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#WirVsVirus

Communities co-producing new solutions to meet COVID-19 challenges through a hackathon in Germany

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Introduction

This chapter provides a conceptual framework for digital co-production, including co-commissioning, co-design, co-delivery, and co-assessment of public services and outcomes. It illustrates this conceptual framework through a German case study involving citizens participating in a large-scale hackathon to meet COVID-19 challenges. In particular, we will analyse how the #WirVsVirus hackathon (<https://wirvsvirus.org/hackaton/>) put co-production into practice from the perspective of a hackathon participant (Claudia Masiga), who has been working on the OpenFoodBank initiative.

A conceptual framework for digital co-production

Digital co-production is not new. Indeed, early applications of e-government in the late 1990s can be considered as a form of co-delivery, through which e-government solutions enabled governments to increase the contributions of service users (Loeffler, 2021:135). However, as recent surveys of municipalities and businesses in Germany show (Bertschek and Erdsiek, 2020; KfW, 2020), there is a widely held view that the COVID-19 crisis has brought about a push towards digitalisation in both the public and private sectors. It has also

reinforced the use of existing forms of digital co-production, such as hackathons. Hackathons involve a competition between innovative ideas. They typically start with an open call by a government for solutions to a particular problem, followed by citizens working in teams through a government-platform to identify innovative solutions under time pressure (Gegenhuber et al, 2020). The #WirVsVirus hackathon, which took place in Germany between 20 and 22 March 2020, is considered to be ‘the biggest hackathon globally’ to date (Berg et al, 2020).

In order to assess the impact of digital technologies on co-production, it is useful to distinguish between different types of co-production – in particular, we distinguish citizen voice from citizen action. For example, the #WirVsVirus hackathon encouraged people in Germany to voice their ideas on how to tackle the COVID-19 crisis through new solutions. A participant commented on how citizen voice now had a greater perceived impact, welcoming the opportunity ‘to be taken seriously as a small hacker by a big government’ (<https://wirvsvirus.org/hackaton/>). At the same time, digital co-production may also involve citizen action, recruiting volunteers for new co-production initiatives such as the OpenFoodBank, which was selected by the German Federal Chancellery as one of the ten projects emerging from the hackathon that most urgently deserved implementation.

It is important to be clear what we mean by co-production. This chapter uses the definition from the recent Palgrave Macmillan monograph *Co-Production of Public Services and Outcomes*, which states: ‘User and community co-production of public services and outcomes means public service organisations and citizens making better use of each other’s assets, resources and contributions to achieve better outcomes or improved efficiency’ (Loeffler, 2021:27). Clearly, ‘public service organisations’ in this definition include not only public sector organisations but also other service providers, whether from the public, private, or non-profit sectors, which make a significant contribution to public services.

More specifically, as outlined in Loeffler (2021: chapter 3), we propose to distinguish four ways of co-producing, including:

- *co-commissioning* of priority outcomes;
- *co-design* of improved pathways to outcomes;
- *co-delivery* of pathways to outcomes;
- *co-assessment* of public services, public governance, and quality of life outcomes.

In the following sections, we analyse to what extent the Four Co's were evident in the German hackathon #WirVsVirus. Our analysis focuses on the experience of one project that emerged from the hackathon, OpenFoodBank (<https://openfoodbank.net/regions/>). This project developed an online platform for the collection and distribution of corporate food donations at regional and international levels. Its main goal is to make large-scale donations available especially to smaller non-governmental organisations (NGOs), according to their specific needs. Currently, the project team includes six citizens who act as volunteers.

The German hackathon #WirVsVirus as a case study of digital co-production from the perspective of the OpenFoodBank project

The Federal Chancellery in Germany joined up with seven third sector organisations specialising in digital services to organise a national hackathon in response to the COVID-19 pandemic – the result was #WirVsVirus. As this initiative came from the 'civitech community' – partly as a response to similar hackathons taking place in Estonia and other countries – this is a (rare) example of co-production, which followed the 'outside-in' pathway to co-production, through which the public sector adds value to initiatives started in civil society, rather than the more traditional 'inside-out' pathway to co-production, where public sector organisations invite citizens to co-produce better public services and outcomes (Loeffler, 2021:53).

What made this hackathon special was its size, scale, and speed: more than 28,000 people participated as unpaid volunteers and generated about 1,500 project ideas within 48 hours. From the very start, there was a strong focus

on supporting the implementation of social innovation, whereas conventional hackathons are often limited to the rapid generation of ideas, rather than seeing them through to implementation. Here, using the Four Co's framework, we analyse the co-production process facilitated by the #WirVsVirus hackathon from the perspective of the project team involved in the OpenFoodBank initiative.

Co-commissioning

The hackathon was open, in the sense that the organising team invited everybody 'who has time, interest and internet access' (<https://wirvsvirus.org/hackaton/>) to identify COVID-19 related challenges. Within a week, about 1,900 proposed challenges were submitted by citizens, which the organisers aggregated into 48 challenges (Berg et al, 2020:30). This meant that 80 million residents in Germany were given the opportunity to voice what mattered to them in the context of COVID-19 and therefore to participate in the commissioning process. All citizens who participated were able to choose which of the 48 themes they were most interested in and which they were most likely to be able to contribute constructively.

However, not all citizens were successful in having their voice heard about which challenges mattered most to them. In fact, the current OpenFoodBank team tried to submit their project idea during the hackathon application process, but the system suffered overload due to the large number of participants and simultaneous submissions, so they were unsuccessful. Despite this, another suggestion was approved that turned out to be very similar to the original OpenFoodBank idea and consequently the OpenFoodBank team helped to develop this approach instead.

Co-design

The next challenge was to develop team building so that participants could work together in small teams of about

10–15 to co-design new solutions. This process was facilitated by about 3,000 volunteers who helped to form ‘micro-communities’ based on their competences and their interest in a specific topic.

In the case of the OpenFoodBank, during the hackathon, a group of 10 to 12 participants, including members of the NGO fairdirect.org, developed a concept for an online marketplace that provides an infrastructure for a digital and contactless facilitation of food donations. During this co-design process fairdirect.org decided to turn their existing online marketplace software into an open-source platform, so it could be adapted to the needs of a donation-based network.

Co-delivery

The 1,500 ‘solutions’ resulting from the hackathon included ideas to improve health system challenges, such as the management of hospital resources and the digital assessment of new infections. Moreover, it also included wider community challenges such as food distribution. However, as outlined above, this was not the end of the hackathon. The weekend devoted to ideas generation was followed by a call for participation in the implementation phase, which was also open to new external project proposals. About 400 proposals for initiatives were received. A jury of 26 representatives from civil society, tech companies, and the federal government, selected 130 initiatives for the implementation phase based on the potential of the solution, its feasibility as a project, and the willingness of the team to collaborate. The OpenFoodBank initiative applied and got the go-ahead a few days later.

The selected project teams were provided with three support programmes (Gegenhuber et al, 2020), which involved further competitive selection processes:

- **The Solution Enabler Programme provided the project teams with new skills such as project management and marketing, networking opportunities, and specific advice.**

In the case of OpenFoodBank, the contact with and input from other initiatives, citizens, and involved experts proved to be of some use in gaining new insights and perspectives. Many presentations and workshops concerning issues like marketing strategies and gender equality were interesting for the team members. However, given the tight time frame and the complex set-up phase of the project, the OpenFoodBank initiative judged that the support it received was not really effective enough.

- **The Solution Builder Programme was based on a business accelerator model, which is usually aimed at start-ups, providing access to investors and other support to help them to grow. In the #WirVsVirus hackathon, a small cohort of ten teams, selected out of the Solution Enabler programme, was provided with venture partners.**

The OpenFoodBank initiative was paired with Ragnarson, a Polish software developer. This organisation supported the OpenFoodBank project by programming an add-on to the platform for donating logistic services, such as empty cargo space and transporting goods. In this case, the extremely short time frame of eight weeks in the Solution Enabler programme proved to be an obstacle, since the work on this add-on was still in progress several months after the programme was finished.

- **Crowdfunding matching funds had the objective of providing additional financial resources to projects and giving them wider visibility.**

Due to the tight schedule for the Solution Builder Programme and the extra workload involved, the OpenFoodBank team decided not to participate in this option at that point of time.

The implementation phase involved peer support between the participating citizens and support of the citizens involved by mentors from the federal government and large corporations. For example, the OpenFoodBank project team members were put in touch with the German Foodbank Network, as

well as with Ragnarson. The implementation phase ended on 1 October 2020 with a public online event at which a range of projects were presented.

Co-assessment

The hackathon was characterised by a regular (in most cases weekly) co-assessment during the implementation phase of the progress made by the project team and mentors.

For the OpenFoodBank team these weekly meetings consisted mainly of status updates concerning the progress of software development and following up on leads concerning possible cooperation partners. A more detailed and deeper progress assessment was often not possible due to a lack of time, since all participants were doing this work during their free time.

The combination of a very ambitious time frame of eight weeks with the rather rigid and very bureaucratic German government system proved to be a difficult set-up for promoting fast moving and flexible start-up ideas. Also, at times, the focus seemed to be placed more on the public presentation of the projects rather than on progressing them effectively. Nevertheless, the OpenFoodBank team consider the contacts and marketing material resulting from participation in the hackathon useful in identifying and accessing seed funding in order to roll out this innovative project in Germany and internationally.

Outlook

The #WirVsVirus hackathon has shown the potential but also the limitations of digital co-production. In particular, the fact that this hackathon was initiated from the civictech community rather than the government was innovative. It should be noted that the citizens involved tended to have quite advanced technical capabilities (although those who did not were able to receive support). It has enabled the large-scale generation by citizens of innovative ways for addressing

pressing societal issues at speed and at low cost to the taxpayer. The question is to what extent the government, participating business organisations, and citizens acting as volunteers considered it a worthwhile investment of time and resources? As the experience of the OpenFoodBank team shows, this first large-scale co-production initiative at federal level has also revealed some key obstacles to co-production, such as the inflexibility of the federal government and its commissioning processes. Consequently, it is hoped that this hackathon will be followed up by further academic research to throw light on how the weaknesses of this approach might be rectified.

What needs to be done

- Increase support and lengthen time frames. While the #WirVsVirus hackathon differed from conventional hackathons by including an implementation phase, giving considerable support for the project teams with the most promising and urgently needed solutions, the support provided was insufficient and the time frame was too short for scaling the innovations.
- Volunteers involved in the project teams require some funding during their participation in the hackathon. Furthermore, the finalists who make it to the last implementation phase require easier access to seed funding with less work involved than the crowdfunding scheme set up by the hackathon organisers.
- The implementation phase requires more time for experimentation and taking stock than was the case in the #WirVsVirus hackathon.
- Further research is needed on the extent to which the ‘outside-in’ pathway to co-production is more effective for initiating and scaling social innovation.

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