

Design for Emergency: An Open Platform to Design and Implement User-Centered Solutions in the COVID-19 Pandemic.

Sara Colombo ^{a, b *} | Paolo Ciuccarelli ^a

^a Northeastern University, Art + Design Department: Boston, USA

^b Eindhoven University of Technology, Department of Industrial Design: Eindhoven, The Netherlands

* Corresponding author: s.colombo@tue.nl

ABSTRACT

As a consequence of the lockdown enforced to fight the COVID-19 pandemic, people found themselves in a state of social isolation, uncertainty, and vulnerability. *Design for Emergency* is a data and design open platform launched to ideate and develop user-centered solutions addressing people's needs and emotions during and after the lockdown. The project is composed of four steps: data collection, data analysis & visualization, design, and implementation. The initiative was launched in Italy, but it soon became global, covering 11 countries in three continents. As a result, data about people's experiences during the pandemic have been collected and visualized at a global level. The ideas repository, still growing, includes 36 seed ideas of solutions helping individuals and communities to cope with the pandemic. Ideas are openly available for development, and some of them are currently being implemented. This initiative can be used as a reference and a pilot project to create a framework for designing under uncertain conditions and in situations of emergency, or crisis, where design can quickly discover and address emerging feelings and needs.

Keywords: COVID-19, Data Platform, Design for Emergency, Open Design Platform, Seed Ideas, User Experience.

INTRODUCTION

On March 11th 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic. Italy was at that time the first western country to experience a significant growth in cases, with a number of infections close to 20,000 and a second "red zone" activated in Bergamo.

In recognizing the status of pandemic, the Director-General Dr. Ghebreyesus stated that the WHO was "deeply concerned both by the alarming levels of spread and severity and by the alarming levels of inaction" (WHO, 2020). Information uncertainty, the novelty of the problem, and its complexity were likely contributing to such institutional inaction, and they were about to become something not only governments and institutions, but also people worldwide, would deal with for longer than expected. In the days that followed the WHO remark, inaction quickly turned into rigid measures to contain the pandemic. In addition to the uncertainty and complexity of the situation, entire countries found themselves to cope with social isolation imposed by lockdowns.

In that context, social isolation and the consequent departure from everyday routines and social habits could have serious effects on people's emotional and mental wellbeing, also in

those who were not previously suffering from mental health issues (Usher et al., 2020). Moreover, with isolation and social distancing, almost every activity – from mobility and education to healthcare and grocery - needed to be reconfigured. In this climate, individuals often struggled to re-imagine such activities by themselves, and very few solutions were made available to them. While a flood of measures and interventions, including design ones, were being developed to limit the negative impacts of the pandemic on the healthcare system, very little attention was being paid to the widespread psychological and social vulnerability associated with this crisis.

These are the motivations that prompted us to start the *Design for Emergency (DfE)* project: a design-driven reaction to the wickedness of the issues we were witnessing and to the lack of available solutions to cope with the social consequences of an unexpected and abrupt condition of isolation.

The project, launched on March 12th, aimed at creating an open platform to share ideas and implement solutions addressing the needs, problems, and emotions of people forced to isolation and social distancing. The initiative has been progressively built on two main pillars: learn and act (Figure 1). The learning phase aimed at understanding the unprecedented condition of isolation experienced by people, and it was formulated in two stages: a survey collecting data, and the analysis and visualization of all the data collected. The insights stemming from the analysis became the input to orient the action phase: a series of design challenges in the form of both open calls and ‘closed’ workshops with partner institutions. Making an impact was the ultimate goal of the initiative, so a fourth step - implementation - was added as part of the action phase, with the aim of developing the ideas collected through the design challenges into real solutions addressing the emerging needs. This four-stage framework is not necessarily linear, but it can be iterative, in that the generated solutions can also require the collection of more detailed data on specific issues.

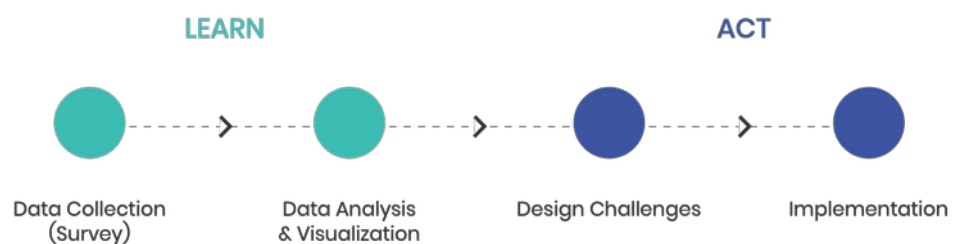


Figure 1. The four phases of the Design for Emergency project, structured around the two main pillars of the initiative: learn and act.

Italy was the initial target area of the project, mainly because it was the first western country hit by the pandemic, and for the severe conditions experienced by residents there. As soon as the initial results of the survey were publicly available and circulated on the media, other research groups and institutions contacted us asking to replicate the survey in their countries. The initiative therefore started to expand globally, following the spread of the pandemic.

This paper presents the Design for Emergency project and provides an account of the activities and results of each phase of the process.

In section two, the learning phase is described by introducing the survey, explaining the tools and the methods applied in the analysis of structured and unstructured data, and summarizing the main results and the insights that have been transferred to the design phase.

Section three presents the formats adopted for the design activities and their outcomes. A repository of seed ideas was implemented after the conclusion of a series of design challenges, both open and custom.

Section four illustrates how some seed ideas found their way through the development stage and are at the time of writing candidates to become concrete solutions for the issues emerged during the learning phase.

In section five, the open and global nature of the project, the challenges encountered, and future developments are discussed. The decision to not mention COVID-19 in the project name was an anticipation of a broader understanding of the idea of “emergency”, which would explicitly emerge in subsequent reflections about the evolution of this initiative.

Although the project has a global nature, the account included in this paper is particularly focused on the activities that stemmed from the survey launched in Italy. Indeed, results from other countries are currently being analyzed and published, and they will lead to similar activities in the near future. For instance, a national design challenge has just been completed in Brazil, but it will not be discussed in this paper.

1. UNDERSTANDING PEOPLE’S EXPERIENCES

1.1. Survey

The DfE project started with an investigation of the experiences of people during the lockdown in Italy. Italy was the first European country to be hit by COVID-19 and to implement drastic social isolation measures for its containment. On March 15th, just days after the lockdown had been extended to the whole country, the Design for Emergency survey was launched.

The survey, in Italian, was aimed at collecting data on people’s experiences, feelings, needs, and issues. It covered four thematic areas, and it included both multiple-choice and open-ended questions.

The questionnaire started with an introduction on the project and the informed consent. The first part of the survey asked for general demographic information. The core section investigated what people were experiencing during the lockdown, in terms of recurring emotions, negative sensations, and concrete issues they were facing, mainly through multiple-choice questions. The last section, based on open-ended questions, explored more in depth people’s hopes, fears, reasons for positive and negative feelings, desires, and longings. Google Forms was used to generate the online survey and to collect responses.

The website designforemergency.org was designed to describe the project and to disseminate the survey, which was also spread through social media, personal contacts, and online social platforms related to COVID-19. In a span of four days, more than 1600 responses were collected. After two weeks, the number of responses was 1,748.

1.2. Data Analysis

The analysis of data collected through the survey followed two different methods. Quantitative results (from multiple-choice questions) required an approach based on counting and clustering, while answers to open-ended questions represented a challenge, given the high number of responses received. Qualitative analysis was needed to identify the most relevant keywords, concepts, or topics, mentioned by respondents. Because traditional qualitative research methods for the analysis of text-based responses entail considerable manual effort (Crowston, 2010), alternative approaches were investigated. Indeed, the situation required an immediate response, and making data available to designers as soon as possible was crucial. For these reasons, we decided to adopt Natural Language Processing (NLP) tools, which are often used in the field of digital humanities to extrapolate keywords, concepts, and themes from large documents or collections of works (Brooke et al, 2015).

With the help of experts in the field, different NLP tools were tested, spanning from the analysis of words frequency to topic modeling based on machine learning. As a result, an existing NLP tool, the Keyphrase Digger (KD) was selected for our analysis. The KD tool is “a rule-based system that combines statistical and linguistic knowledge given by PoS (Part of Speech) patterns” (Moretti et al., 2015). The tool is available in Italian, English and French, and it is open-source, so it could be developed to include additional languages. This feature turned out to be extremely useful as the project expanded to different regions.

With the help of the KD tool creators, the most relevant 100 key-concepts (n-grams of different length) associated to each question were selected. Relevance was calculated based on frequency, as well as other linguistic and statistical parameters. The 100 resulting key-concepts were manually clustered into broader topics in order to effectively visualize and communicate the results. This step allowed us to generate an overview of the main themes emerged around each question.

1.3. Data Visualizations and Results

The results generated from the data analysis were communicated to our audience through a number of visualizations, both static and interactive (Fig. 2-4). Visualization is a crucial component of the project as the intention is to fully support the continuum between data and knowledge (Masud et al., 2010) as a pre-condition for a well-informed design process. Given the scope of the initiative, designers were the primary target of our visualizations, but results were meant to be accessible to a broader public as well. Results were clustered into five main sections, in order to guide designers in the interpretation of users' experiences around five major topics: problems & needs, emotions, desires, motivations, and time. All visualizations were published on the project website designforemergency.org.

Visualizations were first published in Italian, and soon translated into English as well, to make them accessible to non-Italian speakers.

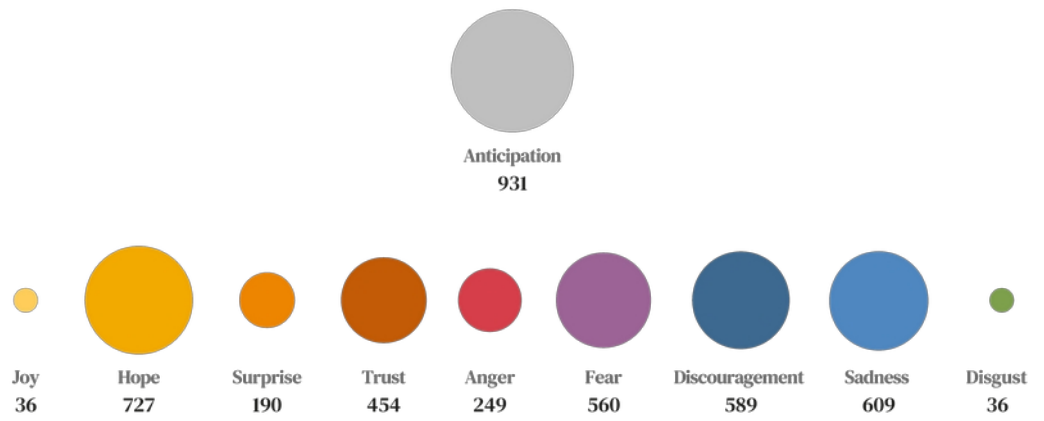


Fig. 2. Participants' responses to the question: "What was the most recurring emotion in the past 3 days?" (English translation).

Finding a new routine	776	<div style="width: 77.6%;"></div>
Making essential purchases (e.g. food or pharmaceutical)	714	<div style="width: 71.4%;"></div>
Receiving reliable information on what is happening	607	<div style="width: 60.7%;"></div>
Staying in touch with friends	497	<div style="width: 49.7%;"></div>
Planning my time	493	<div style="width: 49.3%;"></div>
Staying in touch with family members	415	<div style="width: 41.5%;"></div>
Making sense of my days	399	<div style="width: 39.9%;"></div>
Planning my family's activities	343	<div style="width: 34.3%;"></div>
Constantly following one/more hygiene rules	306	<div style="width: 30.6%;"></div>
Managing children	288	<div style="width: 28.8%;"></div>
Avoiding gatherings / social interactions in public places	281	<div style="width: 28.1%;"></div>
Taking care of parents	176	<div style="width: 17.6%;"></div>
Receiving advice on how to deal with this emergency	151	<div style="width: 15.1%;"></div>
I haven't encountered any problems	112	<div style="width: 11.2%;"></div>
Receiving psychological support	64	<div style="width: 6.4%;"></div>
Going Shopping	55	<div style="width: 5.5%;"></div>

Fig. 3. Participants' responses to the question: "What concrete problems have you encountered since freedom of movement was reduced?" (English translation).

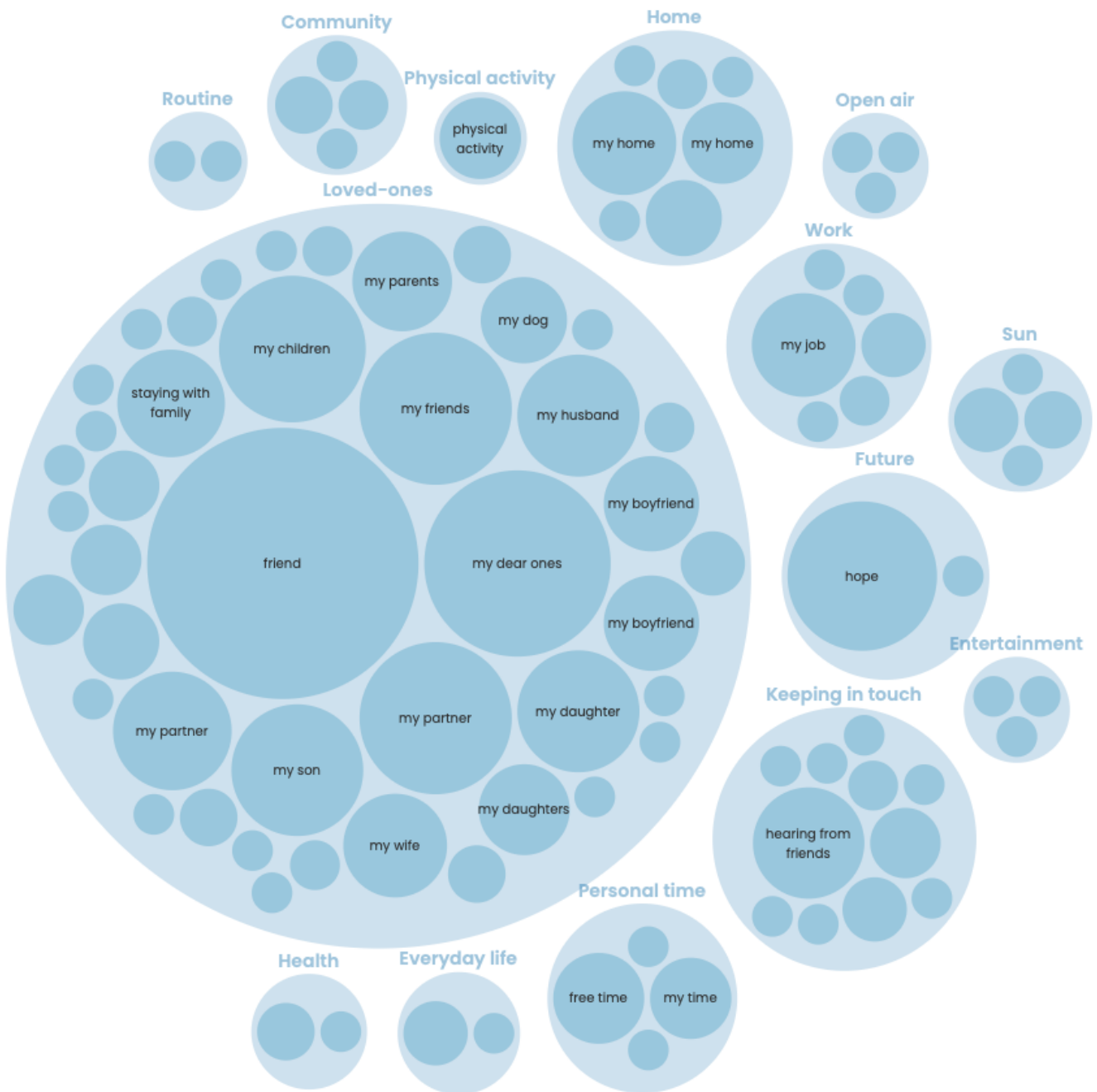


Fig. 4. Topics and key-concepts emerged in response to the question: “What makes you feel good in this moment?” (English translation).

1.4. Global Expansion

After the Italian release of the survey, more than 20 international organizations (mainly universities and research centers) contacted us in order to bring the survey, and the initiative, to their own countries. By the end of June 2020, Design for Emergency was extended to 11 countries, in three continents. Both the survey and the website pages were translated into local languages, with the help of our local partners, who were also responsible for disseminating the survey locally. Little changes were implemented to the survey to adapt it to the local context (e.g. specific containment measures, or demographic elements local researchers were interested in gathering, e.g. the number of people in the respondent’s household, in Brazil). The list of countries as of July 15th includes (in chronological order): Italy, Spain, Brazil, France, South Korea, UK, USA, Mexico, Peru, Ecuador, and Russia. In such a challenging and dynamic situation, there was not a specific

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plan guiding the geography of the expansion. Given the nature of the initiative - both global and local at the same time, partners' commitment was a fundamental key for the success of the project at the local level. Therefore, partnerships were created based on the proactivity of the actors involved.

2. DESIGNING FOR PEOPLE IN LOCKDOWN

As soon as insights from the Italian survey analysis were extrapolated, design competences were activated following two directions:

- open calls for ideas (i.e. design challenges);
- custom design activities performed in collaboration with organizations that were in the process of activating workshops and sprints with similar intentions.

The open calls were meant to maximize time and to prompt a quick design reaction, whereas the joint workshops secured an outcome and guaranteed more control over the quality of the proposed ideas.

Both the open calls and the custom workshops were structured around a design framework that ensured consistency among the results. The framework consisted in providing designers with the survey results, defining focus questions and application domains for the ideas, and providing a template to describe them.

Survey results and visualizations were published on the website and were made accessible to designers. Designers were encouraged to address one or more of the following questions, using the data emerged through the survey:

- *Problems and needs*: How can relevant problems highlighted by the survey be solved? (E.g. helping people to create a new routine, to make sense of their days, etc.).
- *Desires*: How can people be supported in fulfilling their desire to go back to the habits, activities, and relationships that were part of their lives before the pandemic?
- *Emotional wellbeing*: How can people still feel good, and be hopeful? How to reduce fear and suffering?

Starting from these questions, which served as inspirations, designers could submit ideas related (but not limited) to the following application domains: *Connecting, Supporting, Entertaining, Informing, Organizing, Preventing*. To facilitate the work of participants, and to limit the required effort, designers were encouraged to submit and share *seed ideas*, i.e. high-level concepts of solutions. They were also asked to follow a standard format for submission – a two-page template with a pre-defined structure to describe ideas. Designers were free to share solutions belonging to any field and domain, spanning from services to products, apps, social initiatives, games, etc.

The design activities are described in detail in the following sections.

2.1. Open Design Challenges

Once the results of the Italian survey were available, a call was opened to any designer or individual with ideas that could help addressing the uncovered needs. The call was described

on the project website, and detailed instructions for submission were included. Three deadlines were defined between April 7th and 21st for the ideas submission. Working with tight deadlines helped to accelerate the ideation process: a quick response was essential, especially in the first phases of the emergency. After the first three deadlines, the call remained open, with no further specific deadlines. Every week, newly-submitted ideas were published in the repository.

The communication and promotion of the open design challenges were performed through the social media accounts and mailing lists of the Center for Design and the College of Art, Media and Design (Northeastern University), as well as the personal accounts of the initiative authors, collaborators and partners.

2.2. Custom Design Workshops

As a result of the communication campaign, a number of organizations embraced the initiative and partnered with us to contribute to the design phase. Four collaborations are described here, which showcase a range of diverse organizations, from academic institutions to companies. For every partnership, a custom format was developed, in order to accommodate the specific needs and goals of the activity. However, the framework developed and used for the open challenges (focus questions, application domains, ideas template) was applied without modifications, to ensure a smooth integration of the ideas into the repository that collects results from all the design initiatives.

1. Domus Academy – a design school based in Milan, Italy - contacted us while they were re-orienting students’ design activities to face the local COVID-19 crisis. A design sprint was launched involving 40 students of three different Master programs: Visual Brand Design, Interaction & Service Design, Business & Luxury Brand Management.
2. The founders of Berkeley Innovation Group (BIG) and lecturers at Haas School of Business (University of California, Berkeley) invited DfE to join a global workshop they had started a few weeks before. Their workshop was aimed at designing solutions for elderly, front-line workers, and people quarantined at home, during the pandemic. The two initiatives partnered and continued working together in the subsequent steps of ideas generation and development.
3. In addition to launching a dedicated communication campaign, the launch of initiatives with goals and aims similar to DfE was also monitored, to proactively connect with potential partners. The COVIDDesignJam, organized by Digital Entity and NOIS3 - two design agencies based in Milan, Italy, aimed at designing solutions to adapt to the living conditions forced by COVID19 in a three-day design jam session. The initiative was meant to address five areas heavily impacted by the pandemic: daily life and social relations, work and entrepreneurship, travels and mobility, entertainment and culture, education. The two design agencies had already developed a knowledge base about people’s condition and feelings through qualitative interviews; the available information was complemented with the 1,800+ answers collected in Italy through the DfE initiative. Participants used such data as a basis to develop their concepts.

4. The spread of COVID19 in Brazil was just at the beginning, but it was growing quickly, when the Universidade de São Paulo (USP) reached out to join the project in late March. The growing intensity of the emergency translated into a strong commitment by the faculty members at USP to promote the local iteration of the DfE initiative. After launching the survey, collecting over 2,000 responses and extrapolating the insights, USP partnered with Museu Da Casa Brasileira – one of the most important institutions for Design and Architecture in Brazil – to launch a design challenge based on the DfE framework.

As visualized in Table 1, some of the partners involved in the design phase also contributed to other steps of the initiative, while others only focus on the ideas generation.

Table 1: Partners involved in the design phase, and their role in other stages of the initiative.

	Survey	Analysis	Design	Implementation
Domus Academy			x	
COVIDDesignJam			x	
BIG			x	x
USP	x	x	x	

2.3. Seed ideas

Through the open design challenges and the custom workshops with partners, the Design for Emergency initiative collected 36 seed ideas for solutions that could address the issues and needs emerged through the survey (ideas from the Design Challenge in Brazil are not included in this count, as the challenge is still ongoing at the time of writing). All ideas were published online on the project website.

Four clusters were defined, to both categorize the incoming ideas and orient the generation of new ones: *Physical safety* (9 ideas collected), *Wellbeing & Mental Health* (12 ideas), *Shared experiences* (10 ideas), and *Community Support* (5 ideas).

The template provided to describe the concept is deliberately simple, and privileges synthesis over details in order to favor a rapid submission of ideas. Authors have the possibility to add links to additional material, and to leave contact information to provide any further details to interested stakeholders. In addition to a brief description of the idea, the template includes four questions, formulated as a bridge to the implementation stage:

- Whom is the idea for?
- Why is it relevant?
- What is needed to implement it?
- Who can contribute?

Most of the collected ideas (about 75%) propose *digital services* and the creation of related web platforms and/or mobile applications. They typically aim at ‘digitalizing’ or facilitating the access to existing services that are no more available as in-person experiences: music lessons, job interviews, shopping at local/small businesses, socialization. Some of them propose completely new services based on the situation-specific needs uncovered by the survey, e.g. avoiding procrastination while working from home, or finding new routines. The

remaining ideas cover different categories, including *physical devices* (2), *visual icons* (1), novel *interfaces* improving existing services or devices (4), new *social codes* (1), and *educational formats* (1). All the proposals are in the form of high-level concepts, thus requiring further designing and detailing, except for a set of graphical icons specifically designed to address the communication needs in the pandemic.

Only three ideas make use of advanced technologies, particularly machine learning. They leverage such technology to i) detect fake news, ii) develop Deep Fakes to effectively teach hygiene rules, iii) learn about users' routines that can no longer be performed, and suggest valid alternatives.

3. IMPLEMENTING IDEAS

The fourth step of our project was aimed at encouraging the rapid implementation of the ideas published on the platform. All ideas were published under Creative Commons International 4.0 license, which allows anyone to develop, modify, and build on the published seed ideas, as long as the original authors are credited. The license facilitates the implementation of ideas by any actor who has the means to make them real. This choice meant to favor a rapid development of solutions, while still protecting the authors' intellectual property, and positioned the initiative in the domain of 'open design' (Van Abel et al., 2011, Fjeldsted et al., 2012),

In designing the initiative, we envisioned open ideas being implemented by at least three types of actors:

- The same designer/team who created the idea, who would find the resources to make it real, as a designer-entrepreneur;
- Companies or institutions invited to join the initiative and to develop one or more ideas;
- Independent professionals or companies that would browse the platform and decide to bring an idea to life with their own resources.

The first two cases turned out to be effective. Berkeley Innovation Group decided to develop three of the ideas published on the platform. Two other ideas were selected by a design firm in Italy, which decided to look for both private and public funding to develop them.

In the first case, the solutions were developed consistently with the ideas published on the platform. In the second case, the selected ideas turned out to be useful as inspiration to generate solutions addressing the same problem, but with different approaches and technologies than the original ones, ultimately resulting in new concepts.

This phase of the project turned out to be the most challenging one. The main obstacles consist in the effort required to develop an idea, and the lack of resources or incentives. Additional, more structured initiatives aimed at developing solutions would favor their implementation. However, the project started with no funding, and it was not possible to provide these kinds of incentives. Activities are currently being planned in that direction, including development challenges, hackathons, or prizes that might serve as seed funding to implement some of the ideas.

Although the original goal of the project was to quickly develop user-centered solutions and to make them available to the public, the unexpected scale this initiative assumed did not

allow for the development of this fourth step as originally planned. Indeed, as the pandemic spread worldwide, the attempt to include as many countries as possible resulted in less resources available for the implementation process.

4. DISCUSSION

4.1. Results

The results achieved in the first four months of the initiative can be summarized as follows:

- A data platform collecting people's experiences during the pandemic in 11 countries;
- Visualizations that make data understandable and available to different types of audiences, for different purposes;
- Seed ideas of user-centered products and services addressing the needs, problems, and emotions of people dealing with different forms of confinement measures;
- A subset of solutions in development, which address people's needs emerged the current situation, but which will likely survive beyond the pandemic;
- A global network of partners, including institutions, research centers, companies, and professionals, which have tested a consistent approach to tackle similar emergencies by design;
- An operative model and a design framework useful to uncover and target emerging needs and issues through design solutions, in a rapid and collaborative manner.

4.2. An iterative process

The four-step design framework we developed is not necessarily linear, or unidirectional. The action phase can also generate insights that feed the learning phase, aimed at knowledge generation. Ideas could be analyzed to achieve a deeper understanding of the problems uncovered in the data collection phase, or to identify new sets of problems that had not emerged in that phase. For instance, the fact that many of the collected ideas fall into the category of 'wellbeing and mental health' might indicate that these issues were collectively perceived as more prominent than others.

In some cases, seed ideas address problems or needs that were not highlighted by the research activity. A few solutions refer to specific categories of users, e.g. children or elderly people, which had not been reached by the survey. However, the ideas themselves are able to shed light on emotions and issues of certain groups of people that had remained hidden.

Seed ideas have also been collected during the transition phase that followed the initial lockdown. Some of them address new sets of problems (such as how to safely visit elderly people in nursing homes) that had not been identified in the research phase, but emerged as a consequence of the changing context and measures.

In all these cases, designers contributed to highlighting some latent or hidden needs, or subsets of needs, through the ideas they submitted.

4.3. Challenges and Limits

Due to the unique situation it addresses, the Design for Emergency project followed a highly experimental process, which posed a number of challenges.

The main challenge is associated with designing in and for an extremely uncertain and dynamic context. The COVID-19 emergency, in addition to being completely unexpected, carried an exceptionally high degree of uncertainty, which was disrupting the healthcare, social, political, and economic systems on many levels. The need to quickly respond to this emergency with limited resources and a lack of knowledge of how the situation would evolve made it difficult, at some pivotal points, to make informed decisions. A certain level of risk had to be taken while investing time and resources into project phases that had no guaranteed outcomes, because they were depending on factors beyond our control – e.g. changing users' needs, context, containment measures, etc.

A second challenge concerns the geographical expansion of the project. The need to extend the initiative to different countries in local languages, while very rewarding from a research and design viewpoint, posed challenges in terms of time allocation, resource management, and the need to adapt our project to different contexts and measures put in place during the pandemic. The proactive effort of local partners and their insights on the situation of each country turned out to be essential.

The lack of resources to allocate to this initiative was balanced by the effort of a team of volunteers, who reached out to join the initiative, and offered their time and skills to this project. Their contribution was essential for the project survival, particularly on the data analysis and visualization levels. However, very soon it became clear that the mobilization that follows a state of emergency, and that makes people willing to contribute, does not last long. As the pressure is relieved, and the situation starts to move back to normality, or towards a state that is no longer seen as an emergency, the interest of media, professionals, institutions, companies, and new potential volunteers, quickly decreases. In similar situations, the moment when people are willing to contribute should be leveraged to make an impact. Building the project structure, planning – and re-planning - the steps to constantly adapt them to the changing situation required a significant amount of time. This prevented the project team from allocating more time to support a rapid implementation of the collected solutions.

However, the DfE project succeeded in developing and testing a four-step process to design for emergency, creating a framework for each activity, and building a network of partners that might be leveraged again in the future. Its natural evolution consists in transforming these experimental results into a more structured design methodology, which can be used to tackle future unexpected situations, emergencies, or crisis.

Although the framework provides a useful starting point, it currently shows some limitations, including the lack of explicit iterations between the learn and act phases, and the absence of a validation phase. Further developments could see the use of collected data to validate seed ideas, or the involvement of diverse audiences in the ideas assessment. Such additional steps would help to ensure that implementation efforts are allocated to solutions that have a greater potential to positively impact people's lives.

4.4. Future Developments

As the project took shape and progressed through the four stages – from learning to action, from data collection to design and implementation – and new services and applications were reshaping people’s daily activities (work, education, social relationships) it became evident that the project scope and scale could be broader than the contingent emergency around COVID19. This was due to three main reasons:

- A second wave of the pandemic is still possible, if not probable, calling for an extension of the project’s timeframe and lifecycle;
- Some of the proposed solutions – within and beyond DfE - impact people’s behaviors and attitudes in such positive ways that they candidate to survive the epidemics and transform indefinitely daily routines and practices;
- Needs that emerged as new for certain categories of users were in fact not new for others. As one DfE’s contributor states in the description of her idea: “For elders, people with disabilities, and persons living alone of all ages, confinement and ‘social distancing’ is rather the norm than the exception.” - Brigitte Borja de Mozota, “Wilson2” seed idea.

It is therefore plausible that the data about users’ experiences, the 36 ideas collected so far plus the ones that will be further collected, and the whole DfE platform will prove useful beyond the current pandemic phase, while transitioning into the next stages and in what will be the new normal .

In this light, the project is adopting a broader frame assuming the condition of ‘emergency’ less as punctual and limited in time and more as a permanent status, where new issues will continuously ‘emerge’ as unexpected. With this assumption, design is a strong candidate to be a leading discipline in tackling emerging challenges, with its capacity to face wicked, ill-defined problems, in a context where limited information is available and a quick reaction to the unknown is needed. The connections between this idea of emergency, the concept of resiliency and the role of design in both is currently being explored.

Finally, the initiative can be seen as a pilot project, which is serving the purpose to create an international network of partners who share approaches and methods to face crises or emergencies through design. The project is therefore working as a collector – a filter that brings in very motivated actors and organizations that build a solid network also for grants opportunities and future projects.

The fact that the pandemic is unfortunately still expanding at the time of writing increases the significance of the initiative, especially as a virtuous cycle between the two pillars learn-act will be established. Learning from action can help to generate new, improved surveys and data, which can in turn make future design challenges and workshops more relevant and effective.

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