More Patience and Creativity: Team Learning in Online Stakeholder Workshop settings

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Biography

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Carolina Gutiérrez Novoa is a Chilean design strategist and researcher based in Italy. She currently collaborates with PACO Design Collaborative in Milan, where they address social innovation projects. Her job concerns the application of the design discipline to shape concepts, behaviours, interactions and strategies. Her research interest seeks to make sense and discover the full potential of each subject, which allows her to guide a conscious approach to work, with critical and reflective thinking.

Silvia Remotti is a designer and researcher based in Italy; in 2013 she founded PACO Design Collaborative. Her interest in design for social innovation and design for education started before founding PACO and it has grown over the years.

Abstract

This article discusses a design research project in which design practitioners and researchers collaborated to develop training guidelines and a toolset for a stakeholder workshop to be implemented by partner organisations of the Arts on the Margins: Arts as Social Sculpture (AMASS; 2020–2023) project. It focuses on the learning experiences of the design team, which was comprised of four people who created the online environment for the stakeholder workshop. The team members, who are also the authors of this article, were all designers and researchers with varied backgrounds and experiences. The workshop activities were adapted from a face-to-face format to an online environment due to the COVID-19 pandemic. The objectives of the article are to explore the team dynamics, approaches to design development within digital environments. The use of collaborative autoethnography (CAE) and reflection enabled the design team to assess their design processes and learn from critical discussion. The results will present guidelines for teams developing and conducting online workshops in digital environments.

Keywords

Team learning, design research, arts-based methods, digital environments

Introduction

This article seeks to understand how a team of designers engaged in learning through the generation of functional and approachable digital environments, such as online workshops, to enable communication in online policy stakeholder workshops for the purposes of policy

making. It explores the design and implementation of online stakeholder workshops in digital environments from the perspective of a design team that consisted of service designers and artist-designers from Italy and Finland. Stakeholder workshops were selected as a tool in policy making as they offer opportunities for engaging in inclusive and open policy making (Kimbell & Bailey, 2017; Kimbell, 2015). During the COVID-19 pandemic, the designers, in their various capacities and roles, tackled the design problems associated with implementing policy roadmap drafting across several project partner countries in Europe.

The objective of the study is to assess their design research process, understand the various roles, skills and capacities of the design team and reflect on their learning that was enabled through their chosen methods. This article asks the following questions: How can the various roles and capacities of a design team contribute to solving design problems related to the development of online toolsets and workshops? How can design research processes be assessed effectively by a design (research) team?

The initial plan was for the project partners to implement face-to-face regional stakeholder workshops in their respective countries to collect data, which would be used to draft practical policy roadmaps for regional and local implementation. However, due to the restrictions and safety considerations associated with the pandemic, travel was limited in 2020. The stakeholders that were identified for the workshops were various organisational representatives and individuals who were involved in the arts and cultural sectors in the partner countries, for example, decision makers, practitioners, educators and community leaders.

The AMASS project investigates how the arts can act as a vehicle for mitigating societal challenges on the margins of Europe. The project spans the margins of Europe: Malta, Portugal, the Czech Republic, Italy, Hungary, the UK, Sweden and Finland. The findings of the European-wide AMASS testbed, which will be implemented in most of these countries and consist of approximately 35 experiments, will be used, alongside design approaches, to deliver policy

recommendations on how the arts can mitigate societal challenges. The practical policy work, which implements design research and ABMs, is led by the University of Lapland in Finland and PACO Design Collaborative from Italy. The work is supported by a comparative policy analysis conducted by the University of Borås in Sweden. The analysis was conducted across all eight partner countries and provides a basic theoretical outline for policy action.

The project seeks to create concrete opportunities for bringing together communities and artists to be accompanied through artistic practises, methods and expression in creative projects and interpretations (AMASS, 2020). These communities, and in many cases also the artists, stem from marginalised contexts such as Indigenous and Roma peoples, children and youths, and otherwise marginalised groups, for example immigrants. The project itself is set up on the margins of Europe, from the far north in Finnish Lapland, to Malta, the most southern part in Europe and from the western part of Europe, Portugal is in conversation with Eastern European countries such as Hungary and the Czech Republic. The dilemma AMASS tackles is to investigate the role of the arts in mitigating societal challenges and which will be translated into policy recommendations, is that 'policy is least answering to the needs of marginalised communities' (Kimbell & Bailey, 2017, p. 216).

The first cycle of the policy making process of AMASS included the development of the toolset and workshop. The development of the toolset and training guidelines and the practical implementation of the workshop, all had to be converted by the design team from the intended face-to-face formats to online formats. During this cycle the AMASS partners were also trained to use the toolset and stakeholder workshop, to implement stakeholder workshops in their countries. The partners hosted online pilot workshops as part of cycle one to familiarise themselves with the workshop process and use of tools.

The complex design processes involved to develop the online toolset and workshop gave rise to the design research process by the design team who sought to assess this process after

the first working cycle of developing the toolset and workshop. The methodological approaches adopted to assess the design research process included CAE and reflexivity. While both of these are qualitative research methods, CAE is also collaborative and autoethnographic (Chang et al., 2016). Lapadat (2017) describes CAE as a multi-vocal approach, whereby several researchers collaborate by interpreting data by discussing personal experiences, knowledge sharing, reflection and interpretation of data. After the first cycle of the process, the same digital environment was then adapted and used by the AMASS partners to implement the training experiences for stakeholders in their countries. As results, the article illustrates how design research can be integrated into a design process for developing online stakeholder workshops, and how the selected methods used in the research additionally contributed to collaborative team learning through CAE and reflections aimed at understanding team dynamics.

Conceptual framework: The role of design research for engagement in online spaces and approaches to learning:

Design processes have been widely described for designers to draw on within the often complex and multi-layered contexts in which they work (Aspelund, 2014; Dorst, 2008; Smit & Melissen, 2018). However, it has been alleged that certain aspects of design processes, such as the contexts, actors and objects (e.g., design problems and solutions) in design activities, have been neglected due to a focus on process (Dorst, 2008, p. 5). This article aims to illuminate the roles of design actors—in this case, a design team—in a design research process to design an online workshop environment for engaging with stakeholders, for example in policy making processes.

The conceptual framework selected for this paper focuses and digital space in the context of digital environments in which online tools were used to facilitate the functioning of the environment. The further focus on the assessment by the team on their design process, through the use of CAE as a method, enabled a fast and effective means of knowledge sharing and learning. The

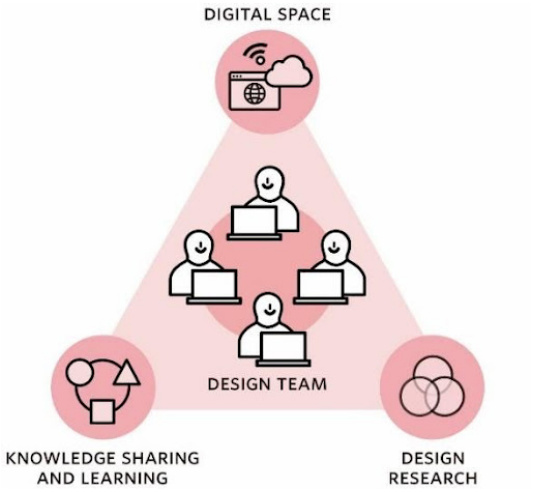

Figure 1. Conceptual framework with the design team at the centre of the action at the intersection of learning, digital approaches, and design research. Author: Carolina Gutierrez Novoa (2021).

assessment of the design process contributed valuable data for design research. The theoretical concepts, that underpin the practical implementation and assessment of the design process, is elaborated in below.

The article highlights how design processes and the production of research data overlap during active research processes (Muratovski, 2015). Faste & Faste (2012) note that research is often integrated into designing, and Tussyadiah (2014, p. 546) argues that 'design research is conducted as a part of the designing process, where data and information generated from research activities are used to guide the designing process'. Design is transformational, as it involves 'systemic thinking, sense-making and capacity building' (Cautela et al., 2015, p. 749). However, calls have been made for more studies that go beyond design practice and explore co-creative projects involving collaborations between design practitioners and design researchers (Dorst, 2008; Muratovski, 2015) to avoid limiting design research and the scientific development of design as a discipline (Dorst, 2008, p. 5).

The design discipline today is characterised by the ways in which designers think and struc-

ture processes to create innovative solutions to complex problems (Miettinen & Sarantou, 2019). It is increasingly common for design to be applied at a strategic level due to the prominence of problem-solution and human-centred approaches (Burdick & Willis, 2011). Thinking like a designer involves shifting the focus from how situations are to how they could be in order to guide the creation of new contexts that can help people change the way they frame a situation through the use of analogies or metaphors (Dorst, 2008). This means adopting new perspectives within which to frame the new challenges that designers face when working in digital spaces. By commencing from a design problem, designers can work towards long-term or overall aims and devise new approaches. The collective intelligence and cognitive diversity (Aggarwal et al., 2019) of a design team can optimise design outputs, and in this area, designers can play a fundamental role in maximising optimal outcomes in collaborative processes. The objective for designers is to design or structure online activities that harness diversity and that support people in achieving a common goal through exploration, discussion and assessment (Salter et al., 2009). In digital spaces, participatory approaches increase the sense of ownership within the team by minimising power differentials and engaging participants in decision-making, which, in turn, motivates people to engage in interpersonal exchange and form relationships (Olmstead & Turpen, 2017). In a digital space, overall engagement becomes more challenging, so critical engagement is required to identify suitable online approaches (Salter et al., 2009). Workshops are designed to shape the behaviour of participants (Vogt, 2009), and designers are responsible for creating a temporary environment, such as a virtual or digitally enabled workshop session, in which participants feel safe to engage in work.

Learning is broadly understood as the acquisition of skills or knowledge through experience, iteration, study or instruction. Grayling (2002, p. 158) appreciates learning as the ability to 'think, and question, and know how to find answers' when needed. Mayes & De Freitas (2007) argue that no new models for digital learning or e-learning exist. Instead, existing learning

models have been digitally enhanced to enable learning outcomes. Technological developments in online interfaces can enhance learning once the underlying elements of learning are met, and digitally enabled learning enables learners to interact with one another using learning materials, tools and subject matter (Mayes & De Freitas, 2007, p. 13). Ongoing developments in digital culture, supported by the conception of new digital programs, require enhanced learning models that are underpinned by new approaches and modes of knowledge production (Burdick & Willis, 2011). Several authors have also argued for an integration of design thinking into human- and user-centred approaches and models for digital learning and knowledge production.

One of the challenges of digital learning is engaging participants in learning processes. This challenge can be addressed by devising learning approaches that are adapted to learners' needs and that offer flexibility and a variety of tools (Lin & Chen, 2017). The key responsibility is placed on the facilitator of the learning processes to systematically enable and equip the students with knowledge (Lin & Chen, 2017). A study by Sousa and Rocha (2019) illustrates that the primary digital learning tools in organisational environments are mobile technologies and devices such as tablets and smartphones. Mobile technologies and the kind of learning they enable should, therefore, be embedded into organisational strategies for digital transformation (Sousa & Rocha, 2019). The theoretical framework combines the main themes of designers as facilitators in digital spaces and digital approaches to learning. Digital learning environments should be flexible and adapted to the needs of the learners.

Description of the online toolset

Practical online tools were selected by the design team to foster their work in digital environments; for example, Microsoft Teams (MT) and the online whiteboard platform, Miro, that in combination constitute a kind of digital environment. Due to the limitations and rigidity of screen sharing, it is often better to use MT as a dialogical tool while better interaction can be achieved by 'real time' participating in the Miro whiteboard directly. The Miro platform en-

ables visual collaboration between participants as interactive sticky notes and symbols can be used. However, both the Miro whiteboard platform and MT in combination do not offer ideal solutions as both tools (screens) have distinct functions (Miro is a real time whiteboard tool and MT a conferencing tool) and are not simultaneously visible to a computer user with a single screen. This digital environment was used to develop the training guidelines and a toolset for the stakeholder workshops. Messaris (1987, p. 6) explains that spatial intelligence is possible through the spatial integration of this kind, where various multiple dimensional scenes (or screens) can be processed coherently and made sense of by an individual.

The online toolset consisted of the following elements:

Tool#1: Planning Tool

Tool#2: Stakeholder Mapping Tool

Tool#3: Stakeholder Selection and Gaining Deeper Insights

Tool#4: Inviting Stakeholders: Template

Tool#5: Cultural Policy Overview Tool

Tool#6: Workshop Introduction (PowerPoint Template)

Tool#7: Good Practice Conversation Cards

Tool#8: Toolset Evaluation Template

Tool#9: Data Collection for the Roadmap

Tool#10: Policy Roadmap Template

Methodology

The interdependencies in this research, which resulted from teamwork and knowledge sharing, presented an opportunity for the use of CAE to understand the roles of the team members, their interactions and how these roles contributed to the development of the research and design outcomes. However, CAE also enabled the team to critically discuss and assess their design process.

The article seeks to address the following research questions:

- How can the various roles and capacities of a design team contribute to solving design problems related to the development of online toolsets and workshops?
- How can design research processes be assessed effectively by a design (research) team?

Collaborative autoethnography is a subjective approach that draws on insider knowledge and personal experience (Ellis & Adams, 2014). The appeal of the method lies in its collective and reflexive nature; it enables autoethnographic data collection and subjective reflections while being a critical, non-exploitative, accessible and pragmatic approach to inquiry that includes all the subjects of the research in active and iterative dialogue, thus enabling ownership through the collective results of the research process.

Although CAE entails a focus on self-interrogation, its collective elements of data collection and analysis further enable ownership of the research process (Chang et al., 2016). Thus, CAE necessitates a shift from personal to group agency, as the personal engagement of the researcher and the research participants is stimulated as they are vested themselves (in the same person), but the research participants also share this same position in the researcher-participant team. The reflective practice of the researcher-participant teams also requires a focus on human-centred as opposed to problem-centred inquiry (Anderson et al., 2004), and this practice also involves analytical processes that can generate understanding through reflection.

A combined CAE and reflexive approach enabled the practitioner to facilitate change in processes and systems (Leitch & Day, 2000, p. 179). Attia and Edge (2017, p. 33) argue that reflexive researchers should uphold the integrity of the environments and contexts in which they work but at the same time work through conceptualisation by distancing themselves from the action. CEA enables a process of distancing and reflection, as it allows the group of researcher-participants to collectively step away from the experience to reflect on, collate and advance their

theories and ideas.

Participants

The participants in the CAE and data sources of the research were the four members of the design team (and authors of this article) who sought to analyse and assess their design process. The design team consisted of two researchers from the University of Lapland in Finland, and two service designers from the PACO Design Collaborative in Italy. The two researchers from the University of Lapland were also a service-designer and social designer respectively. All team members were females between the ages of 30 and 50 years.

The design team adhered to the Ethics Committee of the University of Lapland that provided ethical screening of the research. The ethical principles and guidelines of the Finnish Advisory Board on Research Integrity (TENK) were considered throughout the course of the research. Ethical issues were taken into consideration at every phase of the design project: planning the workshops and interaction among designer-researchers who consented to the collective design research before data collection commenced

Data Collection

The data collection methods included a qualitative questionnaire with which responses from the team were collected in writing. A set of questions was developed by the design team to foster their reflections. Throughout the design processes (developing the training toolset and guidelines and preparing the online workshop environment), note-taking and focus group discussions were used. For the CAE approach, these methods were combined with an online working session in the Miro environment during which the design team used reflexive note-taking, discussions and other visual tools from Miro to analyse, group and visualise the data and findings in various ways.

The questions for personal reflection were:

- What kind of roles did you have during the co-design practices (planning the workshops

and also during the workshops)?

- Why and how did you enact that role?
- How important your role(s) was/were for the workshops?
- How did you utilise your design knowledge (intelligence) during the workshop planning and workshop facilitation?
- Learnings and challenges between the interaction with the team

The data collection and design processes for developing the workshop guidelines and the toolset for the online training workshop were reflected upon critically by the design team using the written data collected from the set of questions, CAE notes and group discussion. The data were collaboratively grouped, analysed and discussed in a focus group discussion using the Miro whiteboard tool (Figure 2). The findings concern the various roles and capacities of the design team in terms of solving design problems and determining how to generate better experiences, solve challenges and produce solutions through design and finally, how to improve online facilitation.

Results: Team Dynamics

The dynamics that influenced the work of the team in an online environment are discussed next. These dynamics include the (a) adoption of various roles by the design team, (b) design solutions for digital environments, (c) facilitation in online and digital spaces, (d) the role of collective intelligence, (e) personal learning and (f) the use of arts-based methods (ABMs).

Adopting various roles

The team members took on different roles. They were able to identify and reflect on their roles and identities using their notes and observations, CAE notes, group discussions and collaborative content analysis. Sometimes, they chose their roles, and other times, the roles were

Figure 2. Data collection, grouping and analysis of the qualitative responses from the team members through an online survey in the Miro whiteboard environment. After the online survey was completed, the data was collated and collectively discussed and analysed, following the CAE approach, in the Miro whiteboard. During the session key themes were identified and further developed through reflections and note taking. To show the authentic data, the use of English in the data clusters, which were created in the Miro environment employed by the design team to analyse and reflect on the data that they collectively reflected on, has not been edited or changed. All designers spoke languages other than English as their first language.

dictated by the responsibilities of each team member. From the analysis of the CAE, the roles of the different members of the design team and a list of the roles performed during the process emerged. Each role was assumed organically through balanced and harmonious interaction between the team members and in accordance with their diverse skills and competencies. One of the designers reflected: 'Taking and enacting this (researcher's) role was natural, (almost like) "automation"', whereas another acknowledged 'enacting my role in co-design practices' as a familiar experience. One participant reported, 'I'm used to putting myself into the participant's perspective'. The roles of designers as empathisers, collaborators and weavers were central to the design process. Although many of the roles were shared, each role had its own autonomous identity defined by its relationship and interaction with other roles. The members of the design team each contributed their own personal background, interests and expertise to the project. They combined their capacities to achieve the project objectives, which, in this case, were guided by the European Commission grant agreement for AMASS and the requirements and deliverables of the work package. The funnelling of capacities into a common space enabled the designers' roles to emerge, develop, be woven together and be interchanged depending on the complexity of the tasks at hand (see Figure 3).

For a successful design project, a heterogeneous design team composed of professionals who take on one role or several roles at the same time is crucial. The different roles the designers took on during the process were one of the elements that affected the dynamics within the design team. Examples of the identified roles the authors fulfilled were as follows:

The coordinator.Who is leading the process, deciding on time frames and remembering the tasks to deliver?

The strategic thinker.Who focuses on the final goal and leads all the actions towards its achievement?

The weaver. Who is concerned with the exchange of knowledge within the design team and

amongst the other teams involved and the training participants?

The decision maker. Who makes all the decisions?

The broker. Who takes on the tasks of coordination and decision making and assigns and organises the actions?

The critical thinker. Who critically and continuously considers and discusses issues to ensure that the process and outputs are steered in the right direction without taking the status quo for granted?

The researcher. Who is in search of particular information or data?

The empathiser. Who is putting herself in the shoes of the user and helping to make the output approachable, understandable and coherent?

The visualiser. Who is concerned with translating all the information into a visual representation to make the process and the outcomes easier to understand?

The facilitator. Who facilitates the processes with the participants?

The digital enabler. Who maximises the use of online tools by the team for ensuring successful outcomes? Who is concerned with enabling the online participation of key actors?

The reporter. Who records and collects the data needed for the analysis and compiles a coherent summary of the findings?

Design research for harnessing solutions for digital environments Second, for designing in online spaces, the challenges and opportunities for online knowledge sharing were derived from personal notes, observations, CAE notes, group discussions and collaborative content analysis. The designers reflected on what they had learnt, as a group, from the online toolset and guideline development process. They noted that complex design thinking is required to shift to online working modes and tools for process and training facilitation, with one participant noting that 'online facilitation requires more plan Bs, Cs and Ds'. The team's application of design thinking is self-explained by their phrases, such as 'keep in mind the larger aspects of the project', 'make

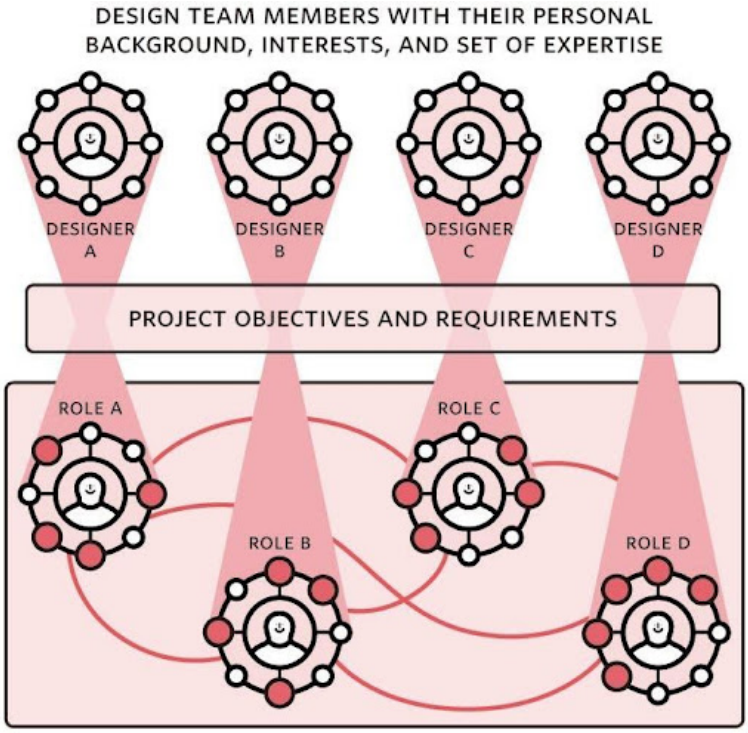

Figure 3. Funnelling of designer capacities into design spaces in accordance with the project objectives and requirements. Author: Carolina Gutierrez Novoa (2021).

all the connections to other work packages and tasks', 'takes a lot of reminding, prompting and also persuasion', 'work on a more strategic level', 'visualising the workshop processes', 'ideate the methods' and 'structure the methods in game board style', which underpinned the critical and strategic approaches the team adopted in their design processes.

The designers described their collaborative working process as being 'guided by intuition' and 'tried to understand their needs', thus illustrating their human-centred that often find their expression and development in CEA and reflective research approaches. The key role of human-centred design in such online processes was stressed. The approaches to the design challenges, the work and their functioning as individuals and members of a team were described. Examples are 'our planning with our objectives in focus', 'I used my skills to simplify processes', 'getting the pieces connected to the larger project', 'by sharing and mixing different methodologies',

'moving into new territories', 'visualisation and focus on the workshop process', 'sharing the work gave more quality', 'we used our organisational and graphic design skills' and 'ticking off tasks one at a time'. These statements are self-explanatory and also illustrate the systematic approach and focus within the team to reach their goals. The team also acknowledged that design research and selected methods impacted their ability to reflect and analyse, thereby using design research processes in seeking solutions to improve working in digital environments. They noted their analytical processes as follows: 'our analytical approach and thinking at another level', 'positive and supportive feedback', 'analysis of the state of the art', 'clustering the results' and 'extract insights'.

Facilitation in digital spaces

One of the acknowledged design skills that received substantial reflection was the aspect of facilitation (Rautiainen, et al., 2021; Soto, et al., 2021). However, the team also emphasised that simplicity and clarity are crucial for enabling online learning and that 'online facilitation requires more patience and creativity'. Practical aspects that constitute elements of facilitation were identified by the team, such as 'time keeping', 'need to think of different scenarios' and 'structuring and organising'. In addition, the limitations of online facilitation, and considerations for more effective online facilitation, were also identified by the team. They indicated practical suggestions, such as 'having breaks more often', 'speaking slower', 'explaining the tasks (or methods) more carefully', 'allowing more time' and 'learning to deal with digital tools'.

In addition, they pointed out the importance of visibility of the participants, and suggested 'it is important to see the participants because the facilitator then understands when to intervene in the conversation', 'as facilitator you need to remain focused on how the participants are experiencing the process', 'you need to take care of participants' and 'you need to carefully follow all the participants and try to understand their needs'. These are sound advice for face-to-

face facilitation, which were somewhat taken for granted before the pandemic, but have shifted into focus once more in online facilitation processes. These highly practical, yet important skills for facilitation highlights the need for focused human-centred approaches to facilitation (Rautiainen, et al., 2021; Soto, et al., 2021).

How collective intelligence can affect team dynamics

The collective intelligence (Aggarwal et al., 2019) of the design team, who fulfilled varied roles, yielded high learning outputs and, to some extent, enabled participants to have satisfactory experiences of an online training workshop. The collaborative intelligence of the team evolved organically, intuitively and through honest and open discussions, which enabled the team to quickly develop trust in each other's opinions and capabilities. Only a few collaborative work experiences were shared by the Italian and Finnish designers, but these two groups had never worked together before and were, therefore, relatively unfamiliar with each other's working styles and capabilities. As the team members proactively took on certain roles, they embraced responsibility for certain tasks. For example, two designers had strong visualisation skills, one of whom took on the role of visualisation, whereas the other took on a more critical and strategic role in the process.

Due to the small size of the team (i.e. four members), the members could select and take on roles organically. The process was not forced, and roles were accepted and taken on in a respectful fashion and in the spirit of learning, which increased the trust that developed within the team. The high levels of trust between the team members, the wide variety of roles they played—both individually and collectively—and their varied levels of skill and expertise enabled the team to develop an optimal level of collective intelligence, which may not have been possible if the group had been remarkably larger or smaller. The design activities and outcomes were enabled by finding synergies and organically defining roles within the team. Finally, the design work in online environments was acknowledged to be exhaustive. One designer stated:

'Some of these tasks are never ending, but things need to get done'.

The collective input of the designers, which includes their personal experiences, knowledge and skills, constitute their collective intelligence. Funnelled through the project objectives and the team's aims, the sense of collective intelligence is illustrated by the variety of roles that come about and are taken on interactively in the collective workspace (see Figure 3), whether this is in a digital collective environment or a face-to-face work environment. Such an environment can contribute to a higher collective output if positive team dynamics prevails.

Personal learning

The design team expressed their general attitude to learning by reflecting on the digital environments they had to negotiate, learn to use and optimise through visualisations and approaches to game design by stating 'we wanted to learn to use it even better'. The team also expressed positive attitudes to learning, which they viewed as essential, by stating 'learning (is essential) because it enriches the final output' and 'the experiences and competencies gained helped me'. Learning was deemed important, as one designer critically reflected and admitted, 'my own skills are not that great' and 'we were confronted with people who already have a great deal of experience'. Hence, learning was an essential aim for the designer. Critical reflections that shaped attitudes of learning within the team were, for example, 'doing everything online was a bit more challenging', 'things are more difficult during an online workshop' and 'our main learnings occur from the different working areas we bridge'. Finally, one designer declared, 'if we could work in physical presence, I could perform better because communication is much easier and immediate'. Therefore, continued hope was apparent for matters to return to 'normal' despite the team realising that their new learning may serve them well in future post-COVID contexts that are widely accepted will be different from the working environments that design teams have experienced in pre-COVID times.

One of the team members noted that the design and working processes, paired with de-

sign research and learning was 'a delicate dance'. Referring to performativity, this statement illustrates how different modes of work, from physical to virtual spaces need to be carefully balanced to create well-choreographed and synchronised work moments during which the team can work collaboratively and productively. It also refers to how the team had to actively employ their senses to create these favourable working environments. Stevens and McKechnie (2005, p. 243) refer to dance as 'non-verbal communication' that is 'rich in gesture, expression, and affect'. These authors also explain that dance can be inspired by ideas, emotions, spaces or surface, thus it facilitates concepts to become 'visible thoughts' that are 'declared through movement' (p. 244). The embodied performances by the design team, within their various spaces, whether in physical office or digital spaces (supported by the online Miro whiteboard and MT conference tools), involved delicate sensing, feeling and acting to make their thoughts visible to the rest of the team. After all, the arts and creativity assist reasoning through feeling (Best, 1996).

The 'delicate dance' also embodies and illustrates the careful reflective and learning processes that the team were involved in. They recognised in their discussions that they were involved in intricate 'feedback-feed forward' loops (Hughes, 2011, p. 360), which required ongoing sensitivity to reflect on and respond to queues coming from their different environments. Feedback–feed forward loops can imply learning processes that come about through experience. Such feedback loops can, through collective critical reflection and ipsative feedback by all team members, 'close the gap between current performance and expected performance' (Hughes, p. 360). This collaborative learning experience is based on negotiation and learning in collaboration with other. Thus, the process can be described as social constructivism (Kanselaar, 2002), which is defined as 'a theory of knowledge in sociology and communication theory that examines the knowledge and understandings of the world that are developed jointly by individuals' (Amineh & Asl, 2015, p. 13). This theory assumes that meaning making is developed in co-

ordination with other human beings through collective knowledge production that constitutes how learners perceive reality in moments of learning (p. 13). As such, social constructivism portrays learning as an essentially embodied and social process.

Use of ABMs

Although the designers did not explicitly reflect on the use of ABMs in their design practices, the importance of aspects, such as 'visualising the workshop processes', 'structure the methods in game board style' and, as stated before, 'facilitation needs more creativity' were mentioned. These phrases emphasise the need for ABMs to be integrated in the digital environments under discussion. Foster describes the abilities of arts-based methods as enabling 'a diversity of experiences to be communicated in ways that disrupt "common sense" understandings and act as a reminder that there are possibilities for things to be otherwise' (Foster, 2016, p. 1-2). ABMs involve sensory perceptions and emotion, as well as intellectual responses, by enabling a different understanding and exploring different ways of knowing the world through both visual and performative approaches (Leavy, 2017; Sarantou et al., 2018).

In ongoing experiments by the project team, arts-based methods were used to develop more interactive activities during stakeholder workshops (Sarantou et al., 2021). In the stakeholder workshop under discussion, ABMs were used to create the metaphoric 'forest', which represents an ecosystem of interconnected needs and best practices as the roots and trunks of the multiple trees in the system. The foliage is created by Miro whiteboard sticky notes on which the participants can create notations of possible resources, people and actions who should be involved in materialising the best practices. This activity is collaborative, based on discussion, listening and note taking by all the participants. In this example, ABMs offer new opportunities for creating collaborative activities in online stakeholder workshops for policy making.

Experimentation and new approaches are needed in policy making due to the said failures of policy in terms of mitigating complex societal challenges (Kimbell & Bailey, 2017). The

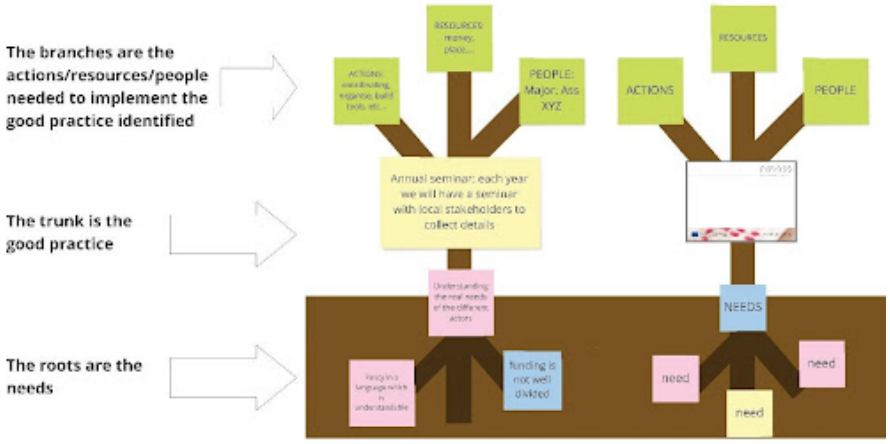

Figure 4. Visualisation supported by ABMs can lead to more experimental approaches to policymaking processes. This example, which was created in the online whiteboard Miro whiteboard, was used to capture participants' needs and identify and formulate best practices for policy making, in addition to identifying policy actions and resources for the implementation of policies. The metaphor of a forest was used to illustrate the interconnectedness between the needs and practices from the local context of the stakeholders (workshop participants). Source: Mira Alhonsuo.

authors further argue that the processes of policymaking need more research because 'policy is least answering to the needs of marginalised communities' (p. 216). Further justification for the use of more experimental and arts-based approaches to policy making is found in Carol Weiss's (1977, p. 533) statement that 'the policymaking process is a political process, with the basic aim of reconciling interests in order to negotiate a consensus, not of implementing logic and truth', which refers to such processes not based on positivist ways of knowing, but rather underpin values, which are normative and refer to human experience (Tsirogianni & Gaskell , 2011). Although policy is an abstract construct, ABMs can encourage the expression of values and assist bottom-up approaches to policy making, as they can assist in the expression and formulation of concrete ideas and formulation during policy-making processes. Policy is, after all, supposed to be an open and collaborative activity. However, policy is plagued by divides between stakeholders, as it is too removed from communities and their needs. In this

regard, ABMs can assist designers to cross divide and offer opportunities for the formulation of concrete strategies through approaches to visualisation.

Conclusion

This article presents the working and research design process of a design team whose aim was to engage in policy work through online stakeholder workshops with European research partner institutions. The article explores the different roles the designers engaged in during the development of an online toolset and training guidelines and an online training workshop. Based on the design team's reflections on lessons learned, CAE and collective analysis, the following guidelines are proposed for working in digital environments:

- *Provide a space of trust and security to ensure knowledge sharing*. The variety and complexity of roles the designers embraced, exchanged, shared and developed during the working process enabled the implementation of a complex policy-making intervention through online workshops. Some roles were supported by their skills and expertise, but other roles developed through knowledge sharing and learning. Collectively, the roles contributed to the ability of the team to upscale the policymaking activities.

- *Be open to change.* The design team learnt that many of the AMASS partners will pilot the training tools and workshops in online mode, as the time frame of the project and the ongoing COVID-19 pandemic will make face-to-face participation impossible in most of the partner countries. Technology, digital tools and online participation will, therefore, be important as possible instruments and approaches to implement needed change and for building resilient societies that are actively engaged in policy making at the regional and even European level.

- *Promote active participation and empathic engagement through ABMs and visualisation.* Visualisation through the use of visual tools and ABMs can create inclusion and empa-

thy (Miettinen et al., 2016), enable participants to speedily grasp complex issues under discussion and guide their activities during online workshops.

- *Create clear strategies with sustainable objectives.* The size of a design team and the methodological choices are important considerations for successful knowledge sharing, the harnessing of collective intelligence, ongoing learning and the development of tool sets and training activities. Without solid strategies for design, research and data collection, the design team will not be able to correct mistakes, implement improvements and scale up their actions.

- *Lead by example.* Human interaction and human-centred approaches, especially during the pandemic, which limited the operational environment of the design team, enabled the designers to develop empathy for one another and within the team and to transfer this into large training activities. Ensuring that participants are familiar with online tools can increase empathic encounters and improve the scalability of online tools in the long term.

- *Build an open environment to foster accountability and increase team empowerment.* Shared decision making, trust and a sense of belonging within the design team enabled the members of the team to scale up their own capabilities and knowledge, fostering commitment to take on important challenges, facilitating changes in time frames and modes of operations from a face-to-face or blended format to wholly digital, and improving the outcomes of their collective work to meet the objectives of the AMASS project.

The lessons learnt from operating within a complex online design research, design research and training environment may offer opportunities for translation to other policy activities and educational environments. Based on social-constructivist understandings related to learning, the team activities illustrate that learning is essentially social and comes about through collaborative meaning making and shared realities. Without an overlap between design process

and design research by using CEA approaches to understand the dynamics within the design team, and without data collection for evaluation purposes, the team would only apply limited improvements to the toolset and training, with not only an obvious detrimental effect on quality but also a negative effect on participants. From the viewpoint of the design team working with complex policy making, the importance of rigorous data analysis from note taking and CEA approaches throughout the process, especially their reflections on learning and feedback loops for improving their design processes, may better engage workshop participants and illustrate that their contributions are valued. Due to high levels of motivation among the AMASS partners, the users of the online toolset and workshop, participation levels were high. However, other stakeholders may not have such high levels of motivation and may not be willing to participate in workshops under similar circumstances. Hence, ongoing piloting and research is needed for a design team to manage the challenges faced by participants in online environments and to enable the effective implementation of online stakeholder workshops.

Systematically scaled and understandably visualised tools and ABMs offer opportunities for empathic engagement (Miettinen et al., 2016) and are therefore crucial in a complex design context, such as conceptualising and creatively constructing digital stakeholder workshop environments and user journeys for stakeholders who engage in policy-making processes. Illustrating expertise through ABMs and visualisation can win trust and enable engagement.

In addition, CAE illustrated to be an effective method for design teams who need to understand how their design results can be improved. Collective intelligence can also be analysed and harnessed more effectively alongside the CAE approach of collective reflection on personal experiences. CAE, combined with visual analytical tools such as the Miro whiteboard, can be an effective method for fast assessment by teams working in design research processes. Avenues for research and ongoing development were identified for further testing and refining of the toolset and training guidelines in different contexts and with different stakeholders, which

will improve learning outcomes further and, in combination with design research, learning experiences in the upcoming post-COVID times. Sharing and disseminating best practices will not only benefit grassroots-level policy making, participation and intervention but also drive the development of one-off digital tools in online training initiatives.

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