Smart Urban Intermediaries

Connecting people.
Changing communities.

Collaborative Action Research in Labs
Working Paper
01/10/2017

About the project

Smart Urban Intermediaries (SmartUrbI) is a collaborative research programme (2017-2019) co-led by Tilburg University, University of Edinburgh, University of Birmingham and Roskilde University. It is funded by JPI Urban Europe (P/693443) through NWO, Innovation Fund Denmark, and the UK Economic and Social Research Council (ES/R002991/1).

SmartUrbI works with a wide range of public, third and community sector partners across the four countries. The purpose is to improve understanding and support for people who make a difference in urban neighbourhood (aka 'smart urban intermediaries'). The project entails collaboration across 'local labs' in Birmingham, Amsterdam, Copenhagen and Glasgow. The labs are sites for co-inquiry between researchers and practitioners exploring barriers and enablers to smart urban development and social innovation. The project will also entail study visits to Portugal and Poland, and a final conference in Denmark in September 2019.

About this working paper

This working paper was co-written by the SmartUrbI team to inform the development of the research, and it's part of a series of papers that reflect on-going thinking rather than final project findings. Questions or comments can be sent to: smarturbi@gmail.com

About the research team

For more information about the project please see our website, where you can also subscribe to the newsletter: http://smart-urban-intermediaries.com/. Follow us on Twitter: @Smart_Urb_I

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Rationale

This paper introduces our approach to collaborative action research (CAR) and its operationalisation using a bespoke living lab process. These are foundational components of our proposal and they must be developed into viable research practices. We will introduce briefly each of these bodies of work, highlighting aspects that can be adapted easily for our project, as well as those that will have to be reimagined as part of our contribution to methodological innovation. Then, we will outline key options for decision-making in the configuration of our research design, including:

- Populating the living lab
- Sequencing the living lab inquiry
- Facilitating the living lab
- Documenting living lab work

Topic Overview

Collaborative Action Research (CAR)

CAR is a form of action research developed in various policy areas (i.e. education, public service reform, health, local governance). It's predicated on the basis of blurring the distinction between researchers and research participants by engaging in shared learning and co-inquiry. It differs from Participatory Action Research (PAR) in that it doesn't necessarily entail starting with a blank canvas where priorities by research participants fully shape the research project. In CAR, researchers may have their own research agenda but they open it to dialogue with practitioners to find areas of common interest for co-investigation. In this way, CAR provides a bridge between scientific and practitioner learning (Bruce et al., 2011, p. 434). PAR has its roots in emancipatory approaches to social research and has a long history in grassroots mobilisation and action, whereas CAR is grounded on the pragmatist tradition and is gaining momentum as a research approach for the age of collaborative/networked governance (and thus intermediation).

Anderson and Herr (1999, pp. 15-16; Bruce et al., 2011, p. 435) developed five key criteria for high-quality action research in researcher/practitioner co-inquiry:

- outcome validity (the research addresses the problem that stimulated the study; e.g. the research helps practitioners to reframe questions in iterative cycles of learning and action);
- process validity (the study permits learning by practitioners, researchers and/or the system and includes credibility considerations such as triangulation of perspectives and methods);

- democratic validity (the extent to which perspectives of all stakeholders are included and the appropriateness of solutions to the context);
- catalytic validity (the extent to which the research energises and transforms practitioners); and
- dialogic validity (whether the research is conducted within a community of action researchers to ensure peer review).

In essence, CAR involves two elements, collaboration (typically in the context of practitioner networks or public services) and action research, defined in Critical Policy Studies as: "processes of collaborating with (policy) actors to produce scientifically and socially relevant knowledge and transformative action. These processes and their outcomes actively address pressing real-life problems by enabling empowerment, emancipation, sustainability and democracy" (Bartels & Wittmayer, 2014, p. 397). What Works Scotland[i] has been developing CAR to support practitioners working in local governance settings. This CAR process seeks to support each group to:

- identify a shared topic of concern
- reflect on working practices in relation to that topic
- problematise the issue and generate questions
- explore/develop evidence on that topic (may entail capacity-building: training/upskilling)
- enact evidence-informed change (making changes to practice), and
- share the learning: both the experience and the findings.

This process can work as a cycle which may be repeated several times; or it may just be a one-off process. CAR thus offers some useful foundations to guide our approach to co-inquiry, but it's still an approach under development, so it allows for adaptation and methodological innovation (to our knowledge CAR hasn't been used in urban research). Typically, CAR is operationalised using working groups, workshops and retreats (Chapman and Hadfield 2015, 2017; ESRC Meaningful and Measurable project).

In SmartUrbI, the living lab is the anchor for CAR activity. This means that the living lab is where researchers and practitioners come together to shape the research, co-interpret emerging findings and decide next steps in inquiry and/or practice.

Living Labs (LL)

Living Labs (LLs) emerged in the world of place-based innovation in technology, infrastructure, services and/or products. They are spaces for developing, prototyping, testing and refining via collaborative inquiry by stakeholders. LLs have been defined as "tool[s] and process[es] for the creation of user innovation cooperatively in real-life environments. It is employed for learning, conducting tests and research for the implementation of new technologies and services of organisations in large-scale real-life environments" (Bakici et al., 2013, p. 142). In urban governance, LLs aim to "bring together city managers and all the urban actors, to create an innovation-oriented environment". These agents will collaborate in the "co-creation of new services, products, and societal infrastructures thanks to user-driven innovation" (Bifulco et al., 2017, p. 23). Co-operation is thus a foundational tenet of LLs with the aim of

achieving “common aims through resource integration, new technologies, and continuous relationships” (Bifulco et al., 2017, p. 25). It is argued that LLs provide “the most realistic environment possible to allow ‘sense making’ processes to take place through experiential learning leading to better understanding of product/service adoption behaviors by users.” (Lehmann et al., 2015).

Although the collaborative aspect of LLs is often emphasised, the potential disagreements that may emerge amongst co-operation partners should also be considered. Björgvinsson et al. (2012, p. 130), drawing on Mouffe’s theory of agonistic democracy, treat LLs as “social innovation agonistic public spaces”, to point out how in public arenas democratic cooperation can be challenged and/or deepened by dissenting views. Capdevila (2015, p. 91) suggests that mainstream LLs tend to be *top-down innovation spaces*, as they are often initiated by public-private partnerships. SmartUrbI should build on these critiques and reframe LLs as spaces for applied but critical CAR: “action researchers seek to produce ‘actionable’, or ‘usable’, knowledge: knowledge that is critical of the status quo in policy practice and academic research and is simultaneously used to act upon the problem(s) at hand and to advance academic debate” (Bartels & Wittmayer, 2014, p. 399).

LLs have been used to different purposes in a variety of contexts (see separate literature review for detail), for example:

- product and technology development (Almirall & Wareham, 2011; Bergvall-Kareborn & Stahlbrost, 2009; Björgvinsson et al., 2012);
- improving teaching skills (Bourgault, 2012);
- knowledge dissemination (Buitendag et al., 2012; Van der Walt et al., 2009);
- open innovation (Lapointe & Guimont, 2015; Leminen et al., 2016; Leminen et al., 2015; Nyström et al., 2014; Pełka, 2013);
- and, key to SmartUrbI, **public governance** (Bifulco et al., 2017; Veeckman, 2015; Gascó, 2017), including
- public health (Almirall & Wareham, 2011; Edwards-Schachter et al., 2012),
- public-private partnerships (Battisti, 2014);
- public procurement (Clermont & Fionda, 2016)
- and community engagement (Wiśniewska, 2016; Wiśniewska & Stawasz, 2016; Wlasak & Blais, 2016; Van Der Graaf & Veeckman, 2014; van Der Graaf, 2014).

Voytenko et al. (2016, p. 45) identify the following key characteristics of LLs: “geographical embeddedness, experimentation and learning, participation and user involvement, leadership and ownership, and evaluation and refinement.” There are some core characteristics of LLs that need to be adapted to the context of/for SmartUrbI:

Core LL characteristics in previous studies	May be adapted for SmartUrbI as…
Innovation (i.e. technological, infrastructural, socio-technical)	**Social innovation; democratic innovation**
Collaboration among actors in the form of: co-production and co-creation (Bakici et al., 2013; Ballon & Schuurman, 2015; Bifulco et al., 2017); co-innovation (Budweg et al., 2011); participatory governance (Van Der Graaf & Veeckman, 2014)	**Collaborative Action Research with Co-operation Partners** from the public, (private?), third and community sectors (state + civil society + market?)
User-driven (Björgvinsson et al., 2012)	**Practitioner (research producer/user) -driven**
Place-based: "situated in real-world environments" (Björgvinsson et al., 2012, p. 131)	**Anchor neighbourhoods** and their urban governance environment

The LL field seems dominated by techno-scientific perspectives that tend to focus on products (e.g. software, hardware). In contrast, SmartUrbI will reimagine the LL as a space for applied social science that focusses on learning for action (e.g. What are the barriers and enablers faced by people who seek to make a difference in neighbourhoods?). The challenge, and opportunity, for SmartUrbI is to develop a LL approach that is oriented towards understanding the role of intermediation agents and practices in urban governance and social innovation.

References

Almirall, E., & J. Wareham. (2011), 'Living Labs: Arbiters of Mid- and Ground-Level Innovation', *Technology Analysis and Strategic Management, 23*(1), 87-102.

Anderson, G. L., & K. Herr. (1999), 'The New Paradigm Wars: Is There Room for Rigorous Practitioner Knowledge in Schools and Universities?', *Educational Researcher, 28*(5), 12-40.

Bakici, T., E. Almirall, & J. Wareham. (2013), 'A Smart City Initiative: The Case of Barcelona', *Journal of the Knowldege Economy, 4*(2), 135-148.

Ballon, P., & D. Schuurman. (2015), 'Living Labs: Concepts, Tools and Cases: Guest Editorial', *Info, 17*(4).

Bartels, K. P. R., & J. M. Wittmayer. (2014), 'Symposium introduction: usable knowledge in practice. What action research has to offer to critical policy studies', *Critical Policy Studies*, 1-10.

Battisti, S. (2014), 'Social Innovation in Living Labs: The Micro-level Process Model of Public-Private Partnerships', *International Journal of Innovation and Regional Development, 5*(4-5), 328-348.

Bergvall-Kareborn, B., & A. Stahlbrost. (2009), 'Living Lab: An Open and Citizen-Centric Approach for Innovation', *International Journal of Innovation and Regional Development, 1*(4), 356-370.

Bifulco, F., M. Tregua, & C. C. Amitrano. (2017), 'Co-governing smart cities through living labs. Top evidences from EU', *Transylvanian Review of Administrative Sciences*(50E), 21-37.

Björgvinsson, E., P. Ehn, & P.-A. Hillgren. (2012), 'Agonistic participatory design: working with marginalised social movements', *CoDesign, 8*(2/3), 127-144.

Bourgault, M. (2012), 'Developing professional competencies using a Living Lab approach: an exploratory study in the field of management education', *International Journal of Product Development, 17*(1/2), 76-93.

Bruce, C. D., T. Flynn, & S. Stagg-Peterson. (2011), 'Examining What We Mean by 'Collaboration' in Collaborative Action Research: A Cross-Case Analysis', *Educational Action Research, 19*(4), 433-452.

Budweg, S., H. Schaffers, R. Ruland, K. Kristensen, & W. Prinz. (2011), 'Enhancing collaboration in communities of professionals using a Living Lab approach', *Production Planning & Control, 22*(5-6), 594-609.

Buitendag, A. A. K., J. S. van der Walt, T. Malebane, & L. de Jager. (2012), 'Addressing Knowledge Support Services as Part of a Living Lab Environment', *Issues in Informing Science & Information Technology, 9*, 221-241.

Capdevila, I. (2015), 'Les differentes approches entrepreneuriales dans les espaces ouverts d'innovation. (Different Entrepreneurial Approaches in Open Innovation Spaces. With English summary.)', *Innovations*(48), 87-105.

Clermont, F., & F. Fionda. (2016), 'A Pioneering Experience in Pre-commercial Public Procurement and Living Labs', *European Structural & Investment Funds Journal, 4*(1), 35-43.

Edwards-Schachter, M. E., C. E. Matti, & E. Alcántara. (2012), 'Fostering Quality of Life through Social Innovation: A Living Lab Methodology Study Case', *Review of Policy Research, 29*(6), 672-692.

Gascó, M. m. c. a. e. (2017), 'Living labs: Implementing open innovation in the public sector', *Government Information Quarterly, 34*(1), 90-98.

Lapointe, D., & D. Guimont. (2015), 'Open innovation practices adopted by private stakeholders: perspectives for living labs', *Info: the Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media, 17*(4), 67-80.
Lehmann, V., M. Frangioni, & P. Dubé. (2015), 'Living Lab as knowledge system: an actual approach for managing urban service projects?', *Journal of Knowledge Management, 19*(5), 1087-1107.
Leminen, S., A.-G. Nyström, & M. Westerlund. (2015), 'A typology of creative consumers in living labs', *Journal of Engineering & Technology Management, 37*, 6-20.
Leminen, S., A.-G. Nyström, M. Westerlund, & M. J. Kortelainen. (2016), 'The effect of network structure on radical innovation in living labs', *Journal of Business & Industrial Marketing, 31*(6), 743-757.
Nyström, A.-G., S. Leminen, M. Westerlund, & M. Kortelainen. (2014), 'Actor roles and role patterns influencing innovation in living labs', *Industrial Marketing Management, 43*(3), 483-495.
Pełka, W. (2013), 'Living Labs as a Form of Innovation Development', *Management & Business Administration. Central Europe, 21*(4), 139-152.
van Der Graaf, S. (2014), 'Smarten Up! Open Data, Toolkits and Participation in the Social City', *Communications & Strategies*(96), 35-52,166.
Van Der Graaf, S., & C. Veeckman. (2014), 'Designing for participatory governance: assessing capabilities and toolkits in public service delivery'.
Van der Walt, J. S., A. A. K. Buitendag, J. J. Zaaiman, & J. C. J. v. Vuuren. (2009), 'Community Living Lab as a Collaborative Innovation Environment', *Issues in Informing Science & Information Technology, 6*, 421-436.
Veeckman, C. (2015), 'The City as Living Laboratory: Empowering Citizens with the Citadel Toolkit', *Technology Innovation Management Review, 5*(3), 6-17.
Voytenko, Y., K. McCormick, J. Evans, & G. Schliwa. (2016), 'Urban living labs for sustainability and low carbon cities in Europe: towards a research agenda', *Journal of Cleaner Production, 123*, 45-54.
Wiśniewska, M. (2016), 'The suitability of living lab concept in the implementation of municipal projects', *Local and Regional Economy in Theory and Practice*(431), 98-106.
Wiśniewska, M., & D. Stawasz. (2016), 'Critical analysis of the possibility of application of participatory methods in local development management in Poland ', *Project Management Development - Practice & Perspectives*, 398-408.
Wlasak, P., & J.-S. Blais. (2016), 'Learning from each other for governance: Transatlantic, transdisciplinary knowledge exchange for governance innovation', *European Diversity & Autonomy Papers*(4), 7-46.

Endnotes

[i] What Works Scotland's CAR: http://whatworksscotland.ac.uk/the-project/our-approach-to-collaborative-action-research/

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