Designing technologies for data-driven collaborative decision-making and advocacy work in the social sector

Supervisory Team
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Overview
This PhD aims to develop novel socio-technical design of digital systems to support social sectors organisations’ collaborative sense-making of qualitative and quantitative data they collect for decision-making at organisational level (e.g. service design) and at policy level (e.g. advocacy work to shape policy). The PhD candidate will be embedded within social sector organisations to (i) understand the organisations’ data practices; (ii) design, develop, test and evaluate appropriate metrics and novel digital tools for collaborative explorations of data with their beneficiaries to inform organisational strategies and advocacy actions.

Novelty and Impact
The novelty resides in the design and development of interfaces and data-driven tools (i) for/with social sector organisations—a underexplored context, (ii) through novel collaborative research approaches, atypical in data-related research in CS. The EPSRC Network+ Not-Equal1 exposed a new digital divide between the ’data-have’ and ’have-nots’, which is about data access and the ability to realise benefits from it. Social sector organisations are disadvantaged and disempowered in the new data economy, due to lack of appropriate tools and processes that reflect their mission-driven practices2. These factors pose yet unanswered challenges for the design of digital tools that are responsive to local capabilities and values. Project’s outputs will directly benefit social sector organisations and advance research on computing for social change—an area at the intersection of Fairness Accountability and Transparency in ML and HCI3.

Methodology
Partnerships with social sector organisations will be facilitated by the supervisory team’s established links with organisations (e.g. via EPSRC CDC and EPSRC Not-Equal Network+). Participatory Action Research (PAR) and design-led inquiry will be the primary methodology. The PhD researcher will collaborate with partner organisations through cycles of Action-Reflection (AR) to understand requirements and inform design and testing of digital prototypes. Three AR cycles will map onto 3 distinct case studies. Methods within the PAR approach include digital probes, prototyping, participatory workshops for design and evaluation.

Timeline

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