

# Chapter 11

## Collaborative Responses to Grand Challenges: The Case of La Scuola Open Source



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**Abstract** In an era marked by economic, financial, and health-related crises, the concept of “grand challenges” has gained prominence, signifying complex issues with global repercussions that demand innovative solutions. This chapter explores the potential of cooperative initiatives and open innovation strategies as novel approaches to addressing these challenges. Drawing on a case study of “La Scuola Open Source,” a cooperative project situated in a socially challenged context, the chapter delves into the dynamics of crowdsourcing as a strategy to navigate societal transformations. The study highlights the pivotal role played by open practices and design-driven methodologies in nurturing a profound sense of community belonging and drive a community-driven initiative to a formalized cooperative entity. The study provides valuable insights for practitioners and policymakers in the field of social innovation, particularly those striving to address pressing grand societal challenges.

**Keywords** Cooperative initiatives · Open innovation strategies · Social transformation

### 11.1 Navigating Grand Challenges: Exploring the Potential of Cooperative Initiatives

In recent years, the world has confronted a period of instability marked by successive economic, financial, and health-related crises, compounded by geopolitical tensions. These challenges of substantial magnitude, often referred to as “grand challenges,” encompass large, complex issues with a global impact. They give rise to societal, technological, and developmental tensions that require unconventional approaches to resolve them (Ferraro et al., 2015; George et al., 2016). This situation is largely attributed to a developmental pattern that is full of inherent contradictions.

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The amplification of wealth concentration, economic inequality, the ascendancy of major technology corporations, erosion of privacy and autonomy, and heedless depletion of natural resources have been further intensified by the forces of globalization.

Following the sequence of crises spanning the past 15 years, there has been a discernible acceleration in questioning the prevailing economic framework, which has primarily revolved around narrow corporate pursuits. This shift in perspective has manifested globally through initiatives such as the United Nations' Agenda 2030 and has been further emphasized by expansive post-pandemic economic policies that aim to reorient attention toward a comprehensive development framework encompassing economic, environmental, and social dimensions.

By virtue of its unique characteristics and intrinsic nature, cooperation possesses the potential to cultivate a viable social and operational environment that facilitates collaborative problem-solving endeavors (Fontanari & Sacchetti, 2019). Its participants are united by a shared identity, driven by collective aspirations (Sacchetti & Tortia, 2013). Diverging from conventional enterprises that primarily prioritize the interests of stakeholders, cooperatives facilitate mutually beneficial outcomes for all stakeholders. This structural framework accelerates and streamlines the dissemination of strategic knowledge among participants, thereby facilitating the adoption of digital, social, and ecological innovations.

The chapter discusses the emergence of a cooperative model, organically evolving to effectively address communal challenges. This approach is closely aligned with the needs of local communities and establishes strong social networks, making it particularly relevant in today's complex and transformative times. The cooperative approach holds the potential to expedite community-driven development and transitions while respecting their interests and unique characteristics.

Central to our exploration is the case study of "La Scuola Open Source," showcasing an innovative strategy, crowdsourcing. This approach harnesses untapped skills and human resources within a pervasive crisis context and contributes to the collaborative development of tailored training services for the local community. The cooperative's multifaceted initiative embodies a community-centric approach, providing a fresh perspective on addressing the complexity of contemporary challenges.

Furthermore, the chapter delves into the dynamics of crowdsourcing as an open innovation strategy, illustrated by the case of La Scuola Open Source. Situated in the challenging context of Bari's Old Town in Italy, a city plagued by high crime rates and low education levels among its population, this cooperative endeavor strives to drive positive social change, bridging online and offline communities through digital platforms. This chapter closely examines the intricate interplay between the local landscape and the creation of a crowdsourced community, seeking to establish a new "community point of view" that empowers citizens to actively engage in transformative endeavors.

Based on the outcomes of a 2016 project (Coco, 2017), rooted in an action research initiative (Coco & Colapinto, 2023), I argue that using open innovation practice and the support of digital platforms, it is possible to accelerate the transformation of a social context. Indeed, the project underscores the role of open practices

design-driven in cultivating community cohesion and the pivotal function of digital platforms in aligning the online crowd engagement with offline actions. Additionally, the investigation uncovers the emergence of cooperative governance models through a “learning by doing” approach, revealing effective strategies for engaging individuals in tackling social challenges.

By presenting these findings, our chapter not only contributes to an empirical understanding of the cooperative’s significance in navigating grand challenges but also introduces innovative strategies that harmoniously integrate online crowd engagement with real-world activities. Through the lens of cooperative initiatives and the dynamic interplay of crowdsourcing, we embark on a journey toward comprehensive and collaborative open innovation strategies to contemporary complexities.

## 11.2 Understanding Open Innovation for Social Challenges

The open innovation strategies originally designed for business have a profound applicability in tackling the significant societal challenges that have emerged as the foremost management concerns of the twenty-first century. The original conceptualization of open innovation, introduced by Chesbrough (2003), challenged the prevailing belief in vertical integration within companies. At a time when proprietary intellectual property rights were highly valued, Chesbrough emphasized the benefits of openness, both in terms of bringing in external ideas and disseminating internal knowledge beyond organizational boundaries. This departure from vertical integration meant that internal research and development (R&D) divisions no longer held a monopoly, as external sources of knowledge were incorporated and external paths to market competed with internal business units for the most valuable applications of new knowledge. The underlying principle of openness was the recognition that not all intelligent individuals worked within the organization, thereby inviting generativity through the emergent process of discovering and deploying new combinations of knowledge.

The definition of open innovation put forth by Chesbrough and Bogers (2014) highlights the concept as a distributed innovation model, involving the purposeful management of knowledge inflows and outflows across organizational boundaries for both financial and non-financial reasons, in alignment with the organization’s business model. Notably, the purpose of openness could extend beyond pecuniary motives, as organizations may engage in open innovation to pursue opportunities that cannot be easily quantified in financial terms, particularly in the short term (Dahlander & Gann, 2010). This perspective forms the foundation for understanding the significance of open innovation in addressing societal challenges.

Following Chesbrough’s influential work, numerous papers have further developed the concept of open innovation and explored its implications for effective organizational functioning (Bertello et al., 2023; Huizingh, 2011; Randhawa et al., 2016; West & Bogers, 2017). Researchers have examined the integration of ideas

from suppliers and users as an alternative to vertical integration, and the application of open innovation has extended beyond corporations to organizations of various types (Bogers et al., 2010).

The widespread diffusion of technological infrastructure and its utilization has played a pivotal role in fostering user engagement (von Hippel, 2005). This phenomenon has been particularly instrumental in shaping the boundaries and dynamics of the innovation process. Nambisan (2017) argues that technological advancements have facilitated the emergence of more fluid and complex innovation structures and processes, giving rise to distributed organizational forms and fostering intricate interdependencies between innovation and its outcomes. In this context, the crowd has emerged as a significant resource for generating innovations (Enkel et al., 2005, 2009; Kristensson et al., 2002).

Crowdsourcing, as introduced by Howe (2006), has gained prominence as a powerful approach wherein tasks previously performed by employees or teams are outsourced through digital platforms to large, undefined groups of external individuals via open calls. This digital transformation, including the rise of crowdsourcing, has revolutionized the way organizations engage with online, distributed collective intelligence, aligning it with specific organizational goals (Brabham, 2013; Kristensson & Magnusson, 2010).

While crowdsourcing presents promising opportunities for enhancing innovation capabilities, organizations face the challenge of establishing effective and mutually beneficial partnerships with online communities (Bogers, 2011; Chesbrough et al., 2018; Lauritzen & Karafyllia, 2019; Stefan et al., 2021; West & Gallagher, 2006; West & O'Mahony, 2008), particularly when striving to achieve societal goals (Chesbrough & Di Minin, 2014; McGahan & Suhkram, 2020). The existing social innovation literature provides limited discussion on the enduring value of online communities over prolonged periods and how such communities can be leveraged and replicated (McGowan & Westley, 2015). Furthermore, the potential of digital technologies in sustaining and supporting innovation processes remains an understudied area (Enkel et al., 2020).

### 11.3 The Rising of La Scuola Open Source

The case of “La Scuola Open Source” illustrates how digital platforms can empower cooperatives to rise and grow, driving social change through education, research, and skill development. The study emphasizes the value of online communities in long-term social innovation, showcasing the integration of digital platforms and crowdsourcing to co-create initiatives and drive transformative change. This chapter narrates the findings of a 2016 research project aiming at supporting social innovation within an open and bottom-up approach.

In 2015, a young association, without any legal structure, consisting of 13 members participated in a social innovation national competition sponsored by “Che Fare,” an Italian social innovation incubator. Their idea aimed to spark a cultural

renaissance in Southern Italy, where 1 out of 5 individuals is unemployed, and between 2008 and 2014, approximately 600,000 jobs were lost. Among the unemployed, 1 out of 3 are young people aged between 15 and 34 years, while only 1 out of 5 have found employment. Among those who choose to leave the region, 1 out of 3 are graduates. In recent decades, what has been lacking is a perspective for the future (and hope), as birth rates in the South have been steadily declining since 1965.<sup>1</sup> The collective aims to establish a new center for education, research, and consultancy—technological and social—for industry, commerce, and craftsmanship (both digital and non-digital). They call the center La Scuola Open Source (The Open Source School) and establish it in the Old Town of Bari, the administrative center of the Apulia region in Southern Italy. The vision behind La Scuola Open Source was to create a physical and virtual space where education would be open and accessible, serving as a catalyst for social change and transforming Bari into a better place to live. This initiative was particularly significant in an area characterized by cultural stagnation due to limited individual, entrepreneurial, and governmental investments, resulting in high levels of organized crime, especially among the youth.

The idea behind La Scuola Open Source encompassed four key aspects: education, research, the development of new professional skills, and the creation of job opportunities. By addressing the local need for international knowledge and fostering future opportunities for the population, La Scuola Open Source aimed to revitalize the Southern Italy community. To bring this idea to fruition, the association initiated an online call through Facebook and its website, inviting people from diverse backgrounds to participate in a workshop to co-create the initiative. More than 200 applications were received, and 64 individuals were selected based on their coherence, expertise, and motivation.

The selected participants, along with renowned instructors and tutors, gathered in Bari for a triple co-design workshop called XYZ. The workshop spanned 12 full days, where participants collaborated on three sub-themes: designing the identity of La Scuola Open Source (workshop X), designing the tools through which La Scuola could operate (Y), and designing the processes and logic able to sustain the initiative (Z). Each sub-theme had dedicated coordinators, instructors, tutors, and a member of the young association. The workshop aimed to generate ideas and solutions that would form the foundation of La Scuola Open Source, which would be officially unveiled to the public in November 2016.

The research project was intentionally structured as participatory action research to effectively tackle the interconnected objectives of promoting social change and producing reliable, practical knowledge. This approach is characterized by its capacity to facilitate both the generation of knowledge that informs actionable strategies and the acquisition of knowledge through active engagement, all aimed at serving the specific needs and aspirations of specific communities (Coco &

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<sup>1</sup>Data from report SVIMEZ: <https://www.camera.it/temiap/t/news/post-OCD15-11888>; and [https://www.agenziacoesione.gov.it/news\\_istituzionali/rapporto-svimez-2022/](https://www.agenziacoesione.gov.it/news_istituzionali/rapporto-svimez-2022/)

Colapinto, 2023; Cornish et al., 2023). As such it is an evolving process that is undertaken in a spirit of collaboration and co-inquiry, whereby research is constructed and conducted with members of a social system, rather than on or for them (Coghlan & Shani, 2018; Shani & Pasmore, 1985).

Data collection for the project involved a variety of methods, including interviews, examination of relevant documents, participant observation, and active involvement of the community as co-researchers. By adopting this approach, the project ensured that data was gathered from multiple sources, allowing for a comprehensive understanding of the subject matter while actively involving the community in the research process (Cornish et al., 2023). One of the authors acted as a participant and workshop lecturer (workshop Z), collecting direct data through field notes and transcriptions of participant actions and reflections. Additionally, 43 open-ended interviews were conducted with participants, teachers, and tutors, providing further triangulation of information.

The Z workshop employed an action research protocol, involving iterative stages of planning, acting, and reflecting. Sub-theme Z, consisting of 23 participants divided into smaller groups, actively identified issues, discussed actions, and interrogated their own practices. The action researcher generated reports within the system, disseminated findings to other groups and sub-themes, and facilitated bidirectional feedback and reflection to foster positive change in a participatory environment.

Descriptive data were gathered on participant profiles and workshop outputs, including three general reports per sub-theme (X, Y, Z) and eight specific outcomes from sub-theme Z (presentations, pictures, and prototypes). Additionally, digital repertoires, such as the XYZ Facebook page, La Scuola Open Source website, participant blogs, and press coverage, were continuously monitored to capture diverse perspectives and experiences in the digital platforms.

To enhance the validity of the findings, post-workshop interviews were conducted with the young association and a representative from “Che Fare.” These interviews provided valuable insights into how the workshop outcomes were being processed to realize the vision of La Scuola Open Source (Table 11.1).

**Table 11.1** Timeline of *La Scuola Open Source* development

September 2015	Video call—first phase “Che Fare” competition
November 2015	University Tours: in order to be share the idea proposal
December 2015	Winners of “Che Fare” Competition
June 2016 (03/06/16 to 05/07)	Open online—Call to X, Y, Z workshop—60 vacancies
21/06/16	Received 86 applications
02/07/16	Received more than 120 applications
05/07/16	Received 199 applications and the call closed
July 2016	Selection of participants
July 2016 (18th–30th)	Workshop X, Y, Z
November 22nd 2016	Opening of the School
September 19th 2020	New Governance form: co-op

### 11.4 The Project Data

To comprehend the development of the initiative and gain a comprehensive understanding, a chronological approach and interpretive approach, as suggested by Orlikowski and Baroudi (1991), were employed to analyze and create a report on how the young association engaged in crowdsourcing. This involved preparing brief descriptions of the young association’s activities, the participants involved in the workshops, and the outcomes achieved, such as profiles of members, workshop participants, and new Facebook members over time (Table 11.2).

The data analysis process focused on two primary considerations. Firstly, it involved describing and characterizing the XYZ workshop, including the activities and mechanisms employed to engage the crowd. Secondly, the analysis examined the values and actions implemented to actualize the project and provide public access to La Scuola Open Source.

During the XYZ workshop, a cyclical process of actions and feedback was documented, aiming to enhance the understanding of the social situation at hand, which was the creation of La Scuola Open Source. Initial interpretation and analysis of these data were carried out through ongoing interactions with two founders to ensure the reliability of the interpretations. In the second phase of analysis (August 2016), descriptive stories were shared with the founders and the workshop participants (currently accessible online at <http://www.lascuolaopensource.xyz/XYZ-Report/>). Feedback from these individuals regarding the interpretation of the data

**Table 11.2** Action research thematic plan during workshop Z per group (12 days)

	Planning and saying (focus)	Acting and observing (main actions)	Reflecting and relating (implementations)
Group 1	SOS and the stakeholders	Interviews with stakeholders and other organizations	Report “SOS X Firms”
Group 2	New educational models	Interviews with possible future users	System of pricing to have access to education
Group 3	Community and territory	Organization of an Open Night	Guideline to involve the territory
Group 4	Governance	Interviews with participants of X, Y, Z and the collective	New governance rules; ideation of voting system
Group 5	SOS and its knowledge sustainability	Interviews with participants of X, Y, Z and the collective	Storyboards of interaction between SOS and the universities or research centers
Group 6	Relations with online	Co-creation sessions with X, Y	SOS website map
Group 7	Participation with the community	Interviews with participants of X, Y, Z and the collective	Channels and accessibility analysis of the platform
Group 8	Relation with the educational offers	Interviews with teachers and professors	Education model advertising proposal

was integrated and linked to relevant theories to provide clarity on emergent themes and constructs (Glaser & Strauss, 1967) (Table 11.3).

The initial understanding of observations and field notes was developed through the first round of coding. During this phase, certain concepts emerged as significant from the coded data, such as “group,” “community,” “participation,” “process,” “service,” “new,” “open,” “design,” “network,” and “value.” Further exploration was conducted to examine the connotations of these terms as perceived by the participants in relation to the initiative. To achieve this, the contents of reports, blog posts, shared Google documents, and articles written by the participants were analyzed during the second phase of analysis. All these materials were openly accessible through the La Scuola Open Source website (<http://lascuolaopensource.xyz/>) and were distributed with open access. Notably, two active Facebook channels, namely the closed group La Scuola Open Source Community (<https://www.facebook.com/>

**Table 11.3** Data collection

Data source	Type of data	Use in the analysis
Direct observations and facilitation during action research (12 days)	Field notes with transcription of participants actions and reflections—descriptive stories	Characterization of the dynamics of the workshop
		Characterization of the strategies adopted to provide new meaning to the initiative
		Identification of the themes which represent the community
Interviews	First Round during X, Y, Z workshop (43 open ended conversations)	Characterization of the perception of the change to make by activities
	Second Round—end of the workshop (7)	Analysis of the interactions and alignment between collective intentions and community intentions
		Triangulate workshop data
Facebook posts (from 18/07/16 to 22/11/2016) SOS page (6k followers) Community (close groups) (+600 members)	441 posts 60 posts	Cluster analysis of themes and values discussed
		Identification of discourses and values relating the community-representation and SOS initiatives.
Digital Action repertoires	Shared documents on the website—reports from the X, Y, Z groups	Development of an historical and chronological account of SOS initiatives and activities
	Digital feedback form from participants	Characterization of the perception of the participants at the workshops
	Participants Blogs articles	Characterization of the perception and self-representation of the participants with the initiative



First order concept	Second order themes	Aggregate dimensions
<ul style="list-style-type: none"> <li>Words tracking: most used terms while speaking about the project: “group”, “community”, “participation”, “process”, “service”, “new”, “open”, “design”, “network” and “value”</li> </ul>	Inspiring values	The role of design process
<ul style="list-style-type: none"> <li>Community identity – who we are going to be?</li> <li>Experience during the workshop</li> <li>Open people, open space – participatory models</li> </ul>	Change in social reference – open community	
<ul style="list-style-type: none"> <li>Change on the educational model</li> <li>New roles as educators</li> </ul>	Educational Model explorations	Challenge in governance
<ul style="list-style-type: none"> <li>Discussion on the business identity</li> <li>Discussion on the group identify and governance representations</li> </ul>	Identity ambiguity – groups identity	
<ul style="list-style-type: none"> <li>Identification of services</li> <li>Lectures models</li> <li>Ideas for the future developments</li> <li>New forms of learnings</li> <li>Inclusiveness and diversity</li> </ul>	Refine desired of future processes – educational forms	The role of digital platforms
<ul style="list-style-type: none"> <li>The system to govern the initiative</li> <li>The role of the platform</li> <li>The role of the network</li> <li>Technology to be use</li> </ul>	The system, the Tools and platform development – platform system	

Fig. 11.2 Analytical coding process

Once it became evident that the utilization of values played a pivotal role in connecting participants with the social initiative, our investigation delved into how the XYZ workshop and the crowdsourcing call effectively fostered this connection. By closely analyzing the comprehensive dataset, we were able to identify three overarching dimensions (Corley & Gioia, 2004) that characterized the interactions, challenges, and leveraging of the La Scuola Open Source initiative within the crowdsourced community. These dimensions encompassed two activities, namely the role of design processes and the role of digital platforms, along with one challenge related to the governance model (Fig. 11.2).

### 11.5 Crowdsourcing to Build a New Community

By employing participatory action research and analyzing the contents shared within the digital network, we can illustrate how the crowdsourced community actively contributed to the advancement of the initiative. This collective effort culminated in the successful realization of the project in November, solidifying its legal establishment as a cooperative entity. The members maintained a high level of involvement throughout the project, actively participating in discussions regarding the research findings. They leveraged their identities, knowledge, and networks to frame the issue and initiate the creation of a social organization. While social entrepreneurs may have a desire to “do something,” the exact nature of that endeavor may not be clear initially (Mair & Marti, 2006). Hence, they relied on their networks to

engage individuals who could contribute to the development of the organization. Initially, they formed small collaborative teams of design experts to act as instructors and tutors during the X, Y, and Z workshops. However, a significant shift occurred when they launched a crowdsourcing call through Facebook and their website, inviting people from diverse backgrounds to co-create the initiative. This call received over 200 applications, indicating a positive response to the opportunity.

For the founders, crowdsourcing was not seen as just an “alternative innovation system” relying on untrained individuals (Howe, 2006). Instead, they perceived it as a chance to establish a new community, drawing inspiration from the unique characteristics of Bari and their own experiences as individuals who left their home country to pursue education. Their shared aspiration was to return and create a better future for themselves and their community.

The association embraced crowdsourcing as a means to invite and build a community of creative and highly motivated individuals. They recognized it as an opportunity to generate new knowledge about social challenges and actively experiment with, adapt, and implement innovative practices. Rather than viewing crowdsourcing solely as a source of ideas or labor, they saw it as a powerful tool for community development, fostering collaboration and collective problem solving.

By leveraging their networks and embracing the potential of crowdsourcing, the association expanded the reach of its initiative and tapped into the diverse expertise and perspectives of individuals from various backgrounds. This approach allowed them to harness the collective intelligence and passion of the community they were building, leading to a more inclusive and impactful development process.

This vision materialized during the 12-day workshop, where participants from diverse backgrounds and experiences fully immersed themselves in a multidisciplinary approach centered on cooperation and skills exchange. In interviews, some participants described the experience as transformative, stating that it marked the beginning of something new, a shared journey to create novel collaborations and rewrite the narrative of their community. The workshop fostered strong interactions and forged new relationships among the participants and within the local area. One participant aptly expressed, “*La Scuola Open Source is not filling a bucket, but lighting up a fire.*”

Following the workshop’s conclusion, the seeds of a new community had been sown. The 64 participants, along with the 24 instructors and tutors, felt a sense of unity through their shared workshop experience and remained willing to collaborate, even remotely, in order to advance La Scuola Open Source project. This success can be attributed to a value-based change process, driven by two key elements (design processes and digital platforms) and a challenge pertaining to the governance model. Participants effectively utilized the shared values cultivated during the workshop to propel the social initiative forward.

### ***11.5.1 Design Processes: Fostering Collaboration and Empowering Community Creation***

According to research (Lakhani et al., 2006; Lakhani & Panetta, 2007), crowdsourcing excels at engaging a diverse and dispersed crowd with varied knowledge and

backgrounds. However, this diversity can lead to a multitude of viewpoints and values, which, if not properly managed and channeled, may hinder progress toward a specific goal.

In the participant groups from sub-themes X, Y, and Z, comprising 64 individuals, a wide range of autonomous and diverse approaches emerged. Group X, for example, employed a decision-making process based on voting, ensuring the active participation of all members in each decision. In contrast, Group Z was subdivided into eight smaller groups, working independently on their deliverables while adhering to the overarching “design for service” methodology. The design-for-service approach embraced by Group Z embodied an exploratory and constructivist perspective, aiming to establish new value relationships among diverse actors, including individuals, technologies, and artifacts (Kimbell, 2011). This approach enabled participants to conceptualize and develop innovative solutions while considering the broader service ecosystem.

Although not in direct competition, the approaches of Group X and Group Z highlighted the intrinsic diversity within the participant groups, with each group offering distinct perspectives and methodologies. However, during the delivery phase, Group X faced challenges as the multitude of perspectives struggled to effectively converge. In contrast, Group Z achieved success by generating eight distinct outcomes that effectively addressed the intricate issues surrounding the School’s future processes and services.

This accomplishment underscores the importance of the design processes employed by Group Z, which provided a structured framework and tools for workflow without stifling creative autonomy.

Dealing with a complex social problem revealed the effectiveness of the design process for two key reasons. Firstly, design practices compelled participants to transform ideas into tangible outcomes by utilizing tools such as storyboards and customer journeys. These visual representations enabled a deeper understanding and enhanced engagement among group members through a shared perspective.

Secondly, design practices, particularly through ethnographic interviews, provided opportunities for active participation of all group members in the inquiry process. Material artifacts such as prototypes and experience prototypes were created, facilitating the envisioned processes. For instance, one of the groups in Group Z organized an impromptu event called the “open night” to raise awareness about the initiative among the population of the city of Bari. Within a short span of 2 days, the group designed a public evening where people could experience a glimpse of the “future.” Artifacts like simple promotional gadgets (i.e., La Scuola Open Source bags), demo objects (i.e., 3D printer demo objects), and customer journeys were crafted to make their services visible and easily comprehensible.

These tools and mechanisms exemplified the constructive nature of design, transcending individual viewpoints and involving crowdsourced members in the creation of a new “community point of view.” This inclusive approach aimed to ensure the success of the social initiative by engaging additional stakeholders, including citizens and social contexts. Ultimately, these mechanisms fostered a sense of belonging and facilitated decision-making for the members in subsequent steps. As

one member remarked, “The results of this workshop are in front of you. Thanks to its community, we will be able to open [La Scuola Open Source] in November.”

In summary, the utilization of design practices provided tangible outcomes, shared understanding, and active participation, enabling the participants to effectively address the social problem. By involving the community through visual representations and engaging artifacts, the design process fostered collaboration, inclusivity, and a sense of ownership among participants, ultimately paving the way for the successful realization of the initiative.

### ***11.5.2 Digital Platforms: Shaping Values and Engagement Throughout the Project***

The role of digital platforms in shaping values and fostering engagement emerged as a significant aspect of the project. Analysis revealed a strong commitment to knowledge generation within these platforms, demonstrated by both the association and the community of stakeholders at large.

Throughout the project, three distinct attitudes toward digital platforms were identified, where values were expressed and influenced.

Initially, technology played a pivotal role in engaging the community. The project’s website and social media channels, notably Facebook, served as primary digital platforms for disseminating the values of the association. Through these channels, the project’s call, abstract, and draft plan were shared, resulting in an overwhelming response of over 200 applications received for the workshop initiative.

During the workshop phase, web-based platforms assumed a supportive role as complementary tools. Digital platforms acted as repositories for process steps and ideas, while face-to-face interactions and physical prototyping took center stage in driving the project forward. The act of “making” and creating physical artifacts such as drawings, storyboards, prototypes, and visual maps became integral to fostering conversations and collaborations among the participants, and citizens. Additionally, a concerted effort was made to document and share the project’s progress online, ensuring transparency and knowledge dissemination.

Toward the conclusion of the workshops, technology regained significance as a means to reflect upon and share the progress made. The project’s closed Facebook group experienced substantial growth, attracting 400 active members within a few months, while the open group garnered 2000 followers in under a month. These digital platforms provided a platform for the community to engage, exchange ideas, and celebrate the milestones achieved during the initiative.

Throughout the initiative, technology played a vital role in both community engagement and progress sharing throughout the project. The digital platforms enabled widespread dissemination of project values, facilitated collaborative discussions, and provided avenues for reflection and knowledge sharing. They facilitated the connection of tangible and intangible resources, fostering interaction, and

generating value for diverse participant groups, including the founders, the online crowd, the 64 workshop participants, and the citizens. The growth of online communities showcased the positive impact of leveraging technology in fostering engagement, amplifying project outcomes, and extending the project's reach beyond the workshop phase.

To achieve these objectives, the digital platforms fulfilled three fundamental functions: match, facilitate, and pull. Initially, during the crowdsourcing call, the platforms *matched* users based on their characteristics and values by providing accurate descriptions of the initiative's social goals.

During the workshops, the platforms *facilitated* value-added interactions between different actors by providing updates on workshop activities, reflections, and suggestions from the participants, along with clear guidance for the next steps of the initiative.

Subsequently, as the 12-day workshop concluded, the platforms *pulled* users in by expanding, scaling, and reinforcing the value derived from network effects. Effective strategies to attract and retain users, while simultaneously scaling the network, were employed, such as frictionless entry, self-reinforcing activities, diverse activity promotions, and word-of-mouth recommendations.

### ***11.5.3 Governance Challenges and Dynamic Decision-Making in Crowdsourcing for Social Innovation***

The crowdsourcing and collaborative model for social innovation encountered immediate governance challenges. Determining who, where, and when decisions should be made became a key question. Should decisions be made before, during, or after the X, Y, and Z workshops? And should they be made by the crowdsourced communities or the founders?

In an open innovation context, system boundaries are often unclear, and actor preferences are diverse and evolving. As a result, goals and purposes become moving targets (Rindova & Kotha, 2001). This dynamic presented both a challenge and a generative principle for the community during the X, Y, and Z workshops.

The proposal of a non-centralized entity, where decisions could be shaped from the bottom-up, facilitated convergence. The founders (the association) and the instructors acted as brokers, linking and sharing knowledge among all groups. It was recognized that every approach is provisional and can be improved upon, rather than being definitive.

The workshop served as a "learning by doing" mechanism, allowing experimentation and exploration of feasible goals and means. Early characterization of means and ends provided a starting point and served as the basis for exchanging experiences among collaborators. This exchange of knowledge resulted in continuous learning, enabling adjustments to be made after the workshop.

The community has shown continued enthusiasm for exploring new possibilities for governance. This commitment is evident in the extensive discussions on Facebook following the workshop, as confirmed by content analysis (Fig. 11.1). This high level of engagement prompted the founders to initiate a transformation process from a community to a cooperative.

Italy has a rich history of cooperatives, established to address members' needs within its economy. In the late twentieth century, shifts in the economy created gaps in welfare services, which were filled by private social initiatives, including cooperatives. These initiatives grew, Italy took a pioneering step in 1991 by formally recognizing and instituting regulatory frameworks for social cooperatives.

The Italian law defined social cooperatives as entities striving for community welfare, personal growth, social integration, and provision of social services (Type A), while also generating employment for marginalized groups (Type B). Over time, both Type A and Type B social cooperatives in Italy grew substantially. Notably, while cooperatives are more prevalent in the southern regions of Italy relative to the population, they tend to employ a larger proportion of the workforce in the northern-center regions (OECD, 2021).

Recently, scholarly inquiries have delved into the connection between widespread prosperity and the presence of cooperatives at the regional level in Italy. The South of the country continues to deal with greater income inequality compared to the more central and northern areas, although recent trends indicate a narrowing of this gap (Ciani & Torrini, 2019). The Southern regions, inclusive of islands, persist in experiencing more pronounced disparities, centered around comparatively lower real income levels than their Center-North counterparts.

A study by Costa and Delbono (2023) has shed light on this relationship, suggesting promising findings warranting further exploration. Their research identifies a substantial and statistically significant correlation between the scale of cooperative employment and the widespread prosperity. Consequently, they cautiously posit that Italian cooperatives possess the potential to emerge as contributors to regional prosperity, potentially playing a role in mitigating regional disparities, particularly concerning employment and income discrepancies within communities. Moreover, their observations indicate a seemingly positive correlation between the magnitude of the regional cooperative movement and the resilience of the regional economic system, especially during crises like the ongoing pandemic.

A transition toward a cooperative form was carried out openly and with transparency, extending an invitation to all interested individuals who aimed to "Appeal to more generous aspirations," as explicitly stated in the email sent to all participants. Since September 19, 2020, the cooperative has welcomed 70 members, reflecting a shared vision for a formalized structure that aligns with the shared values and goals. The decision to form a cooperative reflects the community's aspiration for a more inclusive and participatory approach to governance, where decision-making power is distributed among its members.

This cooperative transformation, initiated by the founders, establishes a platform for shared ownership and decision-making. It acknowledges the significance of collective contributions and ensures a diverse range of perspectives shape cooperative's

activities. This approach nurtures a feeling of empowerment among members, enabling them to play an active role in the organization's development and orientation, while also striving for the betterment of the community at large, individual growth, social integration, and the delivery of education services.

The formation of the cooperative marks an important milestone in the community's evolution. It demonstrates their commitment to collaborative governance and their willingness to explore new models for collective action. Within this legal framework, the cooperative's trajectory is guided by the collaborative efforts of its members, ensuring the realization of its mission and vision: contributing to regional prosperity, addressing regional and local disparities, and fostering the development of a resilient regional economy.

## **11.6 Collaborative Responses to Grand Challenges: Embracing Ambiguity and Diverse Engagement**

In the face of a dynamic and intricate global landscape characterized by successive crises and complex transformations, the emergence of cooperative models has demonstrated its inherent potential to organically address communal challenges. Operating from the grassroots, the case study of "La Scuola Open Source," has revealed a cooperative model able to align closely with local needs and to establish robust social networks, underpinning its significance in navigating the demands of our times. Our exploration presented the use of an innovative strategy—crowdsourcing, which taps into latent skills and resources, serving as a response to a context unfortunately recognized for its elevated incidence of juvenile crimes. This cooperative accomplishment offers a unique lens through which to confront the multifaceted demands of our era.

In the quest to reimagine solutions to grand challenges, it is important to recognize that the landscape necessitates the involvement of a diverse spectrum of stakeholders and unconventional approaches. Our endeavor seeks to shed light on the potential of cooperatives to play a pivotal role in responding to grand challenges, advocating for a comprehensive understanding of their engagement within broader systems and complex issues.

Indeed, our chapter has introduced a pragmatic and participatory approach to addressing these grand challenges. Anchored in the principles of inclusivity and engagement, this approach integrates both virtual and physical efforts to foster nuanced strategies that inspire localized responses without imposing a uniform consensus on methods or goals.

Through the lens of crowdsourcing, the experience of La Scuola Open Source offers an enriching and participatory trajectory that embraces experimentation over prescription. This dynamic approach embodies ambiguity, welcomes diverse forms of engagement, and remains dedicated to its commitment to catalyzing positive and transformative change.

The insights collected from this transformative journey significantly contribute to our comprehension of cooperatives' potential as instruments for constructing comprehensive, collaborative, and effective responses to grand challenges. This potential is amplified by the integration of design processes, digital platforms, and distributed governance models.

The orchestration of collaborative interactions, thanks to the design process (Lauritzen & Karafyllia, 2019), as evidenced in the Z workshop, facilitated structured conversations, improved alignment of ideation phases, and a deeper engagement with the specific needs and skills of the local community. The study emphasizes that multi-actor collaboration, when guided effectively, allows for the utilization of all relevant assets such as knowledge, creativity, resources, and transformative capacities in public innovation (Bommert, 2010). These empirical insights offer valuable guidance for enhancing collaborative innovation within the public sector through an effectual approach.

Drawing on insights from open innovation literature, the study highlights the complex dynamics and interrelationships among various actors, including the online community and the offline one (workshop participants, the young collective, and citizens). Digital platforms played a pivotal role in creating a diverse and united community, driven by a shared goal of catalyzing social change (Lee et al., 2021; Logue & Grimes, 2022; Misuraca & Pasi, 2019). The study underscores the significance of complementarity between online and offline actions, as the X, Y, and Z workshops facilitated interpersonal connections while subsequent online conversations further nurtured innovation on a local scale. The ongoing communication through the Facebook channel exemplifies the facilitation of implementation through resource exchange, coordination, and joint ownership.

The study underscores the importance of reinforcing offline engagement with online support to foster new forms of partnership, ownership, and social innovation through cross-disciplinary collaboration. Despite its small scale, the project's robust interconnectedness with a globally distributed community allows for both local rootedness and the exchange of ideas, information, and people on a global scale. This highlights the transformation of isolated entities into interconnected nodes within short and long-distance networks, where local networks invigorate the socio-economic fabric while long-distance networks connect communities to the broader world.

Overall, this chapter provides valuable insights for practitioners and policymakers, showcasing the power of crowdsourcing and collaborative approaches in driving cooperatives to face grand societal challenges. The interplay of design processes, digital platforms, and governance models, creates an enabling environment for sustaining participatory innovation, ultimately contributing to societal betterment.

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