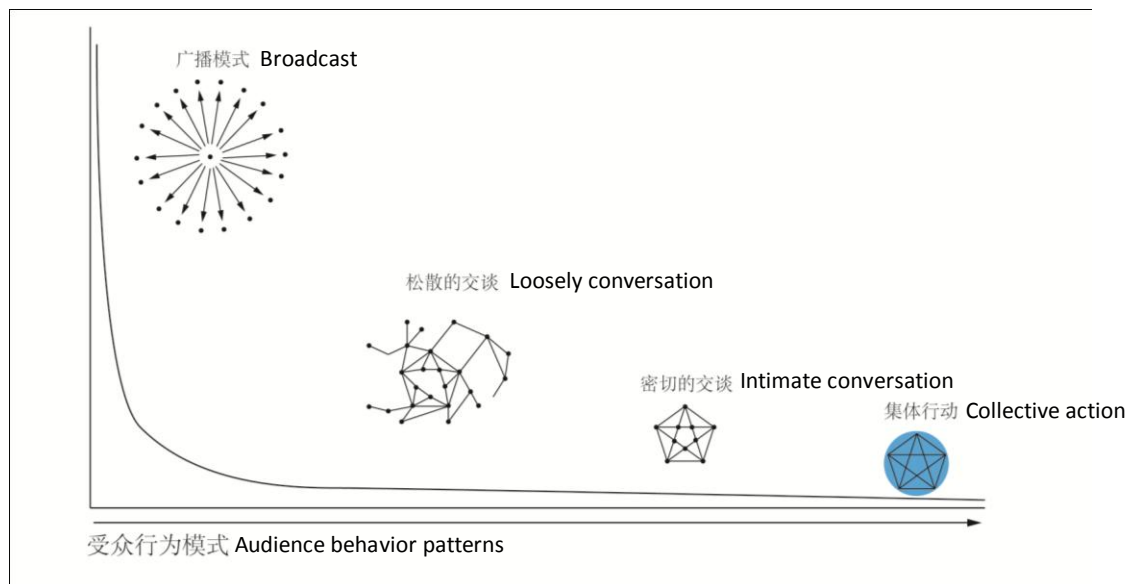


Figure 4-8 Relationship between audience scale and conversation patterns<sup>10</sup>

Clay Shirky proposed a model about the relationship between audience scale and conversation patterns of blog in the book <here comes everybody The power of organizing without organization>. In this model, to the left is the amount of people

<sup>10</sup> Here comes everybody The power of organizing without organization ---- Clay Shirky

who receive information from Blog. To the right is the long tail of blog, the audience could do collective actions together.

Inspired by this model, I try to match the groups who participate in DESIGN Harvests project with the audience pattern.

Table 4-1 Different conversation pattern of DESIGN Harvests project's participators

<b>Conversation pattern of social media</b>	Broadcast	Loosely conversation	Intimate conversation	Collective action
<b>DESIGN Harvests project's participators</b>	The public	The potential participators and partners	People or organization who have intimate relationship with DESIGN Harvest project	Participators or partners of DESIGN Harvests project
<b>Social connection</b>	Latent tie	Weak tie	Strong tie	Strong tie

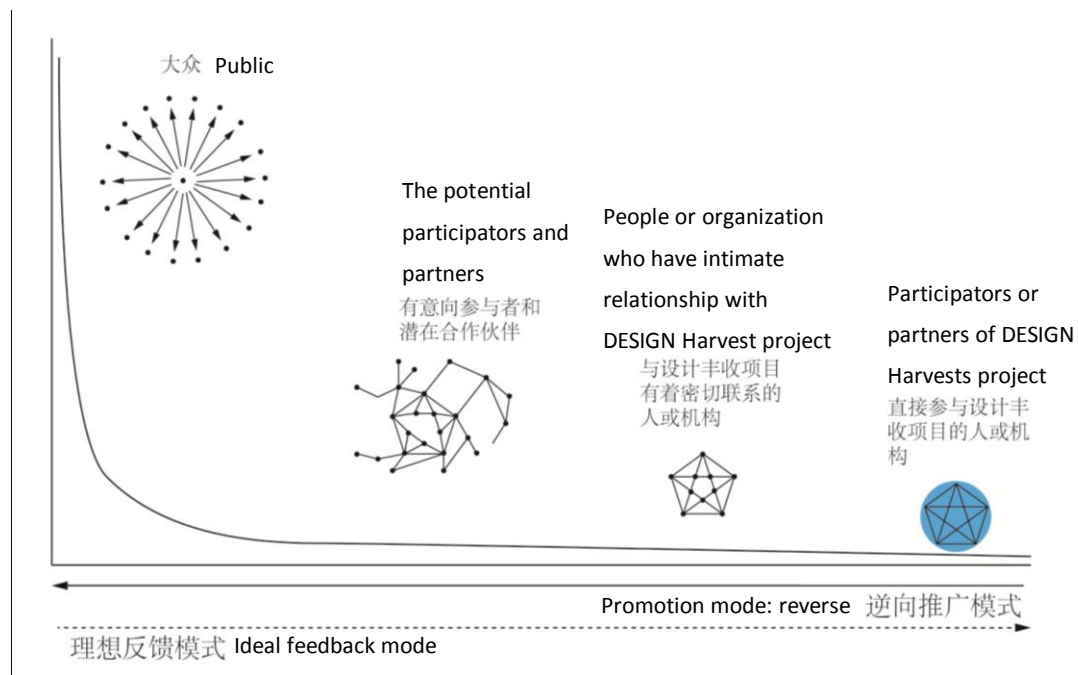


Figure 4-9 Promotion mode and feedback mode of DESIGN Harvests project

As we can see from the model, the promotion of the project should be start from the long tail, that is, we start the promotion from the participators and partners. Similar as other co-design project, we start the promotion from the collective action groups, i.e. form the tightly knit group(s) to loosely knit groups, then the latent ones.

## 4.4 ICT used in digital platform of Chongming Xianqiao innovation hub project

Table 4-2 used ICT in Studio Tao

<i>ICT used in the core groups (Studio TAO)</i>		<i>ICT used in promotion</i>
popular media	Face-to-face meeting (Team's weekly meeting, knowledge sharing) Voice call Text chat(e.g. SMS) Email GOOGLE mail group FLICKR SNS(Douban) Home page of DESIGN Harvests	FLICKR SNS(Douban) Home page of DESIGN Harvests
new media	Video conference IM (e.g. MSN,SKYPE etc) Micro-blog Mobile micro blog	Micro-blog Mobile micro blog

On the table4-2, I list the ICTs that we are using now, compare them with the ICT used by the co-service cases (Chapter2.1.3), we can find how to improvement it.

Table 4-3 ICT used by co-service cases

<i>ICT for social network (social media)</i>		<i>ICT for solution</i>
popular media	<b>Face-to-face meeting</b> <b>Voice call</b> <b>Text chat(e.g. SMS)</b> <b>Email</b> <b>GOOGLE mail group</b> <b>Blog</b> Wiki <b>SNS(Douban, FLICKR)</b> Internet forum Newsletter RSS feeds Social libraries Social bookmarking	E-commerce or E-donation Map Search Shared Calendar user rating
new media	Video conference IM (e.g. MSN,SKYPE etc) Push mail <b>Micro-blog</b> Mobile micro blog Mobile blog Podcast	

In the table above, the ICT have been used now is in bold type.

How to attract and enabling people is the main problem we are facing now, because so far, our project is lack of feedback.

#### **4.5 Design framework of this project**

After having identified in the research part different promising fields of action in the local context (food, creative agriculture, hospitality, mobility, leisure, energy, healthcare, ICT), a system of small projects, each operating in one or more of these fields, has been developed, to face specific needs of different targets. All these projects are in some ways connected, and have relevant effects for the future of the local community of XianQiao village.

The Innovation Hub is the central structure aimed to coordinate, integrate, manage and promote all these small services. When this system is exported in different contexts, to regulate the macro-scale system holistically towards a sustainable direction, local Hubs, each with specific characteristics and a clear vocation, coherent with the territorial identity and the scenarios designed, are the nodes in the more global framework of networking projects.

This system makes possible the so-called acupuncture approach that allows the designer to work on small different micro synergic projects, producing a systemic effect.

An important role in the management of the interactions among different local contexts, and with external actors is played by the virtual Platform.

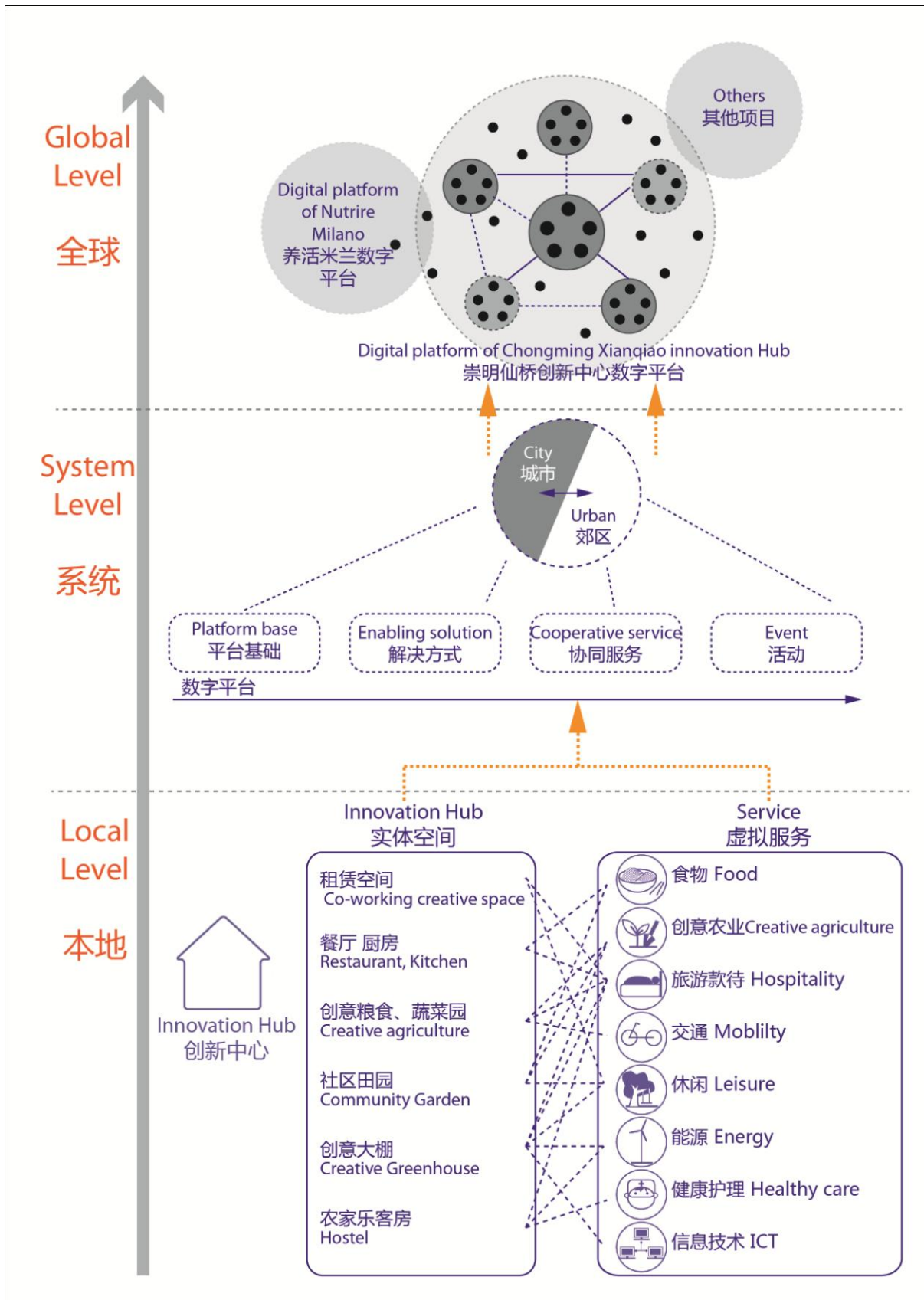


Figure 4-10 Design framework of DESIGN Harvests project

## **DIGITAL PLATFORM DESIGN FOR CHONGMING XIANQIAO**

### **INNOVATION HUB DESIGN**

#### **5.1 Design model of digital platform for Chongming Xianqiao innovation hub**

In this chapter, the design part of the digital platform of Chongming Xianqiao innovation hub is introduced: User research\Data \ICT used in the project and the design framework of the project.

In the service design part, mass of service design tools<sup>11</sup> are used, including service image, personas, system map etc . All the service design part is divided into 4 parts: co-designing, envisioning, testing & prototyping and implementing. Here in this case, only the first 3 part are been practices.

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<sup>11</sup> <http://www.servicedesigntools.org/>

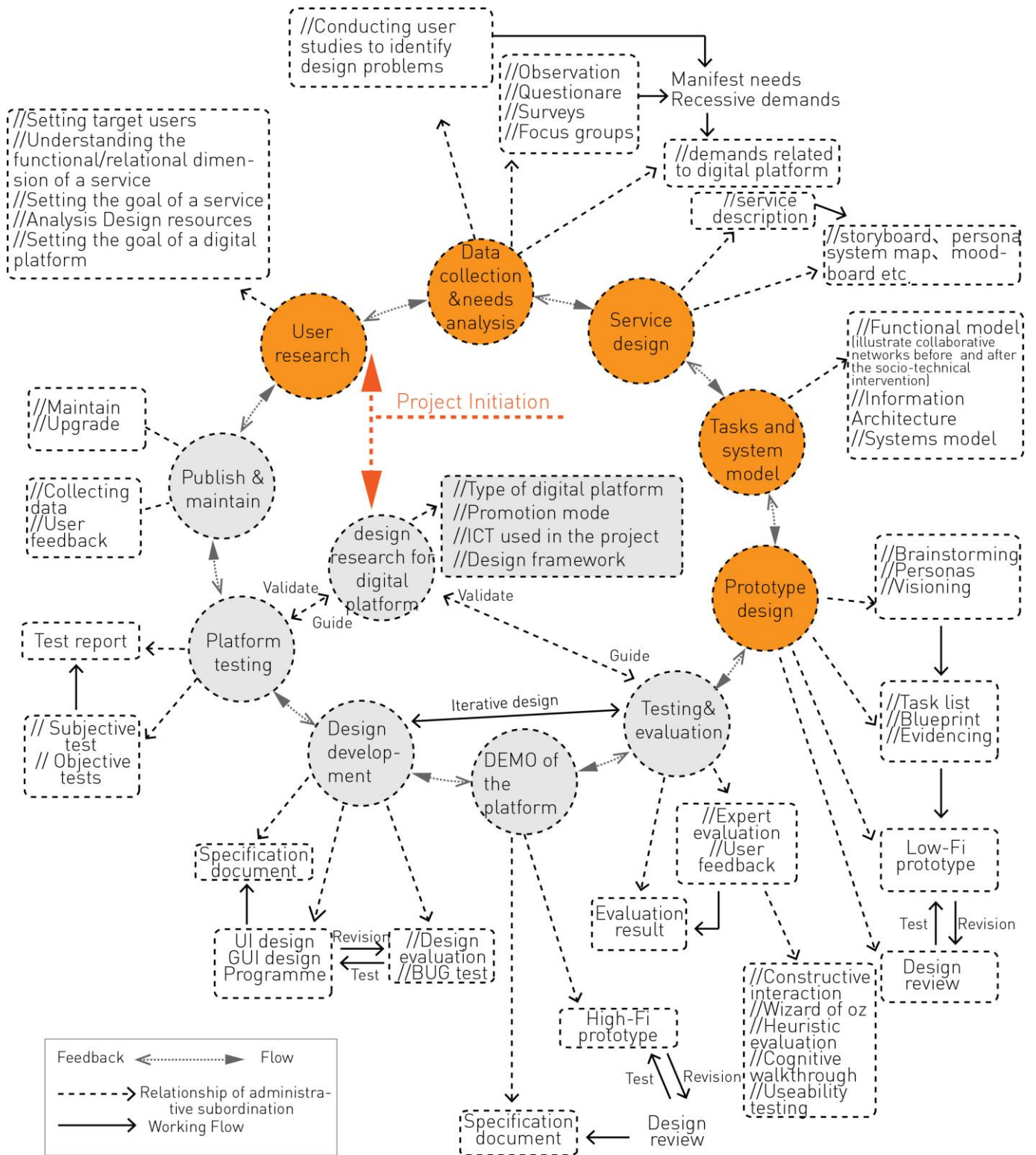


Figure 5-1 Research and design model of digital platform for Chongming Xianqiao innovation Hub



## 5.2 Programming

At the programming part ,we set up our target user and analysis their character、social and technological needs.

Table 5-1 Target users of digital platform of innovation hub

Target User	character	social and technological needs
Youth of Chongming	Natural lifestyle; Daytime marked by sun	Better education; More entertainment; More web facilities
Youth of Shanghai	Large use of resources; Lack of ecological responsibility; Western style imitation; Web addiction	Customization; Appearance; Be fashionable; Fresh and health food; Leisure time; Physical exercise
Adult of Chongming	Quiet life; Peasant culture; Thrifty life; Food and farming knowledge; Practical and craft skills; Close to nature; Healthy life; Good relations with neighbors;	Job; More Web facilities; University education More entertainment Increase economic income
Adult of Shanghai	High pressure Money (richer than the Adult of Chongming) Material goods possession Marketing victims Tied to traditions Western style imitation Large use of resources No ecological responsibility	Self achievement More personal space Health caring Committed relationship Customization and appearance
Elder of Chongming	Natural lifestyle Daytime marked by sun Cherish friendship and family	Better education(Nursing the health care) More entertainment More Web facilities and know how to use it
Elder of Shanghai	Web addiction Friendship Western style imitation Material good possession No ecological responsibility	Be fashionable Appearance Customization Fresh and health food; Leisure time;

	Large use of resources	Physical exercise More interaction with family
Enterprise	Commercial interests Social responsibility	Commercial profit Earn a good reputation Good working environment Partners Business Opportunities
Entrepreneur	Strong Enthusiasm Lack in capital and experience Excellent skills	Low-rent working space Good working environment Financial support Good network (people) Technology support
Research Institutions	Rich academic knowledge Social responsibility Good reputation Widely respected	have more practice and research opportunities Strengthen inter-institutional, institutions and social cooperation
Non-profit organizations	Social responsibility; A wealth of interpersonal resources Has extensive experience in the activities Lack of capital	Better promotion and reputation More capital places to held activites

The target of the digital platform is to meet the needs of the users, to enabling people, let them to participate in the co-design and co -service.

### 5.3 Data collection and analysis

#### 5.3.1 Data collection and analysis base on the Shanghai & Chongming residents' need

To understand what an object or a behavior means in Chinese life, what do people think, say, feel and do? Through brainstorming, five opportunity areas identified the project's themes: Slow Life, Physical Wellness, Communal Farming, Authentic Chongming and Knowledge Exchange Programs. From these themes human subjects from both Chongming and Shanghai were chosen for further user investigation. Discussion Guides were formatted for each subject, to serve as a reference for narrative inquiry. Interviews were done in pairs: one to lead the conversation and the other to take notes, record and photograph.

Table:5-2 Data collection

Potential Area	Interviewee	Topics	Answers
<b>Slow Life</b>	Professional leading a fast-paced life	Life/work balance, how to slow down, how to relieve stress?	Relieve stress; Hope to find a suitable way to slow down the urban life
	Farmer	Modernize or maintain traditional methods, aspiration for their family and themselves?	Residents who involved in t industry hope it could be "collective ownership"; Visitors is curious about the local food
	LOHAS Lover (Lifestyles of Health and Sustainability)	What does LOHAS mean to them, how do they live their LOHAS life?	Pursue a health life not LOHAS Enhance the quality of life through simple way;
	Nongjiale (Chinese for a rural farm experience) Travel Agency	What customers look for when they want to get away from Shanghai, their perceptions of Nongjiale, how do they plan their trips?	Customers want to feel they are connected with others; Customized; Customers are interest with the farmer life, and treat it as an entertainment.
<b>Physical Wellness</b>	Street Jogger	Indoor/outdoor, how and why they exercise, the role of exercise in their life, solitary or social, other fitness activities?	Need to feel capable and progressive; Seek for better experience; Get close to nature; Feel to be connected and Entertainment; Country experience
	Yoga/Tai Chi Trainer	Ideal environment for practice, why do customers come to them, what do they teach, connection with their professional community?	Exercise and keep healthy; Want fast and effective fitness results; Easy access to the gym area; Need customized fitness programs; Have social life when have Physical exercise
	Event Organizer/Sports Club Owner	Best practices, how their business developed, what kind of activities are offered, trends, how connected with customers, how do they	Hope not be impact by the part negative of urban life; Need to be feel connected Hospitality Country experience Want to switch lifestyles

		understand their customers?	
	Community Fitness organizers (For elder)	Aim of Physical exercise? Needs?	Want to reduce the burden of children; Find life goals after retirement; Entertainment; Want to feel be needed
<b>Communal Farming</b>	Consumer of health food, Farmer who offer health food	Source of food and ingredients, impression of Chongming food, what do they trust, loyalty to brand?	Need healthy food; Food security has been pay close attention to by public; People want to see food production process, to confirm its safety ; Want to spend leisure time with family
	Virtual Farming Gamer (Kaixin)	Motivation for playing, would they switch to real farming, socialization, adding reality to virtual gaming?	Needs for social life; Like share their experiences with friends ; More close to the nature
	Garden Lover	Motivation for gardening, ways of gardening, solitary or social, what do they grow?	Hope fully involved in the gardening process; Need to release; Don't want to cost too much money; share gardening experiences and achievements with friends ;
<b>Authentic Chongming</b>	Retail in shanghai (Chongming food)	Their understanding of organic food	Customer is pursuit of healthy food not organic food; Natural is healthy; Like to purchase local food
	Business Manager of Chongming Attractions (Forest Park and Nongjjiale near the Dongtan Wetlands)	How do they understand their customers, do they collaborate with other island attractions, how do they promote their service or brand, how could they improve their customers' experience?	People want to close to nature; They do not want to pay a lot for travel to Chongming
	Retail Chongming Store Salesperson	Customer motivation, best practice, what do they sell, what sells and what doesn't,	Customer are very concerned about food quality; Customers are interested in traditional Chongming food;

		what do customers care about before buying a Chongming product, how do customers talk about the store, purchasing experience, product journey?	Delivery service; New product need to have a 1-2 month promotion period to obtain the customer's trust.(Offer free sample)
<b>Knowledge Exchange Programs</b>	Local Residents:	What do they want to learn, what do they want to share, what are their aspirations?	Young people in the village yearning for a different life; The old longing for a better life, but don't want to move out of rural areas; A healthy diet; Increase income while maintaining the traditional rural way of life.
	Village Leaders:	What are they promoting/educating, what is the best way to engage village residents in education, what is culturally valuable in the village?	Seek for opportunities to increase income; Proud of Chongming's good air and environment; Wish to retain a small; Keep amount of farmland while developing other industries
	Cooking School Owner	What is their customer motivation, what works and doesn't work, how has the business developed, what is their business vision?	To find a way to balance work and health; To find their own groups; understand the local culture; thorough understanding of healthy food; Good service is very important; People want to have sth in common

All the interviews have been downloaded and the information has been shared with the rest of the team; the main key points for each opportunity area have been summarized. Common ideas and divergences have been grouped, and two big key areas that reflect the potential of Chongming as identified by users have been synthesized: "Fresh Food" and "Natural Wellness".

Most of the users are in fact concerned about the food quality in Shanghai, perceived as unsafe, and see in Chongming a good environment where to grow healthy food; moreover, traditional recipes are considered an interesting heritage of that territory. Slow down for a short period the chaotic lifestyle of the city is also a necessity for Shanghainese users that seem to be interested in experience the

natural life of the island for a relaxing experience.

On the other side, Chongming villagers that have been interviewed are very proud of the food and air quality of the island; these two elements are seen as resources, even though they seemed to find very hard to imagine how rural life can become interesting for city people.

### 5.3.2 Data collection and analysis base on innovation hub

As we mentioned before in chapter 3, the first floor of the hub is office space which can be rented as co-working space.

“Co-working is the social gathering of a group of people, who are still working independently, but who share values, and who are interested in the synergy that can happen from working with talented people in the same space.” (Wikipedia) Co-working is not only about the physical space but initially and mostly about establishing the Co-working community first.

Most of the co-workers are in their mid-twenties to late thirties. They work mainly in creative industries and new media. They normally live pretty close to the workspace, but they also travel a lot. That’s why they are generally interested in co-working “visa”, which can allow them to use other co-working space in different cities. Co-workers prefer open, shared working areas with smaller closed rooms for private conversations.

When asked what co-workers love about their co-working space, an overwhelming majority answer was friendly atmosphere and enjoyable working environment.

In the innovation hub, people who want to escape from the noisy metropolis can rent a desk, alone or together with friends or co-workers at the Innovation Hub, for one or more days, or choose a more flexible subscription, like the “5 weekends package” or the “20 days package”.

In this case users can choose to purchase a more comprehensive experience by choosing the activity plus accommodation packages.

In the Innovation Hub Co-working Space users can find electricity, internet connection, free tea and water and can also use the service available at the cafeteria and dining room. Our garden is also open to everyone, so users can walk around, visit our greenhouse and lay on the grass for a relaxing break.

Table 5-3 Packages of rent a desk in the innovation hub

	PRICE(RMB)	DAYS	PRICE/DAY
Day Pass	70	1	70
1 Month Subscription	800	30	26.67
5 Weekends package	600	10	60
20 days package	1000	20	50

Beside the ones organized by DESIGN Harvests, workshops held by creative companies, associations or schools can take place in the Hub's creative co-working space. These workshops can be private or open, and participants can subscribe and pay on digital platform, where users can also find a calendar of events.

Table 5-4 Packages of hold a workshop in the innovation hub

	Price(RMB)/Person/Day	ROOMS
Up to 15 people	50	1
More than 15 people	30	2/3
Plus 300RMB-fixed price for organize a workshop		

Table 5-5 list of possibilities in the innovation hub

## List of possibilities

<i>Coworking</i>		<i>Hospitality</i>	<i>Food</i>
<i>Workshops</i>	<i>Rent a desk</i>	room rental	breakfast
1 day workshop	1 day pass		lunch/dinner
weekend workshop	monthly subscription	<i>Mobility</i>	caffeteria
1 week workshop	5 weekends package	bike sharing	
	20 days package	shanghai to Chongming	
		car sharing	

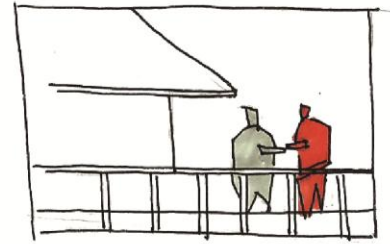
## 5.4 Service design

### 5.4.1 Food delivery and countryside vacation service

LIU, 23, student  
Shanghai  
Like: Social life, Health life



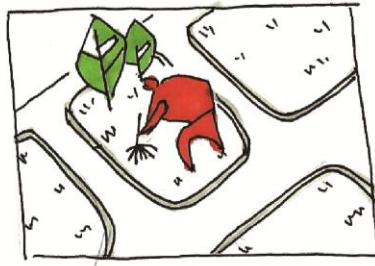
Booking travel service online



Arrive the HUB



Pick up experience



Farming experience

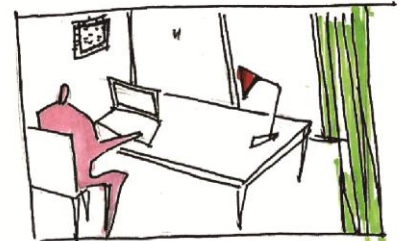


Feedback and share

Lu, 30, White collar  
Shanghai  
Like: Surf the net, Cooking



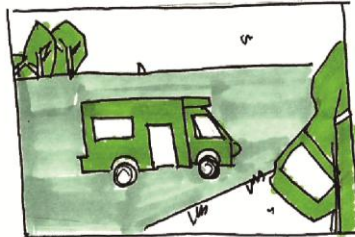
Friends introduce food delivery service



Booking food delivery service online



Pick up by local people of chongming

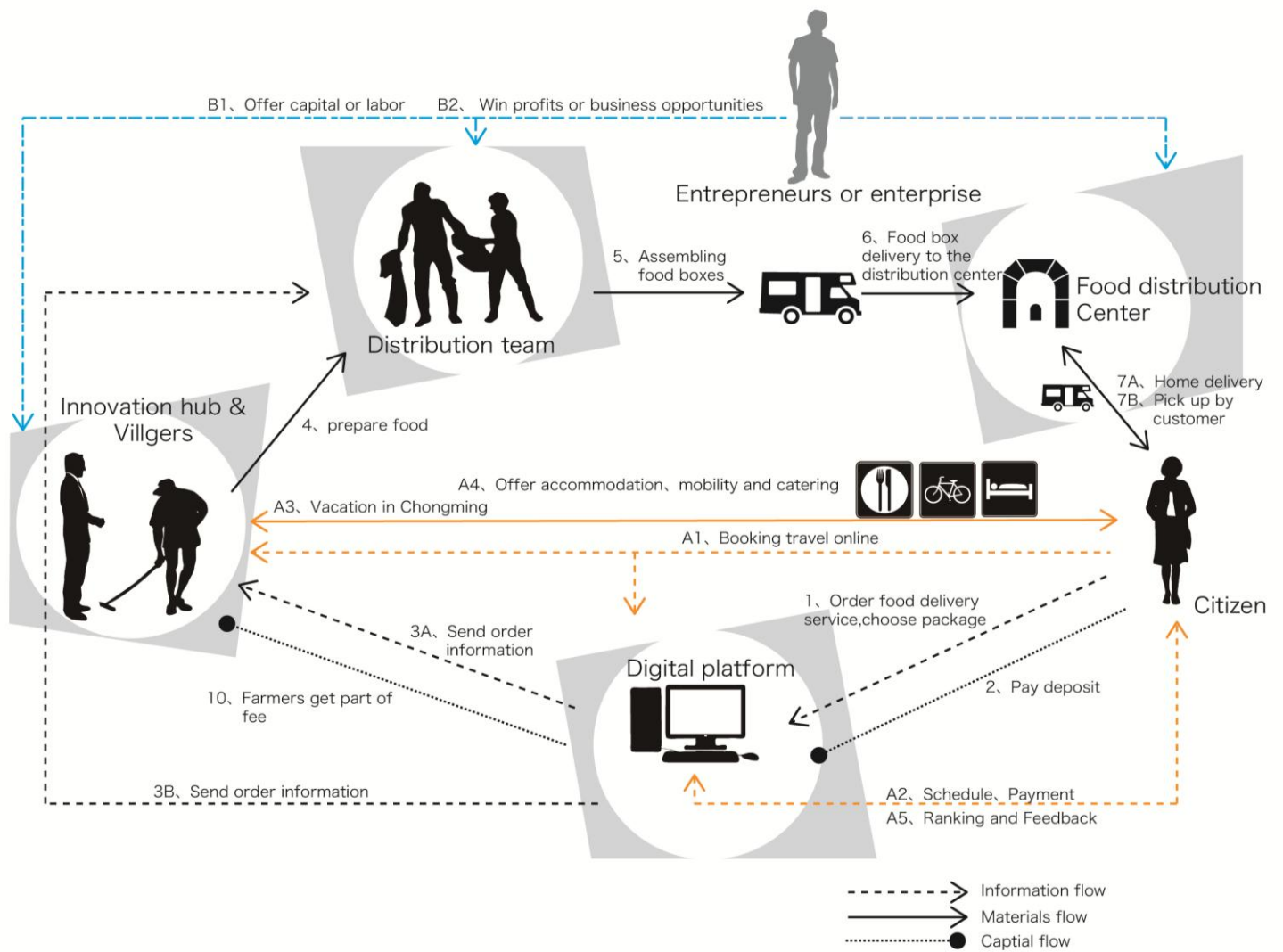


Food delivery



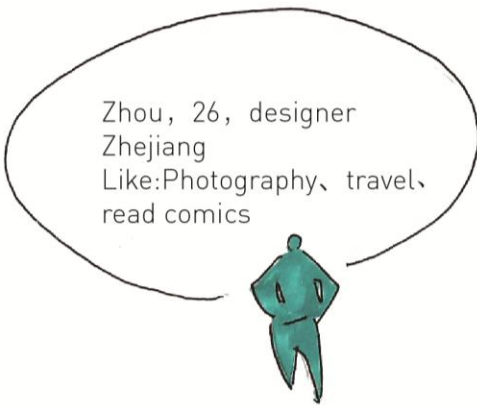
Food delivery



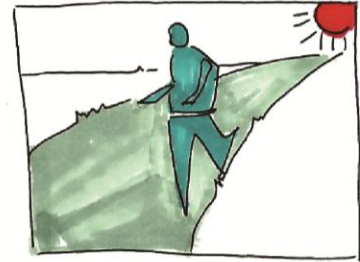


### 5.4.2 Co-working space renting service

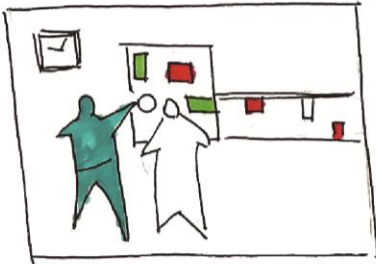
Zhou, 26, designer  
Zhejiang  
Like: Photography, travel,  
read comics



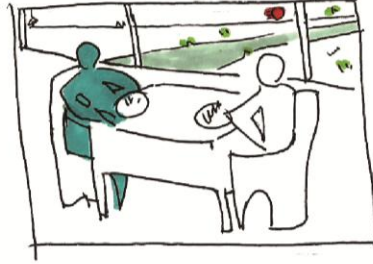
Rent a co-working space online



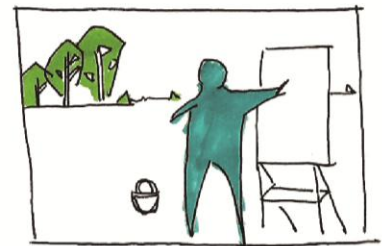
Jogging in Chongming



Design session with co-workers

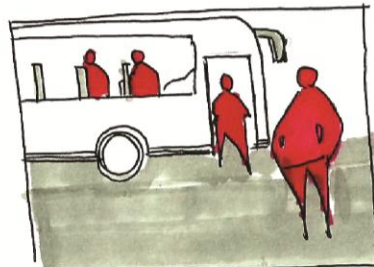


Have dinner with friends in HUB

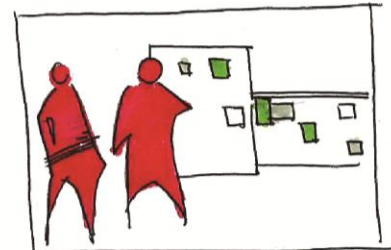


Inspired by nature

Workshop held by studio A  
and school B



Arrived Chongming



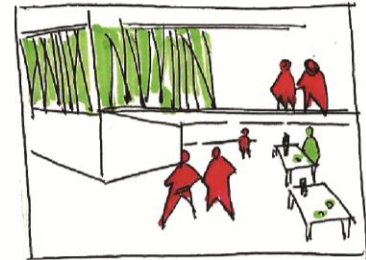
Design workshop



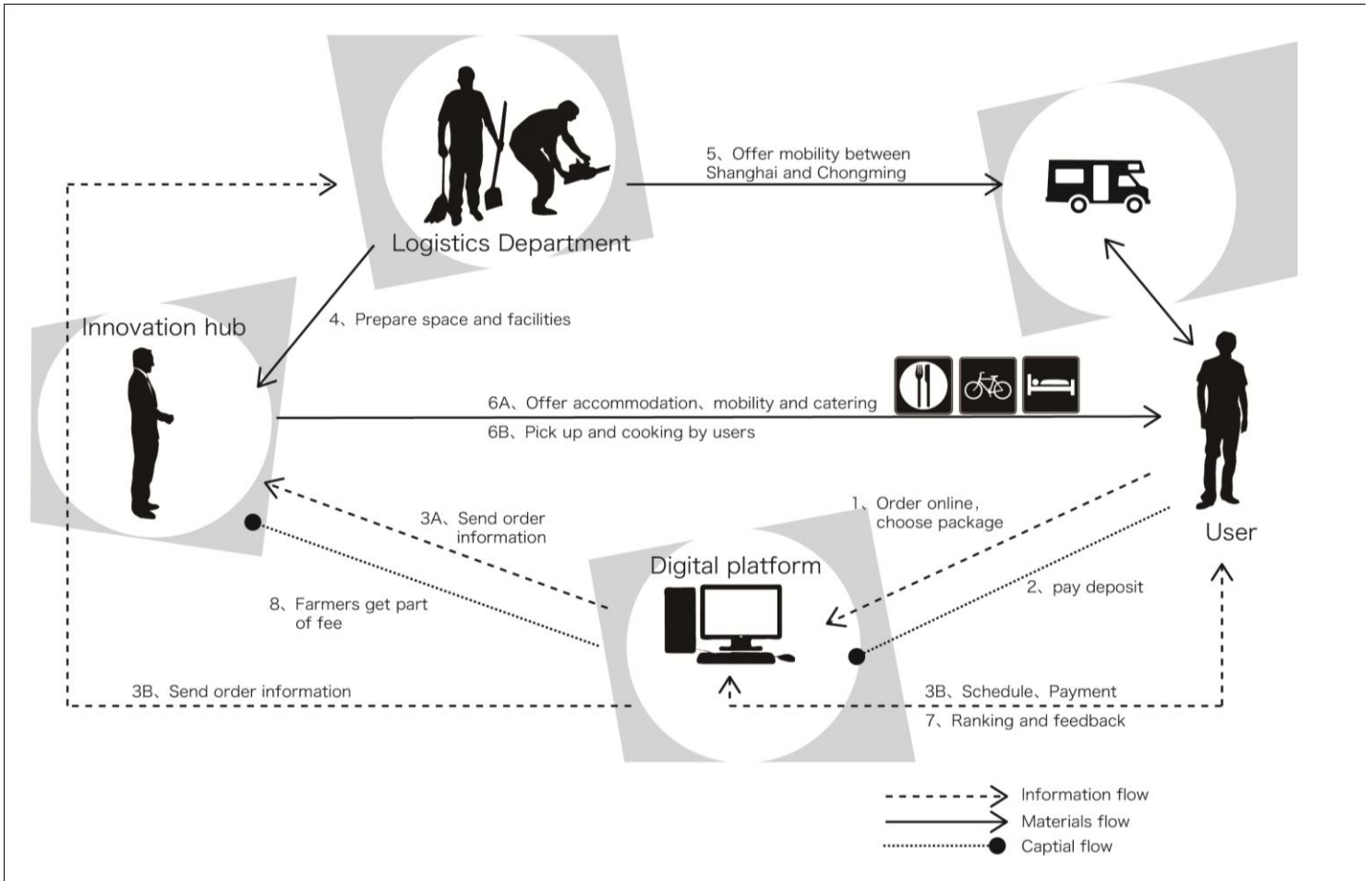
Pick up experience



Accommodation

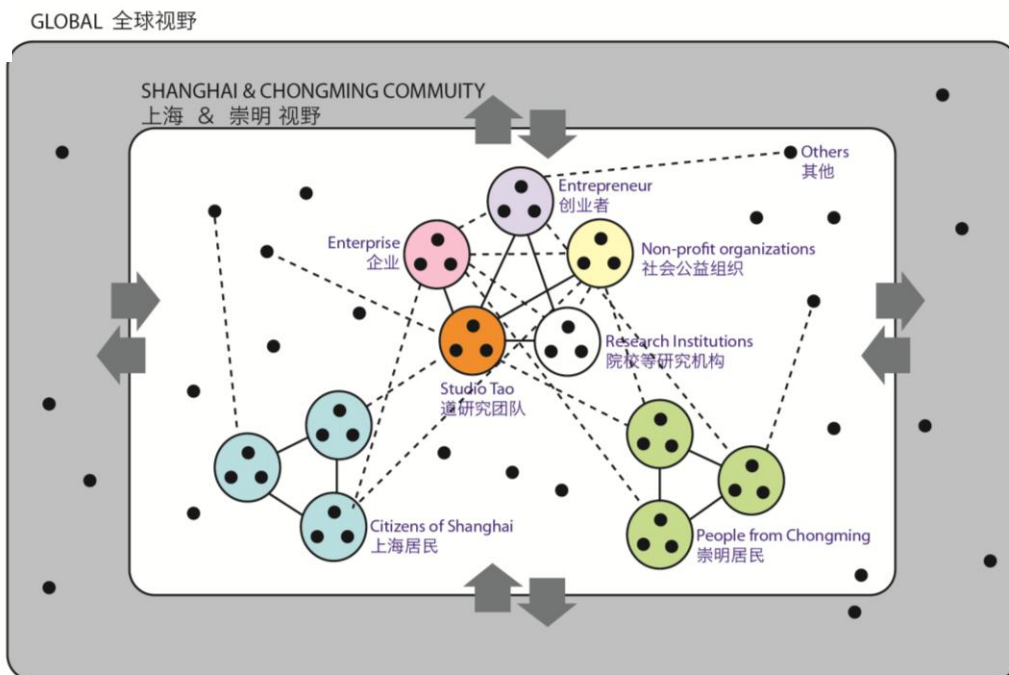
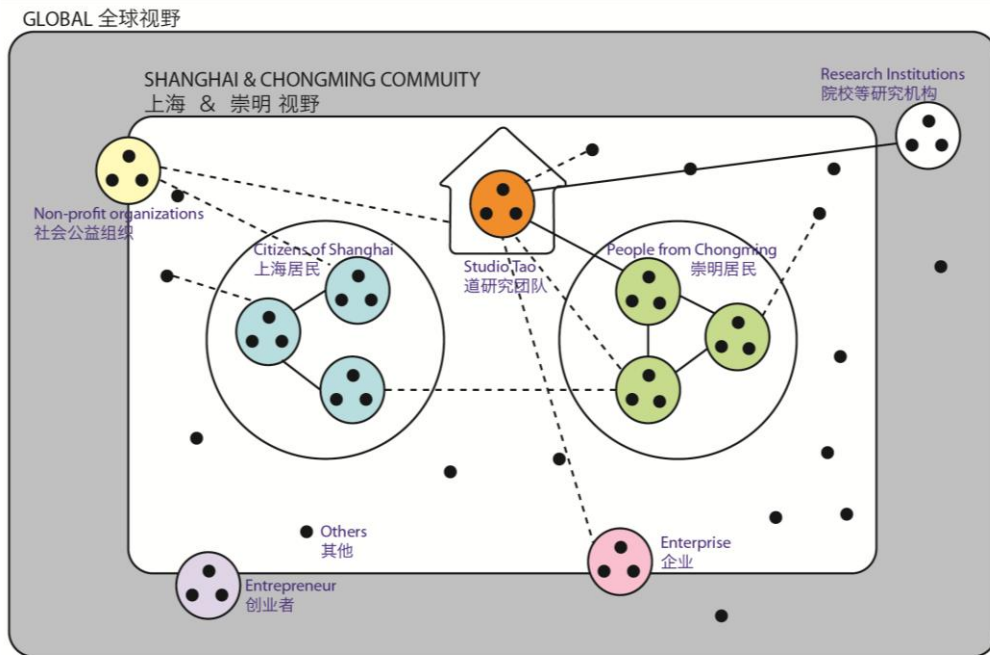


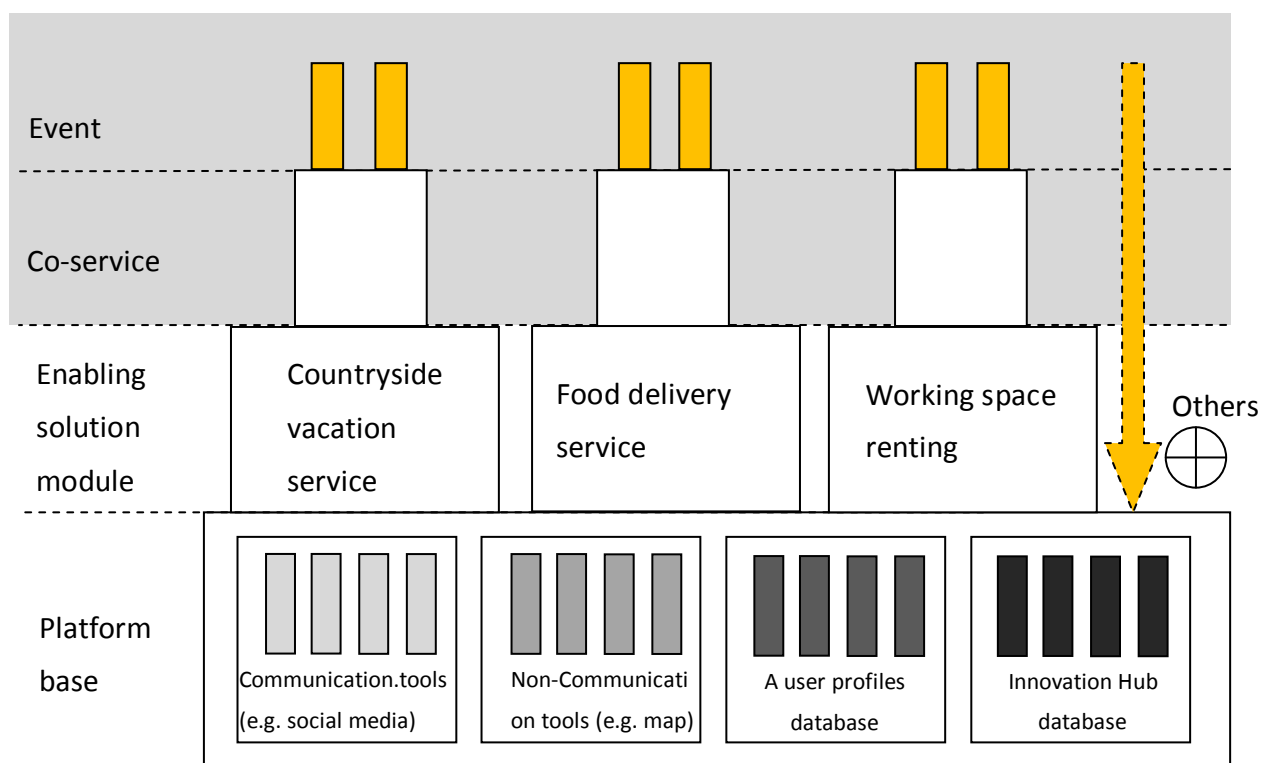
Party after presentation



## 5.5 Synthesis

### 5.5.1 Functional model



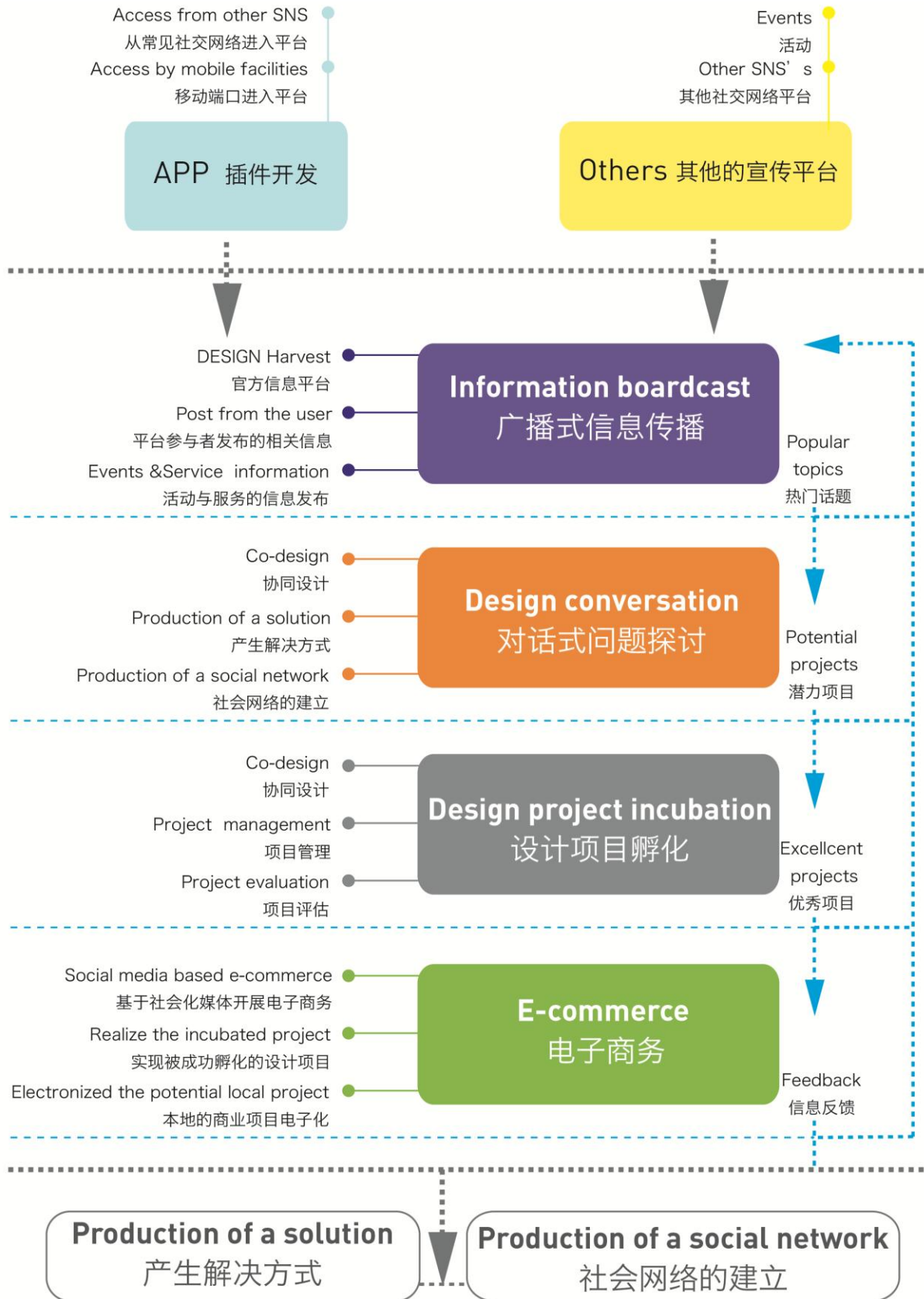


### 5.5.3 System model

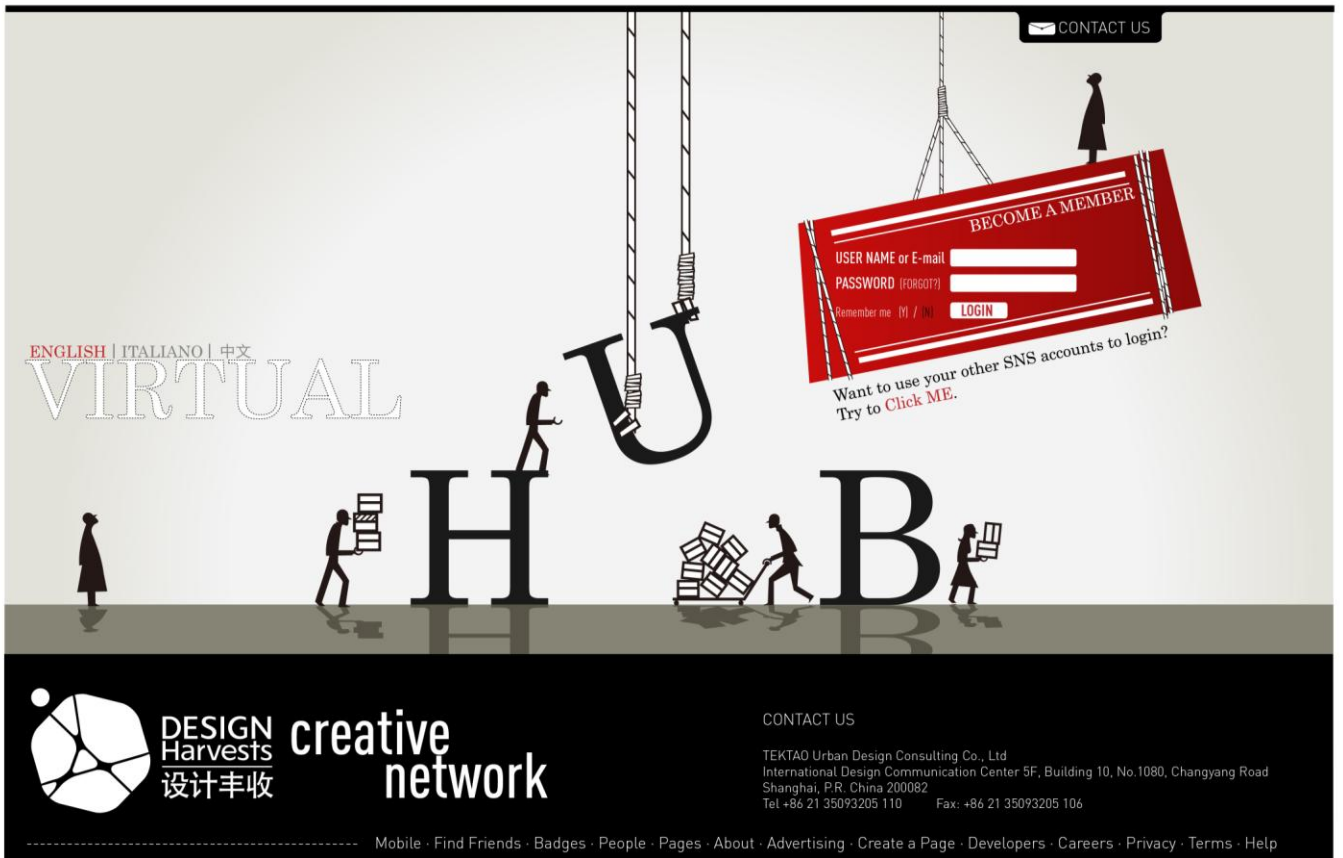
表 5-8 崇明仙桥创新中心数字平台概念设想（作者自绘）

平台功能	平台内容概述	使用步骤描述	可借鉴案例
广播式信息传播	以单项传播为主的广播式告知。 (其中 Studio TAO 作为 SNS 网站的成员之一, 而非特殊的独立方)	1、 其中一方进行信息发布 (包括活动、讲座、服务、项目进度等), 其他的参与者可以给予响应和反馈 2、 由此引发部分参与者可以参与对话式问题探讨和项目孵化	豆瓣
对话式问题探讨	基于 SNS 的社会创新命题下的对话平台 (其中 Studio TAO 作为 SNS 网站的成员之一, 而非特殊的独立方)	1、 参与者发布相关的话题或问题征求反馈信息 2、 其他参与者基于答案和反馈 3、 得到最高票数的答案将被“推”到最上方 4、 关注友人, 你也将会被关注。另外创立真实个人档案, 将会有可能获得更多粉丝。 5、 可以票选最感兴趣的话题和设计设想, 被评估确认为有实现价值的将会进入项目孵化 (解	Twitter、知乎、Quora

		决方式得以产生) 6、关注相似话题的 <b>社交网络得以建立</b>		
设计项目孵化	潜力项目管理和孵化平台	<ol style="list-style-type: none"> <li>1、得到较高票数的设计设想将被评估和孵化</li> <li>2、可以通过报名方式参与项目孵化</li> <li>3、将会产生项目孵化小组进行具体的项目管理工作</li> <li>4、主动接洽相关专业人才</li> <li>5、孵化过程可以选择全透明或部分公开，征集意见</li> <li>6、成功孵化后将会被实施</li> </ol>		项目管理软件： <b>Base camp,</b> <b>Redmine</b>
电子商务	基于社会化媒体开展电子商务	消费者	创业者或企业	特朗普酒店集团的 Facebook 预订服务
		<ol style="list-style-type: none"> <li>1、在社会化媒体（如微博，Facebook）中安装插件</li> <li>2、利用插件使用开展空间租赁、旅游和食物配送等服务</li> <li>3、可以通过 SNS 实时观察进度</li> <li>4、服务使用后给予反馈，可以在 SNS 上分享</li> </ol>	<ol style="list-style-type: none"> <li>1、提出电子商务设想或是被成功孵化的电子商务项目</li> <li>2、申请加入本站的电子商务运营</li> <li>3、给予认证、独立管理和运营</li> </ol>	
APP 开发	基于移动应用、PC 应用和 Apple 进行 APP 开发（给使用者提供更便利的接入方式）	<ol style="list-style-type: none"> <li>1、利用 APP 进行信息及数据管理</li> <li>2、利用 APP 进行电子商务</li> </ol>		Flipboard,zaker, 希尔顿酒店预订的 APP



## 5.6 Prototype







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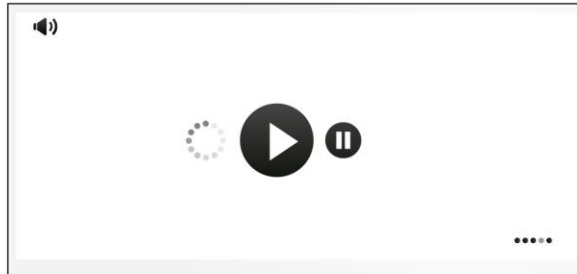


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12  
06  
**TOP 10 TODAY**

**Eco Global Party Chongming**

The DESIGN Harvests Sustainable Community Project presented the Eco Global Party in Xiantiao Village on Chongming Island of Shanghai on 27th Nov, in partnership with GoodtoShanghai, an initiative for promoting sustainable lifestyle. The party is composed of a rock music concert, cycling, farmers' market, and a lecture on the sustainability theme given to the local high school students on the previous afternoon.

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**Walkin' in SH**

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Maurizio Guarente likes this...  
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- Enjoy your life in SH! :-)  
May 28 at 9:29pm · Like · Unlike
- Bravo!!!!  
May 27 at 4:00am · Like · Unlike

Zhou Chuyi added 6 new photos to the album **Hub model**  
**Hub Model**

5 hours ago via iPhoto Uploader · Like · Unlike · Share · Like this item  
Emily likes this...  
[View all 9 comments](#)

- Well done! :-)  
May 25 at 9:29pm · Like · Unlike
- good!!!!  
May 26 at 4:00am · Like · Unlike

EVENT INVITATION [See All](#)

- PARLIAMONE DI MERCOLEDI**  
Wednesday, June 15  
RSVP: Yes # No # Maybe
- PARLIAMONE DI MERCOLEDI**  
Monday, July 15  
RSVP: Yes # No # Maybe

INCUBATION INVITATION [See All](#)



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Walter Wang  
4 mutual friends  
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International Design Communication Center 5F, Building 10, No.1080, Changyang Road  
Shanghai, P.R. China 200082  
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Virtual HUB



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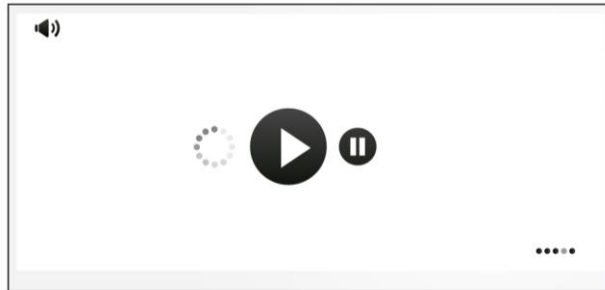
- WALL
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- PHOTOS
- NOTE
- FOLLOWERS FOLLOWING

Video blogger, media innovator, fanatical about startups. Searching the world for world-changing technologies. Rackspace Hosting is the home of fanatical support and Web hosting for Internet entrepreneurs.

<http://google.com/profiles/chuyi..> has more info and my personal blog is at <http://zhouchuyi.com>

**FOLLOWING** (1009)

- Delia Bertato
- Liping Mei
- Ur Aria
- Robin Pan
- Lin Wei
- Hank Xue
- Chengchao Hu
- Zheng Gong
- Emily Yang
- Song Yijun



SHARE: STATUS PHOTOS LINKS VIDEO **QUESTION**

**June 12** Which tech startups currently (June 2011) need and deserve angel funding?

Chuyi voted up an answer. 5:17pm on Wednesday • 131 Answers • Follow

**16** Dan Berger, Co-Founder, Social Tables



**What is it?**  
Social Tables ([socialtables.com](http://socialtables.com)) is the first social cloud-based seating tool for events with assigned tables. Planners import their guest list, assign guests ... (more)

**June 12** What are the major tech/social media events in Germany?

Chuyi, video blogger, media innovator, fanatical about startups. Searching the world for world-changing technologies.

3 votes by Aygul Zagidullina, Tao Tao, and Angelia King

**By far the most important event for tech/social media types in Germany is the DLD conference which happens in late January every year in Munich (lots of big names attend, partly to get over their jet lag as they head to the World Economic Forum).**

That's hosted by Burda Media, Germany's biggest publisher, along with Yossi Vardi, Israel's best known investor.

As soon as it is added to Plancast, I'll add it to my event calendar. It's the only event in Germany that I attend every year. <http://plancast.com/Scobleizer> is my calendar. This answer .Please specify the necessary improvements. Edit Link Text Show answer summary preview when available. UpdateLink to Questions, Topics and PeopleAddFind Questions, Topics or PeopleCancelFlag Answer

Add Comment • 5:50pm on Wednesday

**June 11** Can blogging lead to job offers?

Chuyi, video blogger, media innovator, fanatical about startups. Searching the world for world-changing technologies.

14 votes by Liz Pullen, Marc Bodnick, Sameer Gupta, [more]

**Yes. All four of my recent jobs have happened because of my blog and my salary has taken HUGE jumps because of my blog. I highly recommend demonstrating your skills to the Internet. Who knows what will happen?**

This answer .Please specify the necessary improvements. Edit Link Text Show answer summary preview when available. UpdateLink to Questions, Topics and PeopleAddFind Questions, Topics or PeopleCancelFlag Answer

6 Comments • Jun 1, 2011

**June 11** Is TestFlight the best ad hoc method of distributing iPhone apps for testing?

Chuyi,

5 votes by Miguel Mateo, Parker Emmott, Josh Jones, [more]Miguel Mateo, Parker Emmott, Josh Jones, Preston Rutherford, and Roi Tiger

**Yes, it's by far the most popular way for startups to get builds to testers, insiders, friends, journalists, etc. I no longer even accept the "send me your UDID" request because of TestFlight. Why? It's too much of a pain in the ass to hook up my iPad to my desktop just to test software.**

This answer .Please specify the necessary improvements. Edit Link Text Show answer summary preview when available. UpdateLink to Questions, Topics and PeopleAddFind Questions, Topics or PeopleCancelFlag Answer

Add Comment • May 23, 2011

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12  
06

**TOP 10 TODAY**

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**EVENT INVITATION** See All

**PARLIAMONE DI MERCOLEDI**  
Wednesday, June 15



RSPV: Yes # No # Maybe

**CHONGMING DINNER PARTY**  
Monday, July 15



RSPV: Yes # No # Maybe

**INCUBATION INVITATION** See All



**PEOPLE YOU MAY KNOW** See All



**Walter Wang**  
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设计丰收 creative network

**CONTACT US**

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Shanghai, P.R. China 200082  
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Contact Options VIDEO CHAT

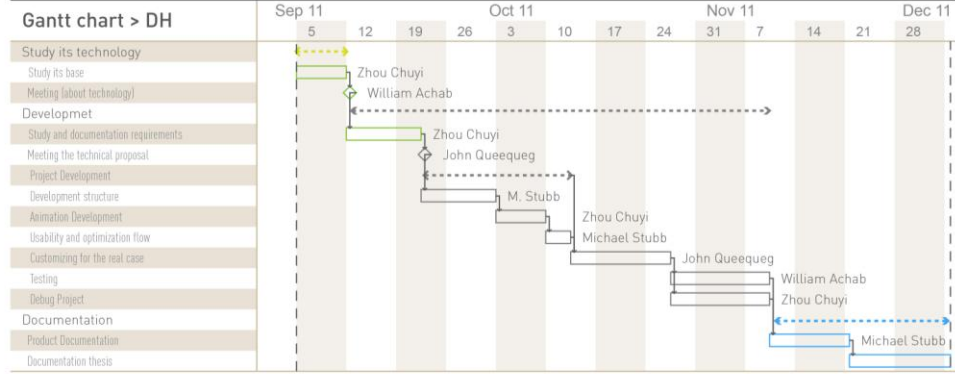
CHUYI:Hi,maria  
 MARIA:Hi,chuyiwhat's up?  
 CHUYI:Could you upload the storyboard to the share file?  
 MARIA:OK,give me 1 min.  
 Thank u-:) Sent

MESSAGES

NOTE

NEW PROJECT More ▾

Members on chat



PROPERTIES EDIT GO TO PROJECT

Document..... SEARCH

Design Harvests is based on several main research and implementation directions, that make us articulate our design strategy on different programs. Each of them are related to the land and the presence in the land of a community, and any design intervention happens in the aim of interact with them in a enhancing and respectful approach.

PROJECT YOU MAY FEEL INTEREST



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图 5-18 网站项目孵化界面 (作者自绘)

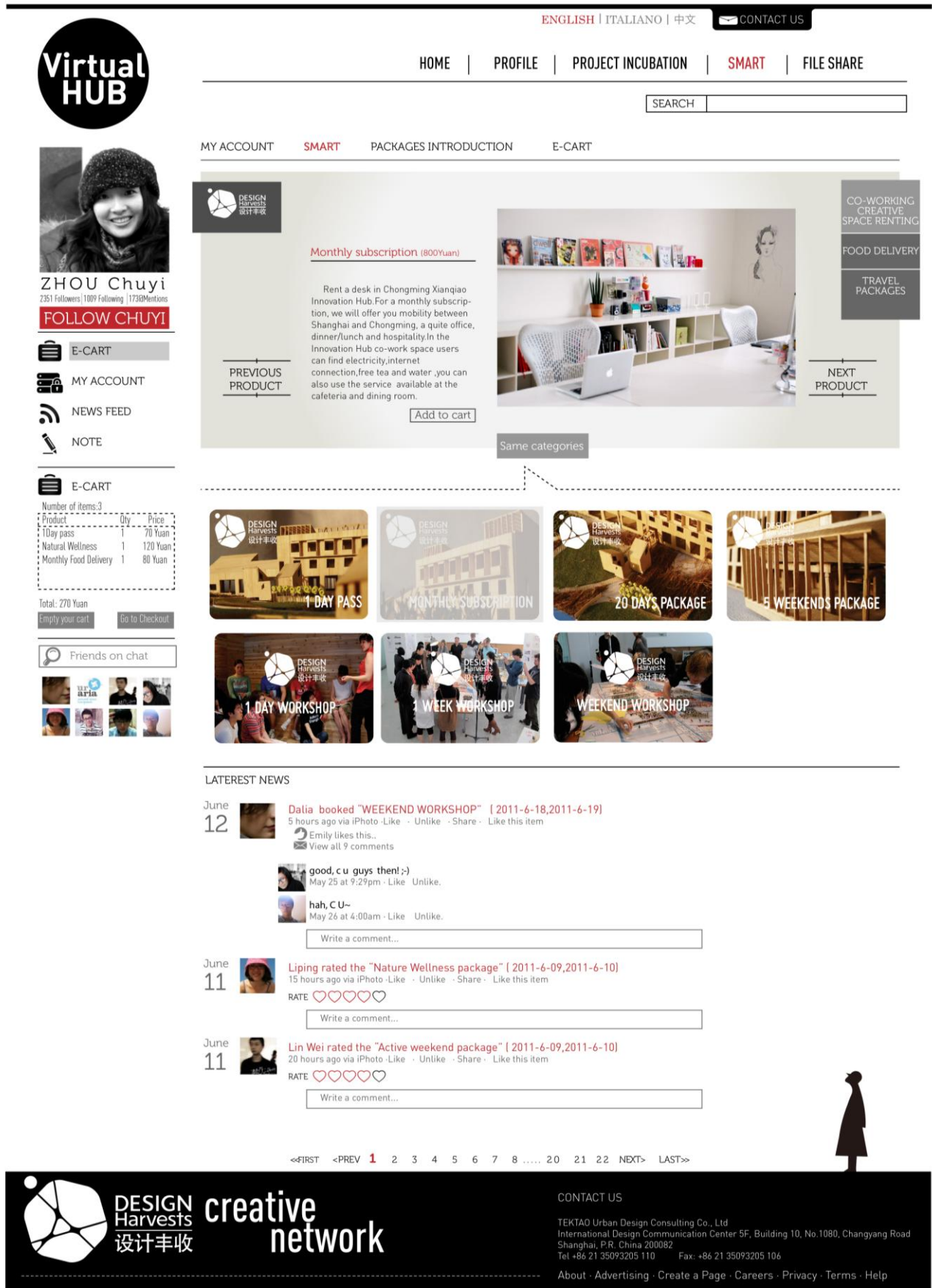


图 5-19 网站电子商务页面（作者自绘）



SEARCH

MY ACCOUNT PROJECT REPORTS LIBRARY PROJECTS PLAN

FILE SORT BY:PROJECT A-Z



**ZHOU Chuyi**  
2351 Followers | 1009 Following | 1730 Mentions  
**FOLLOW CHUYI**

MY ACCOUNT

NOTE

UPLOAD A FILE

FILE STROAGE SPACE

FILE SORT BY

- DATE AND TIME
- FILE NAME A-Z
- PROJECT A-Z
- FILE SIZE
- FILE FORMAT
- UPLOAD BY SOMEONE

SEARCH

Friends on chat



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May 12 SMART-service supermaket for sustainable lifestyle

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<<FIRST <PREV 1 2 3 4 5 6 7 8 ..... 20 21 22 NEXT> LAST>>



图 5-20 网站的数据分享界面 (作者自绘)

## **CONCLUSION AND PERSPECTIVE**

### **6.1 Conclusion**

### **6.2 Perspective**

## ACKNOWLEDGEMENTS

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## APPENDIX A ICT used in co –service (42 cases)

Table 1. Producer network

	Case	Description	Products/services
1	Cascina Cornale	Farmers network for direct selling in Italy	Delivery of vegetables, fruits, dairy products, honey, etc.
2	Food Connect	Local food distributor (?) in Australia	Delivery of vegetables, fruits, dairy products, honey, etc.
3	Porta Natura	Farmers network for direct selling in Italy	Delivery of fruits, vegetables, honey, dairy products, meat and etc.
4	bioexpress	Farmers network for direct selling in Italy	Delivery of fruits, vegetables, honey, dairy products, meat and etc.
5	Farमारound Organic	Farmers network for direct selling in UK	Delivery of food boxes of vegetables and fruits.
6	Riverford Organic Vege	Farmers network for direct selling in UK	Delivery of food boxes of over 100 products.
7	Adel and Cole	Farmers network for direct selling in UK	Delivery of food boxes of vegetables, fruits, meat, fish, etc.

Consumer network

	Case	Description	Products/services
1	GAS Milano	Purchasing group in Milan, Italy	N/A

Information And Guidance

	Case	Description	Products/services
1	LocalHarvest	“America's #1 organic and local food website”	Information on farms, CSA, shops and more in US.
2	BuyFromTheFarm.ca	An website that promotes local food production and consumption in Canada	Information related to farmers market, farmers, manufacturers
3	Eat Well Guide	A free online directory of fresh, locally grown and sustainably produced food in US and Canada	Information on farms, markets, restaurant and more
4	Community Alliance with Family Farmers (CAFF)	A website that promotes a movement of rural and urban people to foster family-scale agriculture that cares for the land, sustains local economies and promotes social justice in US	Information on the organization and the initiative
5	Heritage Foods USA	A website that promotes independent family farms, humane production, genetic diversity and traceability in US.	Information on farms and their products
6	Buy Fresh Buy Local	A campaign website for promoting local food consumption	Information on the initiative and local producers
7	Eat Real Festival	Festival that connects consumers with producers, chefs.	Information on the festival

## Connector between consumers and producers

	Case	Description	Products/services
1	FarmsReach	An online farm food marketplace that connects farmers to business buyers	A service connecting agricultural producers with business buyers
2	Farmfoody	A free service connecting farm and foody	Agricultural produces from the local producers

## Individual local producer

	Case	Description	Products/services
1	La Forestina	An individual local producer in the Agricultural Park South of Milan	CSA (Community-supported agriculture)
2	Fratelli Montana		Agritourism, CSA
3	Il Mulino		Milk
4	Cascina Isola Maria		Agritourism
5	Cascina Rosio		Agritourism
6	Cascina la palazzina		Agritourism
7	Cascina Scanna		Agritourism, horse riding lesson
8	Cascina Carla		Agritourism
9	Cascina Guzzafame		Agritourism
10	Codegoni		dogs & cats caring service
11	Galimberti		rice
12	Cascina Cassinetta		biological produce
13	Il Visconte		Agritourism
14	Azienda Agricola Cornalba		biological produce
15	Cascina di Mezzo		Agritourism, biological produce
16	Cascina Maiocca		Agritourism
17	Cascina Gaggioli		Agritourism, biological produce
18	Cascina Battivacco alla Barona		Agritourism, biological produce
19	Cascina Roverbella		biological produce, restaurant
20	Red Valley Ranch		Horses, horse riding
21	Cascina Santa Brera		Agritourism, biological produce
22	Cascina Femegro		biological produce
23	Pioltino		Agritourism
24	Cascina Santa Marta		Agritourism, biological produce

## APPENDIX B Co-service on digital platform

Case list (data accessed February 26, 2009)

Case	Service area	Since	Size
Hitchhikers	Mainly Europe	1999	Unknown
Social invention center	South Korea	2006	3365 ideas
Peladeiro	Brazil	2001	32250 users
Vicini vicini	Rome, Italy	1999	Not known
Green map	Worldwide	1995	400 cities, 51 countries
Open green map	Worldwide	2008	+ 4000 sites
Grofun	Bristol, UK	2007	10 people
Couch surfing	Worldwide	2004	+ 950000 users
Meetup	Worldwide	2001	4700000 users
Pledgebank	UK and 12 other countries	2005	91625 users
Katrinalist.net	US	2005	4000 users
Shelfari	Worldwide	2006	Six digits (confidential)
Bookcrossing	Worldwide	2001	740000 users
Mapo dure	South Korea	1997	+ 2500 members
Activmob	Kent, UK	2008	+ 20 mobs
Aka aki	Germany	2008	1494926 encounters
Carrotmob	US	2008	Not yet launched
Economia solidale	Italy	1994	4736 users
No 10 Petitions	UK	2006	+ 5000000 participants
FixMyStreet	UK	Unknown	31628 problems reported
WiserEarth	Worldwide	2007	Unknown
Solidarius	Brazil	2008	22319 users
mySociety.org	Worldwide	2003	1000 users
Sistema FBES	Brazil	Unknown	Unknown
RED Open Health Project	UK	2004	509 users
Diabetics' meetup	US	2009	55 users
Zerorelativo	Italy	2006	217 users
Timebanks	Worldwide	1980's	Unknown
Nabuur	Worldwide	2001	36190 Neighbours, 292 Villages
Cascina Cornale	Italy	1997	Unknown

