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Feature

Open Social Innovation

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A new approach to tackling social problems orchestrates the participation of multiple stakeholders in the process from generating ideas to scaling solutions.

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Illustration by Irene Rinaldi

For more than a year, the COVID-19 pandemic has presented a *societal* challenge: It affects us all, but it affects us differently. Like other societal challenges, such as the climate crisis, economic inequality, and racial injustice, it magnifies old and new social problems and brutally exposes weaknesses in our systems.

How can we make progress on these challenges and at the same time reinvigorate and modernize the institutional infrastructure of society? What we need are pragmatic, flexible, and scalable approaches. However, the practice of social innovation seems stuck in a paradigm with distinct divisions of labor between the state and public sectors, civil society, social enterprises, and businesses.

We believe that social innovation needs a makeover.

It is time to move beyond thinking of heroic individuals, the state, civil society, or business as singular agents of social change. Rather, we need to experiment with social innovation based on collective action facilitated by digital technology. Forging alliances, building multistakeholder networks, or adopting collective-impact formats where various actors—industry, NGOs, and governments—collaborate are steps in this direction.[1]

Recent collective efforts to build digital platforms to pool resources or facilitate interaction among grantees are helpful but have rarely included citizens as collaborators. Sidelining citizens in this work makes social innovation processes unproductive and, arguably, less effective. Citizens are affected by social problems, and they have skills and expertise to develop solutions. Collectively, for example, they have contributed to the world's largest encyclopedia (Wikipedia) and helped astronomers to categorize galaxies (Zooniverse). Citizens are central to this work.

How can we combine the spirit of collective action and digitally enabled cocreation with orchestrated experimentation to develop new approaches to social innovation?

We believe that recent experiments on open and participatory approaches offer important insights for rejuvenating the practice of social innovation. They also raise important questions about how well-intended initiatives might lead to unintended forms of exclusion.

Consider hackathons. They open spaces for creative thinking, assembling teams, and collaborating on ideas under time pressure. Their potential lies in generating a sizable collection of useful ideas, if not prototypes. Indeed, organizations associated with the public sector—such as the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), the United Nations, and even local governments, like the city of Toronto—have discovered the potential of hackathons to advance the common good. Such events—including contests, competitions, and BarCamp (an international network of user-generated conferences)—have become popular tools to enhance openness and participation in social innovation processes.

Broadening participation in such efforts to include governments and the public sector shows promise.[2] For many societal challenges, the public sector and established social service delivery organizations are indispensable partners for specifying problems, cocreating prototypes, and scaling solutions. What holds us back from integrating them into the process of creating new solutions and scaling them? Social innovators are often skeptical about the commitment and efficacy of the public sector and its willingness to continue improving solutions in the process of scaling. Public-sector organizations might be reluctant to endorse new solutions without extensive evidence about outcomes and often lack the flexibility to adapt solutions in the process of scaling. But what if we could integrate the public sector and citizens early in the process of identifying challenges, iterating ideas, learning more about the problems, and developing

and prototyping solutions? This could create a sense of collective responsibility for our institutional infrastructure and enable collective learning about how to tackle societal challenges and face crises.

What would an experiment where *all* stakeholders in a society—citizens, civil society, social enterprises, companies, foundations, philanthropists, and public administration—collectively participated in an open process of social innovation look like? And what if such an experiment was actively supported by the government and the chancellery or president's office of a large and seemingly well-functioning democratic country?

Admittedly, before March 2020, we would have considered such an experiment a nice but utopian thought experiment. One year later, we are excited to report on #WirVsVirus ("We Versus Virus")—a social experiment in Germany initiated at the beginning of the first COVID-19 lockdown by seven civil society organizations and supported by the German government. Through an open call to action, #WirVsVirus identified pressing challenges related to COVID-19, such as how to quickly digitalize health-care services, how to help citizens of all ages cope with lockdown-induced isolation, and how to respond to increasing instances of domestic violence. Twenty-eight thousand citizens across demographic and professional categories participated in a 48-hour-long hackathon to develop ideas about how to address these challenges.

However, the road to impact needs more than new ideas. It requires combining innovation and scaling.[3] The organizers of #WirVsVirus understood that social innovation is a marathon, rather than a sprint. They combined the hackathon with a six-month support program for innovators to further develop, test, and scale solutions. A total of 130 teams that formed during or in parallel with the hackathon participated in the support program. Public servants at federal and local ministries, companies, foundations, philanthropists, and citizens joined the participants in the hackathon and support program, offering pro bono services, expertise, time, and funding opportunities. What started as an experiment became a proof of concept for open social innovation (OSI), an open and participatory approach to social innovation based on collective action expedited by the power of digital technology.

In this article, we share what we have learned from following #WirVsVirus for more than a year and develop the conceptual contours of OSI. Social innovation aims to generate new and valuable products, services, and practices to tackle problems in our society. OSI is an approach that opens this process and encourages the participation of a variety of stakeholders along the course, from generating ideas to scaling solutions. OSI is based on two assumptions: first, that ideas or potential solutions to social problems might exist but are unevenly distributed among citizens and stakeholders;[4] second, that the road from idea to impact requires interaction based on both collaborative and competitive principles.

THE EXPERIMENT

In early March 2020, governments around the world, including Germany's, issued a lockdown that had severe consequences for social and economic life. On Sunday, March 15, a viral tweet about a collaboration between Estonia's startup community and government agencies to organize a hackathon on COVID-19 sparked a small movement in Germany. The same day, three women active in civic tech convened on Skype to discuss whether such a hackathon could also work in Germany. Typically, hackathons take a few weeks, if not months, to prepare. Facing a viral pandemic, these women pulled it off in a week.

At the same time, they reached out to a few leaders of organizations active in the field of social innovation. By Monday, seven organizations—Code for Germany, Initiative D21, Impact Hub Berlin, ProjectTogether, Prototype Fund, Social Entrepreneurship Netzwerk Deutschland, and Tech4Germany—comprised the team of organizers, despite having never collaborated before. One day later, they contacted the German government to request support for the hackathon, and the German chancellery and the federal government offered patronage. In the political realm, such speedy decision-making is almost unthinkable—unless it coincides with a crisis like the COVID-19 pandemic. On Wednesday, the organizers launched the website #WirVsVirus and issued the call to action via Twitter: "Use your time in a meaningful way. Submit challenges, mobilize your friends, digitally work on solutions that bring us together. Join us. We need your ideas and skills." On Friday, the hackathon went live with 28,000 participants, becoming one of the world's largest events of its kind.

Over the course of 48 hours, the participants formed teams and generated 1,500 ideas, from tracking coronavirus infection rates and providing palliative care online to preventing or detecting increasing instances of child abuse among families in lockdown. One week after the hackathon, the organizers reached out to 600 people with expertise in the different problem domains to evaluate these ideas. They then assembled a jury, composed of 48 experts from the public sector, civil society, business, media, and academia, to select 20 ideas as the "best solutions." Among these were a solution developed by the team Small Business Heroes, which provided visibility and new distribution channels to small retailers affected by the lockdown, and a solution developed by the team Meinegemeinde.digital, which consisted of a platform to digitally organize activities for communities of faith.

The #WirVsVirus experiment did not end here. Supplementing the hackathon, the organizers quickly designed a support program for teams to further develop and scale their ideas and prototypes. The federal chancellery officially endorsed this program; federal ministries, foundations, and philanthropists provided financial resources; and companies (e.g., Google, BCG, Vodafone Institute) and professionals assisted teams with expertise. The support program had three components: First, a six-month *solution enabler* program, which helped teams through networking opportunities with experts, weekly calls for knowledge exchange and community building, and a digital platform where teams could request resources

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(e.g., legal advice) from supporting companies. Second, a six-week *solution builder* program, where teams received tailored support from companies (e.g., assisting with programming tasks). Third, a *matching fund* to mobilize additional funds through crowdfunding on the donation-based platform Startnext (the German equivalent of Kickstarter).

The support program enabled teams to pivot their ideas, tinker with scaling options, expand their networks, form coalitions, and amplify their voices. However, a few teams did drop out of the program because they completed their project (e.g., a self-help endeavor to produce masks), failed to gather resources or encountered bureaucratic hurdles to scale their project, or could not combine their professional or personal lives with the commitment to #WirVsVirus after the first lockdown had been lifted. #WirVsVirus officially ended on October 1, 2020, with a public all-day event showcasing 66 solutions the teams had developed. Chancellor Angela Merkel and several ministers applauded the organizers and teams during the live-streamed event. For most teams, the innovation journey continued after the official end of the program.

#WIRVSVIRUS AS AN OSI PROCESS

As a learning partner of #WirVsVirus, we participated in the hackathon, observed the teams in the support program, and shadowed the organizers in internal meetings. In total, we have conducted about 200 interviews; analyzed social media posts; screened weekly progress reports on the teams; tallied 650 hours observing the interactions of the emerging #WirVsVirus community; and organized reflection workshops with teams, organizations, and external stakeholders. Closely following the experiment of #WirVsVirus allowed us to appreciate the potential of OSI as a collective-action approach to social innovation and to specify the process of OSI along four interrelated yet distinct phases: mobilizing, bundling, curating, and scaling. (See "The Open Social Innovation Process," below.)

Each phase requires organizers to focus on a specific set of activities. Detailing these phases helps to specify the tasks and roles of organizers, illustrate the journey of ideas to impact, pace the efforts of innovators, and allocate resources to support the process.

In the *mobilization* phase, challenges are identified, problems further specified, and ideas and potential solutions scouted. Successfully scouting for ideas and possible solutions requires stakeholders to become aware of the call to action and decide to commit their time, skills, and knowledge in the solution search.

Critical activities for organizers in this phase are crafting the call for action and disseminating it. The call to action needs to render the challenge intelligible and set expectations for stakeholders. It answers prospective participants' questions: What problem needs to be solved? What requirements must a solution meet? What happens to generated ideas? What do participants get out of the solution (e.g., networking, recognition, or monetary awards)? Disseminating the call sounds trivial, but in a world where many suffer from information overload, being heard is a challenge. Mobilizing incurs costs, such as hiring staff to promote the call or buying advertising for (social) media. Given the costs associated with mobilizing, organizers need to ask: Which stakeholders should get involved? How can they be reached?

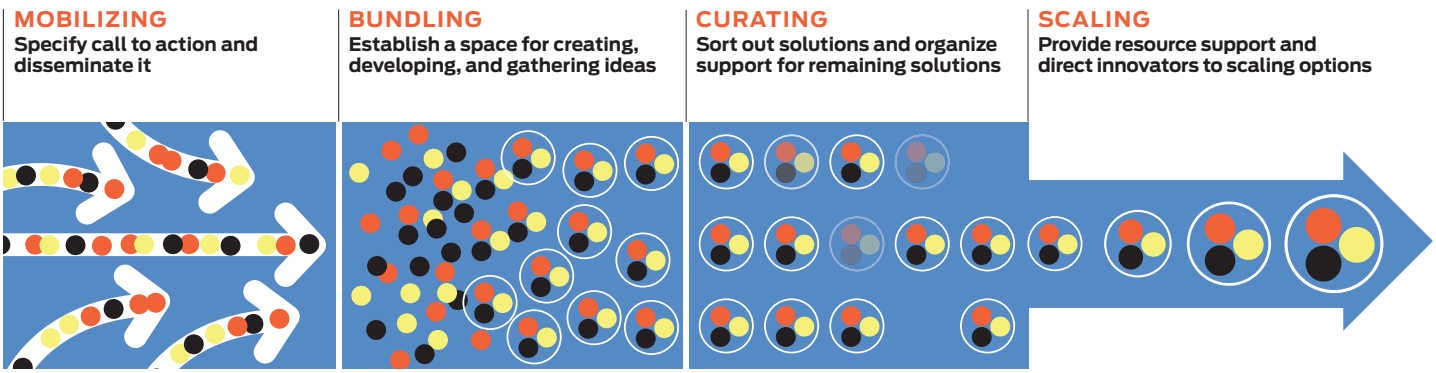
In their call to action, the organizers of #WirVsVirus put forward various challenges related to COVID-19 and formulated problems in broad terms. The #WirVsVirus call included challenges in 48 categories, such as volunteer work, mental health, and digitalizing health-care services. The organizers published a list of frequently asked questions on the website, which included information about how they would contribute to the posthackathon process—for example, "We will set up a support program to turn your prototypes into impactful solutions." The #WirVsVirus organizers distributed the call widely, with the objective of including as many citizens as possible. Social media users shared the Twitter announcement for the hackathon nearly 1,200 times.

In the *bundling* phase, problems, ideas, and solutions are matched and combined, and experimentation linking problems and solutions begins. Experimentation can start with the problem specified in the call to action and innovators assembling around the problem. But it can also start with an existing solution or prototype and innovators finding a match for their solution in the problems that the call presents.

To facilitate this process, organizers establish a space for creating, developing, and gathering ideas. Participants can submit their ideas using digital platforms, which in turn foster collaboration, as participants are encouraged to form teams and jointly work on problem-solving. Organizers need to design these spaces and decide whether participants should meet online, offline, or both. The advantage of an offline event is that participants can collaborate

The Open Social Innovation Process

The four phases of the OSI process and associated organizing activities.



in a face-to-face setting. The advantage of digital infrastructure is that it can be scaled rather quickly to accommodate an unanticipated increase in participants. In the case of #WirVsVirus, the decision to stage an online hackathon was based on necessity. However, online hackathons will most likely remain popular, as—because of the pandemic—more people are able and willing to work creatively online.

Assembling thousands of people requires an effective technological infrastructure. #WirVsVirus relied on the social team software Slack, which allows people to meet and coordinate within channels organized around challenges. However, organizing OSI requires improvisation with technology. Because of the sheer number of participants, Slack broke down on the first day. Slack's CEO, Stewart Butterfield, reacted with a tweet noting that inviting 28,000 people at once might have been "a bad idea." The organizers quickly moved to YouTube and Twitter to broadcast messages to participants. The organizers fixed the technical issue overnight, with the help of Slack's community management, and the following morning, participants could communicate and interact again.

In the *curation* phase, problem-solution combinations are selected. This phase requires diligence, as it significantly reduces not only the number of ideas but also the number of participants in the process.

In this phase, organizers need to carefully sort solutions and at the same time manage the community. The fundamental question for the selection is: Do I want to continue with one or a limited number of ideas, or do I want to keep as many solutions as possible in the process? Picking a small number of projects—a logic used in accelerators—has the advantage that the organizer can concentrate resources and provide hands-on assistance. However, if solutions are at an early development stage, this is a high-risk bet, even when organizers are considering quality signals (e.g., professional application, a participant's background, etc.). In contrast, selecting many projects and supporting them for an extended period allows projects to develop their impact potential at their own pace. In parallel with selecting solutions, organizers need to manage and nurture community, facilitate collective action, and enable ongoing experimentation. Successful community management addresses two questions: How can I create a sense of community belonging, and how can I provide learning opportunities to innovators?

The #WirVsVirus organizers kept as many projects as possible in the process because the problems related to COVID-19 were poorly understood at the time of the hackathon and most ideas were in their early stage. As one of the organizers told us, "How could we know one week after the hackathon which ideas would take off?" Out of 400 applications for the posthackathon support program, the organizers picked 130 innovator teams and established community management that pursued common activities, rituals, and symbols to foster belonging. In the #WirVsVirus support program, the community met every Wednesday evening on Zoom for six months. Between 100 and 400 people attended each meeting. These weekly meetings became a powerful ritual, which participants referred to as "Solution Enabler Day." The organizers strengthened participants' commitment and reified this ritual through social activities, such as playing the same music at the beginning of each call, composing virtual group pictures, and creating collective "Twitter storms"—everyone tweeting about the #WirVsVirus at the same time to make it a trending topic on Twitter. The #WirVsVirus organizers orchestrated input from renowned experts and celebrated team success stories during the Wednesday calls. More important, the organizers created thematic clusters (e.g., digitalizing health care), led by mentors with domain expertise, in which teams shared their experiences and reflected collectively on their successes and obstacles.

In the *scaling* phase, solutions are put on different pathways to achieve impact. Innovators need to make critical decisions on the scaling pathway: Will they start a new social business? Scale through government or business? Will they hand over the solution or develop it further in a proprietary way?

Organizers can support innovators in this process in various ways. Developing ideas consumes resources. Hence, organizers can offer concrete resource support to innovators, such as stipends, other forms of funding, or hands-on resources. Another action for organizers is serving as intermediaries and leveraging their networks to link innovators with promising solutions to potential scaling partners. Organizers can engage in either direct mediation (e.g., selecting a solution and directly approaching a scaling partner) or indirect mediation (e.g., creating events where innovators and possible scaling partners can meet each other).

In the early phase of #WirVsVirus, innovators invested their time, expertise, and networks and, in some cases, their own financial resources. The private sector committed pro-bono resources to assist teams. With the support of foundations, the #WirVsVirus organizers paid 32 stipends to innovators who committed to working on solutions for at least 30 hours per week. The Federal Ministry of Education and Research repurposed and adapted an existing program for funding open-source software development to give teams and their solutions additional funding. And #WirVsVirus organizers indirectly and directly mediated between innovators and scaling partners. For example, the organizers hosted an event where innovators could present their ideas to social-welfare organizations. They also sought to push promising projects by directly approaching foundations or government agencies as scaling partners.

#WirVsVirus might seem an outlier because it emerged in response to a global crisis. Nevertheless, documenting it allowed us to showcase the OSI process. Understanding the process is helpful for differentiating among and comparing different OSI initiatives. For example, other initiatives, such as innovation contests, prioritize the front end of the process and see great value in mobilizing and bundling ideas and solutions but do not engage in curating and scaling these solutions with stakeholders. However, what they all have in common is an open call to action.

TYPES OF OSI INITIATIVES

Two dimensions enable us to grasp differences among OSI initiatives: reach and scope. Reach refers to the number and diversity of participants included in an OSI initiative. The reach is narrow if an OSI initiative focuses on a specific target group or a few experts. Conversely, it is broad if an initiative mobilizes a wide range of citizens and diverse groups. Scope refers to an initiative's number of sectors or issue domains. OSI initiatives have either a narrow focus that taps one sector (e.g., public administrations seeking help from the private sector) or a broad focus, where an organizer

deliberately brings together actors from multiple social sectors to collaborate on solutions.

Juxtaposing these dimensions are four types: innovation contests, open-data hackathons, government labs, and collective challenges, such as #WirVsVirus. (See "Types of Open Social Innovation Initiatives," right.)

Innovation contests are an example of *narrow scope and narrow reach*. Consider NASA's innovation contest for predicting solar events. Exploring the solar system necessitates dealing with dangers such as radiation from the sun, which may harm humans and spacecraft alike. To reduce risk, NASA has been working for years to predict solar events causing these radiations. Unable to devise a satisfying solution, NASA turned to the digital innovation platform InnoCentive, which specializes in innovation contests and has at its disposal a network of about 300,000 experts from various disciplines. More than 500 experts from 53 countries responded to the challenge, and 11 entered the competition. A retired radio-frequency engineer received the $30,000 award because his solution for forecasting solar activity outperformed NASA's existing approaches.[5]

Innovation contests are helpful when organizers know which problem to solve but fail to develop a solution. As former US chief technology officer and Sun Microsystems cofounder Bill Joy observed about the potential of such contests, "The smartest people in the world don't all work for us. Most of them work for someone else. The trick is to make it worthwhile for the great people outside your company to support your technology. Innovation moves faster when the people elsewhere are working on the problem with you."[6] The potential risk of this method is that it is sometimes necessary to redefine the problem to arrive at a better solution. However, OSI based solely on contests can discourage experimenting on problem-solution combinations, since participants are expected to adopt the problem definition specified in the call.

Open-data hackathons fall into the category of *narrow scope and broad reach*. Governments worldwide are sitting on data sets that could be turned into applications serving citizens' needs.[7] Since some public administrations find innovating difficult and lack data-science competencies, many governments—such as the United States, Malaysia, Poland, and India—have created portals that allow data sets to be used free of charge. To create awareness for these data sets and promote their potential, governments and/or civil-society organizations stage hackathons so that participants can apply the data sets to hack solutions for public problems. For instance, the city of Toronto co-organized a hackathon in 2015 and asked the public to delve into open data to fix Toronto's traffic troubles. Typically, a jury screens all hackathon applications and awards winners with a substantive cash prize.

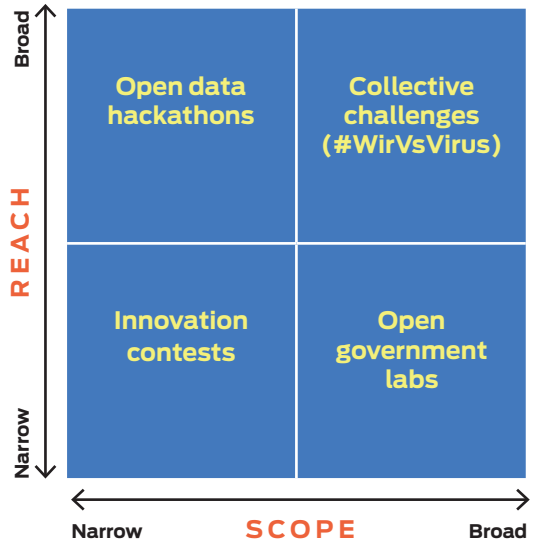
These types of hackathons are a viable option if an organizer wants to create awareness for a specific problem, such as how to make a city government's actions more transparent and accessible to citizens, or a challenge that is complex, such as climate change. Hackathons can generate many ideas in a short time. However, "they very rarely spark real, lasting innovation," as MIT Sloan School of Management senior lecturer Anjali Sastry and Mission Spark cofounder Kara Penn have observed.[8] Why? Organizers decide not to support and sponsor ideas after a hackathon. Thus, one of the dangers of open-data hackathons is that they create an illusion that problems can be hacked away over a weekend.

Open government labs are a prototypical example of *narrow reach and broad scope* OSI initiatives. Thinking in departmental silos and being stuck in traditional problem-solving approaches impedes public administrations' ability to innovate. To address this problem, city governments, like Boston, and national governments, such as Denmark or Austria, have created open government labs.[9]

Open government labs seek to stimulate social innovation by creating spaces for experimentation in hierarchical and bureaucratic organizational contexts. They promote new ways of working using principles of prototyping or design thinking, foster collaboration among government agencies, and accelerate citizen-initiated projects. Open government labs can leverage knowledge and networks across policy domains and sectors and thereby offer projects valuable feedback from multiple perspectives. This approach to OSI is useful for problems that require expertise and support from different stakeholders. However, as open government labs need to constantly legitimize their existence—and thus are under additional pressure—they may push forward solutions without considering how to scale them effectively.

Finally, OSI initiatives can be *broad in reach and broad in scope*, especially when they address collective challenges. For example, #WirVsVirus centered on problems related to a global crisis—the COVID-19 pandemic. The follow-up initiative organized by ProjectTogether broadened the scope further: #UpdateDeutschland arose from the assumption that citizens and the public sector can work on jointly identified challenges, with the secondary objective of reforming parts of the public sector in Germany. In April 2021, #UpdateDeutschland gathered 4,000 participants for a 48-hour idea-creation-and-matching hackathon. These participants were selected from 320 innovator teams that were accepted for a five-month support program. This broad-in-reach-and-scope approach is useful when the organizer intends to solicit different interpretations and perspectives of problems, integrate stakeholders from different sectors to develop a shared understanding of the problems, and share the responsibility for and commitment to tackling them. But this type of OSI initiative also bears risks: Organizers may have little to show for themselves at the end of the process; not all solutions can or will be scaled; and progress on objectives, such

Types of Open Social Innovation Initiatives



as collective learning or changing mindsets through cross-sector collaborations, is difficult to measure.

DEBUNKING ASSUMPTIONS

It is tempting to think of OSI as an approach that generates more and better ideas both at lower costs and with rapid impact. We explicitly warn against thinking of OSI as mimicking open-innovation methods used by companies to stay ahead of their competition. Making progress on societal challenges is different. In contrast with business challenges, societal challenges are typically based on relational problems, not just technical problems. Second, well-intended solutions might have undesired effects that cannot be mitigated easily by taking a product or service off the market. Third, the markers of success for OSI initiatives need to reflect multiple dimensions, not singular dimensions, as in the case of business profits, market share, and shareholder value. Opening the process of social innovation and making it more participatory will eventually slow down the process. Fourth, costs might be higher than in organizational social innovation processes. Finally, the solutions generated through OSI create benefits and impact at different points in time.

In #WirVsVirus, a few solutions created nearly instantaneous effects after the 48-hour hackathon sprint. These solutions tackled a pressing and clearly specified problem, integrated relevant stakeholders early, and relied on simple and modular technologies. As in any crisis, the pandemic brought to the fore weaknesses in the current institutional setup. At first sight, the elaborate system of welfare provisions in Germany seemed prepared to buffer the immediate economic consequences of the lockdown. But even though small and medium-size enterprises were entitled to apply for short-term allowance for their employees, the Federal Employment Agency (FEA) was unprepared for the avalanche of applications. A hackathon project team recognized the FEA's problem and developed a chatbot prototype called UDO to help applicants navigate the process. During the first weeks of the support program, UDO helped more than 3,000 small and medium-size enterprises to apply for a short-term allowance. This solution significantly reduced the time required for an otherwise time-consuming, paper-based application and created important spillovers for digitalizing processes and services within the public administration.

Most of the solutions seeded during the hackathon began generating impact during and after the support program. These solutions addressed more complex problems, required buy-in from and coordination by various stakeholders, and/or built on more sophisticated digital tools. For example, the pandemic exposed various flaws in the seemingly robust public-health system. During the #WirVsVirus hackathon, several teams started to develop prototypes for solutions on how to quickly detect available slots in intensive care units, or how to establish digital interfaces between local and federal health departments to monitor the occurrence and dynamics of infections.

The community-building activities and access to different stakeholders during the solution enabler process encouraged these teams to build a coalition around COVID-19 health issues. Doing so helped them to amplify their voices, navigate the public-health bureaucracy, and be more effective in changing existing processes and redefining priorities in the public-health system. Fast tracks to impact are rare. Building a coalition and prioritizing collective action over individual action might slow the social innovation process, but this collective process amplifies the likelihood of success in the long term. Forging and growing relationships among like-minded innovators and also with institutional stakeholders can transform practices and catalyze systemic change.

DEFYING THE ILLUSION OF INCLUSION

OSI encourages the participation of stakeholders who are often regarded as sidelining or slowing down the process of developing and scaling solutions to social challenges. But including a more diverse set of participants does not prevent the process from reproducing old, or producing new, patterns of exclusion. The design choices in OSI involve trade-offs and can lead to unintended forms of exclusion. In our research, we identified three areas where biases can creep in. There is no one best way to resolve trade-offs, but we learned that organizers can take certain actions to mitigate the effects of bias.

Technology | The call to action critically shapes OSI processes and outcomes. How technology is framed in the call determines who feels welcome and who does not. Technology can be framed as enabling the search for solutions or as a core component of solutions. This context may cause participants to prioritize a technological solution ("Let's build a platform") while excluding those who deeply understand the problem but are not tech-savvy. Also, the choice of event and space created for interaction matters for signaling the extent to which technology is a core feature of the OSI approach.

An organizer using the hackathon frame automatically speaks to a community of tech experts, which in Europe is predominantly white, male, and below the age of 40. One remedy is to intentionally engage with those who are unlikely to respond to the call to action. The #UpdateDeutschland organizers sought to increase diversity by directly contacting various underrepresented communities to encourage them to become ambassadors and spread the message about #UpdateDeutschland within their networks. The organizers aimed for inclusion by avoiding the tech frame of a "hackathon" and instead calling the mobilizing event a "48-hour sprint." The shift to a more ambiguous label, however, appealed less to programmers. The lesson here is that the choice of a frame affects who might participate.

Competition | Generating many ideas and solutions is integral to the OSI process. Integrating competitive elements, such as selecting winners from the hackathon, is an essential motivating device and allows organizers to effectively illustrate the transformative potential of solutions. Here, the source of bias is who decides, or judges, the competition.

The #WirVsVirus organizers deployed a jury to award the hackathon's top 20 contributions. However, the jury was relatively homogenous in terms of professional background and ethnicity. In retrospect, the organizers recognized these biases and acknowledged the importance of picking jury members from different professional backgrounds, ethnicities, and genders. Organizers can also explicitly include those communities directly affected by challenges in jury decisions. For example, an OSI initiative addressing homelessness can include people associated with different forms of homelessness in the jury or involve them in the decision-making process and compensate them for their service. Another option is to weaken the competitive element. The #UpdateDeutschland organizers refrained from celebrating winners or selecting best solutions at the end of

the sprint. In doing so, they strengthened the collaborative spirit of the OSI process but lowered public interest in the hackathon, since media were not provided with nor could not easily identify "success" stories. Organizers also need to be aware that receiving an award has a strong motivational effect for teams that decide to continue their innovation journey after the hackathon and offers nonwinning teams a benchmark for success.

Site of interaction | OSI approaches rely on social interaction among participants. These interactions can take place offline and online. When thinking about online interactions, people who are less familiar with digital platforms like Slack might be discouraged from participating. Indeed, some people may be unfamiliar with these tools or lack access to fast broadband internet and suitable devices. Because building digital infrastructure and improving digital skills rank high on many countries' political agenda, these barriers might be lower for OSI initiatives in the future.

An additional potential source of exclusion lies in the spatial divide between metropolitan and rural areas. Large-scale events that attract media attention typically take place in the United States, particularly in metropolitan, coastal cities, such as New York City, Los Angeles, and Washington, DC. However, the COVID-19 pandemic taught us how to connect and collaborate online. Indeed, #WirVsVirus and the follow-up project #UpdateDeutschland demonstrated the potential to bridge spatial divides, since participants were from across Germany. The geographic range of participation would have been impossible if the hackathon had been an in-person event in Berlin.

COMMITMENT AS FULCRUM

OSI is not a panacea, and it is not an effective approach to all societal challenges. Perspectives about what OSI should and can achieve also might differ among organizers and participants. Expectations about process and outcomes can vary among stakeholders. However, stakeholders' commitment to the process is essential to the success of an OSI initiative. Here are a few considerations that might help stakeholders make informed decisions about whether to engage in such an initiative.

For governments | OSI is an invitation to citizens and organizations from all sectors to collectively specify and solve social problems. It is also a promise that participants' ideas and expertise are valued. OSI is a method that allows governments to ignite civic engagement and revive sentiments of solidarity. Currently, the German government continues experimenting with OSI as an approach to broaden and rejuvenate civic engagement, to test new forms of political participation, and to empower citizens to become a part of institutional innovation processes. However, governments must avoid making empty promises, guarantee a minimum of support, and enable solutions to scale within the public system. Moreover, those working within government need to understand that OSI can complement policymaking and policy practices. OSI cannot substitute for effective public administration.

For public servants | OSI will most likely expose flaws and pathologies in bureaucratic systems. At the same time, this disclosure helps to catalyze long-overdue transformation processes within the public sector. Public administrators need to be ready for and embrace change. They need to make sure that they and their units are ready for reforms that they cocreate with citizens and organizations. Showcasing examples of how collaborations have worked in the past helps to break resistance to future change. Public administrators also need to account for citizen innovators operating at a different pace, in order to manage expectations about how fast tangible results can be achieved.

For funders | OSI is an appealing approach to tackle complex and/or unexpected challenges. However, the open and participatory nature of the process requires funders and foundations to depart from strict adherence to logic models or strategic plans to monitor and evaluate the success of OSI. Performing anticipated metrics would be counterproductive to an OSI project's potential. Rather, funders should invest in evaluation as a learning resource, rather than as an accounting effort. They need to carefully assess whether the challenge benefits from a collective-action approach to develop and scale solutions effectively. OSI processes might be less effective if funders micromanage them. Funders should ask if they trust both the organizers to steer the process and the participants to self-organize in the process. They should also consider whether they are ready to accept outcomes that might be unintended but equally valuable to society.

For participants | OSI requires a serious commitment of time and resources. Participants will learn on many fronts, but they also need to commit to making progress on a problem that might not be their own. If participants focus solely on their individual solutions at the expense of working together, lasting impact based on the stakeholders' ability to scale a cocreated solution is unlikely. Participants should ask themselves if they are committed to the collaborative process.

For organizers | OSI ungates the innovation process for wider participation. However, openness and participation do not automatically make social innovation more inclusive. Bias inheres in design choices and decisions on how to structure processes and events that consequently reproduce or create new sources of exclusion. Organizers need to make sure they include feedback loops in their process and can quickly address early signs of exclusion.

OSI is a promising approach to encourage collective action and harness the potential of digital technologies in solving society's greatest challenges. While more experimentation is necessary for us to understand when and how OSI works, experiments like #WirVsVirus and #UpdateDeutschland showcase OSI's potential. ■

Notes

1 See Satish Nambisan, "Platforms for Collaboration," *Stanford Social Innovation Review*, vol. 7, no. 3, 2009, and John Kania and Mark Kramer, "Collective Impact," *Stanford Social Innovation Review*, vol. 9, no. 1, 2011.

2 Tara McGuinness and Anne-Marie Slaughter, "The New Practice of Public Problem Solving," *Stanford Social Innovation Review*, vol. 17, no. 2, 2019.

3 Christian Seelos and Johanna Mair, "When Innovation Goes Wrong," *Stanford Social Innovation Review*, vol. 14, no. 4, 2016.

4 Anita M. McGahan et al., "Tackling Societal Challenges with Open Innovation," *California Management Review*, vol. 63, no. 2, 2021.

5 Andrew King and Karim R. Lakhani, "Open Innovation to Identify the Best Ideas," *MIT Sloan Management Review*, vol. 55, no. 1, 2013.

6 There are various iterations of what has come to be known as Joy's Law. The earliest citation is found in Brent Schlender, "Whose Internet Is It, Anyway?" *Fortune*, vol. 132, no. 12, 1995.

7 See Open Government Partnership: www.opengovpartnership.org.

8 Anjali Sastry and Kara Penn, "Why Hackathons Are Bad for Innovation," *Fast Company*, December 1, 2015.

9 Christian Bason, "Design-Led Innovation in Government," *Stanford Social Innovation Review*, vol. 11, no. 2, 2013.