HCI towards a Commons-based Society

Vasilis Vlachokyriakos

Newcastle University Open Lab & Open Lab: Athens

School of Computing,

Newcastle upon Tyne, UK,

vasilis.vlachokyriakos1@ncl.ac.uk

Abstract

In this extended abstract I describe the main pillars of my current research, which extends upon the very topical and emerging issue of how the systems we design and build contribute towards a transition to commons-based approaches to society through co-creating open commons knowledge, systems and services. I outline the ways through which I pursue this research vision through place-based research, working closely with emerging spaces of social innovation and the commons (e.g. social enterprises, social movements, open source movements etc.) committed in building a more socially just democracy, economy and politics.

Introduction

At the core of my research is an understanding of designing digital systems as ways that we shape our environments. As is widely known in HCI and explored in Participatory Design research, the dissemination of computing systems in most strata of society puts designers in a position of power against systems' users - i.e. citizens. This has lately become more apparent due to the substantial implications of these systems in shaping the ways through which we make decisions, we

produce, consume and exchange, and the ways through which we understand and participate in politics.

Any system can be described as an abstract representation of its inputs and outputs. The ways through which data is being represented, stored and governed, and the processing logic of the system for transforming and negotiating the data that receives and produces. Taking a Digital Civics approach on systems design, my research raises questions about the provenance of technological innovations, the socio-political effects of the research and artefacts that we produce, our research and systems' data management and ownership processes and the ways through which multiple passive or active agents negotiate and transform such data. My current research attempts to shed light onto such inquiries by following a commons-based approach for the creation of systems to promote open and participatory production and governance processes.

Provenance of Innovations

Where do technological innovations come from in Computing, Interaction Design and HCI? What informs and inspires us to design and build digital systems? Who is included from this discourse and practice, and who decides those who are excluded? These are questions that Participatory Design research has engaged with in recent years, resulting in the publication of important work and the development of research methodologies that question the provenance of innovations, acknowledge the existence of power relations and enable the participation of non-designers in design processes. Crucially, such a research vision puts the political nature of technology at the forefront and strives to design systems that embed politics that

contribute to a more socially just society. Recent research and practice builds on and extends this line of work through working closely with spaces of social innovation to design and develop digital systems that mirror such socially constructed innovations. This requires the further development of conceptual frameworks in technology design through on the ground design activities and the extension of our connections with networks of social innovation. Technology, in this regard, plays the role of a vehicle through which social innovations disseminate to societies; it exemplifies the role of technology in scaling out rather than scaling up sociotechnical innovation.

Secondary effects of research and technology

A solutions-oriented approach to innovation to better balance technological and societal innovation is to look at a particular aspect of dysfunction (e.g. poor working conditions) and design technology with a primary goal to ameliorate such issues. These attempts, even though they might be successful in their imminent goals, rarely succeed in having a macro-scale and long-term effect as each new intervention introduces new digital divides and sustainability challenges.

Secondary effects are how technologies have their greatest impact. They are the unintended consequences of the engineering and operation of complex systems. They are the pervasive, constant, active effects of a technology that are not its main purpose. Such an acknowledgement of primary intentions and secondary effects opens up a discussion of designing for primary and/or secondary effects. Working in spaces that manifest social innovation allows us to codify techniques through which we can

embed values and tactics for a more socially just society in the systems that we design and build. Through close cooperation and embedded research in such spaces, my current research investigates how HCI "prototyping" can support spaces of social innovation (as a primary effect) while leveraging engagements for the designing of any digital system that will promote (by design) the transition to commons-based societies (as a secondary effect).

Strategies to achieve this include working more closely with open source (software, hardware, seeds, research etc.) communities and urban commons organisations, finding novel ways to make our research outcomes (systems or manuscripts) available and accessible for free, for example. In other words, start developing and implementing an academia-oriented commons transition plan through: developing conceptual frameworks for designing for secondary effects, coming up with novel methods to link academic impact with social impact, and initiate a discussion and map out practical steps through which we can achieve such a commons transition.

(Platform) Co-operativism
In addition to the provenance and the effects of technological innovations, the ownership and the governance of the designed and developed artefact are and should be of paramount importance for *such a commons transition*. It is our attempt to bring co-operative ownership and governance to the online

platforms that, increasingly, we live by. Such attempts require us to either come up with novel participatory models and decision-making processes or to re-appropriate existing ones.

My research attempts to bridge the gap between the innovation found in spaces of social entrepreneurship and community resilience, and the sociotechnical innovation of the digital commons. For the former, through constructing novel methods of production and distribution on the ground (e.g. local bartering communities, local currencies, time banks networks etc.) I look to research the ways through which exemplar cases of self-organisation, sustainability and decision-making can inform the design of technological platforms. For the latter, taking the collaborative production of digital commons as an example, I attempt to disseminate peer-to-peer methods of production, ownership and governance by making such processes more accessible to non-technology related work.

The approach through which I work to achieve such a co-operative transition include: place-based research with groups active in creating novel methods of production and distribution, configuration of academic partnerships to mirror cooperative work, the design and development of systems to infrastructure local cooperatives, the development of sociotechnical innovations for the dissemination of peer-to-peer methods of production and governance etc.