



Co-Creative Filmmaking for Integration of User Perspectives in Living Lab Environments

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Abstract

Co-creative activities are an essential part of a user-centred Urban Living Lab (ULL) approach that values integrating user perspectives into an iterative design process to ensure the successful implementation of an effective, sustainable solution with the potential for long-term impact. Maintaining a constant integration of user voices throughout the process is one of the main challenges of this approach, where user engagement activities risk operating in parallel to the technical development of the solutions. In this paper, we present co-creative filmmaking as a way to bridge the gap between users and developers, creating a channel of communication that allows users to express their needs in a more direct and accessible manner.

The step-by-step co-creative filmmaking method we describe is rooted in experiences of setting up ULLs in the GREEN-LOG project. It requires handing over control to the users for deciding what is filmed and how to film it; invites users to participate in the post-production process; and overseeing the editing of the footage along with any additional material (including text, voice-over narration, animations, or any other digital effects). The goal is to provide opportunities for self-representation through audiovisual communication, to facilitate conversations between stakeholders across the ULL.

Key words

Co-Creative Filmmaking, Self-Representation, User-Driven Communication, Accessibility, Urban Living Lab, User-Centred Design



Introduction

A collaborative approach to filmmaking as a research method has been attempted in various contexts before, producing films ranging from ethnographic documentary work to scripted fiction films (Baumann et al, 2020; Jongsuksomsakul & Roehl, 2022). However, although there have been cases where user-generated social media content has been used as a method of user engagement in a Living Lab environment (Leminen et al, 2014; Ståhlbrøst et al, 2013), filmmaking is seldom used as a co-creative technique in this user-centred design context. In this paper, we propose co-creative filmmaking as a more inclusive and accessible method of integrating user perspectives in Urban Living Labs (ULL). We will be using our work in the GREEN-LOG project to exemplify how these co-creative films can be produced and used throughout the design process.

GREEN-LOG is an EU-funded project based in five ULLs across Europe that focuses on providing sustainable last-mile delivery solutions. The GREEN-LOG ULL focuses on urban and civic innovation through a quadruple helix of co-creation, facilitating spatially embodied collaboration between private entities and civil society to develop sustainable last-mile delivery solutions (see fig 1). A special emphasis will be placed on citizen engagement through co-creative activities to not only align the interests of the involved stakeholders but also empower citizen groups to exert influence and increase impact (Menny et al. 2018).

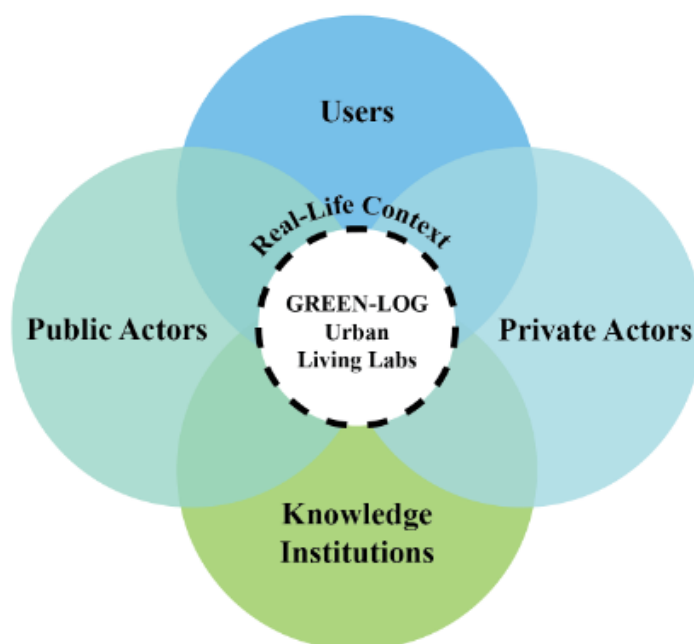


Figure 1. The GREEN-LOG ULL approach utilises a quadruple helix co-creation model to facilitate collaboration between private and public actors (including knowledge institutions and last-mile delivery users)

Through our engagement in the GREEN-LOG project, we have developed ‘Co-creative filmmaking’ to activate these ULL principles into practice, with an ambition to foster a deep understanding of user needs and values. By creating an opportunity for self-representation and establishing communication channels between various stakeholders through the resulting videos, user perspectives become integrated into the iterative design process inherent in the ULL approach to scoping, prototyping, implementation, and evaluation stages. In short, this technique is designed to consistently enable considerations of user perspectives and awareness of the wider context of their needs and barriers through collaborative means of video production.

This method is especially suited to people who may feel more comfortable in expressing themselves using alternative audiovisual methods, be it through sign language or through other non-verbal methods. It is meant to decrease the layers of interpretation through which their views are received and provide a direct means for expressing them and reviewing their own statements. The video format also retains the human element that often risks getting lost when translating user needs into a list of requirements to fulfil.

There have been several other projects that experimented with collaborative forms of audiovisual media production. Through these, we observed examples of potential methods from which we have drawn inspiration. For instance, including participants in the film production and post-production process has been attempted when creating collaborative ethnographic documentaries (Schrage 2024; Sullivan, 2024), as part of public health research (Baumann et al, 2020; Jongsuksomsakul & Roehl, 2022) or when using digital storytelling to amplify marginalised voices (Turpin et al, 2024; Tilche, 2022; Leino & Puumala, 2020; Alexandra, 2017).

Balaguer and Alberich-Pascual suggest a common concept to be used for such approaches and define it as ‘a set of collective processes carried out around audiovisual creation, involving at least two clearly different parties’ who share control or common access to the film production throughout the process. (2023, p.100) Our co-creative filmmaking approach would fall within this category, the two parties being the users and the researchers.

In a ULL context, researchers invite users, often citizens, to co-create, providing necessary materials and skills. They facilitate communication among stakeholders, adapting to user needs. Users on the other hand, need interest and commitment to the project if they are to assume directorial roles. Collectively defining how to go about meeting the project goals is an important aspect of inclusivity, involving users in the evaluation of the process as well. As Sullivan suggests, one must design in a way that is



centred around the relationships being formed, gaining knowledge throughout the process instead of solely through the end-product. (2024, p.41) Jongsuksomsakul & Roebli support the creation of positive relationships between participants and recognise the responsibility of the researcher to listen to the concerns of the users and provide relevant information and resources accordingly. (2022, p. 3) Moreover, the relationship between researcher and user is inevitably reflected in the resulting film; Turpin et al noted how, although the researcher's experience played an active role, participants in their study still described their role as directorial in nature, remaining in control of their own narratives. (2024, p.14)

The Co-Creative Filmmaking Method for Living Labs

Our approach to co-creative filmmaking in ULL is based in the design ethnographic living lab model developed through the REBEL research program at Halmstad University (see for example Smith et al. 2024). The REBEL LL model (see fig 2) engages in future smart living and has a particular focus on developing innovative ethnographic techniques in the exploration and engagement phase of the co-creative human centred design process.

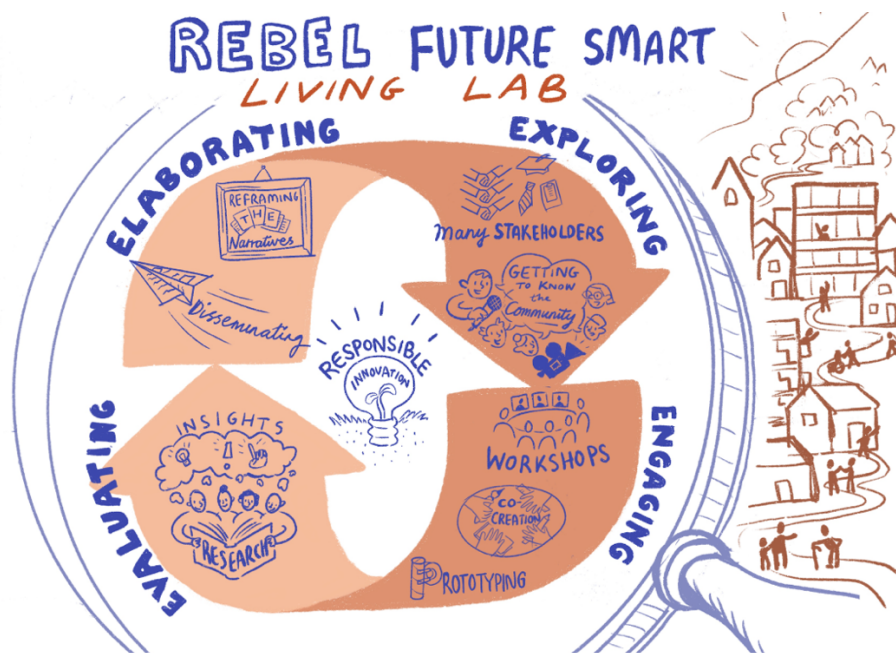


Figure 2. The REBEL future smart living lab model is developed in the REBEL research program at Halmstad University, Sweden.

The co-creative film-making method we demonstrate in this paper is being developed as part of the REBEL research program and is tailored to the ULL context in the GREEN-LOG project. We have begun testing the viability of the method by engaging with a courier from the e-bike delivery company of the GREEN-LOG ULL in Oxfordshire, who agreed to guide us through his usual delivery routine. The method is as follows:

Preparation - Prior to scheduling a filmmaking session, establishing the scope, and settling the goals of the activity together with the users is an important step to ensure that there is an alignment of aims and any concerns have the chance to be addressed beforehand. It is expected that users understand how this video will be distributed within the ULL and can suggest further uses of the film. Consent to appearing onscreen (and possibility to withdraw consent anytime) should be established, and an introduction to filmmaking basics should be made available for users with limited experience who intend to shoot footage themselves.

Production - The subject of the shoot, equipment setup, and camera roles are context-dependent and reliant on user interest and degree of participation. Some filming options for users include appearing onscreen and addressing the camera, be recorded while engaging in an activity, participate behind-the-scenes by directing the researcher who operates the camera, or using the camera themselves. Roles and ideas may change based on the events of the day.

During filming in Oxfordshire, the content was entirely determined by the courier, who chose to appear onscreen, explaining each step of his process (see fig 3). He would never address the camera or any imagined audience beyond it, and instead would speak directly to us as we recorded him. He talked openly about his experiences and did not express any concerns regarding how his image would be portrayed during the filming process.



Figure 3. The courier guiding us through his routine at the depot

Post-production - Unless the users express interest in editing the footage, the researchers should assume the editor role to minimise the effort required from the users, given that making the production process as easy as possible would encourage higher rates of participation. If more than one user is included in the video, then a group feedback session should be organised to ensure that users are satisfied with their representation in the wider context of the video containing multiple perspectives. Several opportunities for feedback should be offered, along with the ability for users to contact researchers at any point to request revisions.

We are currently in the post-production stage of the process for the Oxfordshire film, and a first draft has been created. We have now reached out, asking for feedback from the courier on any changes he would like to make (which could be communicated via text or via video call, with live edits made together). It is expected that a second version will be created as a result.

Dissemination- The resulting videos are intended to be shared internally among relevant stakeholders across the ULL(s) of the project. A feedback loop is also expected, meaning that users who participated in co-creative filmmaking must hear a response with progress updates about the project, thus being included as legitimate participants in the project. This two-way interaction should nurture trust, which would strengthen the interest to continue engaging long-term through multiple prototyping and implementation stages. Public dissemination would also be possible for the promotion and visibility of the project, but this would be a secondary goal that would require additional consent from participants.

Evaluation - Users are also included in assessing the success of the method. Feedback would be requested regarding how much they were able to express their views, how well they feel that their perspectives were considered, and how much of a difference they feel that they made overall. This would be supplemented by reflections and other forms of quantitative or qualitative assessment conducted by the researchers as well.

Potential Challenges

Although there is overlap between the roles of the two parties as they share filmmaking responsibilities, it has been noted that an imbalance of power can persist in collaborative audiovisual projects, and it is not erased simply by providing equal opportunities to participate. (Leino & Puumala, 2020, p. 791) The researcher is usually the one in control of and responsible for the resources and equipment necessary for video production, while users oftentimes do not have extensive filmmaking experience. This emerged during



filming in Oxfordshire, where limited awareness of what would be visible or audible on camera was observed (see fig 4). These technical frictions could have been avoided by giving more thorough guidance on filmmaking fundamentals, to help bridge the gap for users with limited film experience.



Figure 4. Attempting to show his phone screen, which the camera could not pick up

In cases that involve multiple participants, conflicting points of view are likely to occur at some point in co-creative practices due to distinct backgrounds and differing motivations that may cause disagreements around film contents and style. (Schrage, 2024, p. 7; Tilche 2022, p.497) As such, preserving multiple perspectives is one of the main challenges of collaborative media production. (Sullivan 2024, p. 40) In addition, it is known to be a time-consuming activity requiring high levels of commitment and resources. (Leino & Puumala 2020, p.795; Baumann et al 2020, p.2260) Such challenges often discourage project leaders from opting for such methods due to concerns regarding efficiency. However, providing a more diverse range of users with the chance for self-representation is a more accessible alternative that prioritises user perspectives in exchange.



References

1. Alexandra, D. (2017). 8 More Than Words: Co-Creative Visual Ethnography. In Deep Stories: Practicing, Teaching, and Learning Anthropology with Digital Storytelling (pp. 113-131). Warsaw, Poland: De Gruyter Open Poland. <https://doi.org/10.1515/9783110539356-010>
2. Balaguer, J. & Alberich-Pascual, J. (2023) Collaborative modes of audiovisual media: literature review and conceptual proposal, *Studies in Documentary Film*, pp. 91-107. <https://doi.org/10.1080/17503280.2023.2272772>
3. Baumann, S. E., Lhaki, P., Burke, J. G. (2020) Collaborative Filmmaking: A Participatory, Visual Research Method, *Vol 30, No. 14*. <https://doi.org/10.1177/1049732320941826>
4. Jongsuksomsakul, P., Roehl, K. (2022) Co-creative media: Capacity building with participatory communication to adopt good agricultural standards practice for people's health. *Research in Globalization*, Vol. 5, <https://doi.org/10.1016/j.resglo.2022.100092>.
5. Leino, H. & Puumala, E. (2020) What can co-creation do for the citizens? Applying co-creation for the promotion of participation in cities. *Environment and Planning C: Politics and Space* Vol. 39 No. 4. <https://doi.org/10.1177/2399654420957337>
6. Leminen, S. Westerlund, M & Nyström, A. (2013). On becoming creative consumers – user roles in living labs networks. *International Journal of Technology Marketing*, Vol. 9, No. 1, pp 33-52 <https://doi.org/10.1504/IJTMKT.2014.058082>
7. Menny, M., Palgan, Y. V. & McCormick, K. (2018). Urban Living Labs and the Role of Users in Co-Creation. *GAIA – Ecological Perspectives for Science and Society*, Vol. 27, Suppl. 1, pp 68-77. <https://doi.org/10.14512/gaia.27.S1.14>
8. Schrago, S. (2024) Collaboration in documentary filmmaking and its discontents: Reflections from the field. *Visual Anthropology Review/Early View*. <https://doi.org/10.1111/var.12316>
9. Smith, R., Fors, V. & Brodersen, M. (2024). Sustainable human approaches for automated futures: Building participatory and design anthropological methodologies. In: V. Fors, M. Berg & M. Brodersen (eds.), *De Gruyter Handbook of Automated Futures. Imaginaries, Interactions, and Impact*. De Gruyter.
10. Ståhlbröst, A., Bertoni, M., Følstada, A. & Ebbeson, E. (2013). Social media for user innovation in Living Labs: a framework to support user recruitment and commitment. XXIV ISPIM Conference – Innovating in Global Markets: Challenges for Sustainable Growth, 16-19 June, Helsinki.
11. Sullivan, K. (2024) Maybe We're Creative: What I Learned about Co-Creation in Design by Dancing with My Dad. URI: <https://openresearch.ocadu.ca/id/eprint/4484>
12. Tilche, A. (2022) Broken Gods: Collaborative Filmmaking in Troubled Times, *American Anthropologist*, Vol. 124, No. 3, pp. 490-503 <https://doi.org/10.1111/aman.13735>
13. Turpin, H., Cain, R. & Wilson, M. (2024) Towards a Co-Creative Immersive Digital Storytelling Methodology to Explore Experiences of Homelessness in Loughborough, *Social Sciences*, Vol. 13, No. 1, <https://doi.org/10.3390/socsci13010059>