



Faculty of Design

2023

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Suggested citation:

Lattanzio, Susan (2023) Music for Research Co-Creation and Public Engagement. In: Proceedings of Relating Systems Thinking and Design Volume: RSD12, 06-20 Oct 2023. Available at <https://openresearch.ocadu.ca/id/eprint/4938/>

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Relating Systems Thinking and Design (RSD12) Symposium | October 6–20, 2023

Music for Research Co-Creation and Public Engagement

Susan Lattanzio

It has long been recognised that complex real-world problems cannot be solved by one discipline working alone. In response, over recent decades, within both the academic community and funders, there has been an increased call for research projects that integrate different academic disciplines and non-academic partners—within this work, we refer to this as transdisciplinary (TD) research. Although there is increased attention to TD research, the literature also recognises that there are challenges in bringing together a diverse group with different perspectives and ways of thinking. One of the ways that has been suggested to unite the different domains is through *boundary objects*—tools, objects, or documents that help to create a mutual understanding or framing. Within this presentation, we will share how the Made Smarter Innovation: Centre for People-Led Digitalisation (PLD) explored the use of a song as a means to increase the unity of its transdisciplinary community and to disseminate its research to the wider public. The presentation explains the method of co-creation through to the final performance of the song and evaluation. In conclusion it reflects on the increased demand from the funders to demonstrate public engagement and briefly explores the suitability of the metrics which have been chosen to evaluate the success of the initiative.

KEYWORDS: public engagement, boundary object, transdisciplinary, transdisciplinary engineering research

RSD TOPIC(S): Cases & Practice, Methods & Methodology

Context

The 1990s saw increased attention to the environment and sustainability. Complex challenges such as this could not be addressed by one discipline working in isolation, it required the coming together of different academic disciplines and non-academic stakeholders—it required transdisciplinary (TD) research (Augsburg, 2014; Bernstein, 2015; Kessel & Rosenfield, 2008).

Although TD's roots are in addressing environmental challenges over the coming decades, there was a realisation that TD might be useful in addressing complex problems in other areas, such as health and engineering (Lattanzio et al., 2020). Consequently, since the 1990s, there has been a steady increase in support for TD research. Indeed, a recent study by the Organization for Economic Cooperation and Development (OECD) proposed that TD should be scaled and become the modus operandi for research (Organisation for Economic Co-operation and Development, 2020).

Although TD research is gaining increased attention, the literature recognises that projects which bring together a diverse group of people can be challenging due to the inherent nature of TD research, the existing structures of research organisations, bringing together diverse mindsets and ways of working, and changes in the external environment (Gaziulusoy et al., 2016; Lawrence et al., 2022; Ruppert-Winkel et al., 2015; Thapa et al., 2022; Wognum et al., 2019). To tackle these challenges, some have suggested the use of boundary objects (Clark et al., 2016; Duncan et al., 2020; Lang et al., 2012; Star & Griesemer, 1989).

Boundary objects

The concept of boundary objects was first popularised in a paper by Star and Griesemer (1989). In their work with Berkeley's Museum of Vertebrate Zoology, they came to appreciate that those involved in the museum (e.g., scientists, funders, and administrators) inhabited different 'social worlds', which could create problems in communicating and collaborating. To address this, a range of boundary objects were employed.

Boundary objects are tools, objects, or documents which help to create a mutual understanding or framing. Star and Griesmer identify types of boundary objects. Within these, the ideal type represents an object (figure or diagram), which does not describe anything in detail but is co-created from across the stakeholders and acts as a good enough interpretation through which to facilitate communication and cooperation. It is this ideal boundary-crossing object which we aimed to achieve through the co-creation of the PLD song.

Made Smarter Innovation

Made Smarter Innovation: Centre for People-Led Digitalisation is a £5 million EPSRC-administered research centre.¹ Transdisciplinary in nature, it includes academics from across disciplines (e.g. engineering, policy, management, computer science) and industry partners. The ambition of the centre is to improve the outcome of the adoption of digital technologies within the manufacturing sector. This is to be achieved by putting thinking about people at the heart of digitalisation initiatives. The primary output of the Centre will be a practitioner-focused, people-led digitalisation approach.

To realise the ambition of the centre requires two things: aligning the thinking of the research group to create the approach, and a mindset change, from technology first to people first, within the wider public.

The PLD song

There is a growing body of research which demonstrates how music can help with cooperation and trust, build communities and bring about social change (Anshel & Kipper, 1988; Bowling et al., 2022; Rabinowitch, 2020). We looked to explore whether a song might be a useful 'boundary object' and help achieve the ambition of the PLD.

To create the song, we commissioned the help of a songwriter. The process of creating the song consisted of four stages.

¹<https://www.bath.ac.uk/projects/made-smarter-innovation-centre-for-people-led-digitalisation/>

Stage 1: Generate content for the lyrics

The songwriter circulated amongst the PLD members at a poster event and captured key phrases about the research on a whiteboard.

Stage 2: Create the lyrics and add the melody

The songwriter took key phrases, translated these into lyrics and added the melody.

Stage 3: Dissemination

The songwriter produced the song and submitted this to the Centre for approval.

No changes were made, and the song was performed live at our internal Centre event (June 2023), which included both academic and non-academic participants. Following, the video was shared via our LinkedIn page.

Stage 4: Evaluation

The song was evaluated using the following criteria:

- Number of likes on LinkedIn
- Number of reposts of LinkedIn

Reflection

Creating a song for the centre was a risk. There was a chance that the key phrases captured by the songwriter would not reflect the ambition of the Centre detailed within the funded bid. These fears were not realised. Although there are perhaps some specific words that the leaders of the Centre would not have chosen, their inclusion was not intolerable. For example, there is one lyric which states, "digitalisation should be *only* people-led." If a person with an academic orientation were writing the lyrics, they might not have been so brave as to opt for "only" and would have gone for a word which is easier to defend, such as "often" or "generally." That ideal boundary objects are a vague, "good enough" consolidation of the thoughts of the group rather than a precise academic statement can be troubling to some within the academic community.

Within the UK, funders are keen for academia to engage with stakeholders and co-create research. Although obvious through their rhetoric, the metrics by which to

demonstrate co-creation or evaluate the success of public engagement are not generally prescribed. This is perhaps due to the challenge of selecting suitable metrics. The evaluation metrics selected here demonstrate reach; however, they do not consider impact. For example, although there is a song—but how much difference does it make to improving communication within the Centre? Likewise, although the video of the song is being shared, will this translate into a mindset change? To fully evaluate the success of the song would require a comprehensive multi-criteria approach.

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Acknowledgements

The work reported in this paper was undertaken as part of the Made Smarter Innovation: Centre for People-Led Digitalisation, Engineering and Physical Sciences Research Council (EPSRC) Grant EP/V062042/1 with the support of the University of Bath, [Impact and Knowledge Exchange Fellowship](#). Special thanks are given to Sally Songwriter, without whom there would be no PLD song.