

UNIVERSITY OF COPENHAGEN
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Transactional Data Experiments

On the calibration of digital traces for sociological use

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TOBIAS BORNAKKE

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Transactional Data Experiments

On the calibration of digital traces for sociological use

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English Summary

In recent years, social life has become increasingly digital, challenging sociologists to develop new ways of approaching their discipline's subject matter based on the digital traces left behind by digital transactions. Discussions in the literature on the programmatic aspects of a digital sociology built on digital traces are common, but few studies have ventured into how these largely untested traces are presently being developed into social measures. This lack of empirical engagement has left sociologists insensitive toward some of the current major changes in data and knowledge practices, thereby leaving the sociological discipline on the side lines in the metrological work of carving out new digital measures of socially relevant phenomena.

This dissertation explores such metrological work by simultaneously conducting, and inquiring into the proliferating practice of data experiments, investigating how this practice plays a key role in designing and stabilising new social measures based on digital traces. Through the empirical conduct of more than 10 autonomous data experiments, the dissertation demonstrates how the effectiveness of this practice for developing new measures is closely linked to its dual focus of experimenting both *with* data, seeking to produce thematic analytical results, and *on* data, seeking to understand and stabilise traces by linking them with theoretical meanings and methodological conventions. Further, the dissertation shows how calibration processes of diverse types constitute crucial ingredients in such stabilisation. Grounded in this empirical work, the dissertation suggests data experiments both as a theoretical concept, describing the emergent knowledge practice and how it is currently unfolding, and as a pragmatic methodological concept, as a path for fellow sociologists to follow when seeking to develop new social measures based on some of the many emerging digital data sources. This dissertation contributes an array of thematic results produced through the data experiments, while simultaneously offering a rare metrological 'inside' view into the making of social measures.

Dansk resume

Vores sociale liv er de seneste år blevet stadig mere digitalt. Dette har tvunget sociologer til at udvikle nye måder at tilgå deres felt på, baseret på de digitale spor som vores handlinger i det digitale efterlader sig. Mens en omfattende forskning har diskuteret de programmatisk dimensioner af en sådan digital sociologi, er der kun få studier, der har undersøgt, hvordan disse uprøvede spor i praksis bliver omformet til 'sociale mål'. Dette manglende empiriske grundlag har både undergravet sociologernes sensitivitet for nogle af de store aktuelle forandringer i data- og videnspraksisser samt efterladt sociologien på sidelinjen i det metrologiske arbejde med at skabe nye digitale mål.

Denne afhandling undersøger den voksende praksis for 'dataeksperimenter', samt denne praksis nøglerolle i det metrologiske arbejde med at designe og stabiliserer nye videnskabelige mål. Igennem udførelsen af mere end 10 individuelle data eksperimenter, viser afhandlingen, hvordan disse dataeksperimenters, igennem et dobbelt fokus på at eksperimenterer både *med* data, for at skabe nye tematiske analytiske resultater, samt *på* data, for at forstå og stabilisere disse digitale spor, er i stand til at udvikle og stabiliserer nye mål. Desuden viser afhandlingen hvordan kalibreringsprocesser i forskellige former udgør en afgørende komponent i disse stabiliserings processer.

På baggrund af dette empiriske arbejde, foreslår afhandlingen konceptet om 'dataeksperimenter' som et teoretisk begreb, til at beskrive den voksende videnspraksis, men også som en pragmatisk metode som sociologer kan benytte i deres arbejde med at udvikle nye digitale mål. Samlet, bidrager afhandlingen således med en række tematiske resultater produceret gennem data eksperimenter, samtidig med at den tilbyder et sjældent metrologisk indblik i 'tilblivelsen af sociale mål'.

*The journey from Kamakura to Kyoto takes twelve days.
If you travel for eleven but stop with only one day remaining, how then can you
admire the moon over the capital?*

Nichiren Daishonin, 1280 A.D.

Acknowledgments

While most voyages to the unknown pinnacles of our world are shared accomplishments, fame is — also within the practice of academia — rarely distributed fairly among participants in the expedition. To make up for this injustice I will in the following mention some of the many persons that travelled with me on parts of this journey, fully knowing that this section does not allow me to give sufficient credit for these people’s vast contributions nor does it allow me to mention all people who have contributed.

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