Reflections on Methodological innovation: Challenges and Opportunities

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Structure

- What do we really mean by Methodological Innovation?
- Where does the demand for innovation originate?
- Challenges
 - The dangers of the innovation 'fad'
 - Tackling the long standing intellectual problems of social enquiry
- Opportunities
 - Digital & interdisciplinary opportunities
 - The current funding landscape





Distinguishing Methods and Methodology

- Terms are often used interchangeably
- Method = procedure/technique/ specific tool
- Methodology is more of a paradigm or broad approach than a procedure
- Ideally we should be clearer about whether we are claiming to use innovative methods rather than innovative methodologies





Pressure to be innovative

- Institutional and peer pressure
- Grant applications
- Book proposals
- Research Excellence Framework
- Innovation as part of a 'progress narrative' new and cutting edge methods are seen a superior (Alasuutari 2007 – in relation to qualitative methods)
- Societal/Political context





Helga Nowotny: Uncertainty about the future



"The quest for innovation fills a conceptual void in our collective imagining of the future"

"Our projections of the future have come to oscillate between the emerging order on one hand and the edge of chaos on the other"

"The support for innovation and entrepreneurship is increasingly seen as the pro-active responsibility of governments"

Nowotny, H. Ed. (2006) *Cultures of technology and the quest for innovation*. Series: Making Sense of History. New York/ Oxford: Berghahn Books.





Increasing trend to claim methodological innovation

- Call for proposals from the ESRC emphasise the importance of innovative methods
- Research Excellence Framework values 'methodological innovation' as a marker of originality
- Wiles, Pain, and Crow (2011) demonstrated an increasing emphasis on methodological innovation in their review of papers in peer reviewed qualitative journals





Innovation and the Research Excellence Framework

- Originality, Significance and Rigour
 - Originality can be understood in terms of the innovative character of the research output.
 Research outputs that demonstrate originality may: engage with new and/or complex problems; develop innovative research methods, methodologies and analytical techniques





Narratives of innovative methodologies (Wiles et al 2011) – analysis of 57 papers

- Three main types
 - Inception: wholly new method or new context makes it radically different
 - Adaptation: modifying established methods
 - Adoption: an established method used to research a different topic, or a new configuration of methods are used
- Three main reasons for innovation
 - Ethical
 - Practical
 - Theoretical
 - Note that the majority of innovations are at the level of the method used not the methodology





Narratives of innovative methodologies (Wiles et al 2011) – analysis of 57 papers

Alasuutari's (2007: 514) notion of a 'collectively owned toolbox' of research methods (across disciplines) in which 'each user leaves their mark on the tools that they use' is a particularly apposite description of 'innovation' that emerges from this research





Beware the rhetoric of innovation

- Increasing trend to claim innovative methods
- Claims tend to be exaggerated
 - Adaptation
 - Modification
- Claims for methodological innovation can be detrimental



Claims to innovation can be counterproductive...

- Implication that established methods are no longer useful
- Too much resource/focus on new methods rather than developing, or teaching established methods
- Over-claiming results in a lack of credibility and trust
- Neglect or trivialising of long-standing methodological problems





Long standing methodological problems in the social sciences

- Power relations
- Causality
- Observation effects
- Representativeness
- Societies are complex systems that change over time
- Ontology





The myth of the individual heroic innovator?

James Myson

James Dyson Inventor of cyclonic vacuum technology







Is it possible to speed up/foster methodological innovation?

- What is needed to promote innovation
 - Continued/long-standing support
 - Generative relationships
 - Personal security and trust
 - Specific shared problems
 - Interests aligned with external stakeholders/partners

(Agar M. (2012) A Method to My Madness: What Counts as Innovation in Social Science? *Methodological Innovations Online* 7(1) 61-71)





Changes to the UK Funding Landscape





Previous funding landscape: Research Councils UK



Arts & Humanities Research Council

Medical

Council

Research



MRC









Engineering and Physical Sciences Research Council



Science & Technology Facilities Council





Innovate UK

- Focuses on enabling businesses to invest in research and innovation
- Budget of approx. £700m per year
- Key challenge is how to ensure that a good proportion of start-ups expand and become successful businesses
- Using innovation to improve productivity in the UK



Changes to the Research Ecosystem

- Recognition of need for more interdisciplinary research to solve global challenges
- More strategic approach to deciding how much to invest in different areas of research
- Improved public engagement





The vision for UK Research and Innovation





https://www.ukri.org/



UK Research and Innovation Board

...will enable a greater focus on issues cutting across disciplines and stimulate more effective collaboration across disciplines and between the research community and business.





Methodological Innovation: Funding opportunities

- ESRC Research Grants Open Call: desire for ambitious and innovative work likely to 'use innovative or even untested methods within the context of the particular project'
- ESRC Secondary Data Analysis Initiative 'Is the proposal methodologically innovative?'
- UKRI_JST joint call: Exploring the Impact Artificial Intelligence
 (AI) technologies may have on society and the economy
 - 'Use innovative research design and methods'
- Open Research Area for the Social Sciences (ESRC-ANR-DFG-SSHRC)
 - 'How innovative is the conceptual approach, or the research methodology'
- ESRC-Alan Turing Institute Joint Fellowship Scheme (this year's call recently closed)





Methodological Innovation: Funding opportunities

- Leverhulme 'Our approach to grant making':
 - Originality the research achieves more than the incremental development of a single discipline
 - enable a refreshing departure from established patterns of working – either for the individual, or for the discipline





Infrastructure for methodological innovation

- UK Data Service
- SafePod network improving public benefit research by supporting remote access to research datasets in safe setting facilities
- Administrative Data Research Partnership
 - '...will maximise the potential of administrative data as a resource for high-quality innovative research in the UK.'







The Alan Turing Institute

The national institute for data science and artificial intelligence

The Alan Turing Institute

13/06/2019

The goals of the Institute

Innovate and develop world-class research in data science and artificial intelligence Apply our data science research to real-world problems, supporting the creation of new products, services, and jobs

Train the next generation of data science and artificial intelligence leaders

Advising policy-makers and shaping the public conversation around data







The goal of the Institute







Core capabilities













Ethics of data science and artificial intelligence



Questions and discussion





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NCRM current investments

- HomeSense: digital sensors for social research
- Innovations in small area estimation methodologies
- Measuring information exposure in dynamic and dependent networks (ExpoNet)
- SOCGEN: combining social science and molecular genetic research to examine inequality and the life course
- PASAR Participation Arts and social Action in Research
- GRADE extension for complex social interventions
- <u>Understanding household finance through better measurement</u>
- Estimating and correcting for multiple types of measurement errors in longitudinal studies
- Do participatory visual methods give 'voice'? An evaluative study of participatory mapping
- <u>Research with a twist: A somatics toolkit for ethnographers</u>
- <u>Tackling selection bias in sentencing data analysis through Bayesian</u> <u>statistics and elicitation of experts' opinions</u>





Innovations in Social Science Research methods: International perspectives (2009)

- Key findings
 - 1. Often entails crossing disciplinary boundaries
 - 2. Use of existing theories and methods in new ways adapted and applied
 - 3. Technological innovation (visual, digital online)

Ten years on...



