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Title	From participatory design to participatory governance through sustainable HCI
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Publication Date	2017-11-20
Publication information	Kennedy, Rónán. (2017). From participatory design to participatory governance through sustainable HCI. In Mike Hazas & Lisa Nathan (Eds.), Digital Technology and Sustainability: Engaging the Paradox. Oxford: Routledge.
Publisher	Routledge
Link to publisher's version	https://www.routledge.com/Digital-Technology-and-Sustainability-Engaging-the-Paradox/Hazas-Nathan/p/book/9781138205888
Item record	http://hdl.handle.net/10379/14658

From Participatory Design to Participatory Governance through Sustainable HCI

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Draft 16 May 2017

The four chapters in this part deal with the interaction between HCI research and teaching on the one hand, and HCI policy and practice on the other. They illustrate issues of conflict, control, and communication that are at the heart of discourse in democratic societies and can help us to explore the increasing importance of information and communications technologies (ICT) in the day-to-day functioning of economic and social institutions, creating a space for reflection on the challenge and potential of integrating values and ethics into academic research projects, curricula, and external engagement.

Issues of *conflict* are explicit in Eriksson and Pargman's contribution: between the need to be honest with students but avoid distressing them, negotiating with colleagues about the very real changes to teaching required by a high-level commitment to sustainability, and the challenges for students of translating that internalised orientation into the commercial reality that awaits after graduation. They lie just under the surface of the accounts provided by Davis and Gram-Hansen, in the various perspectives of experts in different disciplines but also in the very divergent approaches to the development and deployment of technological artefacts. These can be quick (but ultimately shallow) fixes, reflecting incomplete understandings of sustainability, and often aimed more at creating opportunities for managerialist interventions.

This impulse, which often motivates approaches to problems which rely on digital technology, is ultimately rooted in the hope that ICT offers a mechanism for creating immutable mobiles (Latour 1986), allowing comprehensive and inescapable *control* of individuals, even at considerable distances of space and time. Projects such as PowerHouse, WaterBot, and UbiGreen can be connected to soft regulation approaches, inspired by Sunstein and Thaler's "Nudge" (Thaler and Sunstein 2008), which can ultimately become assemblages of eco-governmentality (Malette 2009). Davis and Gram-Hansen present us with an alternative in participatory design. This involves the users in the development from the outset, thus drawing on what James

C Scott would call “metis”, or local and practical knowledge (Scott 1998, 311-313), to build systems that work with, rather than against, the natural inclinations of those whose participation is essential to the success of the system. The appropriateness of this approach is particularly obvious in the EcoHouse case study.

The issue of control also emerges strongly in Thomas’s chapter, although here it is the HCI research community which seeks to assert control, bringing to bear its knowledge and expertise on the environmental harms which can be caused by Waste Electrical and Electronic Equipment (WEEE), and the opportunities for better outcomes which exist in Green Public Procurement (GPP) initiatives. Thomas argues that the HCI community has much to contribute to policy- and law-making in this problem domain, and that should assert itself more strongly to make its impact felt.

The approaches to control delineated in these chapters seem initially paradoxical: Davis and Gram-Hansen advocate less initial control by designers in the initial stages of a project in order to produce an outcome with more legitimacy and context-appropriateness, which is therefore more likely to achieve and sustain leverage over individual behaviour in the long run (even where, as in the EcoHouse project, it does not involve new technology). Thomas points out that SHCI research will attain its greatest impact the more it strives to operate outside its traditional domain.

These dualities, of conflict and control, can be resolved by considering carefully how the SHCI field *communicates*: Remy and Huang consider in detail whether there are more appropriate or effective ways to speak to policy- or law-makers, colleagues in other academic disciplines, practitioners, or students? Thomas highlights issues of engaging at different scales of policy, but considering her contribution in tandem with Remy and Huang’s brings to the fore the necessity of always considering the different discourses – technical, regulatory, economic – that are intertwined in the lengthy processes of design and decision-making which culminate in a functioning artefact.

The tone of the four chapters is not optimistic, each stressing the practical challenges, missed opportunities, and existing failures that confront a SHCI researcher who aims to make a difference through his or her work. Nonetheless, taken together, they also offer a positive foundation which can enable the discipline to engage with external interest groups in positive and constructive ways. The importance of ICT in modern society is undeniable. Applying actor-network theory, or at least a particular iteration of it (Latour 1999), we can think of the devices which emerge from HCI design processes as “rhizomes”, spreading versions of so-called sustainability practices in social, regulatory, and commercial contexts. What emerges clearly from these chapters is that the vision of sustainability which is embedded and embodied in these artefacts and assemblages is often incomplete, contested, and sometimes even destructive. However, the chapters also offer an alternative approach for the discipline, one in which what Eriksson and Pargam call “strong sustainability” approaches to teaching, participatory design, and external engagement can begin to challenge these unfortunate tendencies. Participatory design, in particular, can be linked to participatory governance methods (Paquet 2001; Asaro 2000), highlighting the importance of ethics and values in the designs of information artefacts and information systems (Kesan and Shah 2004) in ways which

enable ordinary users to have a voice and means to be heard (Stahl 2011). In this way, SHCI can help to re-assert democratic control over the information infrastructures (Hanseth and Monteiro 1998) which play an increasingly important role in all of our daily lives and thus avoid the “unproblematic techno-fix”.

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