Chris Greenhalgh (Databox)

Chris Greenhalgh is a Professor of Computer Science at the University of Nottingham. He is a co-founder of the Mixed Reality Lab, established in 1999, which is an interdisciplinary group exploring the potential of ubiquitous, mobile, and interactive technologies to shape everyday life. His research interests are at the intersection of human-computer interaction and distributed systems, including ubiquitous computing and mobile multi-user applications. His work is collaborative and multi-disciplinary in nature. He led the development of several enabling technology platforms, including the MASSIVE collaborative virtual reality systems, the Equator Integrated Platform (EQUIP) and Musicodes, which have supported high-profile public events and performances including Rider Spoke and Day of the Figurines (with performance artists Blast Theory) and Climb!, a contemporary non-linear work for pianist and Disklavier piano.

He has published over 100 papers (Scholar h-index 53) in leading conferences and journals, including CACM, CSCW, Ubicomp and ACM CHI. He is a co-investigator in the Horizon Digital Economy Research Institute and a member of the FAST IMPACt project, which is exploring the application of semantic technologies to the music industries. He has led or contributed to many other research projects. He has supervised 15 PhD students to successful completion, including inter-disciplinary supervision with Biosciences, Human Factors, Education, Sociology, the Business School and Cultural Studies. He also contributes to the Horizon Centre for Doctoral Training, which focusses on digital identity.

The **Databox** project (http://www.databoxproject.uk/) is exploring an approach to personal data management that gives users direct control over their data, through a physical Databox device – similar to a home router – that sits within their home. Distinctively, Databox uses an "app" computing model: instead of handing data over to third-parties, users can download and run apps directly on their Databox, giving those apps controlled access to the data on their box. An app can then give feedback directly to the user without passing **any** data to a third-party, or an app might be permitted to export a minimal amount of derived data to third party. The Databox platform is open source (https://github.com/me-box/databox) and preparing for public deployment on Intel or ARM (e.g. Raspberry-Pi) devices.

This use of app computing makes Databox an interesting and potentially distinctive approach for supporting **e-mental health applications** such as self-monitoring: it allows data analysis and end-user feedback to be done without sharing data off the box. For example there are no cloud-hosted services involved. On the other hand, the very fact that this data is highly localised and controlled by the end-user raises questions of repeatability, auditability, safety, professional oversight and "control" compared to more centralised data handling approaches.

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References

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