

Understanding and Improving Human Data Relations

Alex Bowyer

- [7 Discussion II: Designing and Pursuing Better Human Data Relations](#)
 - [7.1 Chapter Overview](#)
 - [7.1.1 Practical Research Contexts Used](#)
 - [7.1.2 Attribution of Insights](#)
 - [7.2 Expanding the Concept of Human Data Relations](#)
 - [7.2.1 Human Data Interaction or Human Information Interaction?](#)
 - [7.2.2 The Two Distinct Purposes of Human Data Relations](#)
 - [7.2.2.1 Life Information Utilisation](#)
 - [7.2.2.2 Personal Data Ecosystem Control](#)
 - [7.2.3 The Role of Personal Data](#)
 - [7.3 Answering RQ3: What are the challenges and opportunities?](#)
 - [7.3.1 Challenges and Opportunities in Life Information Utilisation](#)
 - [7.3.1.1 Understandable Data](#)
 - [7.3.1.2 Useable Data](#)
 - [7.3.1.3 Other Factors in Life Information Utilisation](#)
 - [7.3.2 Challenges and Opportunities in Personal](#)

[Data Ecosystem Control](#)

- [7.3.2.1 Data Visibility and Process Transparency](#)
- [7.3.2.2 Ecosystem Negotiability](#)
- [7.3.2.3 Other Factors in Personal Data Ecosystem Control](#)
- [7.4 A Theory Of Change Perspective on Better Human Data Relations](#)
- [7.5 Thesis Conclusion](#)
- [Bibliography](#)

7 Discussion II: Designing and Pursuing Better Human Data Relations

7.1 Chapter Overview

[Introduction/Chapter Objectives]

7.1.1 Practical Research Contexts Used

[Context Recaps esp Hestia & BBC]

7.1.2 Attribution of Insights

[Explaining collaborative nature of work in this chapter]

7.2 Expanding the Concept of Human Data Relations

7.2.1 Human Data Interaction or Human Information Interaction?

[unpacking the important differences between managing data (which is optimised for use by computer systems) and understanding / being informed by information *within* and *about* data.. leads to role below]

7.2.2 The Two Distinct Purposes of Human Data Relations

[Diagram]

7.2.2.1 Life Information Utilisation

[Life Information Utilisation](#)

7.2.2.2 Personal Data Ecosystem Control

[Personal Data Ecosystem Control](#)

7.2.3 The Role of Personal Data

[Data as property, self, insight, medium, currency, expression, ...]

[Data has a role in informing people about themselves, Data has a role in informing people about the actions of others that affect them, Data has a role as a tool for changing self, Data has a role for monitoring influences and actions of others]

7.3 Answering RQ3: What are the challenges and opportunities?

[What challenges and opportunities are relevant when attempting to meet the six wants of human data relations? - How the six wants fit into these two purposes]

7.3.1 Challenges and Opportunities in Life Information Utilisation

7.3.1.1 Understandable Data

7.3.1.1.1 Obstacles to Data Understandability

[Meaningfulness / relatability -> relate it to people/places/events]

[Context - Life - > need life interfaces]

[Information within Data -> Lack of Visualisations and Tools]

[Scatteredness -> holistic/unification, place to centralise]

[Complexity -> common formats/abstractions/summarisations]

7.3.1.1.2 Improving Data Understandability

[Personal data Stores as place to put stuff]

[Build systems to extract meaning - interpreting and combining signals]

[Use standards & semantics to convert data to life information]

[presenting and visualising life information]

7.3.1.2 Useable Data¹

7.3.1.2.1 Obstacles to Data Useability

[Trapped Data -> Force unlocking of data through technical means or regulatory influence]

[Integration challenges -> Need to be able to bring data together and connect and combine]

[Lack of malleability -> need to be able to slice/group/view from different perspectives]

[inability to investigate -> enable questions, comparisons, investigations etc]

7.3.1.2.2 Improving Data Useability

[supporting useful actions on data - filtering, referencing, cross referencing, conjecturing/whatifing - data action verbs]

[data as material, interface features as tools to use that material]

[supporting appropriation, annotation, organisation, curation, use & re-use]

[temporal, entity-based/relational and geographical exploration]

[support goal setting, tracking and reflection]

[an information operating system]

[asking tools rather than answers or insights]

7.3.1.3 Other Factors in Life Information Utilisation

[Motivation -> Showing the potential]

[Effort -> doing as much as possible automatically, conjecture and assertion over blank pages. training rather than meticulous instruction.]

[how the other wants fit in, visibility as it pertains to Life info, transparency/oversight/involvement etc]

[agency over trapped data (by tech or by companies (lead into next))]

7.3.2 Challenges and Opportunities in Personal Data Ecosystem Control

7.3.2.1 Data Visibility and Process Transparency

7.3.2.1.1 Obstacles to Data Visibility and Process Transparency

[hidden data and closed processes -> closed by default thinking -> encourage or legislate for openness.. e.g. data portability/access rights, rights to explanation etc, but more needed]

[silos and motives towards closed proprietary systems -> highlight the pains]

[lack of information *about* our data -> awareness and accountability even where access is difficult ->]

[lack of standards, motivations against interoperability -> motivate standards and uncover opportunities for interoperability]

7.3.2.1.2 Improving Data Visibility and Process Transparency

[ecosystem visualisation and overviews]

[exploiting the seams - the battle for the seams]

[standards creation and the benefits of enabling a 'data understanding' industry]

[regulation - forcing openness transparency and interop. DSA ?]

[collectives - as a means to exert individual power]

7.3.2.2 Ecosystem Negotiability

7.3.2.2.1 Obstacles to Ecosystem Negotiability

[structural power, resource control, centralisation etc -> uneven landscape -> awareness as first step and systemic change needed to change.]

[the four levers of infrastructural power. accumulation of info/surveillance as power. changing available information/actions as power]

[data self affects you but cannot see (proxy for involvement, unseen inferences etc)- > find a way to produce better digital selves]

[Controlling the landscape of what is knowable, and what is do-able -> recognise the importance of free information landscapes, and make them happen through tech or through regulation]

7.3.2.2.2 Improving Ecosystem Negotiability

[better digital selves -> people as source of data. profiles and curated as better representation of self, ref past calls in C4&5 for stewardship, user-contributed data etc]

[collectives, supported by policy [uber, ref GDPR guidelines?]]

[the battle for landscape control - RSS, API, 3P interfaces, etc, Defending The Seams And Protecting Interface Freedom]

[-> exploiting the seams in order to produce new information presentations... ref JE paper (+colin?) -> web aug, firefox containers. Taking Back Power In The Browser, resist moves

to apps]

[-> better policies to protect the information landscape? DSA?]

7.3.2.3 Other Factors in Personal Data Ecosystem Control

[complex data ecosystems]

[Inconsistent and difficult data rights offerings]

[Lack of up to date insights / delay]

[data literacy and rights awareness - you should teach this in schools]

[Feeds and flows that loop in the data subject (default not opt in)]

7.4 A Theory Of Change Perspective on Better Human Data Relations

[the four change quadrants for each of the two purposes. diagrams to work out].

7.5 Thesis Conclusion

[reiterate the answer to the question - the key 4 roles, 3 capabilities and N approaches needed for better human data relations]

[clarify the contribution of the thesis, with backreferences - 2 case studies, RQ answers, and the HDR roadmap]

[highlight future value/societal implications of the work]

Bibliography

Collins English Dictionary (no date a) 'Useability'. Available at: <https://www.thefreedictionary.com/useability>.

Collins English Dictionary (no date b) 'Useable'. Available at: <https://www.thefreedictionary.com/useable>.

Merriam-Webster Dictionary (no date a) 'Usability'. Available at: <https://www.merriam-webster.com/dictionary/usability>.

Merriam-Webster Dictionary (no date b) 'Usable'. Available at: <https://www.merriam-webster.com/dictionary/usable>.

Nielsen, J. (2012) 'Usability 101: Introduction to Usability'. Available at: <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>.

-
1. The words '*usability*' and '*usable*' (spelt without an 'e') most commonly refer to a judgement of the degree to which a website or user interface is easy to use (Nielsen, [2012](#)). Throughout this thesis, I deliberately use the alternative word spellings of '*useability*' and '*useable*' (Collins English Dictionary, [no date a](#), [no date b](#)) respectively, to clearly distinguish from this ease-of-use concept and to denote that I am referring a different meaning: the more literal definition, i.e. "*the quality or state of being convenient and practicable for use*" (Merriam-Webster Dictionary, [no date a](#), [no date b](#)). Any usages without an 'e' can be taken to refer to the interface ease-

of-use concept. [↩](#)