PREFACE
Experiences of Technology Appropriation: Unanticipated Users, Usage, Circumstances, and Design

Technology appropriation is an ever-present phenomenon – it is an essential part of humans' everday activities and lives (e.g., [8]). In private as well as professional life, people frequently adapt, adopt, and shape technology around them to ease interaction when accomplishing certain tasks. They recreate technology to serve individual or collaborative needs for creativity, reflection, or expression; they repurpose technology, find workarounds or improvisations in order to solve emergent problems (e.g., [6, 10, 11, 13]). Such appropriation practices, as argued by Norman, may be seen as the essence and heart of innovation [9]; practices that one another could learn from to explore, (re-)think and (re-)design into alternative, and potentially more innovative ways of how people may intersect with and use technology in their very own ways. As appropriation appears to evolve on different levels, it may need to be investigated from two interweaving perspectives: (a) an individual level, i.e., an individual appropriating technology for (a) specific pupose(s), or (b) from a collaborative level, i.e., several individuals collaboratively appropriating technology for (a) specific purpose(s).

This focus section relates to the latter aspect of appropriation, i.e., how technology appropriation takes place to satisfy people's communication needs. Specifically, it is concerned with technology that was not initially intended to foster communication, but which was appropriated to meet such needs. The editors of this section argue that it is critical to identify such unexpected communication needs, to better account for them when designing interactive systems. Even though a discourse around technology appropriation has been intensified during the last decade (e.g., [1, 3, 4, 12]), the fields of HCI and CSCW still lack systematic, agreed upon – theoretical, empirical, and methodological – understandings of: (1) how users adapt and shape technology to their potentially unexpected communication needs; (2) how we, as research community, can access the knowledge embedded in everyday appropriations; and (3) what drives appropriation (e.g., unanticipated usage, unanticipated users, unanticipated circumstances, unanticipated needs).

Therefore, there is not only a substantial need to further explore the drivers of technology appropriation, but to also understand the challenges, opportunities, lessons learned, and theoretical insights that emerge when researching technology appropriation (practices). This focus section follows the ECSCW 2015 Workshop on "Experiences of Technology Appropriation: Unanticipated Users, Usage, Circumstances and Design" [5], held in Oslo (Norway) on September 20th 2015. During the workshop, ideas, thoughts, and perspectives of how technology appropriation may be approached, understood, and conceptualized were shared, and drivers identified. Workshop participants discussed the challenges and opportunities of appropriation research, and how research in the field may further evolve. Overall, there was a consensus that further research is required, and that HCI, CSCW, and design research will need to develop a future research agenda (including

methodological, theoretical, empirical, and practical design related issues) to systematically explore the foundations of appropriation phenomena.

For this focus section, submissions were invited from the authors of the above mentioned workshop and other researchers in HCI, CSCW or related communities. Overall, the focus section received six manuscripts. The peer-reviewed process was double blind and the authors of submitted manuscripts received two to three reviews and a meta-review, with a conditional accept or a reject of the paper. The authors, whose manuscripts have been conditionally accepted, then had the opportunity to revise their papers based on the reviewers' and meta-reviewers' feedback. The revised submissions were checked by two editors to decide whether or not the changes have been properly addressed, and to identify if further changes to the manuscript were necessary. After the peer-reviewed process, three research articles were accepted based on technical quality, maturity, and alignment with the objectives of the focus section.

The accepted articles emphasize manifold perspectives on technology appropriation, i.e., approaches, theoretical framings of technology appropriation and different empirical investigations and contexts of (emerging) appropriation practices. The first article by Derboven, Geerts, and De Grooff [2] provides a semiotic approach to understand the appropriation of technology, by specifically focusing on how the technology itself guides its users with its design, and how users appropriate technology, by developing practices to satisfy their own needs, and thereby, resist the guidance facilitated by the design. Through two case studies with children and teachers using educational technologies, the authors show how taking a semiotic approach provides them with a framework to further understand how technology design mediates users' appropriation practices.

The second article by van Dijk and IJsselsteijn [14] discusses the social stance of self-tracking, by arguing that self-tracking technologies tend to focus on individual needs and goals, but do not take into account the possible collaborative aspects of self-tracking, e.g., users connecting to other users through self-tracking. The concept of appopriation and the users' appropriation practices, thereby, revealed the users' actual desire to get in touch with other users. The authors finally call for an expansion of the technology itself, as well as the scientific field to broaden towards a more socially oriented Quantified Us, instead of the existing and more individualistic Quantified Self.

The third article by Ventä-Olkkonen, Iivari, Lanamäki, Jurmu, Kukka, and Kuutti [14] focuses on technology appropriation in relation to potential discrepancies between anticipated use and actual use. By conducting a literature review, the authors present different types of appropriation and use them as a framework to further explore them in an empirical setting of a city-wide multipurpose interactive public display network. The network was designed to support communication among multiple people and for multiple purposes. This research shows how people have used the public display network in ways that differ from the intended use in the original design. In particular, the authors describe unfaithful appropriation by presenting and discussing the role of unanticipated users, usages, circumstances and how to design for the unanticipated in this public domain.

The articles comprised in this focus section pay attention to the multifacetedness of technology appropriation, i.e., on how we can further understand appropriation

practices taking a semiotic perspective, on how we should move beyond individualistic approaches to technology design, and how empirical research on appropriation reveals both the unexpected communication needs of people and what motives drive users' appropriations. We proceeded with exploring social aspects of appropriation at the CSCW 2016 Workshop on "Collaborative Appropriation: How Couples, Teams, Groups, and Communities Adapt, and Adopt Technologies" [7], held in San Francisco (USA) this year on February 27th 2016. The insights we gathered throughout our Workshop on Collaborative Appropriation as well as the diverse set of contributions in this focus section, calls for substantial research on the collaborative aspects of technology appropriation and further research on theories and methods to investigate users' (collaborative) appropriation practices..

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