The essays collected in this volume explore a broad number of approaches to design research: Historical, critical perspectives on design and design research, overviews of the social conditions of design and the theories and instruments of co-design, investigations of design research practices, examples of concrete projects and developments, and connecting the material and digital worlds.

Unfrozen encompasses a selection of research projects that were presented at "Unfrozen", the SDN Design Research Summit.

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Empowering Locals Through Service Design and Social Innovation: The MakeinProgress Case Study

Abstract

The society we live in today is undergoing a paradigm shift (Murray 2009). The crisis of the capitalist model is creating the need for certain social innovation processes (Murray et al. 2010, Manzini 2015).

This paper presents an example of how social innovation and service design (Meroni and Sangiorgi 2012, Stickdorn and Schneider 2012) can promote local territories through *making*. We tested a "what-if" situation to answer the following research questions: a) what kind of *maker space* could work in this territory; b) who are the potential users; and c) if making could increase the local territory's appeal for social innovation. Using the method of *action research* (Stringer 2014, Stoecker 2012), we created a demonstration plan we refer to as *demo service* in order to experiment with different kinds of activities and areas of application. The MakeinProgress (MiP) project was then initiated. MiP was a case study of the way making could facilitate local development (Bianchini et al. 2014) with the aid of service design.

MiP previewed the use and social function of an old *filanda* (textile mill) being restored thanks to public financing. The converted former mill was initially conceived of as a business incubator, and was later adapted to fit local needs.

The territory in question was unfamiliar with the dynamics of making, maker spaces, and social innovation. Service design was widely and practically used (i.e. open calls for ideas, workshops, space hacking, etc.), hence demonstrating what can be achieved when design positions itself as the intermediary between institutions and local communities.

The action research methodology helped an awareness of the project to emerge and spread through the local territory, aiding the identification and training of a group of local citizens who could assume management of the space; it also helped shape the space according to local demands.

Thanks to service design, the former mill became a place that allowed the community to promote new job opportunities, share ideas, and facilitate the creation of new businesses. MiP also enabled new collaborations between the creative community and pre-existing local companies, helping the latter to benefit from the community through exposure to new technologies and the cross-pollination of ideas.

Theoretical Framework

Crisis and Social Innovation

The starting point of this work is a view of the society in which we live. The 2008 crisis that erupted in many Western economies opened a can of worms, exposing all the contradictions and loopholes in the system we had been living under. According to Castells, this crisis is structural and involves several dimensions: "A financial crisis triggered an industrial crisis that induced an employment crisis that led to a demand crisis that, by prompting massive government intervention to stop the freefall of economy, ultimately led to a fiscal crisis" (Castells et al. 2012, 4). It represents the collapse of a system that has proved unsuitable. According to Schumpeter, all periods of crisis are also periods of creation; Manzini adds that we are now divided into two different worlds, where two realities coexist in conflict: "[T]he old 'limitless' world that does not acknowledge the planet's limits, and another that recognizes these limits and experiments with ways of transforming them into opportunities" (Manzini 2015, emphasis ours). A change right now seems more necessary than ever. A new world is slowly emerging in the space between the remains left by the crisis.

One of the primary aspects that characterizes the face of this "new" world is the development of *social innovation practices* in our culture. "Every era needs a bit of social inventiveness. But there are reasons to believe that *social innovation is particularly common when the existing institutions are showing signs of stress and when problems* of social cohesion, unemployment, urban decay and youth unemployment *seem resistant to traditional solutions*" (Mulgan and Landry 1995, emphasis ours).

So what is social innovation? It is a widely described phenomenon, and here we use the definition given by NESTA: "Social innovation is innovation that is explicitly for the social and public good and is innovation inspired by the *desire to meet social needs* which can be neglected by traditional forms of private market provision. Social innovation can be developed *by the private, public or third sectors or users and communities*" (Murray et al. 2010, emphasis ours). Design and Design for Social Innovation and Service Design In this scenario, both design and service design have an important role. The role of design has consistently changed from the era¹ of the first industrial revolution, and as Manzini (2015) says, "Design is a culture and a practice concerning how things ought to be in order to attain desired function and meanings. It takes place within open-ended co-design processes in which all the involved actors participate in different ways. It is based on a human capability that everyone can cultivate and which for some—the design expert—becomes a profession. The role of design experts is to trigger and support these open-ended co-design processes, using their design knowledge to conceive and enhance clear-cut, focused design initiatives."

So if social innovation has the potential to change the world, with the need of a new culture at the base of it, design could be the right tool for the creation of this culture.

One key point is the birth of a new design culture characterized by innovative practices, in which the polarization between problem solving and sense making becomes more and more blurred.

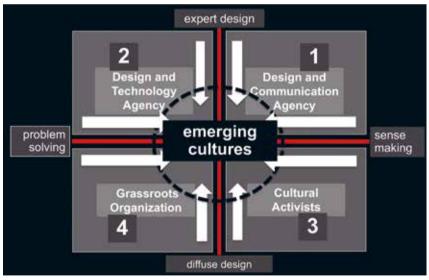


Fig. 1: Manzini 2015.

1 Cf. the ICSID definition at www.icsid.org/about/definition.

Per Manzini, "Design for social innovation is everything that expert design can do to activate, sustain, and orient processes of social change toward sustainability" (ibid.). In the creation of this new culture that could sustain the developing social innovation, *service design* and its tools also have a peculiar role, since "Within Service Design, Service Interfaces are designed for intangible products that are, from the *customer's point of view*, useful, profitable and desirable, while they are effective, efficient and different for the provider. Service Designers *visualize, formulate and choreograph solutions that are not yet available*. They watch and inter*pret needs and behaviours and transform them into potential future services*" (Erlhoff and Marshall 2008, emphasis ours).

Design Theme Definition: Social Conversion of Public Assets in Disuse Among the various areas in which social innovation can act,² here we present a case study on the issue of redeveloping unused spaces within cities, acting as a local resilience booster through design. According to Cottino and Zandonai (2012), "Attention to such spaces is shifting its value from a residual function within social planning into a real opportunity for reuse. The unused spaces are therefore seen from a perspective of social innovation—as resources and opportunities to be seized upon to create not only simple urban regeneration projects, but also *places* to regenerate and reconvert to social use."

In projects that deal with territorial design, referring to *territorial capital* improvement can highlight the territory's individual characteristics through a materialization of products, services, and strategies (Maffei and Villari 2006). Its role, then, is to promote systemic innovation starting from unique local resources, using different levels of specialization (strategic design, service design, communication, product) and different targeted

2 A wide range of activities, such as: the development of new products, services, and programs; social business and the work done by social enterprises; the reconfiguration of social relations and power structures; innovations in the workplace; new models of economic development, social transformation, systemic change, and sustainable development driven by businesses. It can also deal with hard-to-treat social problems such as youth unemployment, the increase in the average age, immigration issues, and cohesion within multicultural societies etc. (Caulier-Grice et al. 2012). actions (social, economic, cultural, etc.). One can therefore conclude that territorial design "is the offspring of so-called strategic design [...] that is, addressing local objects through a strategic approach and designing local products and services (be they industrial, communication related, event related, etc.) using multidisciplinary skills, either from other branches of the design disciplines or other disciplines entirely" (Franzato 2009). The output of territorial design then helps determine the appropriate strategy, as the territorial products subsequently developed are a result of said strategy and give it concrete form.

The questions that informed all our research were: How do service design and social innovation fit into territorial enhancement processes? What tools and competitive advantages do they offer?

Field Research and Analysis

To answer these questions, we conducted field research and explored various design tools.

Field Research

The aim of the field research was to analyze, in light of previously implemented projects, how the design operates within the regeneration processes in the social use of unused spaces, with the consequent aim of being able to encode these methodologies in tools that can be helpful to the actors participating in these processes. During our research 19 national and international case studies similar to MiP were mapped. The analysis focused especially on management model/activation, activities, outcomes, and the role of design.

Two strategic documents were also analyzed during our field research (Smithsonian Institution 2013, Minervini et al. 2015); the results clarified that 94% (of the Italian projects) make use of public funding, and as many as 65% of the projects are born from top-down types of activities. 50% of these projects do not continue after they run out of public funding. Moreover, in the few cases in which design is explicitly present and used in a transverse way, the results are a better definition of the outcomes and the prevalence of "mixed" processes where—thanks to co-design and participation—bottom-up and top-down processes coexist and complement each other. One tangible result of these actions is the creation of stable and participatory local networks, as well as the definition of a new operative/ associative mode, which means that projects using design as a strategic key aspect became more independent from public funding.

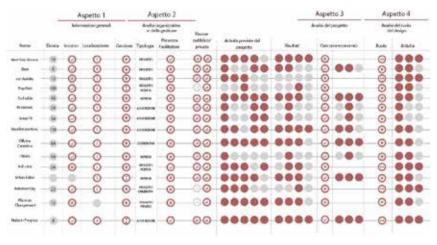
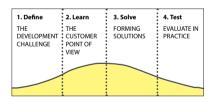


Fig. 2: Case studies analysis map.

SERVICE DESIGN



SOCIAL INNOVATION

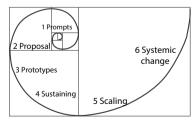


Fig. 3: Tool analysis.

ACTION-RESEARCH



TERRITORIAL STRATEGIES

LEADER PROGRAM

a) Development of skills

b) Bringing together local actors

c) analysis of the territory

d) Identify the activities / initiatives in progress

e) Building partnerships

f) Preparation of a local development strategy

Research on Tools

In addition to field research, different tools were also analyzed.

This analysis conducts us to four key considerations:

- The need for a process divided into stages, providing research and analysis of the territory, the conception of an idea, and its prototyping
- The need for a moment dedicated to evaluating the results
- The importance of analyzing the local territory, its state and state-of-art potential
- The creation of partnerships and preparation of a well-structured strategy

Method Development

Our research results led to the development of a method experimented with and implemented during the demo activity conducted as part of the MiP project. The method, as shown below, consists of 4 stages that build on previous research into the possibilities, represented by public funding or other local opportunities. We refer to this as the *4A Model*, encompassing *analysis, anticipation, action*, and *activation*. For every stage, several tools were developed and tested in local experiments.

Onsite Experimental Activity: The MakeinProgress Case Study

A Top-Down Opportunity

The MakeinProgress project is part of a broader initiative referred to as the *Distretto Culturale Evoluto (DCE) Monza Brianza* ("Monza Brianza Developed Cultural District"), led by the local province³ with the support of Fondazione Cariplo as part of the *Distretti Culturali* ("Cultural Districts")⁴ program. The specific challenge launched by Fondazione Cariplo was to solicit the restoration of historic architectural buildings suitable for hosting design activities capable of ensuring the area's vitality and sustainability into the future.

- 3 www.distrettoculturale.mb.it.
- 4 www.distretticulturali.it.

The Monza Brianza DCE selected four major properties: Palazzo Arese Borromeo in Cesano Maderno, Ca' dei Bossi in Biassono, Castello da Corte in Bellusco, and the former Filanda in Sulbiate. The idea for Sulbiate in particular, considering the structure's industrial nature, was to implement a restoration process for the creation of a business incubator. The project dated back to 2008, when the first feasibility study was developed and funding of € 800,000 was supposed to cover 50% of the restructuring costs, plus a small fee for communication activities and local entertainment.

Analysis and Definition of a New Scenario

Quali-quantitative analysis of data provided by the Monza Brianza Chamber of Commerce⁵ shows that the territory of Sulbiate and surrounding municipalities are underdeveloped from a manufacturing and production point of view, especially when compared to other areas in Brianza such as Monza, Lissone, Seregno, and Meda, which average over 200 companies per square kilometer. This element, combined with the low number of new manufacturing enterprises developed locally in recent years-businesses that could and should inhabit the hypothetical business incubator-led stakeholders to reconsider the ongoing model. The Monza Brianza Province, the City of Sulbiate, and the Monza Brianza Chamber of Commerce contacted the design department of the Politecnico di Milano requesting a review of the Monza Brianza DCE project, with the goal of redefining the local service model in a manner consistent with the territory and its real potential. Emphasis was placed on specific types of local activity, highlighted by the development of a "territorial capital analysis" tool. As a result, a new service model was developed—Innovazione e impresa: la Filanda di Sulbiate, un recupero ad alta sostenibilità energetica per l'artigianato, le energie rinnovabili e le nuove tecnologie ("Innovation and Enterprise: Sulbiate's Filanda and the Sustainable Renovation of a Site for Crafts, Renewable Energies,

5 "Il Sistema imprese Monza-Brianza ed il distretto di Sulbiate" ("The Monza-Brianza Industrial System and the Sulbiate District"), Venanzio Arquilla and Venere Ferraro (eds.), unpublished report, Design Department, Politecnico di Milano. and New Technologies"). The model focused on social innovation (Manzini 2015), cultural entrepreneurship, and the "making" phenomenon (Anderson 2012). What, then, is this new scenario? The idea of putting a makerspace in this municipality aims to enable social cohesion through a diversified production of experiences—both individual and collective which act as enterprise generators with a social purpose. Making, in accordance with the definition of FabLand (Bianchini et al. 2014), is seen as a tool functioning on several levels:

- creating not only economic value but also cultural, social, and environmental value in relation to the territory's own capital
- enabling local communities to thrive and activating learning processes
- bringing together citizens and local policymakers to define new policies for specific problems

The challenge posed to us as designers was: What kind of open hub/ maker space (Menichinelli, 2016) could work in this territory, and who are its potential actors/users?

Anticipation—Demo Service Design

While the Filanda was being renovated, the broader MiP project was conceived as a series of activities and actions of high social impact in order to:

- involve the productive community of the territory
- connect to creative networks in Milan and productive platforms in the Brianza industrial district
- better define the design and business model of the Filanda by linking it to making and fabbing, enhancing local resources.

The key points identified during our field research and analysis were modified into a number of core actions to be taken within this kind of process. These points were then developed through the so-called demo service: Key points that emerged from research:

- project tailored to the reference territory
- clear and well-defined idea of the project and objectives
- strong local network
- economic sustainability of the project
- documentation and sharing of results

MiP—Demo service actions:

- knowledge of and experimentation in local territory
- rehabilitation of the Sulbiate civic center
- experimentation and cultural dissemination / public workshops
- territorial networking / special projects

Action—MakeinProgress as Demo Service

Knowledge of and Experimentation in Local Territory

To identify sources of local resilience and identify any weaknesses, we launched a direct inquiry by sending a simple postcard to all local inhabitants, expressing the social significance and participatory basis of our project. The basic idea was to enable the majority of citizens to participate by studying a simple and deliberately non-technological tool, easy for all to use: a card to fill out and return. Use of such cards⁶ is common for the management of brainstorming and creative sessions, so we decided to use them for their directness and *anti-technological* qualities in an era where social relations are developed on the net. We created three deliberately broad and inclusive slogans/questions that called for participation: Do you want a space? Create it!/Do you know how to do? Prove it!/Do you have an idea? Propose it!

The slogans were on the front of postcards, deliberately allusive and without any detailed instructions on what to do with them, while at the back there was a simple form to fill out. The municipality helped distribute the postcards, which were delivered in random order to local inhabitants. The idea-collection phase lasted from June 5th to 30th, 2014, and 34 proposals were received:

6 Cf. the Ideo Method Card, www.designkit.org/methods.



Fig. 4: Postcard, seminar, and workshops for idea generation.

- 19 came from citizens of Sulbiate or neighboring municipalities and associations already operating locally
- 11 new business ideas
- 4 offers of collaboration from local professionals and companies

The initiative included several communicative actions both online ⁷ and offline (three public presentations in Sulbiate and Vimercate), and we provided an online form which had a much lower response rate compared to the cards. Out of 3,000 people contacted, we received 34 unique proposals, and of those: 10 people spontaneously emerged from the start; more than 60 people were involved in the collection of ideas; and approximately 200 joined events and workshops. With the belief (later confirmed) that active participation and physical presence facilitate the processes of interaction and exchange, we brought together all participants in a *workshop for the discussion, planning, and development of ideas*, which emerged in different areas: food production and culinary culture; training and educational initiatives; fabbing and tinkering; art and culture; public-service and volunteer activities; crafts, design, and prototyping.

Participants were grouped according to thematic areas, and a discussion of individual projects ensued. This activity revealed several

people, each with their own story, who attested to the local area's resilience and previously unknown potential—people with whom we hadn't previously had the opportunity to collaborate. We refer to this first batch of locals as the *working group*.





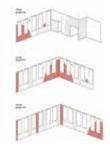


Fig. 5: Re-design workshop—online proposals, voting, and codesign workshop. Citizens Proposals (left), Final Solution (right)



Fig. 6: Painting and furniture-making workshop.



Fig. 7: Final situation.

Rehabilitation of the Sulbiate Civic Center

Once all the proposals and ideas were collected, we moved on to the demo service prototyping stage, involving the rehabilitation and repurposing (or hacking, if you will) of the physical space in which the activities were to unfold. After using a participatory process to identify an area of the city various local associations used as a meeting center, this space was *redesigned* and *reconfigured* by the community and used by the working group as a coworking space and makers' lab during events.

Experimentation and Cultural Dissemination / Public Workshops

In order to more closely involve locals in the future of the Filanda, and give the working group a chance to experiment and train themselves, we ran a few workshops. Some were led by the working group (art and photography workshops), others were led by guest experts (WeMake and Tecnificio). They included interactive sessions with Arduino, experimental art, photography, 2D upcycling, and digital fabrication.

The topics were of great interest to the locals. Each workshop was attended by about 20 people, reaching approximately 200 participants total. This helped us explore the territory and gain valuable insight into the development of the ideal business model. For example, we found strong interest in artistic experimentation, which had not initially seemed to be a possible area for development.

Territorial Networking / Special Projects

Several other local initiatives were launched simultaneously. An experimental activity about art and making involved the elementary- and



Fig. 8: Picture of the Arduino workshop.



Fig. 9: School experimentation and Milano Rugby Festival.

middle-school children of Sulbiate. Over 100 children and three teachers attended for a total of ten days of training and experimentation, resulting in a final exhibition of the products realized. Other important activities included one with the association *Asparago rosa di Mezzago*, a contest themed around the distinctive local pink asparagus, and yet another was realized in association with the *Milano Rugby Festival*, for which the working group digitally manufactured trophies.

Activation—Enhancing the Results

The final stage of the demo service was identification and evaluation of the achieved results:

- thanks to the analysis of local territory and similar projects, we understood how a business incubator in Sulbiate was an ill-suited idea, and responded by shifting direction towards the creation of a cultural hub that will foster local social business
- the success of the artistic experimentation workshops revealed a latent local demand for art-related initiatives, so we expanded on the initial idea of having a simple exhibition area and focused instead on converting it to an area for artistic activities and social services
- the working group, motivated and trained by this experience, created an independent association, MiP-MakeinProgress (a bottom-up process)

A group of locals has since been able to start its own social business activity. The original project, *MakeinProgress-Verso la Filanda*, continued on to become an established association, *MiP-MakeinProgress*, an official APS (*associazione per la promozione sociale*, or social promotion association). MiP's business opportunity was born of a combination of top-down policies (i.e. the recovery, renovation, and rehabilitation of the Filanda) and bottom-up policies that saw as their goal the discovery of talent, local engagement, new job creation, and the reevaluation of the territory.

MiP's business model is based on a new type of enterprise able to generate business—especially social business—through the direct management of the spaces belonging to the community. The model MiP aims to create and foster is *horizontal*. The heterogeneity of its components are used as a competitive bonus, and the creative energy of each component is coordinated without hierarchical organization.

As mentioned, MiP is a project that aims to bring innovation in the territory of Sulbiate and neighboring communities through various activities related to the art world, making, training, food, and shared workspaces.

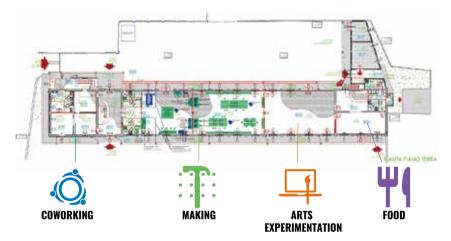


Fig. 10: The ex-filanda final layout and working areas.

MiP is an innovative business model that plans to generate employment through the management of the space and its services. Compared to the traditional management model of the FabLab (Menichinelli 2016), MiP offers a mixed and integrated model of services, where making is not the end goal, but rather an amalgam of the activities and generated processes. MiP has generated a bottom-up management model that defines new social innovation practices related to making activities, and creates a new local awareness, enabling new forms of enterprise and participation.

The main limitation of the whole operation is the allocation of space; notified through public announcement, those who wish to use the space need to prove immediate economic sustainability and structuring. In MiP's case, this limit turned into an opportunity.

Important individuals, associations, and companies working in and around Sulbiate joined the project and contributed to the development of a sustainable business model: some activities are covered by MiP, others are add-ons related to theater (thanks to the work of Associazione DelleAli⁸), and still others are related to employment thanks to the participation of the Consorzio Comunità Brianza,⁹ which will open a job help-desk in the Filanda, as well as offer a womens' coworking space and some childrens services.

Conclusion

MakeinProgress as Demo Service—Redefining sustainability models (making + coworking + food + art + social services) To answer to the questions posed at the beginning of this paper, we can safely say—expanding upon Manzini's (2015) reflections—that service design can work within territorial enhancement processes, making things visible and tangible, possible and probable, effective and full of meaning.

The tools analyzed during our research and applied during the phase of local experimentation showed their competitive advantages in the field. Through—and thanks to—service design, the Filanda will be a place for the community to make and

- promote new kinds of jobs, starting with management of the space itself
- promote new kinds of production, activating locals creativity and cross-pollination of ideas
- promote new kinds of business, microbusiness, and productive interaction between creative communities and local companies, reinvigorating all involved.

The project remains open to all contributions stemming locally or from elsewhere, with the ambition to link the local community to the creative and cultural circuits, both national and international.

8 www.delleali.it.

9 www.comunitamonzabrianza.it.

The main open issue was the project's initial financial sustainability. As we have seen from case studies, and as is apparent in one major reflection on the business model of makerspaces and FabLabs (Menichinelli 2016), when initiatives are linked to public funding they struggle to find sustainability in the long run. In this case, the service design phase and the anticipation produced have generated the creation of an entirely new working group and social enterprise.

This achievement differentiates this project from other initiatives born with the same prerequisites and similar conditions. We will later assess how this new venture—which uncovered local resources and talents that had been lying dormant, exhibiting a kind of evolutionary resilience—will build a model of sustainability through the management of the premises themselves, in addition to other initiatives.

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