Looper: Towards a Methodology of Co-Design Approaches

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1 ABSTRACT

When setting up their own participatory process, researchers and citizens alike are confronted with a wide array of online and offline tools targeted towards facilitating co-creation. With such a multitude of solutions available and approaches differing across countries and fields, how can one make an informed choice? This paper lays out the first results of a methods review that will create a co-creation and co-design toolbox for Living Labs. The review scopes across various disciplines and fields of application. Two promising physical toolkits and three comprehensive handbooks for facilitators are presented, detailing the circumstances under which they are potentially the most useful.

The research takes place within LOOPER (Learning Loops in the Public Realm), a JPI Europe funded research project with Living Labs running in Brussels, Manchester and Verona. The aim of this project is to build a participatory co-creation methodology and platform to demonstrate 'learning loops', bringing together citizens, stakeholders and policy-makers to iteratively learn how to address urban challenges (road safety, traffic calming, air and noise pollution). The review of existing tools serves as a preparatory activity for the Living Labs by developing the preliminary methodology which will form the backbone for the co-design of solutions in the living labs.

Keywords: co-creation, co-design, participation, collaborative planning, mobility

2 INTRODUCTION

When setting up their own participatory process, researchers and citizens alike are confronted with a wide array of online and offline tools targeted towards facilitating the co-creation of solutions to urban conflicts and problems. With such a multitude of techniques available and approaches differing across countries and fields, how can one make an informed choice?

In this paper we present the first results of a methods review undertaken within the project LOOPER (Learning Loops in the Public Realm), a JPI Europe funded research project with Living Labs running in Brussels, Manchester and Verona that aims to build a participatory co-creation methodology and platform to demonstrate 'learning loops', bringing together citizens, stakeholders and policy-makers to iteratively learn how to address urban challenges like road safety, traffic calming, air and noise pollution.

The paper first conceptualizes the terms co-creation and co-design and their pocess steps. The methodology chapter describes the review process and defined criteria. In the results section, we provide an overview and propose a categorization of four different professional fields where co-design approaches are employed. Lastly, five promising face-to-face facilitation tools identified during the review are described, highlighting the context in which they may be the most useful.

3 CONCEPTUAL APPROACH

Co-creation is an umbrella term for a wide range of participatiory and open-design processes. It is an approach to creative practice by moving beyond consultation towards collaboration between the citizens impacted by particular issues. It puts the user and citizen as the 'expert' of their own life at center stage of the design process. Co-creation is usually facilitated by a professional, who might choose a certain approach, and within that various methods or tools to spark creativity and keep a process of reiterative questioning, refining and reflecting going. Scenario or prototypes might be built and reviewed. So, while co-creation as an approach asserts users to be capable experts of their own experiences, they must still be supported through tools that allow them to express themselves (Chrisholm, 2017).

Figure 1 lays out how the co-creative planning process is conceptualized within LOOPER: it comprises three sequential planning stages that form the basis of each living lab. This three-stage process will be conducted twice in each urban living lab for an iterative process of contextualisation, deliberation, decision-making, and implementation.
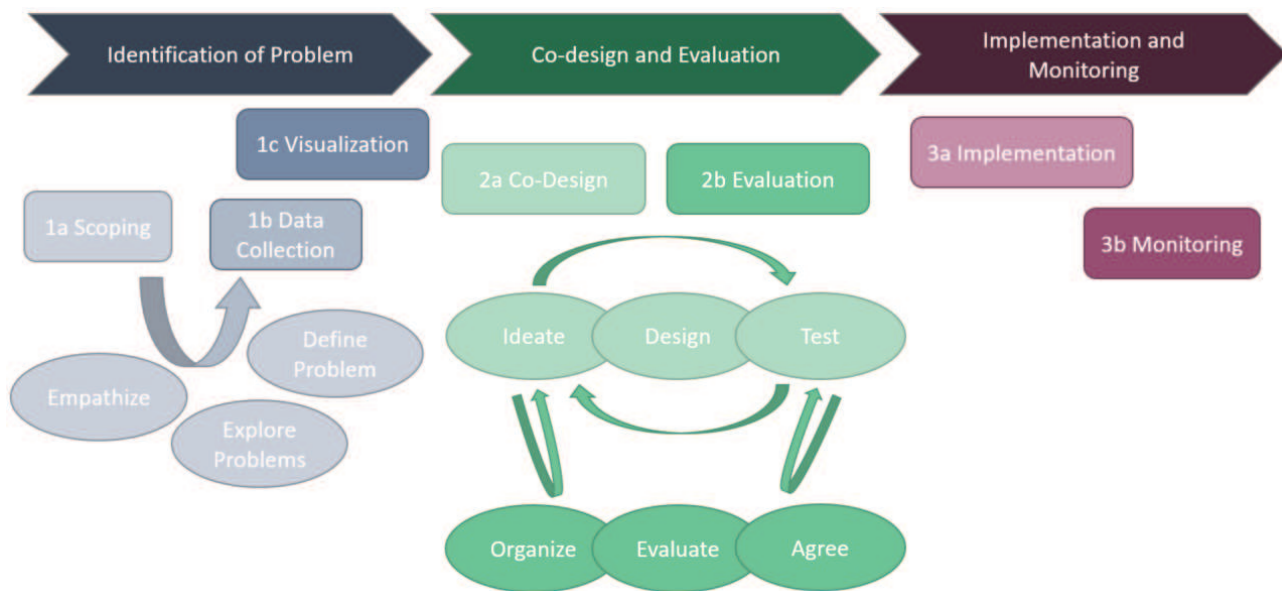
Fig. 1: Conceptualization of the LOOPER process

In LOOPER, the term co-design is defined rather narrowly for a sub-stage, the process of designing a solution from the initial idea to a product ready to be implemented. While reviewing methods for this co-design (ideate – design - test) stage, it became clear that many tools span beyond that, providing methods for the scoping (empathize – explore - define) stage and parallel evaluation (organize – evaluate - agree). Sanders and Stappers (2008) point out that the terms co-creation and co-design are often even treated synonymously with one another. An integrated design process would include stages of scoping and evaluation. In addition, the co-design of ideas and the evaluation of ideas can happen in parallel rather than subsequently. After a phase of creative and unbounded ideation, intermediate reality checks, merging of ideas and compromise to eliminate what is not feasible can be appropriate. Reviewed tools were therefore evaluated in their strength in aiding citizens to empathize with each other, explore problems, define problems, ideate (generate ideas), design (refine ideas) or test (prototype) ideas as well as organize (renking and merging), evaluate (for feasibility, desirability) and agree (compromise or consensus) on solutions.

4 METHODOLOGY

4.1 Review methodology

Methods for co-design are available in many different forms, ranging from publications on government or NGO websites, to interactive websites, wikis, toolkits for sale, publications of source code of pilot projects that have never been made available as software to case study narratives of past projects. In terms of online platforms, some are non-profit yet many are start-ups selling their services targeting public bodies in a specific region. Many of these have never been discussed in academic publications. While marketed to different audiences, underlying concepts may be similar. To efficiently scope such a broad range of potential tools, we conducted an internet search using the keywords listed in Table 1. A total of 54 tools were initially identified and the ones putting too little emphasis on community or design were eliminated. It was then checked for which of the stages of co-design (see Section 2) the remaining could be used. Lastly, they were evaluated in terms of their ease of implementation.

Online	Approach	Living Lab	State of The Art
Digital	Tool	Urban Lab	Literature Review
Web-Based	Support System	Co-Design	
Interface	Technique	Co-Creation	
Application	Toolkit	City Lab	
	Method	Collaborative Planning	
		Co-Operative Design	
		Collaborative Placemaking	
		Community Design	
		Design Thinking	
		Consensus Building	
		Co-Production	

Table 1: Keywords employed in review.

4.2 Defined criteria

During the review, the following aspects of the evaluated tools were identified:

Audience: The methods of co-design are applied in various contexts and professional fields. While similarly trying to engage all stakeholders and creatively innovate, the type of solution designed (physical object or a service) or the underlying theoretical roots may differ.

Medium: Is the tool digital (software or hardware which requires a computer but not necessarily web access) online (focused on online interaction) or meant to be used for face-to-face interaction in workshops?

Type: Various types of tools exist, which can enhance the quality of co-design. Toolkits provide a ready-to-use set of (sometimes physical) materials for workshops. Facilitation handbooks are brochures or books providing a range of workshop methods to choose from. Some of them are online repositories of methods. The category Discourse includes tools (mostly online) enabling communication between citizens. Games allow for a playful approach to the problem. Trainings are offered online and offline to improve a facilitator's workshop skills.

5 RESULTS

As the above listed criteria implicate, there is a wide breadth of products which can potentially be useful to co-design solutions. Yet, a key part of co-design is the open innovation format and specific circumstances may only emerge during the process. Often it is unclear what type of solution (redesign of public space, routing of traffic, new service, new ruling like new speed limit, limited access rights during weekends) will emerge. In fact, predefined problem framings and solutions are to be avoided (Scholl et al., 2017) as they limit innovation. Similalry, having an already predefined set of tools would limit innovation as well. In Living Labs like LOOPER, it is therefore difficult to predict what will be the most appropriate tool and one needs to leave some room to react flexibly to evolving circumstances. This review therefore remains broad and is a scoping of what tools exist.

In the following section, we will first identify four areas in which co-design and participatory approaches are employed in professional practice. We then provide the first results of the review by presenting five promising face-to-face tools, with a short profile and small debrief under which circumstances they could become useful.

5.1 Co-Design in its various contexts

During the review, we found four professional fields or audiences emerging as recurring themes in the way tools were targeted and framed. We propose the below grouping as guidance and claim that most surveyed tools can be classified in one of these streams. They distinguish themselves by the theoretical roots and academic field from which they emerged and determine for which audience and context a tool has been developed.

5.1.1 Public Service Design

One co-design audience is in the public sector for (re)designing services. Numerous toolboxes have been created by public institutions (often national bodies) who collated useful tools and handbooks for their local agencies to redesign services with their users. These are at their core focused on improving the experience of users of the service. An example would be: How can we improve the experience of delivering warm lunches to the elderly, both for the receiving person, their caretakers and the employee delivering the meals? Designing a service lends itself to different methods than designing something physical. Ideation sessions here are oftentimes revolving around roleplay or the "travel" of a person through the bureaucracy when accessing a service.

5.1.2 Collaborative Planning

In the Urban and Spatial Planning sector, the term "Collaborative Planning" has become popular (Patsy Healey, 1997; Innes and Booher, 2010). Similarly to the sectors of service provision and product design where professionals have come to understand the user to be an "expert" in his own way, urban planners realized the same: The urban planner as the "expert" who can single handily assess the "common good" and make his own informed decision about what will be best for the residents in each scenario has been heavily criticized and reviewed in the past decennia. Depending on the country, and whether in an academic or

professional context, it is now often a common position that the urban planning professional understands himself as a facilitator rather than an expert. He brings the necessary tools and some technical knowledge to the table to enable collaborative decision with stakeholders. Especially where urban planning conflicts have reached a gridlock, planning professionals furthermore turn to consensus-building approaches which propose that continued value-based conversation between disagreeing parties can lead to mutually beneficial outcomes (Innes and Boooher, 2010).

5.1.3 Design Thinking for Social Innovation and Product Development

Design Thinking (Brown and Wyatt, 2010) describes academic and popular science field that takes the Designer's approach to innovation to solve real-world conflicts. Here, the focus is much more on the methodology of how a problem is thought about, rather than the interaction between laypeople and designers. It stipulates: the way designers think about problems is effective and even people working outside of the traditional design fields should learn to think like designers when tackling their problems. Therefore many methods propagated by design thinking will likely be highly effective in sparking creativity in urban contexts.

5.1.4 Public Participation

Tools classified as belonging to this group are part of a broader development towards increasing the engagement of citizens in the decision-making processes in public administrations. Aside from some facilitation handbooks, most tools surveyed in this category were online websites. Termed as e-democracy, all-in-one websites are offered to municipalities for their public engagement processes. The rationale behind putting public engagement online is that it allows for transparency and continuous flow of information. However, stakeholder engagement cannot be taken care of simply by launching a website. Most often, there is not enough particpatory culture for real online democracy to take place without parallel face-to-face sessions. Instead, only a minority of the population participates and real-world work (interacting face to face) gets neglected. In addition, going beyond simple information gathering towards empathizing, developing shared values, compromising and consensus-building is hard to achieve without face to face dialogue. For real civil discourse, these online tools would enable to explore the breadth of opinions and people even changing their opinion rather than just giving it. However, some parts of the public may indeed only be reached through the online channel, and its transparency and openness are valuable.

5.2 Face to face facilitation tools

Living labs are first and foremost physical spaces for face to face interaction for open innovation. In this context, citizens are affirmed as experts of their own experiences and capable of reaching solutions. To enable the participants, a planning or design professional facilitates sessions. High quality workshops are therefore at the core of a successful co-design process. To run them facilitators can choose to employ ready-to-use toolkits, choose their own methods from facilitation handbooks or method repositories and undergo training in workshop facilitation. Since single methods (single workshop activities) have been collated and arranged many times into such handbook, this review mostly refrains from analysing single methods. Apart from methods books or physical kits as described below, workshops profit from good materials with which to visualize information and manage feedback. Thick paper cards and pens will allow ideas to flow better. Ideas written down by participants can be put up on walls, rearranged and still be read from a distance.

5.2.1 Physical toolkits

Some toolkits come with physical materials ready to use during the workshops. While incurring costs, it is often good to have as the framework around which to build workshops. In addition, good materials for workshop facilitation can considerably improve thequality of discussion and reduce preparation time for the facilitator.

Urb@exp

The LAB kit has been designed as a tool for inspiration to help municipalities or other stakeholders in a city on their way in drafting or sharpening the outlines of an urban lab. The LAB kit helps to raise and discuss key questions that are worth asking before engaging in such an endeavour. It is the outcome of a collaborative effort between researchers and practitioners and has been tested with various potential user groups to improve the final version. It consists of a booklet introducing the mindset of Living Labs, plus the

materials for a two-day workshop that can be conducted in the beginning phases of a Lab. The pdf of the booklet is offered for free and the full kit can be ordered for 90€. The documents are licensed as creative commons and can be expanded upon. (http://www.urbanexp.eu/)

KETSO Toolkit

Ketso is a hands-on kit for creative engagement, useful in encouraging ideas and thoughts from everyone participating. Ketso uses a workshop approach with a facilitator to form a structured way of encouraging participation and to prompt discussions. Ideas are written down on re-usable material and the information is captured in a succinct structure. Its focus is on encouraging creativity when sharing ideas. It is a re-usable set of table top tools to capture and display people's ideas. It is not aimed at a specific niche and can be used in all sorts of team discussions. Costs are £549, or £75 rental for 1 month. (http://www.ketso.com/)

5.2.2 Facilitation handbooks

Some of the handbooks are broad in their scope and are a collection of workshop ideas. For more experienced facilitators, it can be handy to have a broader range of methods at hand to be more flexible and respond to needs. These handbooks include some sort of short guidance for the facilitator(s) of a living lab as well as a toolbox, listing single methods - workshop activities- to be carried out face to face with a group. It is up to facilitator to choose amongst the options as he/she sees fit. There are many such products and most of them are freely available as a pdf to be downloaded online. Next to co-design, many of these handbooks also go to earlier and later stages, detailing how to reach out and engage individuals, and how to follow up on any outcomes.

The handbooks have a different "tone" deepening on which field they are rooted in: "Design Thinking" is very broad and can be targeted towards a product or a social innovation. They are likely to aim for something disruptive and fosters "thinking out of the box" more than the other handbooks. "Service Co-design" handbooks are aimed at public officials or NGOs working on improving a service together with the receivers of that service. It often aims to improve an experience (i.e. the service of receiving dialysis for chronically ill patients; the process of submitting a complaint to the local government). "Collaborative Planning" handbooks are targeted towards urban planning professionals and are more likely to revolve around physical interventions, managing the conflicting interests around the use of public space and may consider the longer planning horizons.

COPack - Collaborative planning methods manual

COPack has been produced in 2012 by a Finnish led research team as part of an EU funded project under a creative commons license. It is based on an in-depth survey of 25 workshop methods and rates them on various scales: Understandability, Quantification, Expertise needed, Equipment needed. It also assesses their degree to which they suit different project stages: Problem Identification, Problem Structuring, Problem Solving. Each method is described, its benefits and drawbacks are highlighted and further resources are listed. This toolkit is quite academic and more suited for researchers or professionals wanting to receive in-depth reviews rather than a ready-to-use product. However, the information provided is very rich and targeted more towards Urban Planners than many other toolkits. (http://copack.oamk.fi/docs/methods/methods_manual.pdf)

Participatory Methods Toolkit. A practitioner's manual. New edition

To facilitate practical knowledge sharing, the King Baudouin Foundation and the Flemish Institute for Science and Technology Assessment (viWTA) edited a publication in 2006 (Elliot et al.) with the ambition to create a hands-on toolkit for starting up and managing participatory projects. The core focus is therefore to open any sort of decision-making process to the public. The toolkit includes 13 in-depth fiches on the most promising participatory methods. Per method there is a description of when to use it, the different steps, best practices and budget. All these are accompanied by different hints and tips. A chapter with general guidelines for using participatory methods includes a comparative chart of the discussed methods and the brief overview of 50 methods and techniques. The descriptions of the 13 methods are very much in depth and oriented towards practicalities (at least 10 pages for each, with suggested timelines, prep lists, workshop plans). These methods might be described in other toolkits and then it might be useful to check in this publication for the step-by-step practicalities. (https://www.kbs-frb.be/en/Virtual-Library/2006/294864)

Participedia

Participedia is a well-managed wiki of participatory methods across all fields: Anyone can join the Participedia community and help crowdsource, catalogue and compare participatory political processes around the world. All content on Participedia is collaboratively produced and open-source under a Creative Commons License. Both a searchable database of case studies and of methods are offered (Fung and Warren, 2011). The quality of the descriptions of methods varies enormously with some being excellent and others mere stubs. Yet with 233 entries, one is likely to find something relevant or additional information on an approach already discovered elsewhere. (https://participedia.net/)

6 CONCLUSION

In this paper we have laid out the first results of a methods review that will create a co-design methods toolbox to be used in Living Labs. The review tried to scope across various disciplines and fields of application. Two promising physical toolkits and three comprehensive handbooks for facilitators have been presented, detailing the circumstances under which they are potentially the most useful. Further research will be carried out (online and digital tools, trainings for facilitators). More detailed factsheets for all reviewed methods will be published on http://looperproject.eu/. The goal is to link the most promising methods within an online platform, to function as a toolbox accessible to the public, where users can choose from various options depending on their specific context.

7 ACKNOWLEDGEMENTS

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