



ESRC National Centre for Research Methods

# Innovations in Social Science Research Methods<sup>1</sup>

Maria Xenitidou & Nigel Gilbert

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 $<sup>^{\</sup>mathrm{1}}$  DO NOT CITE WITHOUT PRIOR PERMISSION FROM THE AUTHORS



# **ACKNOWLEDGEMENTS**

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We would like to thank the people who responded to our call, participated in our survey and interview sessions and provided information or fora for networking and disseminating the project.

## **EXECUTIVE SUMMARY**

One of the aims of the National Centre for Research Methods (NCRM) is to identify and foster methodological innovation in the UK. The aim of this project was to identify methodological innovations outside the UK and draw NCRM's attention to them. The project sought out research practices that have not yet filtered through to typical research methods courses or that impact on the research process in novel ways. These usually entailed (i) technological innovation, (ii) the use of existing theoretical approaches and methods in new ways and (iii) interdisciplinarity.

The project's focus on innovative research practices ranged from data collection to analysis and covered disciplines such as (social) psychology, sociology, social work, socio-legal studies, political science (including public health and public policy) and international studies, (social) geography (area studies, demography, environmental and urban planning), (social) anthropology, (socio-)linguistics, education, communication studies, economic and social history, economics (management and business studies), science and technology studies, statistics, methods and computing.

The work was conducted between October 2008 and March 2009 and written up in April and May 2009. The project gathered evidence by reviewing previous reports, carrying out desktop research, conducting an e-mail survey with academics, practitioners, research methods experts and others (N=215) - registering data entries in the form of nominations of experts, institutions and links to explore (N=670) - and holding interviews with gatekeepers (N=36) and telephone interviews with nominated experts (N=40).

The project concluded, firstly, that innovative methodologies usually entail the use of one or more technological innovation(s) (visual, digital or online). This could be the advent of new software or the development of online methods and the use of the Internet to conduct research. Secondly, innovative methodologies often entail crossing disciplinary boundaries. This is observed in combinations of disciplines and methods such as in ethnography, anthropology and psychology. Thirdly, innovative methodologies often entail the use of existing theoretical approaches and methods in reformed or mixed and applied ways. This is observed in participatory methods, action research, professional work, social and consultancy work. Finally, innovative methodologies reside both inside traditional academic institutions (universities) and outside (research centres, institutes, consultancy agencies and organisations), yet even in the latter methods developers and experts usually have academic backgrounds and previous or current affiliations, status or posts.

Overall, psychology figured prominently in methodological innovations and developments followed by survey methodology, ethnography, sociology and management. These developments were classified into mixed (N=8), qualitative (N=7) and quantitative (N=7) types of research. The institutional structures identified as 'hosting' these developments are primarily Academic followed by both Academic and Professional, then Research Centres and finally Professional and Consultancy institutions. The majority of the innovations are a consequence of working across disciplinary boundaries, followed by developments within methods and disciplines and then by developments in technology. Innovations were mainly spotted in North America – the USA and Canada – Italy, Germany and the Netherlands.

The report includes summary descriptions of the methodological innovations located by the project. As a follow up to this project a workshop will be organised to bring together some of the developers and experts identified of these innovations. The workshop is planned to be adjacent to the NCRM Research Methods Festival to be held in July 2010.

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# 1. Introduction

The ESRC National Centre for Research Methods (NCRM) was established in April 2004 to enhance the range and quality of research methods used by the social science community in the UK. A main objective of the NCRM is to advance methodological understandings and practice by developing a research agenda that attends to methodological innovation and assesses the training needs created in the UK social science and professional social research communities.

After pursuing these goals in the UK for the past five years, the Centre reached a point at which an outward-looking approach was considered timely. In light of this, a collaborative project was undertaken in October 2008 with the aim of constructing a 'map' of the 'hot spots' of research methods around the world. This map had two aspects: first, to locate the innovations in method currently being developed within social science disciplines; and second, to locate the sites and institutional contexts of these innovations, that is, who and where they are being developed. In so doing, it aspired to situate the National Centre among its peers and highlight the people, places, and ideas outside the UK to which it should pay attention.

The objectives of the project were:

- To identify the main developments in social science research methods (SSRM) and the most significant growth points occurring outside the UK;
- To survey the different structures and processes that support research on SSRM in some of the major countries of the world;
- To map concentrations of SSRM expertise and activity;
- To prepare and disseminate a report and to propose a plan for an international workshop.

The overall focus on innovative methodologies is inspired by the growing interest in identifying who and what acts as the 'impetus' for innovation in social science research methods. Innovative methodologies do not occur within a vacuum and context affects their diffusion. Therefore, the project was expected to reflect on the underlying processes leading to innovative methodologies as well as the processes, mechanisms and networks involved in their diffusion.

As authors in the research methods literature have noted, defining 'innovation' is not a simple task as the concept itself is ambiguous and attention should be paid to the substantive area of innovation (see *inter alia* Taylor & Coffey, 2008). Standard dictionary definitions or definitions from the knowledge transfer literature are not immediately transferable to social science research methods. Recent attempts to identify forms of innovation in qualitative research for example classified innovations into new designs or methods (including methods of data collection and analysis, techniques and software, representation of research), new concepts (including methodological concepts and frameworks) and new ways of doing research (including new applications and crossing disciplines) (ibid).

In view of the above and in order to 'tailor' what is considered innovative in social science research methods, innovative research practices in the social sciences were initially defined as those that have not yet filtered through to typical research methods courses or that impact on the research process in ways which are novel (inventions) or different to existing ones. In the course of the project, however, an emerging definition was formed influenced by the data. This defined methodological developments and innovations in three broad ways: driven by advances in technology (*Technological Innovation*); driven by interdisciplinarity (*Crossing Boundaries*); and owing to intra-disciplinary or intra-methodological developments and extensions (*Intra-disciplinary Innovation*). This emerging definition is in line with recent literature on emergent methods (see *inter alia* Hesse-Biber & Leavy, 2008; Forbes, 2003). By the end of the project therefore, we came

to define innovative research practices as those which involve technological innovation, cross disciplinary boundaries and / or extend existing methodologies and methods. In addition, we adopted an inclusive approach with regards to whether the methods and methodologies identified and included in this report have been applied, exploited and diffused (cf. Taylor & Coffey, 2008). Instead of treating application, exploitation and diffusion of a method or methodology as criteria for claiming innovation – and thus as criteria of inclusion in this report – we discussed such issues when they became relevant in the description of a method or methodology.

The project was also attentive to action, interventionist and transformative research as it was observed that the methodological flexibility used outside academic research enabled novelty and ingenuity in the collection, analysis or presentation of data. Within these broad categories of methodological innovations further classifications applied. These referred to (new) tools, techniques, methods, methodologies, approaches (see Figure 1) and others (including software, dataset structures, panel structures and disciplines).

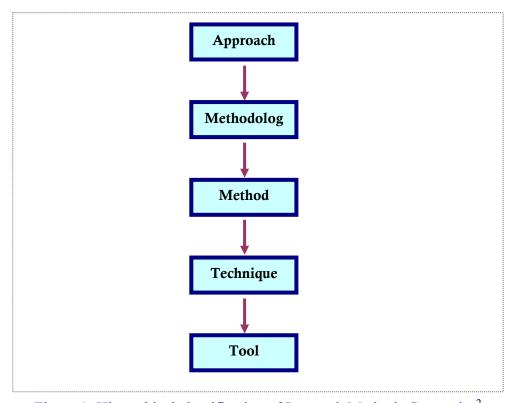


Figure 1. Hierarchical classification of Research Methods Categories<sup>2</sup>

For the purposes of the project, the focus on innovative research practices included research design, data collection, analysis and presentation and covered disciplines such as (social) psychology, sociology, social work, socio-legal studies, political science (including public health and public policy) and international studies, (social) geography (area studies, demography, environmental and urban planning), (social) anthropology, (socio-)linguistics, education, communication studies, economic and social history, economics (management and business studies), science and technology studies, statistics, methods and computing.

This report presents the methods used for the project, the innovative methodologies identified, and then a discussion, reflections and future plans.

<sup>&</sup>lt;sup>2</sup> See Blaxter, Hughes & Tight (2001); Hussey & Hussy (2003); Saunders, Lewis & Thornhill (2007).

# 2. BACKGROUND TO THE PROJECT

The project was informed by key literature in Social Science Research Methods (SSRM) (see *inter* alia Biber-Hesse & Leavy, 2008; Gilbert, 2008; Creswell, 2009) in order to frame social sciences and research methods. The main points taken on board were: first, Social Science Research Methods are tools which both enable understanding social life but also interact with social life in dynamic ways. For example, different social problems may require different methods but also different methods illuminate different aspects of social life or 'construct' different perspectives on social problems. Second, the distinction between qualitative and quantitative research appears infertile in the discussion on methodological innovation – that the distinction is not absolute in research practice in general has been addressed elsewhere (Gilbert, 2008; Creswell, 2009). Overall, emergent methods identified in the project rendered this distinction irrelevant theoretically and restrictive in practice and treated it as a continuum since the focus was on the 'problem' driving the 'method'. This focus was also argued to account for interdisciplinarity (Biber-Hesse and Leavy. 2008). Thirdly, crossing disciplinary boundaries produces interdisciplinary models for conducting research which involve the development or intersection of methods. The fourth point was that the development or intersection of methods is not only a result of crossing disciplinary boundaries but methodological ones as well as it often occurs as a result of the failure of 'traditional' methods (ibid). Fifth, the distinction between academic and professional research in terms of the locus and agents of innovative research practices seems also to be frequently transgressed as addressing social problems may take place in 'contact methodological zones' (ibid) inside and/or outside traditional methodological institutions (Universities). Overall, emergent methods identified as part of this project rendered this distinction problematic on the grounds that understanding social life is not necessarily institutionally bound (yet this came from experts with an academic background and former or current academic affiliation).

One might conclude from this literature that one should look to disciplinary, methodological and institutional transgressions to identify innovative research practices. Section 4 discusses this in light of the results, which indicate that the first two transgressions – disciplinary and methodological – are more explicit and acute than the others.

Methods may be difficult to pinpoint chronologically and to associate to particular individuals. Methods may re-appear modified, under a new name or discipline. Unfortunately, it was beyond the scope of this project to attempt a historical account of innovative methods. In addition, while some methods may be more clearly associated with particular experts, it is difficult to pinpoint methodological developments to individuals ignoring inspiration, sources, networks and colleagues involved (see Morse, 2006). Nevertheless, institutional affiliations, inspiration, colleagues and relevant research were sought for each of the methods presented. Finally, diffusion of innovative methods seems to be influenced by factors such as specialisation and reluctance to engage into 'new' learning, skills and training, funding, academic and institutional support and networking. It is not the purpose of this project to consider why some methods become core and others remain marginal or if institutional, geographical and network context matter in this process. Yet, these details are noted for each of the methods presented and are summarised at the end.

The project consulted past reports on SSRM expertise and innovation in the UK (see *inter alia* Beissel-Durrant & Lang, 2004; Wiles, Durrant, De Broe & Powell, 2005; Bardsley & Wiles, 2006; Wiles, Bardsley & Powell, 2008) in order to be informed by existing evidence in exploring effective methods of gathering data about SSRM expertise and innovation outside the UK. The main items taken on board were: the main recent methodological innovations and developments identified in the UK are modelling techniques (panel data analysis, structural equation modelling, multivariate

data analysis, time series, social network analysis), quantitative techniques (Bayesian methods, survey design and analysis, simulation methods, spatial analysis, Geographical Information Systems (GIS) and STATA), and qualitative methods (discourse and narrative analysis, analysis of composite data, qualitative data analysis software). Innovative data collection methods cited are web-based, computer-assisted, audio and video technology, while approaches cited are meta-analysis, action research, evaluation research and evidence-based policy and practice (see Beissel-Durrant & Lang, 2004; Bardsley & Wiles, 2006). These data and the NCRM actions taken towards clustering research and training around them have been the starting points of contact for this project (see Section 3 below).

# 3. METHODOLOGY

The project has been guided by a mixed methods approach. It started with a triangulated design (interviews and email survey) to identify growth points and participants. It then moved to an explanatory design (in-depth interviews) to collect detailed data on innovative research practices.

#### Data Collection

Both secondary and primary data were located, collected, used and analysed. We conducted extensive desk research looking at the Web of Science, Methodspace, Intute, search engines, portals, wikis, blogs, indexes, directories, publishers, SSRM online handbooks and encyclopaedias, journals, archives, associations, teaching material, university websites, research centres, government websites, commercial websites, business/professional networks, and events, such as conferences, workshops, and their proceedings. This enabled the compilation of lists of contacts and links through the NCRM Networks of Methodological Innovation (NMIs) (including their associations), SSRM publications (contributors etc.), international networks and associations.

In terms of primary data, two sets of interviews and one e-mail survey were conducted. The first set of interviews was either face-to-face or conducted by email depending on the availability of the respondent. The target population for these interviews, identified through the NCRM mailing lists, was NCRM Representatives and Methods Gatekeepers<sup>3</sup> (N=36). These interviews were conducted concurrently with the email survey and both were premised on the snowball technique, asking participants to nominate experts and links to explore for methodological developments. The email survey was conducted with academics, practitioners, research methods students and experts (N=215) and yielded nominations of further experts, institutions and links to explore (N=670). In addition, the email text appeared as a Call at Interact, the newsletter of the Society for the Advancement of Games and Simulations in Education and Training, in the Sustainable Development Research Network mailing, and in the Social Research Association mailing and was widely circulated. The second set of interviews was either carried out by telephone (using Skype) or by email and was addressed to nominated Experts (N=40).

## **Analysis**

Data collected through desk research were analysed for theme(s) and cross-referenced. Data from the first set of interviews were analysed for content. The email survey data were processed by applying a combination of thematic analysis, cross-referencing and analytic induction. Finally, the second set of interviews were preliminarily coded using Atlas.ti into type of method, background, description and explanation, application and applicability, diffusion and dissemination, associates and networks.

 $<sup>^{3}</sup>$  Methods Gatekeepers refers to pioneers of particular research methods or key links associated to particular research methods in the UK.

## 4. SUMMARIES OF INNOVATIVE METHODS

# Method Descriptions

In this section, each of the innovative methods that were located are summarised using a standard format. The methods are classified into three broad categories: Technological Innovation; Crossing Boundaries; and Intra-disciplinary/Intra-methodological. Technological innovation refers to advances in technology (usually in the form of software and/or internet-related) that either constitutes a method in itself or pushes the boundaries of a methodology in contributing to or amending previous research practice. Crossing boundaries refers to methodological innovations that develop as a result of addressing research questions beyond or across disciplinary boundaries. This usually involves a combination of theoretical and methodological approaches. Intra-disciplinary/Intra-methodological refers to developments in methodology that are observed within disciplines or that extend a method or apply it in different ways.

These categories are then classified into subsections based on the methodological cluster or primary discipline. Each summarised description includes the following information:

- Innovator's Details: Name, Affiliation, Country
- Title of Innovative Research Practice
- Introduction/Background
- Description and Explanation of the Methodological Development
- Examples of Application (Published if available or short descriptions)
- Inspiration and Rationale
- Application and Applicability
- Colleagues and/or Relevant/Related Research
- Material (Usually in the form of References)

These categories were derived from those developed in coding the interviews conducted with methods experts. It should be noted that summarised descriptions draw on material derived from the interviews conducted as well as from innovators' own work derived from text available in published (papers, articles, book chapters, website information) and unpublished material (internal documents, reports, proposals, conference presentations).

Towards the end of the section, transformative work (a different genre fostering ingenuity in the research process) and software development (a method development or extension) are also described.

# **TECHNOLOGICAL INNOVATION**

This section presents innovative research practices driven by technological development. The areas and disciplines these developed in are mainly history, information systems and communication studies, survey methodology and statistics in psychology (psychometrics).

# **George Alter**

Inter-university Consortium for Political and Social Research (ICPSR), University of Michigan, Ann Arbor, Michigan, USA

# Managing Historical Longitudinal Data: Intermediate Data Structure

#### Introduction

George Alter has been working with colleagues in Europe, Asia, and the U.S. to make historical longitudinal data more easily available. These data have great value, because they show life histories unfolding over time in a range of places and time periods. The challenge has been to make data sets available to a wider community of researchers. Currently, specialized skills are required to transform the data into rectangular arrays that can be used with standard statistical packages. Standardisation in both format and in programming techniques will encourage many more researchers to use these data.

# Description and Explanation of the Method

The 'method' here refers to an Intermediate Data Structure (IDS) which is a new format based on the entity-attribute-value model. In the new strategy databases will transfer their data into this common format. Researchers will use open-source programs to extract data from the IDS for statistical analysis. This process encourages standardization, transparency, and comparative research and reduces duplicate effort.

The IDS requires two kinds of computer programmes: 1. Data transfer: Data must be reformatted for transfer from the original database to the IDS. This is the responsibility of the data producer, because each database is different. Transferring information from the source database into the IDS format also implies the generation of descriptive metadata to document the source and construction of all data. 2. Extraction. The extraction process moves data from the IDS into rectangular file formats suitable for statistical packages such as SPSS. Since the requirements of every type of analysis differ, many specialised extraction programmes are expected. All extraction programmes will start with the IDS, and they will work on any dataset that includes the necessary attribute types. Alter has written two model extraction programmes to illustrate this process. One creates birth intervals for studying fertility, and the second counts co-resident siblings for studying the effects of household composition.

#### Example of Method Application

Family reconstitutions, which are derived from parish registers of births, marriages, and deaths, can be used to study fertility and mortality in the period before regular population censuses. These data are available in some countries from the sixteenth century.

#### Inspiration and Rationale for developing the Method

The rationale has been to standardize the format of a complex form of data. In this way researchers can make use of data that has been too difficult for most people to process. Ultimately, as data becomes more accessible we get more science. One source of inspiration has been the success of the Integrated Public Use Microdata Series (IPUMS; Ruggles et al. 2008) project in encouraging new research with historical data. By providing data in a consistent and easy to use form, IPUMS has generated thousands of studies with data that were already available in less user-friendly versions. With this in mind, the Inter-university Consortium for Political and Social Research (ICPSR) worked with the Historical Sample of the Netherlands at the International Institute of Social History to launch the IDS project in 2003.

## Application and Applicability

More than a dozen databases have been involved in planning, and several databases have begun implementing the IDS. This promises to result in much more cross-national comparative research. Beyond historical demography, this approach may be applied to contemporary data with similar characteristics, such as data from the demographic surveillance sites operating in more than thirty places in Africa and Asia.

#### Colleagues and/or Relevant Research

Kees Mandemakers, Historical Sample of the Netherlands, International Institute of Social History, Amsterdam and Erasmus University Rotterdam

Myron Gutmann, Inter-university Consortium for Political and Social Research (ICPSR), University of Michigan

#### References

Alter, G., K. Mandemakers, and M. Gutmann. Forthcoming. "Defining and Distributing Longitudinal Historical Data in a General Way through an Intermediate Structure." *Historical Social Research* 

## Luca Rossi

University of Urbino, Urbino, Italy

#### WeSearch

#### Introduction

WeSearch 'exploits' user generated content as data source for sociological research. The research team working on it were Professor Giovanni Boccia Artieri, Professor Laura Gemini, Dr. Luca Rossi and Dr. Fabio Giglietto.

#### Description and Explanation of the Method

The method (software tool) has been developed in order to investigate media-related generational discourses on the web, and has since been applied to investigate holiday destination preferences and EU identity symbols. The WeSearch software methodology works only with blogs. It has been articulated in four steps:

- a) identification of generational products (or other depending on research topic): in this case the developers used conventional methods conducting group interviews;
- b) definition of query strings for online analysis searching Google blogs to obtain RSS feeds. The outcome of this phase was a standard RSS feed generated by Google's service, composed by every retrieved blog entry containing selected keywords. The first problem that the research team encountered was that sometimes blog services did not provide an RSS feed containing the full text of the blog entry. To solve this problem it was necessary to develop a tool able to fetch the full text content of every single article. The team chose to use the 'Yahoo pipes' services in order to develop a small tool to carry out this work. The final output of this phase was an RSS feed containing the full text of every single blog entry containing the selected keyword;
- c) storage and retrieval of blog author's information: The RSS feeds was stored in an incremental way using software which was specifically designed by the research team. The web application is able to store an RSS feed, sorting the stored information by authors. Another feature of this software is the ability to retrieve biographical information about authors' entries. Biographical information (age, gender and location) is retrieved using a scraping technique specifically developed for every blogging or sharing service. Currently there are 7 supported platforms: Blogger, Flickr, I1 Cannocchiale, Libero, Splinder, Windows Live Space, You Tube;
- d) content analysis of collected data using NVivo: All the collected information (both the posts and the biographical data about authors) may be exported to textual files (.doc format). The exported files are compatible with the NVivo7 (qualitative analysis software). Biographical information about authors is exported in a comma separated data file which can be imported as an NVivo casebook retaining the link between the biographical information and the text entries.

This may help produce qualitative research with large amount of data, yet no statistical representativeness is sought (at this stage) and, thus, generalising on the basis of the results is problematic.

#### Example of Method Application

Media Products, Tourism, EU identity

## Inspiration and Rationale for developing the Method

The developers were inspired by the fact that online conversations are searchable, which allows the unfolding of a whole new set of research possibilities. The developers claim that while virtual ethnography observes a specific online place (e.g a single newsgroup, a chat room, a single virtual

world, etc.) it seems to have difficulty when there is a need to observe how a specific discussion develops on the Internet.

## Application and Applicability

It can be applied on anything having RSS feed and any general topic making use of it.

## **Colleagues**

Boccia Artieri, G, Gemini, L., Rossi, L. & Giglietto, F.

### References

Boccia Artieri, G, Gemini, L., Rossi, L. & Giglietto, F. (2008) *Analysing User Generated Content for Social Science. Generational "we sense" in the Italian blogosphere*. Paper presented at Fourth International Conference on e-Social Science, University of Manchester, 18-20 June

#### **Fred Conrad**

University of Michigan, Ann Arbor, Michigan, USA

# Virtual Agents (Avatars)

#### Introduction

The method was developed as part of an exploratory three-year project funded by the National Science Foundation (NSF), US. The main developers were Fred Conrad and Michael Schober. The developers evaluated the use of virtual interviewers (computer-animated agents in the user interface) for asking sensitive questions and questions that may be complex and require clarification.

## Description and Explanation of the Method

The virtual interviewers were developed using motion capture techniques to animate 3D models of human-like faces. The amount of motion in the faces was experimentally varied as a way to affect the visual realism of the virtual interviewers:

In the study about complex questions and clarifications the authors used the 'Wizard of Oz' approach in which the experimenter (the wizard) simulates the behaviour of an intelligent computer application in a laboratory setting, in this case playing video files at the appropriate time, e.g., offering a definition of an ambiguous term. Participants communicated with the virtual interviewer (Derek) and Derek responded accordingly (with the help of the wizard). The main experimental question was whether *visual realism* (amount of facial movement) or *dialog capability* (whether or not Derek could clarify survey concepts or was restricted to giving only neutral probes like "let me repeat the question") had more impact on the accuracy of answers (data quality).

Dialogue capability seems to correlate positively with response accuracy, while visual realism did not. However, a more realistic looking interviewer might elicit more requests for help and the respondent is generally more socially engaged.

In the second study, the Virtual Interviewer is called 'Victoria'. Victoria delivered spoken questions and respondents answered by clicking. Victoria was autonomous in that there was no human operator; this was facilitated by her lack of dialogue capability making it possible to play a single video file in order to deliver each question. Just as with Derek, there were two versions of Victoria varying in visual realism, one higher (more facial movement) and one lower (less facial movement). Respondents answers with the two versions of Victoria were contrasted with their answers in a face-to-face interview and recorder audio (ACASI). Three patterns emerged:

- 1) Face-based conditions (i.e. Face-to-face, the two versions of the virtual interviewer) look similar to one another, but different from Audio Computer-Assisted Self-Interviewing; in the face-based conditions respondents tended to report more socially desirable answers than under ACASI.
- 2) Linear trends, where answers in the virtual interviewing conditions fall in between those given in Face-to-face and Audio Computer-Assisted Self-Interviewing (ACASI);
- 3) High social cue conditions (i.e. Face-to-face and higher realism virtual interviewers) and low social cue conditions (i.e. lower realism virtual interviewers and ACASI) look different from one another

#### Example of Method Application

Already in use in some non-survey areas, e.g. Higher education: AutoTutor project; Help facilities on some web sites, e.g IKEA's 'Anna'; Gaming; Virtual environments like Second Life.

## Inspiration and Rationale for developing the Method

People are becoming reluctant to participate in survey interviews or drop out. A next generation of interviewing systems is likely to make use of paradata from respondents during the interaction, as a way of diagnosing when help might be needed so that the system can intervene appropriately to collect high quality data. Respondents' typing errors, changed answers, response times, speech disfluencies, or facial expressions may be explored in the future to assess confidence in answers, misinterpretation, or even nonresponse. In general highly interactive, multimodal systems may well be the way of the future in survey interviewing and virtual interviewers are a central example.

#### Application and Applicability

Virtual-human community: Virtual Interviewers essentially render the distinction between self-administered and interviewer-administered interviews obsolete as there appears to be a continuum between the two if viewed from the perspectives of everyone involved: communication technologists, survey interviewers and participants. In addition, agent-like interviewing systems blur the distinction between computer-mediated communication (CMC) and human-computer interaction (HCI).

In addition there is a great promise in using paradata to facilitate the virtual interviewer to the respondents, e.g. increasing facial/head movement or adjusting speech if the respondent seems distracted. In addition, the attributes of the virtual interviewer, such as race, gender and age can be adjusted to match (or not) those of the respondents.

#### Colleagues and/or Relevant Research

Justine Cassell, a linguist, psychologist and computer scientist is an early developer of the technology (she uses the phrase Embodied Conversational Agents) and her collaboration with survey researcher Peter Miller is reported in a chapter in the book *Envisioning the Survey Interview of the Future*, edited by Conrad and Schober. They applied the method to the study of interviewer-respondent.

#### Other Information

- 1. An extension of the project would be to allow respondents to choose their interviewer's appearance.
- 2. Having this kind of choice at the researcher's disposal is novel, as are the ways in which these may be combined, which complicates the key issue in surveys: standardisation.

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#### Lars Kaczmirek

GESIS - Leibniz Institute for the Social Sciences, Mannheim, Germany

# Human-Survey Interaction Framework and Internet Survey Software Tools

#### Description and Explanation of the Method

The research involved developing tools by focusing on the Human-Survey Interaction Framework - how applied usability increases response rates in surveys, mainly addressing error tolerance and feedback.

The research deals with the problem of nonresponse: Not all contacted persons start participating in a survey (unit nonresponse), and not all respondents complete a survey (partial response) or even answer all questions (item nonresponse). This introduces a bias when respondents differ from nonrespondents since population parameters are estimated on the basis of respondents' answers.

The general goal was to develop instruments and methodological designs with which respondents' behaviour could be observed and nonresponse could be reduced. The theoretical background was shaped by combining concepts from human-computer interaction and survey methodology into a framework which Kaczmirek termed human-survey interaction.

In particular, the human part of the framework incorporated theories of the response process. The satisficing/optimising-approach was employed as it mediates the data quality of responses. While increasing response rates is a major goal, this should not lead to an increase in satisficing behaviour. The survey part of the framework subsumed theories of questionnaire design. The response burden which is imposed by the survey can be seen as one of the most important reasons for dropout. The interaction part of the framework was concerned with visual changes in online surveys due to respondents' actions. A review of human-computer interaction and usability principles led to the conclusion that principal aspects of successful interaction are error tolerance and feedback.

One of the main contributions of the study was that it developed a data box model for the concept of paradata. Paradata are process data in surveys which can be collected while respondents answer a questionnaire. Paradata provide insight into respondents' behaviour such as response times, changes in answers, and mouse clicks. In addition, paradata serve as performance indicators for surveys: dropout patterns, item nonresponse, and response rates are key measures for the success of a survey. Paradata is already widely used in survey research, yet they seem to lack a concise conceptualisation and systematised use and collection. The data model developed (the universal client-side paradata approach) distinguishes four levels of paradata in the dimensions respondents, variables and time.

The first data level consists of single actions such as mouse clicks. The second level aggregates over actions, resulting in content which is conceptually relevant for researchers, for example interaction failure measured as the number of mouse clicks which missed an answer option. The third level aggregates over variables to summarise measures such as the overall number of items missing. The third level also includes aggregations over respondents, resulting in measures such as the average response time on each page. The fourth level is the most abstract aggregation and summarises across respondents, variables and time to yield a single measure such as the average time to complete the survey or the response rate.

In exploring the role of feedback, the study developed a dynamic calculation method for calculating progress feedback. The dynamic calculation method can be implemented with either a progressive or a conservative estimation of progress, yet higher completion rates are observed with a progressive algorithm.

## Inspiration and Rationale for developing the Method

The need identified was for greater formalisation of procedures and systematisation of techniques to manage nonresponse in online surveys and form completion.

### Application and Applicability

It is applied in all online surveys or form completion tasks and is not therefore bound to any particular discipline.

## Colleagues and/or Relevant Research

In terms of inspiration, this work cites Mick Couper, Don Dillman, Michael Bosnjak, and Wolfgang Bandilla as the pioneers in online survey research.

#### Other Information

The research indicated that further study of online survey methodology with the paradata box model and the universal client-side paradata approach may prove insightful with regards to developing methods to reduce nonresponse and generally understand respondent reaction and treatment of online tasks.

The development of the human-survey interaction framework provides new insight in what makes respondents leave or complete an online survey.

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#### Sabine Haeder

GESIS - Leibniz Institute for the Social Sciences, Mannheim, Germany

# Methods for Achieving Equivalence of Samples in Cross-National Surveys: The European Social Survey Experience

#### Introduction

Cross-national sampling frames are rare whilst large-scale cross-national surveys are tantalised in trying to ensure 'equivalence' of samples. The approach presented below is developed by four sampling experts, Sabine Haeder, Peter Lynn, Siegfried Gabler, and Seppo Laaksonen. It is presented as a 'research process' which may produce new insights in sampling for large cross-cultural surveys.

### Description and Explanation of the Method

The methodological approach refers to ways of ensuring sampling equivalence in cross-national surveys. The experts propose two criteria as fundamental:

- The study population must be equivalent in each nation. In practice, this will usually mean that the same population definition is applied in each nation and that no or only minimal under-coverage can be permitted;
- Sample-based estimates must have known and appropriate precision in each nation. In practice, "known" precision means that a strict probability sample design must be used, and those aspects of sample design that affect precision (selection probabilities, stratum membership, PSU membership) must be available in the microdata to permit estimation of standard errors; "appropriate" precision may mean a) meeting some minimum precision requirement in order for the estimates to be useful, and b) aiming for similar precision in each nation, as this would represent an effective allocation of resources if a prime objective was to make between-nation comparisons.

The goal is functional rather than numeric or stylistic equivalence.

#### Example of Method Application

The European Social Survey: Equivalence of sample designs in 22 nations in Round 1 of the European Social Survey (ESS). The pre-sampling requirements were grouped into five categories: population definition and coverage, response rates, sample selection methods, effective sample size and documentation.

Defining the population takes into account cultural elements and the nature of the available sampling frames in terms of coverage, update and access. In cases where lists were not available, area sample designs (Särndal et al., 1992) were applied, in which the selection of a probability sample of small geographical areas (e.g., Census enumeration areas within municipalities) preceded a complete field enumeration of households or dwellings within the sampled areas, from which a sample was selected. An alternative to area sampling is the application of random route sampling. The basic idea of random route sampling is that within each sampled primary sampling unit one address is selected by a random method to serve as a starting point and the interviewer then follows rules that specify the route he or she should take from there, sampling systematically using a prespecified interval (Häder and Gabler, 2003).

Response rates need to account for nonresponse, a problem a lot of recent literature on face-to-face, telephone and online surveys taps into. It is deemed essential to plan for and implement strategies which minimise nonresponse, including setting the response rate high, sending advance letters,

training of interviewers in response-maximisation techniques and in doorstep interactions, etc. In terms of sample selection, strict probability sampling is a necessary prerequisite for crossnational comparability. Calculating the effective sample size involves predicting, under certain simplifying assumptions, the design effect due to unequal selection probabilities (DEFFp) and the design effect due to clustering (DEFFc). In some nations, it is necessary to select the sample in stages, with the penultimate stage being addresses or households. Another reason for unequal selection probabilities is that minority groups are oversampled for substantive reasons.

Finally, as regards documentation, comprehensive and clear documentation of all relevant methodological aspects of the survey was demanded. At the level of sampling units, this meant that indicators of sampling stratum, primary sampling unit and the selection probability at each stage of sampling should be included on a micro-level data file that carring the same identifiers as the questionnaire and other data files. A detailed file specification was provided. Supply of these data would allow the application of design weights and the use of appropriate methods for the analysis of data from a complex survey.

## Inspiration and Rationale for developing the Method

Cross-national sampling frames are rare and the data collected are insufficient to ascertain sampling effects.

## Application and Applicability

All cases where sampling equivalence is a prerequisite.

#### **Colleagues**

Peter Lynn, Siegfried Gabler, and Seppo Laaksonen

#### References

Lynn, P., Haeder, S., Gabler, S., & Laaksonen, S. (2007) Methods for Achieving Equivalence of Samples in Cross-National Surveys: The European Social Survey Experience. *Journal of Official Statistics*, Vol. 23, No. 1, pp. 107–124

## **Susan Embretson**

University of Minnesota, Minneapolis, Minnesota, USA

# *Item Response Theory – Tests without Items*

#### Introduction

Susan Embretson has focused on modern psychometric methods (e.g., item response theory), cognition and intelligence, and quantitative methods. Her research programme has been to integrate cognitive theory into psychometric models and test design. Her current research directions include developing item response theory models, the measurement of change, automatic item generation, and validity issues in Internet testing. As part of this, she has been developing new item response theory models and conducting empirical research on the cognitive basis of an individual's responses. Recently, this effort has led to the possibility of 'tests without items'. The measurement areas she has worked on have included fluid reasoning, spatial ability, mathematical reasoning and verbal comprehension.

# Description and Explanation of the Method

Susan Embretson's work is included here for recently producing an extension of a method: more targeted and efficient item development and little or no need for item tryout (i.e., automatic item generation). Items are automatically generated by artificial intelligence to target levels and cognitive sources of difficulty in order to measure each individual examinee during testing.

There are many practical advantages of automatic item generation for test development. In automatic item generation, the development of appropriate psychometric models, the decomposition underlying components, and the programming structure all lead to the realisation of valid test items. Items are produced by an algorithm that yields items with predictable psychometric properties. The algorithm can be based either on an item model (i.e., an existing item), such as used by Bejar, or on underlying features of the item that characterize cognitive complexity, as in Embretson's approach. What was required was developing cognitive complexity models for existing items. In automatic item generation, the algorithm is embedded in a computer programme that can produce many variants from a single specific structure.

#### Example of Method Application

The primary goal was to develop a dynamic test to measure the susceptibility of reasoning to stress, using matrix completion items. Embretson was seeking a new application of an IRT model for learning and change that was published in Psychometrika (1991).

#### Application and Applicability

The IRT models may be applied to measure personality traits, moods, behavioural dispositions, situational evaluations and attitudes as well as cognitive traits.

#### **Colleagues**

Isaac Bejar, also recognised for his similar research in this area, although from a somewhat different perspective.

#### References

Embretson, S. E. (2004) Measuring human intelligence with artificial intelligence: Adaptive item generation. In R. J. Sternberg & J. Pretz (Eds.). Cognition and Intelligence. New York: Cambridge University Press

# **Stephen Guastello**

Marquette University, Milwaukee, Wisconsin, USA

# Orbital decomposition

#### Introduction

Dr. Guastello's main research interests concern nonlinear dynamics (chaos, complexity, and catastrophe theories, and related principles) and their applications to work motivation, work performance and turnover, occupational safety and health, creativity, group and organisational processes. As part of working in those areas he has contributed to the development of nonlinear methods. He is included in this report for the development of a technique for the analysis and quantification of qualitative data called orbital decomposition.

## Description and Explanation of the Method

Orbital decomposition falls within Symbolic Dynamics, a group of methods that 'map' a system in a 'sequence space'. Orbital decomposition is used to analyse behaviour strings (sequences of behaviour). It combines different kinds of calculations, including a statistical analysis that tests how well the results of the procedures fit the original pattern. "The procedure requires three calculations in parallel: Shannon entropy ( $H_S$ ), topological entropy ( $H_T$ ), and a likelihood  $\chi^2$  test for strings of responses of varying length C. The calculations provide measures of dimensional complexity, the determination of an optimum behaviour string length, a set of behaviour strings with associated probabilities, and a  $\chi^2$  test that provides a measure of fitness for the string structures" (Guastello, 2005, p. 266).

The process involves coding data either in metric or nominal terms, i.e. assigning a numeric or other symbolic value. One must code each possible piece of an interaction, and then sequence the interaction pieces into strings. For this process a coding scheme is required. Then, each event in a sequence needs to be assigned a letter code. The algorithm finds:

- 1. Topological entropy an analysis of observed codes and how they group. When the sequences cease to be followed directly by themselves, denoting an entropic state or breakdown of the pattern, the trace reaches 0, topological entropy has in effect stabilised, and the last string length that has a value greater than 0 is considered to be the optimal string length.
- 2. Shannon entropy traces the decomposing pattern.
- 3. The Lyapunov Exponent is a standard test of chaos, and converts to the fractal dimension of the pattern. The goodness of fit between the data and quantitative observations are evaluated using  $\chi^2$  and  $\phi^2$  computations.
- 4. The  $\chi^2$  allows one to check expected frequencies of strings' occurrences against actual observations.
- 5. Finally, a  $\phi^2$  procedure for all  $\chi^2$  tests offers a statistical indication of the amount of variance in the observed string lengths that were accounted for by the patterns that were isolated in the analysis.

In other words, the algorithm finds the optimal string length, the Entropy statistics associated with it and Lyapunov exponent and fractal dimension. It also runs a  $\chi^2$  test to check for whether string patterns occurred by chance and a  $\phi^2$  test to calculate the degree of fit between patterns and the original data.

#### Example of Method Application

Orbital decomposition has been used to analyse sequences of behaviour within the context of problem-solving groups (Guastello, 2000; Guastello, Hyde & Odak, 1998) and therapy groups (Pincus, 2001; Pincus & Guastello, 2005). Recently it has been used in Spohn's (2008) study of violent societies. This study used orbital decomposition to analyse the patterns of how governments lose their monopolies on violence, therefore allowing those societies to descend into violent states from which it is difficult to recover. Orbital decomposition turned up insights not apparent in the qualitative data or through linear statistical analysis, both about the nature of the descent into violence and about the progression itself. The process involved each recorded event being coded for 5 variables with several categories per variable. Each combination of categories was given a letter code to start the algorithm.

## Application and Applicability

Psychology

# References

Guastello, S. J. (2005) Nonlinear methods for the social sciences. In S. Wheelan (Ed.), *The handbook of group research and practice*. Thousand Oaks, CA: SAGE, pp. 251-272

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Spohn, M. (2008) Violent Societies: An Application of Orbital Decomposition to the Problem of Human Violence. Nonlinear Dynamics, Psychology, and Life Sciences. Vol. 12, No. 1, pp. 87-115

# **CROSSING BOUNDARIES**

The second section presents innovative research practices driven by the need to transgress disciplinary boundaries in order to study social problems. The areas and disciplines these developed in are mainly ethnography, anthropology, politics and professional/consultancy work.

#### **Norbert Ross**

Vanderbilt University, Nashville, Tennessee, USA

# Folkbiology

#### Introduction

Norbert Ross currently acts as the director of the Culture, Language and Cognition Laboratory at Vanderbilt University. Norbert Ross has been engaged in bridging cognitive science and anthropology on the assumption that cognition brings 'the mind' into anthropology while anthropology situates cognition in 'the social'. His research practices to this end are multidisciplinary and make use of methods developed and used across disciplines which is the reason his work is included in this report.

## Description and Explanation of the Method

Folkbiology refers to a multidisciplinary approach to the workings of culture in which thinking is treated as an emerging product (what we think cannot be separated from how we think) — combining anthropology with cognitive sciences. In this respect the focus is on how representations are formed, transmitted and transformed through social factors (social and expertise networks and learning strategies) and cognitive factors (mental representations through categorisation and knowledge acquisition processes e.g. framework theories).

The research process itself is both ethnographic and experimental and involves the following: GIS Based Spatial Analyses, Social Network Analyses, Cultural Consensus Modelling, Analysis of Residual Agreement, Experimental psychological laboratory research, Computer Simulation of micro and macro-processes. The focus of this process is on identifying how information is passed on, involving social network analysis, complexity theory, and the modelling of cultural processes in a situated context, building on GIS and agent-based modelling.

#### Example of Method Application

Former research concentrated on folkbiological knowledge. Current research focuses on Conceptual and Cultural Change in Folkmedicine. This evolves in: Mapping of Representations / Social Factors: (1) Kinship; (2) Friendship; (3) Physical Distance; (4) Expertise Networks; (5) Distance to Health Facilities, etc. The distribution of representations gives an idea of the role of social factors for conceptual and cultural change. This is then followed by anthropological field experiments and psychology lab research asking such questions as: How do conceptual structures change? How does information change conceptual structure and gets transformed in the process of communication? Finally, an Agent Based Model of information exchange and cultural change is built: i. Agents act within simulated space (GIS analysis); ii. Agents act within a simulated social network; iii. Agents are endowed with an algorithm for conceptual change.

#### Inspiration and Rationale for developing the Method

The inspiration for formulating this research process was driven by the contention that employing anthropology and cognitive sciences in isolation produce unsatisfactory 'science'.

#### Application and Applicability

Cognitive Anthropology, Folkmedicine, Religion, Knowledge Acquisition

#### Colleagues

The members of the Culture, Language and Cognition Laboratory are:

Postdocs: Jonathan Maupin, Catherine Timura

Graduate Students: Mike Tidwell, Jeff Shenton

Field Researchers: Alejandro Gomez Gutierrez, Julia Gomez Perez, Mariano Ruiz Ortiz

Co-investigators have been: Atran, S., Medin, D., Palmeri, T., Noelle, D.

# References

Ross, N. (2008) Asking the Right Questions: Outline for a study programme in culture, language and cognition. Vanderbilt University: Culture, Language and Cognition Laboratory

# Michael Agar

University of Maryland; the International Institute for Qualitative Methodology; University of Alberta, Edmonton, Canada; the University of Buenos Aires, Argentina; Ethknoworks LLC, Eldorado, New Mexico, USA

# Ethnography as a Non-linear Dynamic System

#### Introduction

Mike Agar is Emeritus Professor at the University of Maryland and currently works mainly independently as Ethnoworks, in New Mexico. Ethnoworks focuses on research, writing and consultation in ethnography, language, complexity theory, and organisational analysis from both theoretical and practical standpoints. A proponent of a continuum between academic and professional work and between theory and practice, Mike Agar advocates that the study of dynamic dimensions and series of relationships has started liberating social research since the 1980s and 1990s when a new research framework grew on the basis of 'complexity'. The growth was driven by a problem shared by researchers of all kinds and enabled by advances in computer technology, since simulation is the only way to model and explore such systems. That enabled Agar, who had been arguing for a while that ethnography is a kind of logic rather than a unit of study, to develop a general framework for ethnographic research as a complex adaptive system (CAS).

He argues that "It's less about a study of qualitative versus quantitative and more a study about 'fitness' which presents an interesting methodological twist away from methodological recipes and towards 'the right way to do ethnography' through a non-linear dynamic lens."

## Description and Explanation of the Method

Mike Agar has developed a general framework to do ethnography based on the premise there is epistemological compatibility between complexity theory and ethnography. He used the model in both short-term applied and long-term research applications. The framework or model for organisational development with social services involves the following steps:

- Clarify indicator-based problem The initial problem is always defined in quantitative terms e.g. patient waiting time, performance etc. In other words, the definition of the problem is based on one or more system-level quantitative indicators that need to be clarified before locating the 'tasks' these indicators are meant to measure.
- Locate actual tasks that those indicators are meant to measure task in this case refers to what the indicator measures real moments that involve real people doing real things.
- Do fieldwork in those tasks using iterative recursive abductive (IRA) logic and context/meaning (C/M) questions. Iterative recursive abductive logic calls for taking surprises seriously and creating new concepts to account for them rather than consider them deviant or 'errors', and of returning and repeating the process as surprises never stop. Context/meaning questions refer to being attentive to the fact that there are multiple perspectives and interpretations in play in any human social research and it is, thus, important to take into account the ways in which members of various groups 'translate' meanings and situations.
- Analyse the data for patterns in an ethnographic way: a systematic process of identifying
  patterns that replicate and whose dynamics explain the movement of the indicator. These are
  the leverage points: leverage points refer to the point at which actions and changes can lead
  to improvements.
- Do more fieldwork looking at task variation where leverage points have already been discovered and used, or are discussed or speculated about, on the part of those who perform it. These are positive deviant cases: positive deviance refers to certain individuals' practices which enable them to find better solutions to community problems. Do more fieldwork with

- the positive deviant cases to come up with suggestions for how to use leverage points to solve the problem.
- Loop back to the top of this list, probably with better indicators, and try the new strategy out. But encourage experimentation, variations and modifications on the part of those involved in the task. This approach is related to transformative participatory action research on the premises of appreciative inquiry, as well as Edgar Schein's concept of "clinical ethnography."

In a recent seven year long term research project funded by the National Institute of Health, he applied this framework to the study of drug epidemics. Previous research (both practical and theoretical) had failed to explain adequately and account for the processes, factors, actors and 'ecology' of the issues. Nonlinearity, researcher influence and path dependence were to be eliminated. Studies had few dynamic dimensions and a lack of co-ordination of materials.

In contrast, the framework proposed is of multilevel, multivariable interaction, a series of relationships as a general framework to do ethnography. These relationships include the ethnographer – since ethnography is a construction that shows how social action in the context of one world can be understood as coherent from the point of view of another. For the purposes of this framework ethnographic study has to be done first: involving issues such as the structure-agency relationship with representations based in reality and attentive to constraints such as intersubjectivity, scaling, dynamics, pragmatics and narrative construction. The approach may include conventional methods for data collection and analysis. In the case of drug epidemics for example methods included: ethnographic work, interviews, investigative journalism, policy, hearings; the analysis was based on identifying patterns and contradictions. The result was a kind of economic history that included ethnographic data, was conducted using ethnographic epistemology, and was cast in a nonlinear dynamic theoretical framework. Agent-based models were constructed to show how the theory could explain epidemic incidence curves.

## Example of Method Application

Drug epidemics, organisational intervention: state court and cancer treatment centre, ongoing work on sociocultural process in ecology, cultural dynamics in computer-based language instruction, and clinical performance in hospitals.

#### Inspiration and Rationale for developing the Method

Inspired by applying complexity theory to address the methodological problem of ethnography of distinguishing between credible and non-credible research.

## Application and Applicability

General framework for ethnographic research – social research projects in an applied way to model the dynamics of structure and agency and incorporate both macro and micro levels in the same model

#### Colleagues and/or Relevant Research

Colleagues on current projects include the Information Sciences Institute at the University of Southern California, the Long Term Ecological Research program of the National Science Foundation, the Health Sciences Center at the University of Texas in San Antonio, and the Department of Epidemiology at George Washington University.

#### References

Agar, M. (2004) We Have Met the Other and We're All Nonlinear: Ethnography as a Nonlinear Dynamic System. *Complexity*. Vol. 10, No. 2, pp. 16-24

Agar, M. (2008) On the Ethnographic Part of the Mix: A Multi-Genre Tale of the Field. Paper Presented at the Qualitative Research in Management Conference at the University of New Mexico, March 13, 2008, pp. 1-26, now in press in *Organizational Research Methods*.

# **Dorothy E. Smith**

University of Toronto, Toronto, Ontario, Canada

# *Institutional Ethnography*

#### Introduction

Institutional ethnography has been developed and named by the Canadian sociologist Dorothy E. Smith (1987) in the early1980s; since then it has matured into a method of inquiry designed to allow researchers to explore the social organisation of knowledge and its consequences in contemporary society.

#### Description and Explanation of the Method

Institutional Ethnography is the label that has come to be used for an approach to investigation of the social that focuses on 'textually-mediated social organisation' (Smith, 1990b).

Institutional ethnographies are built from the examination of work processes and study of how they are coordinated, typically through texts and discourses of various sorts. Work activities are taken as the fundamental grounding of social life, and an institutional ethnography generally takes some particular experience (and associated work processes) as a "point of entry." The investigator attends to all of the work that's done in the setting, and also notes which activities are recognised and accounted institutionally and which are not. Analysis proceeds by way of tracing the social relations people are drawn into through their work (with the term "social relations" taken in its Marxist sense to mean not relationships but connections among work processes). The point is to show how people in one place are aligning their activities with relevances produced elsewhere, in order to illuminate the forces that shape experience at the point of entry.

Institutional ethnography's focus on texts comes from an empirical observation—that technologies of social control are increasingly and pervasively textual and discursive (Smith, 1999). Texts such as medical charts, enrolment reports, strategic plans, and so on are mechanisms for coordinating activity across many different sites. Treating the text ethnographically departs from discourse analytic work in that it does not focus on how the text enters into the organisation of sequences of action in multiple different sites. There is a possibility of trying to develop a sociology that looks at society from the point of the people and their experience of it. Institutional ethnography picks up this idea, to explore the institutional order and the ruling relations from the point of view of people who are in various ways implicated in and participating in it.

#### Example of Method Application

In the U.S., Ellen Pence, at Praxis International (www.praxisinternational.org) has worked extensively with advocates to reform domestic violence case processing. She has developed a version of institutional ethnography that serves as the basis for a community audit process, designed to centralise concerns for women's safety and to produce recommendations for community responses and case processing that will be more responsive to women's and children's needs.

In Canada, Marie Campbell (2000) led a participatory research project which involved a group of disability activists in the examination of the organisation of home support services.

Institutional ethnographies of organisational work often focus on specific texts such as policy documents (Eastwood, 2005; Ng, 1995; Stooke, 2003), funding proposals and planning documents (Grahame, 1998; Turner, 2001), the accounting records of bureaucratic workplaces (McCoy, 1998; Mykhalovskiy, 2001), or the charts and records of professional-client relations in health care, social work, and educational settings (André-Bechely, 2005; Parada, 2002; Rankin, 2001).

Finally, Institutional ethnography has provided the basis for efforts across a wide range of substantive concerns, including areas such as access to AIDS treatment (Mykhalovskiy and McCoy), policy and environmental planning (Turner, 2001; and see <a href="https://www.rwmc.uoguelph.ca/">www.rwmc.uoguelph.ca/</a>), and the racialised organisation of garment-industry work (Ng, 2000).

# Inspiration and Rationale for developing the Method

The method is designed to shift the focus of sociological research away from questions generated by administrative concerns and on objectified knowledge and towards the puzzles of peoples' everyday lives. Its critique of objectified knowledge and its use in the management of institutional life suggests that, frequently, and in systematic ways, the categories and conceptual frameworks of administration are inattentive to the actual circumstances of the diverse lives people live in contemporary societies. Institutional ethnographic studies contribute to a social justice agenda by making knowledge from the standpoints of people's everyday lives, seeking to demystify relations of ruling, and pointing to possible interventions in ruling relations.

#### Application and Applicability

Nursing, education, social work, planning, not only within academia; but also taught as a professional skill to be used in political activism.

#### **Colleagues**

Marie Campbell, Marjorie De Vault

#### References

DeVault, M. L. (2006) Introduction: What is Institutional Ethnography? *Social Problems*. Vol. 53, Issue 3, pp. 294–298

Smith, D. (2001); Text and the Ontology of Organisations and Institutions. *Studies in Cultures, Organisations and Societies*. Vol. 7, pp 159-198

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# Helga Wild & Chris Darrouzet

Water Cooler Logic, Palo Alto, California, USA

# Water Cooler Logic: Participatory Ethnography at Work

#### Introduction

Helga Wild and Chris Darrouzet used to work for the Institute for Research on Learning (IRL) in Menlo Park CA, which pioneered the use of ethnography in researching the social basis of learning in schools and corporations. To this use of ethnography they joined techniques from design to bring the lessons from research into praxis.

As Water Cooler Logic (WCL) Inc. they evolved the method further to involve the client organization in a highly participatory form. When conducting their action research and learning projects they train a cross-functional team of client representatives as para-ethnographers, explore with them the organization's functional networks, and design with them new processes and practices. Two steps are noteworthy in this innovative research method: the first refers to the use of ethnographic methods for understanding the communities via exemplary situations; the second refers to the participation of the studied communities, which activates residual social relations and social capital.

### Description and Explanation of the Method

Water Cooler Logic rejects the traditional experimental design in favour of an open systems/ complex systems approach to the field of study. Its other premise is that people already possess an ethnographic consciousness provoked by the complexity of the social field that surrounds them, but are lacking the stage and context to articulate their insights and are too often prevented from joining individual insights into a meaningful whole. On this basis, the developers argue that for creating solutions it is important to recruit frontline people as well as supervisors and managers close to the work. Higher-up managers become more useful later when the organisation's approval is required to move forward. This feature of the complex organisation – emergence - explains why they consider their kind of problem solving more a discovery of solutions already immanent to the work practice of their clients.

There are three phases to the Water Cooler Logic after a project emerges; first it involves mapping the organisational terrain of the subject of study, recruiting members of the organisation as participants, teaching them a bit of ethnography, and second, it unravels into going into the field with them and conducting the 'ethnographic moments' (Discovery Phase). It is in this sense that WCL is participatory and leads participants to a reflective stance and vantage point. It is innovative in terms of what the developers do with the team members. This involves the development of social dynamics and macro culture. Participants bring insider knowledge – translated into 'perspectives', views from somewhere to this work – which combine with the field knowledge 'perspectives' they collect through observations and interviews into a more complete, though not necessarily more harmonious, conceptual landscape. In this process people get transformed in their organisational identity but also the implementation of organisational change of practice becomes easier because people are part of the process. The transformation takes place as ethnographic authority is transferred to the team, which becomes empowered to spearhead the change while the management is in a supporting role. The team members develop a shared framework, a common/joint agenda to implement changes and improve their practices. Corrective moves may be applied by consultants, only when the development is in danger of being derailed. The framework provides a performative context for staff in the local sites to engage in this ethnographically inspired work of puzzling out their experiences and responsibilities in the organisation.

Overall, the method cannot be isolated from the process as it is the methodological framework which is innovative. Conventional methods of data collection are used such as interviews, observations and an analysis of stories and discourses that take place between group members at a metalevel. This involves content-based analysis to package up this knowledge into a design. The design is part of the process itself by analysing group discussions and presentations and playing down the report; management attends these sessions and listens to the staff presentations (Co-Design Phase). Raw data are not offered while anonymity and confidentiality are preserved. The consultants may offer recommendations about what the organisation should do, but ideally the recommendations take the form of presentations of team members to their own peers and managers, which is already starting the implementation and change process. Proposed changes span the breadth of organisational measures and resources ranging from – and at times combining – changes to the physical environment, the organisational structure, technology and processes, and there is usually a training aspect as well.

There is a third phase in some of these projects and called the implementation phase which involves following up on what everyone was designed to do, keeping the local efforts in synchronicity with one another and when needed cycling back to re-discovery, re-design etc.

To sum up, the framework involves ethnographic work plus a formal design workshop: anthropological study of needs assessment plus state of the art design; both the discovery and the design solutions presented to management refers back to the staff.

# Example of Method Application

**Prosthetics** 

Client-Provider communication

Bed control and patient discharge

Formal and informal learning at the workplace

#### Inspiration and Rationale for developing the Method

Accepted principles of good experimentation in psychology and neuroscience frame their subject matter so as to exclude many aspects from consideration (or keep them equal, which amounts to the same) and thereby make artificial the situation they study. In contrast, this is not experimentation, it does not exclude anything and deals with the multiplicity and variability of dimensions and factors that are part of the natural situation. It sacrifices repeatability in order to stay close to reality and relevant to practical applicability.

#### Application and Applicability

Anthropology/ethnographic consultancy

#### **Colleagues**

Sue Wilkinson

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# **Carolyn Funk**

Virginia Commonwealth University, Richmond, Virginia, USA

# Genetic Transmission of Political Orientations

#### Introduction

This line of research tests the possibility that political attitudes and behaviours are the result of both environmental and genetic factors. Far from claiming that genetic factors determine behaviour, the claim is that they influence behavioural sensitivity. The research team developing this work was Drs. John Alford, Carolyn Funk, and John Hibbing and now includes a mix of collaborators from political science, psychology and behavioural genetics.

## Description and Explanation of the Method

The method makes use of behavioural genetics but specifically concentrates on twin studies and twin methodology on the assumption that hereditary traits are most influential in predicting political orientations – though not necessarily party affiliation, which is deemed to result mainly from parental socialisation – compared to environmental factors. Twins are chosen because the division between monozygotic (MZ) - who share 100% of genetic materials – and dizygotic (DZ) – who share 50% of genetic material – is instrumental in comparing correlations on the basis of genetic characteristics. The assertion is that the effect of genetics is measurably distinct for MZ and DZ twins, while the effect of the environment is either equivalent or at least randomly distributed around equivalence.

In this respect, by predicting a large influence for genetic inheritance, the authors depart from typical behaviouralist expectations anticipating that political attitudes will be predominantly influenced by environmental factors, rendering genetic inheritance largely, if not completely, inconsequential. Genetics have been widely applied to study 'psychological traits' rather than political ideology.

The study makes use of the Wilson-Patterson (W-P) Index, commonly used to measure conservatism. This index is administered by presenting subjects with a short stimulus phrase such as death penalty or royalty and eliciting a simple agree, disagree, or uncertain response. The standard techniques in behavioural genetics are based on correlation analysis. Using techniques from behavioural genetics, correlations are computed separately for male/male and female/female twin pairs to provide an appropriate comparison, since all MZ twins are same-sex pairs, while DZ twins are a mix of same-sex and opposite-sex pairs. Heritability is estimated by subtracting the correlation for DZ pairs from the correlation for MZ pairs and then doubling the resulting difference (2 x (MZ-DZ)).

The results indicate that genetics plays an important role in shaping political attitudes and ideologies but a more modest role in forming party identification; as such, they call for finer distinctions in theorising about the sources of political attitudes. Nevertheless, predictably dissimilar correlations of social and political attitudes among people with greater and lesser shared genotypes suggest that behaviours are often shaped by forces of which the actors themselves are not consciously aware, a point that is made with some force by Bargh and Chartrand (1999), Marcus (2002), Marcus, Neuman, and MacKuen (2000), McDermott (2004), and Wegner (2002).

On these grounds, political scientists are urged to incorporate genetic influences, specifically interactions between genetic heritability and social environment, into models of political attitude formation.

# Example of Method Application

Employing standard methodological approaches in behavioural genetics - specifically, comparisons of the differential correlations of the attitudes of monozygotic twins and dizygotic twins - data are drawn from a large sample of twins in the United States, supplemented with findings from twins in Australia are analysed.

# Inspiration and Rationale for developing the Method

The researchers claim that twin studies have not been conducted by political scientists and that properly refined measures of political variables have not been constructed and employed In other words, the heritability of political behaviour has not been analysed at all.

# Application and Applicability

Apart from psychology and political science, the study suggests that it could be applied in cases dealing with behaviour.

## **Colleagues**

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# TECHNOLOGICAL INNOVATION/CROSSING BOUNDARIES

The third section presents innovative research practices that either cross disciplinary boundaries or are driven by technological development. The areas and disciplines these have been developed in are mainly anthropology and ethnography.

# **Dwight Read**

University of California, Los Angeles, California, USA

# Kinship Algebra Expert System (KAES)

# Description and Explanation of the Method

Kinship Algebra Expert System (KAES) is a computer programme, a graphical user interface application for investigating and modelling the structure of kinship terminologies and the ways in which these are instantiated. The innovative aspect is twofold, the programme itself and also the theory of kinship terminology structures on which it is based and which developed as a 'paradigm shift' in the process of writing the KAES programme. In other words, the software became the idiom and medium through which the theory was developed. The paradigm shift consists of reversing the logic of the genealogical paradigm: it begins with kin terms viewed as cultural constructs, including culturally determined computations for linking kin terms to one another subject to structural constraints and thereby forming a structured system of kin terms. Kin terms can then be linked to categories of kin types through the kin term structure, thereby producing a structured system of kin type categories that provide genealogical definitions for kin terms. Read calls the process through which the kin terms are linked to categories of kin types 'cultural instantiation'.

Based on this logic, the programme itself has three main components: map operations, algebra operations and display operations. The first component (map operations) provides the machinery for entering of kinship terms in the form of a kin term map that displays the manner in which kin terms are linked to one another through a kin term product based on ethnographic observations about the ways individuals calculate kinship relations. The data used are collected through ethnographic research: eliciting people's knowledge of their kinship system. What do people mean when they use kin terms?

The algebraic modelling begins by structurally simplifying the kin term map through user-selected options for simplification of a kin term map. The simplification is run in reverse during the algebraic modelling as one elaborates on an initial algebraic model constructed in accordance with the simplified kin term map. A modified kin term map is defined to be simplified when the modified kin term map has a single, ascending generating term (and possibly a sibling generating term) and only consists of ascending kin terms. The KAES programme allows for the user to model a kin term map using user-selected options that activate an ensemble of individual steps composing a stage in the algebraic modelling, such as constructing the descendant structure from the initial, ascendant structure. Alternatively, the user may sequentially activate the individual steps making a stage in the algebraic modelling. As the modelling proceeds, the KAES programme automatically introduces structural equations that are part of the distinctions made regarding kin terms in the kinship terminology. Each stage in the algebraic modelling of a kinship terminology structure is successful if the algebraic modelling ends up with an algebraic structure isomorphic to the kin term map from the initial simplification of the kin term map corresponding to the current stage in the algebraic modelling. The algebraic construction stops when an algebraic structure that is isomorphic with the kin term map for the complete kinship terminology has been generated.

While this is based on the groundbreaking assumption that people think in terms of kin terms rather than genealogically and, thus, the correspondence between kin terms and genealogical relations is not true of all terminologies, the third component (operations) constructs a genealogical instantiation of the algebraic structure.

For all terminologies considered to date, the predicted genealogical definitions match with 100% accuracy the genealogical definitions elicited by anthropologists. These genealogical definitions

have been assumed to be the primary and irreducible data for the analysis of kinship terminologies. The KAES analysis demonstrates to the contrary that these definitions are predictable from the way in which the terminology is generated as a structure. Instantiation is not limited to genealogical instantiation. Instead, instantiation depends on cultural rules for mapping abstract symbols to categories and categories to individuals and can be based on other criteria such as adoption or other means by which individuals are incorporated within the conceptual structure of a kinship terminology.

One possibility for the evolutionary origin of kinship terminology systems is that they provided a computational device for calculating relations among individuals that was cognitively less demanding than memorising extensive genealogical linkages. But even if it arose as a computational system, the computational facility enabled the terminology to become the central means by which individuals determine if they have a kinship connection or not. One can calculate kin relations with the kinship terminological system without necessarily referring back to genealogical linkages, and hence the relative importance of genealogical connections versus kin terminology connections becomes society specific.

# Inspiration and Rationale for developing the Method

The idea for the KAES programme started with a suggestion from Dr. Clifford Behrens when he was Read's graduate student. He suggested an expert systems computer programme that would embed the expertise of a mathematical anthropologist into a computer programme. (Hence the name, Kinship Algebra Expert System.) They applied for, and received, an NSF grant for developing KAES. At that time the most promising software languages for what they had in mind were Prolog to do the algebraic part of the programme, Metawindows (which no longer exists) for doing the graphics interface (at the time, Metawindows was the only PC software that had the capability of developing a truly windowed and graphic interface using an object oriented architecture), with Pascal as the software language for doing the nuts and bolts of the software architecture. Later, when KAES was rewritten in Java by Dr. Michael Fischer, software architectures had become far more sophisticated and with Java they had a fully object based architecture within which the graphics user interface and its logic based on the idea of a kin term map could be integrated with the architecture for the algebraic machinery originally developed in Prolog.

## Application and Applicability

See above for the ways in which the KAES programme has also been the basis for developing a theory of kinship terminology systems and thereby also becomes a research tool for the exploration of similarities and difference in the logic of kinship terminologies from different cultural contexts.

The programme can be used for representing other conceptual structures that have an algebraic form, such as the idea of a binary opposition. Its application lies, perhaps, less in being directly useful in other domains than as a way of making explicit the notion of culture as a 'constructed reality' for the observation that a kinship terminology has an algebraic structure implies that the structure is constructed and thereby generates a reality (namely how we conceptualise kin) that does not exist without that construction. In this way it becomes a model for what is meant by the vague idea of a constructed reality.

Other social relationships may be mapped using this programme as long as they have a similar logic: a system that connects terms to each other e.g. Friend/enemy.

#### What kind of research questions could it be used for?

In general, it is useful for addressing the most fundamental questions in anthropology regarding specifically what we mean by kinship and kinship systems and more generally, regarding the

relationships among cultural constructs and their instantiation in the form of social structure and organisation and the behaviour of persons.

An extension of the application could be to use agent-based modelling (simulation) – embed cultural concepts, things we elicit from people through ethnographic research and how do they construct kin products. An agent-based model has been developed and was used to confirm the ethnographic observations.

# **Colleagues**

Dr. Clifford Behrens, Dr. Michael Fischer, Dr. Murray Leaf, Dr. Stephen Lyon, Dr. Giovanni Bennardo, Dr. F.K. Lehman

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# **Robert Kozinets**

York University, Toronto, Ontario, Canada

# Netnography

#### Introduction

Robert Kozinets is an anthropologist who studies contemporary consumer cultures and communities, their manifestations, and their implications. Netnography was introduced as a methodology for consumer and marketing research in the late 20<sup>th</sup> century (Kozinets, 1998). Nevertheless, in recent years, Netnography has transcended consumer and marketing research and is currently widely used across disciplines.

# Description and Explanation of the Method

Netnography is an interpretive method originally devised specifically to investigate the consumer behaviour of cultures and communities present on the internet. More recently, it has been used to investigate any community and culture present on the internet. It is a written account that results from fieldwork studying on-line, computer-mediated or Internet-based communications. Based on the traditions and techniques of cultural anthropology and ethnography the data collected consists of the researcher's field notes combined with the artefacts of the culture or community, and hence this data is mainly textual such as downloaded files of newsgroup postings, transcripts of discussion boards and chat sessions, and e-mail exchanges. As in traditional ethnography, once access is gained into the online community studied methods other than participant observation may be negotiated which include most of the conventional methods (e.g. interviews, focus groups etc.) Netnography does not, therefore, coin conducting research online as it is not the mode (online versus telephone or face-to-face) that differs but the field – on-line is not simply a way of gaining access but the locus of social worlds, social life and social interaction for online communities and cultures.

Kozinets (1998) points out that netnography is useful for three types of studies and in three general ways: firstly, as a methodology to study 'pure cybercultures and virtual communities' that do not exist off-line in real life, but are manifest exclusively through Computer-Mediated Communication (CMC) or computer-mediated social interaction; secondly, as a methodological tool to study 'derived' cybercultures and virtual communities; and thirdly, as an exploratory tool to study general topics related to online communities or cultures or including (derived) communities also available online.

Online communication between consumers, for example, has been studied by using netnography (Kozinets, 1998; Kozinets, 2002) for understanding their attitudes, perceptions, imagery, and feelings. As Kozinets points out, the Internet offers increased opportunities for social group participation and netnography provides access to the study of online communities where access based on conventional methods is difficult. However, this is where ethical considerations and robust procedures come into play in netnography. Kozinets claims that netnographic principles had not been systematised for years, and netnographic research raised concerns about the ethical standards it complied with. For this purpose, one of Kozinets' recent contribution has been to systematise netnographic procedures in a rigorous way.

Referring to common ethnographic procedures, Kozinets recommended the following methodological stages and procedures for netnographic studies in general:

# 1. Planning;

- 2. Entrée: formulation of research questions, identification of appropriate online fora for study, contacting the online community to be studied;
- 3. Data collection: online fieldwork this may include as in traditional ethnography a variety of methods for data collection and thus, various types of data; these are either available and copied from the computer-mediated communications of online community members or collected and recorded or produced by observations of the community and its members, interactions and meanings by keeping diaries. Kozinets (forthcoming) has specified and explicated in great detail the various options for retrieving, storing and preparing netnographic data for analysis.
- 4. Analysis and interpretation: classification, coding analysis and contextualisation of communicative acts; methods of analysis may include conventional methods such as conversation and discourse analysis, documentary analysis, content analysis and the application of qualitative analysis software.
- 5. Generally speaking, as with traditional research, analysis depends upon the type of data and philosophical underpinnings of the study / researcher. Data collection and analysis should not be confused with downloading data in textual form and analysing them. Engagement with the online community studied is what netnography is about and one of the key 'features' which ultimately differentiates it from collecting data online.

Research ethics: "(1) The researcher should fully disclose his or her presence, affiliations, and intentions to online community members during any research; (2) the researchers should ensure confidentiality and anonymity of informants; and (3) the researchers should seek and incorporate feedback from members of the online community being researched (4) The researcher should take a cautious position on the private-versus-public medium issue. This procedure requires the researcher to contact community members and to obtain their permission (informed consent) to use any specific postings that are to be directly quoted in the research" (Kozinets, 2002, p. 65); 6. Member checks and Research representation: presentations of some or all final research report's findings to the people who have been studied and to the scientific community.

## Example of Method Application

Study of new mothers discourses and practices, study of skinhead culture and beliefs, study of fat acceptance blogs, study of boycotters, study of online funs of Manchester United

## Inspiration and Rationale for developing the Method

Netnography is a specific set of procedures to guide ethical, accurate, and culturally attuned ethnography of online communities and cultures. A number of scholars have used ethnographic methods online, but none have systematised an organised method. The rationale and inspiration in combining the bits together to develop netnography has been the need of scattered principles to be formalised. This was identified as part of Kozinets' study of Fan Communities for his PhD thesis. Thus, Robert Kozinets has been developing a systematic and rigorous framework for doing ethnographic research since 1995, presenting and publishing in this area since 1996.

## Application and Applicability

Currently applied most widely in marketing research.

## Colleagues and / or Relevant Research

Maclaran, Pauline, Miriam Catterall, Margaret Hogg, Steven Brown, Hope Schau, Andrea Hemetsberger, Kristine de Valck

## Other Information

Robert Kozinets and Russell Belk have also been developing Videography: "a form of visual anthropology encompassing the collection, analysis, and presentation of visual data;" "an audiovisually-based ethnography that is the product of a participant-observational research method that records interviews and observations of particular peoples, groups, and their cultural artifacts, utilises them as data, edits them into a format for presentation, and represents it in the form of a film" (Kozinets & Belk, 2006, p. 318). This has resemblances to research-based films (see research based drama below), systematising and developing the use of audiovisual methods in the social sciences specifying particular ways in which 'theory' can be represented and presented in films.

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# INTRA-DISCIPLINARY & INTRA-METHODOLOGICAL

The fourth section presents innovative research practices driven by developments with disciplines and/or methods. The areas and disciplines these developed in are mainly management, psychology, sociology, and social work.

# **Chris Nash**

Monash University, Melbourne, Victoria, Australia

# Journalism as both Reporting and Research

#### Introduction

Chris Nash's work has focused on Journalism in academia, treated in its conventional form as reporting but incrementally as research as well. Spurred by the role and position of journalists within the university, he has sought to explore a theory of practice that brings together journalism as study and journalism as practice. This endeavour is treated as a research approach in this report.

# Description and Explanation of the Method

The approach starts with identifying journalism's domain: 'Everything that comes under the category of the present'. Therefore Journalism is interdisciplinary and critically defined by temporality, yet involves the subjective element of intuition (which could nevertheless be claimed for most qualitative research approaches). The development of this approach to journalism as research and reporting mainly draws on the work of Tuchman (1978), the writings of Bourdieu and the expositions on space and time of David Harvey, Henri Lefebvre and Alfred Gell.

Tuchman's work on making news as constructing reality identified the constraints and agents of journalistic 'methods of enquiry'. Namely, of news as a 'frame', produced by and as a 'web of facticity', cast in time and space, and presented as a narrative of knowledge and power. In this process journalists are agents within the symbolic field as described above, operating intuitively in fluid time and space, to research in and report accurately and selectively on other fields – those of study - in order to represent them to publics (in yet another field/fields?). In view of that Chris Nash's work focused on building a theory of practice that engages with intuitive practice, relations between fields of social activity, the empirical, time and space and different publics. On this he draws on Bourdieu's notions of field, capital and habitus. In particular, "all activity and practice occurs within fields constituted by relations of power, where cultural capital is deployed using habitus to exercise symbolic power/violence against competitors". For the remaining dimensions (including time, space, discourse, and publics) Chris Nash stresses four key dimensions of journalistic practice: that it is empirical, socio-political, temporal and spatial. The first deals with the who, what, when, where and how of inquiry; the second deals with the why; the third deals with time as both phenomenological and chronometric (Gell, 2003); and the fourth treats space as absolute, relative and relational (Harvey, 2006) and perceived, conceived, imagined (Lefebvre, 1991).

Overall, therefore, journalism as an exercise in research and reporting directly engages key issues in ontology and epistemology (truth, power, time and space), does not require mediation by other disciplines in this engagement, is fundamentally inter-disciplinary and requires theorisation as an intellectual practice.

#### Example of Method Application

Media coverage of issues and contests in urban transformation under globalisation

# Inspiration and Rationale for developing the Method

Chris Nash wished to contest views that render journalism as a superficial, empirically 'weak' and methodologically 'void' non-intellectual activity. As part of this endeavour he has aimed to 'constitute' journalism as a legitimate mode of intellectual inquiry, engaging with ontological and epistemological questions.

# **Colleagues**

Wendy Bacon (wendy.bacon@uts.edu.au) Professor of Journalism at the University of Technology, Sydney

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# **Gervase Bushe and Michael Avital**

Simon Fraser University, Vancouver, Canada
Discovery & Design, Vancouver, Canada
University of Amsterdam, Amsterdam, Netherlands

# Appreciative Inquiry as a Research Method

#### Introduction

Appreciative Inquiry as a theory was developed by David Cooperrider and Suresh Srivastva in 1986 and studies 'the best of what is in order to identify what could be' (Cooperrider and Srivastva, 1987). Bushe argues that Appreciative Inquiry (Cooperrider & Srivastva, 1987; Cooperrider, Sorensen, Yaeger & Whitney, 2005) was created explicitly as a response to Gergen's 1978 paper, "Toward Generative Theory," in which he argued that many assumptions of positivism could not be successfully applied to studying human systems. He proposed that, instead, researchers should aim to create a social science focused on its generative capacity, the "...capacity to challenge the guiding assumptions of the culture, to raise fundamental questions regarding contemporary social life, to foster reconsideration of that which is 'taken for granted' and thereby furnish new alternatives for social actions" (1978, p.1346).

Since then it has been taken up and expanded and commonly refers to an action research process that studies something from the positive side – thus belonging to a group of approaches to research termed 'positive lens' – to create a new kind of conversation among people as they work together to improve a group or organisation.

# Description and Explanation of the Method

The development of appreciative inquiry style interview guides, which focus on gathering 'best of stories'. On the basis of the narratives produced, theories and models of 'best practice' may be developed. The assessment of the utility of appreciative inquiry as a methodology for model building research is pending. Bushe has proposed using appreciative inquiry, a relatively unknown (outside the field of organisation development) qualitative methodology. Appreciative inquiry has proven a successful form of action research when applied to changing organisational cultures (Bushe & Kassam, 2005; Powley, Fry, Barrett & Bright, 2004). Its utility and efficacy as a research method, however, remain unclear. There have been recent calls encouraging greater use of appreciative inquiry as a method of basic, as opposed to applied, research (e.g. Reed, 2007).

Responding to such calls Bushe embarks on an innovative approach to the use of appreciative inquiry for model building research. This involves the application of 'appreciative questions' (Bushe, in press, Cooperrider, Whitney & Stavros, 2008) for developing questions that may have a higher than normal capacity to be generative – that is to produce information that aids in generating new social theory. In particular, an appreciative inquiry interviews participants about their 'peak experiences' or 'best of stories' regarding the phenomena of interest, as well as asking participants for their ideas and opinions about the best of what could be. When used in organisational change initiatives, these stories catalyse dialogue among members of the organisation about their hopes and aspirations, which in turn leads to the collective design of alternative and preferred futures.

Analysis may then follow depending on the desired outcome.

# Example of Method Application

Generally speaking, studying 'what is' but also 'what could be'.

# Inspiration and Rationale for developing the Method

A number of studies show that appreciative inquiry can help organisational stakeholders identify and act on inspiring futures in ways that create collective will to work toward implementing those visions, yet it is claimed that very little research has been conducted using appreciative inquiry as a research methodology. Recent calls encouraging its use in research highlight its potential for theory and model building. Because appreciative inquiry focuses on the best of what is in order to inspire new theories and models of what could be, it seems particularly appropriate to address the questions that motivate researchers.

# Application and Applicability

It has been applied in organisation and leadership studies and management with success. As long as there is an element of studying 'what is' in order to theorise and model 'what could be'

## **Colleagues**

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# **Peter Sommerfeld**

University of Applied Sciences Northwestern Switzerland, Brugg, Switzerland

# Rasmussen, N. H., Furst, J. W., Swenson-Dravis, D. M., Agerter, D. A., Smith, A. J., Baird, M. A. & Cha, S. S.

Mayo Clinic, Rochester, Minnesota, USA

University Minnesota, Minneapolis, Minnesota, USA

# Reflecting Interview

#### Introduction

Innovative reflecting interview is an intervention driven approach to social work and psychology.

# Description and Explanation of the Method

Reflecting interviews are teller-centred focus clinical interviews, which address participants' progress, goals, and reflections on their personal progress as documented in previous monitoring data. The inclusion of these monitoring data in the clinical interviews reveals a strong and direct link between the psychic dynamics of individuals' progress and social events.

It usually involves collecting longitudinal data about the social side of the reintegration processes (complementing the Real Time Monitoring data on the psychic side). The process takes place in over a period of one of intervals: In these interviews, participants are usually asked to reflect on an aspect of their lives over between the periods sampled in a narrative, open way. In addition, they are asked to review and analyse data they have produced during the preceding period by reflecting on the significant peaks in that data – what happened at that time, how could this be understood, and what might this mean. In the third and final part of the reflecting interviews, participants may set personal goals for the next sampled period and/or reflect on progress made towards the personal goals established during the preceding session.

# Example of Method Application

Patient health care utilisation, physical health, mental function, and health care satisfaction.

## Inspiration and Rationale for developing the Method

Intervention is less time intensive and requires less professional staff training than other forms of intervention.

#### Application and Applicability

It could be applied in any area.

## Colleagues and or Relevant Research

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# **Rosemarie Anderson**

Institute of Transpersonal Psychology, Palo Alto, California, USA

# *Intuitive Inquiry*

#### Introduction

Rosemarie Anderson is Professor of Transpersonal Psychology in the Global PhD Programme of the Institute of Transpersonal Psychology. In collaboration with students and faculty, Dr Anderson developed a transpersonal research method in 1996 (published 1998) known as Intuitive Inquiry that invites intuition into the research process, and a research practice known as Embodied Writing that brings the finely textured experience of the body to the art of writing and data gathering. Both Intuitive Inquiry and Embodied Writing blend the rigors of mindful spiritual practice with the rigours of scientific inquiry.

In the mid-2000s, she developed the Body Intelligence Scale that provides quantitative measures of three types of bodily awareness applicable to health and well-being. This scale is now available to researchers who are interested in the relevance of the scale to stress-related diseases and personal transformation. Her current interests include the further development of Intuitive Inquiry into a multi-method approach to research, the study of the multi-cultural and global expressions of intuition, and continuing studies on the applications of the Body Intelligence Scale. In 2007, Dr. Anderson launched her own website, www.wellknowingconsulting.org offering intuition and transpersonal research consultation to the public.

#### Description and Explanation of the Method

At the outset, the intuitive researcher initially identifies her or his values and assumptions through active and connected engagement with the experience studied and then uses these values and assumptions as hermeneutical lenses to explore and analyse similar experiences in others. This is called the hermeneutical circle. Rather than bracketing the researcher's values and assumptions (as in established phenomenological approaches to research), the intuitive researcher employs her or his values and assumptions as lenses to begin the interpretative cycles of analyses. Intuitive Inquiry is composed of five iterative cycles of interpretation.

First, the researcher selects a text or image that repeatedly attracts or claims the intuitive researcher's attention and relates to his or her area of interest in a general and often obscure and non-obvious way. The researcher then enters the circle of interpretation by engaging with the "text" daily and recording both objective and subjective impressions. Thoughts, ideas, daydreams, conversations, impressions, visions, intuitions, etc. occurring during sessions are recorded in a non-invasive manner, so to least disrupt the stream of consciousness typically accompanying intuitive insight. Intuitions manifest as visual, auditory, proprioceptive (a felt sense), or kinesthetic.

Second, the researcher reflects upon her or his own understanding of the topic in light of a set of selected texts produced by others and found in extant literature about the topic and prepares a list of preliminary interpretative lenses that express the researcher's understanding of the topic as unambiguously as possible, the researcher engages with the selected text(s) on a daily basis so to keep the topic elevated in awareness and begins to note consistent patterns or clusters of ideas in her or his understanding of the topic. Through a sometimes arduous process of combining, reorganising, and identifying emerging patterns, the list shortens to between several clusters. These lenses describe the researcher's pre-understanding of the research topic prior to the collection of original data. Typically, these lenses are prepared simultaneous with writing the Literature Review as a means of presenting the researcher's pre-understanding of the topic in light of the theoretical and empirical literature relevant to the topic studied.

Third, the researcher (a) identifies the best source of data for the research topic; (b) develops criteria for the selection of research informants or selection of extant historical, empirical, or literary records; (c) collects the data; and (d) then prepares summary reports in as descriptive a manner as possible. Since Intuitive Inquiry invites an in-depth process, one should choose the data sources that satisfy their passion as researchers. After data collection, depending on the type of data collected, the researcher organises and summarises research data using conventional thematic content analysis, descriptive summaries, portraits, or conventional statistical analysis.

Fourth, the researcher then interprets data in order to modify, refute, remove, reorganise, and expand his or her understanding of the research topic. This cycle invites researchers to expand and refine their pre-understandings by incorporating the experiences of others and represents the researcher's summary of findings based on his or her interpretation of the original data collected. Throughout Intuitive Inquiry, the most important feature of interpreting data is intuitive breakthroughs, those illuminating moments when the data begin to shape themselves into view. Patterns seem to reveal themselves with each fresh set of information.

Finally, the intuitive researcher stands back from the entire research process to date and takes into consideration all aspects of the study anew, as though drawing a larger hermeneutical circle around the hermeneutical circle prescribed by the forward and return arcs of the study. Attention to recording both objective and subjective data accompanies each iterative cycle.

In terms of methods, various techniques and research strategies can be blended. Both observational data and intuition are encouraged as sources of amplification and refinement of one another throughout the course of the research endeavour. For the purposes of intuitive inquiry, intuition is defined to include the more commonplace forms of intuitive insight as novel thoughts and ideas; together with insights derived from non-rational processes such as dream images, visions, kinesthetic impressions, a felt (or proprioceptive) sense, an inner sense or taste accompanying contemplative practices and prayer, and spontaneous creative expressions in dance, sound, improvisation, writing, and visual art. Intuitive inquiry openly invites the researcher to structure the research method, procedures, setting and context to maximise rather than minimise the very gateway through which the researcher understands or is inspired by the experience studied.

In intuitive inquiry participants are asked to detail physical descriptions of experience and researchers are asked to contextualise and communicate findings by writing in an embodied manner themselves. To communicate powerfully and resonately, intuitive inquiry invites research participants to speak from their own unique and personal perspective born of their own experience. Accordingly, researchers are urged to quote, often extensively, the actual words of participants so to retain and portray the fullness of the participants' unique voices and phenomenon studied in communicating results. Communicating research findings close to the bone of the experiences themselves, enables readers to resonate with the stories from within their own bodies by connecting to the felt experience of the tellers. Researchers are enjoined to use creative media such as pictures, photographs, recordings, drawings, videos, poetry, etc. so to resonantly portray the phenomenon studied.

In terms of scientific validation, the immediate apprehension or recognition of a researcher's insight analyses could be verified using conventional experimental, quantitative procedures. Validity of findings is thus formed through consensus building, noting consonance, dissonance, or neutrality within a culture and across cultures. Subgroup by subgroup, a kind of mapping of the validity of a research finding is created. A modified sociogram, constructed with concentric circles of resonance, designates subgroups wherein the research findings are immediately apprehended and recognised or reacted to with dissonance or neutrality.

# Example of Method Application

Research topics such as reclaiming identity after abuse, the inward movement of beauty, the qualities of serenity and contentment in everyday life, the experience of addiction and its impact on long-term relationships, betrayal by a spiritual teacher, mutuality in relationship, and the experience of long-term chronic pain have all emerged from personal experience and a desire to share and amplify the experience through study of the experiences of others.

# Inspiration and Rationale for developing the Method

Intuitive inquiry was first inspired by the challenges of conducting research in the field of transpersonal psychology. In particular, Intuitive Inquiry originally developed in response to Anderson's doctoral students' needs in the field of transpersonal psychology. While transpersonal psychologists and transpersonalists (a term more indicative of the field's inter-disciplinary nature) have been studying the rich dimensions of being human for roughly thirty years, research in the field has often seemed stymied by a reliance on the experimental methods it inherited from the dominant psychologies of the 1960s and 1970s, the context for its impetus. Intuitive inquiry encourages a more inclusive and connected manner of conceptualising research topics, collecting and analysing data, and presenting research findings in the study of human experience. The claim is that one is connected to what they know through the very core of their body, mind, and self.

As a research method, it follows in the philosophic lineage of Western hermeneutics originating with Friedrich Schleiermacher, Wilhelm Dilthey, and Hans-Georg Gadamer and the embodied phenomenology of Maurice Merleau-Ponty and contemporary feminist theorists and researchers.

## Example of Method Application

The research of Becky Coleman (1999) on obesity and right-body size for women provides a salient example. Because the most integrative experiences of transforming her own experience of obesity and right-body size had occurred in groups of women in intimate dialogue, Coleman chose to study obese women meeting in small groups. Dialoguing with one another over time, Coleman took the women on retreat during the final phase of her data collection. She was able to professionally photograph and video-tape their exchanges and interactions to the fullest possible extent. There are lots of other ways to study this phenomenon which would have been less costly and time-consuming. However, Coleman's own experience and understanding of the intimate demands and integrity of understanding obesity committed her to a research strategy which focused on groups of women sharing their stories about obesity and right-body size.

#### Application and Applicability

Rosemary Anderson claims that this is a research method which may constitute a general framework for doing research beyond transpersonal psychology. However, intuitive inquiry may be particularly suited to studying transformative experiences.

# **Colleagues**

William Braud and doctoral students at the Institute of Transpersonal Psychology who have encouraged and expanded upon intuitive inquiry in their own research, especially Becky Coleman, Jay Dufrechou, Caryl Gopfert, Kelly Lynch, and Cortney Phelon.

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# **Adele Clarke**

University of California, San Francisco & Oakland, California, USA

# Situational Analysis

#### Introduction

Adele Clarke's primary research areas have been historical and contemporary sociology of biomedical sciences and technologies, the development of qualitative research methodologies, and women's health. The development of qualitative research methodologies in particular led Adele Clarke to a new approach to grounded theory in the postmodern turn: Situational Analysis. Situational analysis arose in and through Adele Clarke's own work since she entered the University of California, San Francisco as a graduate student in sociology in 1980, especially through her teaching of grounded theory and other qualitative research methods at UCSF since 1989. It also emerged from her reading and teaching feminist theory, interactionist theory, Foucault, cultural studies and science, technology, and medicine studies. As a student, she learned grounded theory from Anselm Strauss who was at the time also engaged in elaborating his social worlds/arenas/discourse/negotiations framework.

The report focuses on this development rather than situational analysis as used in management and marketing.

# Description and Explanation of the Method

Situational Analysis offers three main cartographic approaches as maps which are intended as supplemental approaches to traditional grounded theory analyses that focus on the action-centred 'basic social process'. Situational analysis offers these maps in order to shift attention to the situation of inquiry. Through mapping the data, the analyst constructs the situation of inquiry empirically. The situation becomes the ultimate unit of analysis and understanding its elements and their relations are the primary goals. Situational analysis allows researchers to draw together studies of discourse and agency, action and structure, image, text and context, history and the present moment to analyse complex situations of inquiry. Thus it can situate research projects individually, collectively, organisationally, institutionally, temporally, geographically, materially, discursively, culturally, symbolically, visually, and historically and can support researchers from heterogeneous backgrounds pursuing a wide array of projects.

Situational Analysis builds upon Anselm Strauss's social worlds / arenas / negotiations / discourse framework to offer these maps which are described as follows:

- 1. situational maps: that lay out the major human, nonhuman, discursive, historical, symbolic, cultural, political and other elements in the research situation of inquiry and provoke analysis of relations among them; these maps are intended to capture and discuss the messy complexities of the situation in their dense relations and permutations. They intentionally work against the usual simplifications so characteristic of scientific work in particularly postmodern ways.
- 2. social worlds/arenas maps: that lay out the collective actors, key nonhuman elements, and the arena(s) of commitment and discourse within which they are engaged in ongoing discourse and negotiations. Such maps offer meso-level interpretations of the situation, explicitly taking up its social organisational, institutional, and discursive dimensions. They are postmodern in their assumptions: do not assume directionalities of influence; boundaries are open and porous; negotiations are fluid; discourses are multiple and potentially contradictory. Negotiations construct and constantly destabilise the social worlds/arenas maps. They are open to the possibility of things always being

- otherwise—not only individually but also collectively/organisationally/institutionally/discursively—and these maps portray such postmodern possibilities; and
- 3. positional maps: that lay out the major positions taken, and not taken, in the data vis-à-vis particular axes of difference, concern, and controversy around issues in the situation of inquiry. Positional maps are not articulated with persons or groups but rather seek to represent the full range of discursive positions on particular issues fully allowing multiple positions and even contradictions within both individuals and collectivities to be articulated. Complexities are themselves heterogeneous, and improved means of representing them are required.

All three kinds of maps are keyed to taking seriously the nonhuman — including discourses — in the situation of inquiry. The three maps are intended as analytic exercises. Situational analysis offers an alternative approach to both data gathering and analysis/interpretation as it guides the research design and the analysis of interview data, ethnographic data, narrative, visual, and historical discourse materials taking into account all the elements in a situation and their interrelationships. In doing initial situational maps, the analyst is asked to specify the nonhuman elements in the situation, thus making pertinent materialities and discourses visible from the outset. The flip side of the second kind of map, the social worlds/arenas map, is a discourse/arenas map. Social worlds are 'universes of discourse' routinely producing discourses about elements of concern in the situation. Such discourses can be mapped and analysed. Finally, positional maps seek to open up the discourses by analysing positions taken on key analytic axes. Discourses can thereby be disarticulated from their sites of production, decentring them and allowing further analytic bite.

The approach retains elements considered strong in grounded theory but aims to equip them with constructivist principles. One such key element is theoretical sampling as a heuristic value of developmental research designs. The proposition is instead to supplement basic grounded theory with a situation-centred approach that in addition to studying action also explicitly includes the analysis of the full situation, including discourses - narrative, visual, and historical. Such work can enrich research by addressing and engaging the important complexities of postmodern theoretical and methodological concerns. Adele Clarke argues on this basis that grounded theory was already in many ways around the postmodern turn while in other ways it was not particularly so, and/or not clearly so. Situational maps are proposed to make it so.

## Inspiration and Rationale for developing the Method

To regenerate grounded theory as part of the need to shift from action-based processes to the situation of inquiry as the key unit of analysis in the postmodern turn. Clarke seeks to contribute to the development of innovative methodologies that can specify the 'complexities of situatedness' and take into account the ecologies of actions, hoping to support research efforts toward greater social justice and more democratic participation.

# Application and Applicability

The three maps can be used in a wide array of research projects drawing on interview, ethnographic, historical, visual, and/or other discursive materials, including multisite research.

#### Colleagues and/or Related Research

Adele Clarke cites Kathy Charmaz's work as relevant to her work in aiming to open grounded theory to more constructivist principles.

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# **Ahmet Süerdem**

Bilgi University, Istanbul, Turkey

# Towards a New Approach in Social Simulations: Meta-Language

#### Introduction

Ahmet Süerdem has been experimenting bridging qualitative and quantitative methods. His active research areas involve culture and social cognition / language, social simulations, and the analysis of policy discourse. His work is included in the report for extending the ways in which social simulation may be applied.

# Description and Explanation of the Method

Ahmet Süerdem's approach is a mixture of network analysis and semiotic analysis. The aim is to produce network measures and apply them to semiotic indicators like: knowledge domains, modality, paradigms, paradigm shift etc. For this process, conventional data collection methods are used such as qualitative interviews, and the aim is to eventually analyse textual data. Analysis follows then a more complex and staged path which offers an alternative to conventional methods and also to the ways of doing social simulations. It starts with thematic analysis to identify concepts and proceeds with semiotic analysis to build a matrix in the form of cognitive semiotic maps; the matrix is then used it for mathematical network analysis (and/or simulations). The cognitive semiotic maps may be built in agents to run social simulations.

The semiotic mapping approach developed here is based on two ways of doing semiotic analysis: 1. analysis of concepts related to one another through dyadic relations; 2. analysis on the basis of concepts opposing one another (opposition maps). Depending on which way is followed, the semiotic structure of a text is 'revealed'/built (e.g. interview transcripts) which is then turned into a map format – the mental map 'behind' a textual presentation.

This semiotic mapping approach aims to overcome the shortcomings of semantic and semiotic approaches by combining quantitative map analysis techniques with qualitative thematic analysis. Thematic analysis is an interpretive coding approach. During thematic analysis, a researcher searches for themes that emerge as being important to the description of the phenomenon. The process basically involves reading a piece of text and identifying its meaning. It is a form of pattern recognition within the data, where emerging themes become the categories for analysis. The interpretive meaning identification is kept at the paragraph level and leaves the pattern recognition to the network analysis. The basic idea is reading the paragraph and identifying its connotation as a statement which reflects its main theme.

In particular, the analytic process evolves in reading the interview transcripts (or textual data available) and recognising an important moment to encode it prior to a process of further categorisation. Encoding the information organises the data to identify and develop themes from them. These themes are then refined by merging low-frequency codes into high-frequency ones. A codebook is formed for deductive coding which involves a template codebook to be applied as a means of organising text for subsequent interpretation. In the next stage a deductive coding process is followed by using the codebook. Text segments to be coded are paragraphs and each paragraph is coded according to the themes in their content. Paragraphs are chosen as units of analysis on the assumption that they represent the basic units of thought within an argument. Each paragraph is considered as a statement connecting two concepts according to a 'refers to' relation including predicates such as 'is', 'signifies', 'makes', 'suggests' and so on if the first way of doing semiotic analysis is followed or 'is in opposition to', 'opposes' etc if the second way of doing semiotic analysis is followed (see above). Since semiotic theory assumes that meaning is generated in terms

of reference (positive or negative) of signs to each other within a formal structure, reference is the ultimate relation for semiotic analysis. At the next stage, the cross-tabulation of codes and agents is obtained to compare the content distribution of the discourses. These cross-tabulations are then used to present the distribution of agents and codes on a two-dimensional graph with the help of the correspondence analysis. Correspondence analysis helps to examine the discursive proximities and the positioning of the agents according to the frequency of the concepts in their discourses. Discourses are then grouped in terms of their articulation by agents and matrices representing the semiotic communities and summarising how the codes refer to each other within the paragraphs are obtained. The matrices are asymmetric since reference relation is asymmetric. Finally, the semiotic maps and the associated network measures are extracted, and basic network measures are obtained with the help of a network analysis programme (UCINET 6 for Windows in this case). On the basis of the semiotic maps and network measures a meta-language approach allowing dynamic meaning generation during the interactions of the agents may be developed by running social simulations.

# Example of Method Application

Political discourse: compare semiotic structures: how people say – reference map, web of concepts – two statements coming together form an argument

# Inspiration and Rationale for developing the Method

Cultural anthropology: people construct reality in different manners

Application and Applicability

Artifact analysis

Colleagues

Raif Serkan Albayrak

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# **Rich Furman**

University of North Carolina, Charlotte, North Carolina USA;

# **Cynthia Lietz**

Arizona State University at the West Campus, Arizona, USA;

# Carol L. Langer

University of Wisconsin-Eau Claire, Eau Claire, Wisconsin, USA

# The Research Poem (in Social Work)

#### Introduction

Poetry has only relatively recently been used as a tool of social research and has been used in various ways throughout the research process. The most popular application of poetry includes its use as a tool of data representation and presentation. The use of research poems in social work has been taken up by the authors in the past five years. This refers to a postmodern perspective on research that uses various forms of poetry to represent the lived experience of social work clients. Rich Furman's work in particular has focused on the use poetic forms as qualitative data citing such terms as research, interpretative and autoethnographic poems. In contrast to previous uses, in the work of Furman (2004b), one finds poetry embedded in nearly all phases of the research process.

# Description and Explanation of the Method

Based on practices from expressive arts research and more traditional qualitative methods, the research poem can present evocative, powerful insights that can both express and interpret the lived experience of the research participants or social work clients in this case.

The term research poem connotes the use of poetry less for expressive and literary means, and more for the purposes of generating or presenting data. The difference between a literary poem and a research poem can be seen in the position of the author to the data. Whereas research poems might borrow methods from literary poems, as is the case in the present study, they are written with the expressed purpose of presenting data that remain faithful to the essence of the text, experience, or phenomena being represented. Literary poems do not necessarily follow this mandate, as they might incorporate fantasy, shift reality to incorporate alternative perspectives, and even alter the original experience in fundamental ways.

In this line of work though, poetry is used as the data from which narrative reflections are written. These reflections serve as data as well as analysis of the original ethnographic verse. The various types of data provide different lenses through which to understand various issues. In addition, poetry is used as a tool of data analysis, where the authors create research poems.

In particular, the process suggested and followed by the authors evolves in the following way: Two sets of three poems are presented here. Poems are written about clients/research participants aspects of life studied. The author has three objectives for writing these original poems: (a) to represent faithfully the salient affective and psychosocial issues that he/she encounters in his/her interactions, (b) to create aesthetically satisfying poems, and (c) as a means for the author of exploring his perceptions and feelings about the complex, personal issues implicated in cross-cultural and international helping in this case. These poems can be viewed in much the same way as qualitative data, as an exploration of the lived experience of the research subject/participant. The poems are data about both subject and author, and, about the relationship between them. These poems are texts that are subsequently analysed. The methods of data employed can used for analysing other types of text, for instance original ethnographic transcripts, newspapers, and other media text, as well as any

other data that can be transcribed into written form. The subsequent research poems are derived using the original poem as data. For example, treating the poems itself as text, Furman analyses them for themes using traditional open and axial coding methods. During the first round of coding, the researcher reads the poems without the intent to develop codes or themes. The goal is to familiarise himself with the text. During the second round, general impressions are noted and written in the margins of the text. The third round of coding consists of a line-by-line analysis of the text. During the fourth round of coding, general themes are induced from the identified codes. The researcher conducts a fifth round of coding using the identical method with the intent to discover any uncovered themes and to ensure accurate and adequate representation of the themes.

Once these themes are identified, the researcher undertakes the process of representing some of the observed themes in different poetic forms. Furman posits that different poetic forms would produce different effects. For example, the use of the 'pantoum' and its repetitive lines allows for the repetition of salient or emotionally evocative themes. The use of the 'tanka', which is characterised by an extreme economy of words, forces the researcher to make decisions about what data should be included and what may be left out. In many qualitative studies, the method of data presentation is taken for granted and is viewed as a natural by-product of data collection and analysis. By experimenting with re-presenting these data into different forms, the authors hope to stimulate similar experimentation and attention to strategies of data re-presentation.

Overall therefore, the methods proposed can be viewed in two ways: first, as a process that can be used to help social workers develop empathy and understanding of their clients; and second, as a method of data reduction that re-represents data for the purposes of research, which is in line with previous research work incorporating poetry.

# Examples of the Method

Langer and Furman (2004) have used formal poetry as a tool of data analysis. The authors wrote Japanese tankas as a means of representing interview data about the experience of ethnic identity of a biracial Native woman. In the creation of their research poems, the authors began their process by engaging in traditional thematic analysis, whereby they mined the data for codes and themes. Once these themes and codes were identified, the authors found key passages within the text that represented each theme. These words were than arranged into the form of a Japanese tanka.

## Inspiration and Rationale for developing the Method

The rationale is explained in the distinction between academic and social work. The authors claim that social workers need research that helps them understand the emotional and contextual realities of people whose life experiences they work with and which may often be very different from theirs. Research poems are proposed as a method that can communicate contextual and affective realities of thick qualitative descriptions yet are condensed enough to be easily consumed by community-based social workers and human service practitioners, who might not be familiarised in research. This refers to the development of practice wisdom as the transaction between scientific information and that of the phenomenological experience that is derived from interactions with clients.

Furman was inspired to conduct his autoethnographic study of his father's cancer through the use of poetic forms.

## Application and Applicability

Social Work, Psychology, Sociology, Ethnography, Anthropology, Socio-linguistics

#### **Colleagues**

Furman, R., Lietz, C. & Carol L. Langer

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# **Christina Sinding**

McMaster University, Hamilton, Ontario, Canada

# **Ross Gray**

University of Toronto, Toronto, Canada

#### Vrenia Ivonoffski

Ryerson University, Toronto, Canada

# Research-based drama

#### Introduction

Research-based drama as a methodological approach is based on the premise that one never leaves the stage. Performance is the way lives are lived and it should then be integrated into how social knowledge is acquired and fed back into the community. In other words, performance is treated both as a form of publishing research and as hermeneutics.

# Description and Explanation of the Method

Research-based drama/theatre refers to a drama or theatre that is based in research. This may take the form of:

- i. A drama/theatre based on research conducted previously in order to write the script;
- ii. A drama/theatre developing as part of research;
- iii. A drama/theatre scripted to act as action/transformative or intervention research.

In Sinding and Gray's case all three forms are present and are conceptually based on the hermeneutic sense of performance as generative of meaning. In other words research-based drama refers to the merge of dramaturgical and research techniques that work best with some types of research rather than others. It also refers to merging participants in different categories and positionings such as social actors, drama actors and researchers.

The process evolves as follows: primary research takes place using conventional methods of data collection and analysis such as interviews or focus groups, thematic or discourse analysis. Themes are then reflected in script writing which also incorporates features for creating and performing a dramatic production – in other words, translating research into drama. The actors are called to perform a research-based text. This refers to professional actors but also may include (and often does) lay social actors or research participants whose data constitute the primary material on which he script is developed. Importantly, one of the features of the drama is that roles may alternate, especially if the understanding and embodiment of different subjectivities is sought. In addition, versions may be modified to fit the needs of different audiences. In the performative setting, perhaps even more clearly than in most qualitative research undertakings, participants are expected not only to speak about but also to witness, enter into, and take on roles. As actors, they are required to study for and enact a part. As 'understudies' they are asked to understand their roles and to anticipate the possibility that they may someday be required to live it.

Finally, the processes of research, scripting and performance are documented (journal records and follow-up interviews with different categories of participants involved).

The extent to which this is used for psychotherapy raises ethical concerns with reference to issues of empowerment or disempowerment of participants. However, the researchers claim that the therapeutic (or not) aspect of this type of work misses the point. Therefore, the major contribution is the different kind of insights this method brings to the study of complex or sensitive phenomena as

it blends expert discourse, everyday discourse and art (discourse) on the basis of 'performance', lives acted out.

# Example of Method Application

Staging Breast Cancer, Rehearsing Metastatic Disease: linking research to drama. This took the form of a drama titled: *Handle With Care? Living With Metastatic Breast Cancer* which was developed from qualitative research findings and designed to share these findings with a broad audience. The final script of *Handle With Care?* is comprised in no small part of dialogue recorded during the focus group meetings. The drama is a form of scholarly representation.

# Inspiration and Rationale for developing the Method

Inspiration is derived from they ways in which performance is understood – as a way of knowing – that also constitutes intervention involving the social group studied in performative ways. As an epistemological and theatrical undertaking this type of work plays on multiple and sometimes contrary cultural meanings of closeness. Closeness may contain risk, danger, and vulnerability whereas distance contains meanings around both professionalism and safety. These meanings relate to discussions about ethical research practice mentioned above.

# Application and Applicability

Public Health Research, Social Work, Psychology, Sociology, Ethnography

## **Colleagues**

Sinding, C., Gray, R., Fitch, M., & Greenberg, M., Vrenia Ivonoffski

Actors from Act II Studio at Ryerson University; and cancer survivors and activists who were consultants and test audiences for the dramas.

# References

#### References related to the research-based dramas:

Handle with Care? Women living with metastatic breast cancer

No Big Deal? (about the experiences of men with prostate cancer and their wives)

Ladies in Waiting: A Play About Life After Breast Cancer

#### The overview:

Gray, R., Sinding, C., Ivonoffski, V., Fitch, M., Hampson, A., & Greenberg, M. (2000). The Use of Research-Based Theatre in a Project Related to Metastatic Breast Cancer. Health Expectations, 3, 137-144.

#### The whole story:

Gray, R., & Sinding, C. (2002). Standing Ovation: Performing Social Science Research about Cancer. Walnut Creek, CA: AltaMira Press.

\*\* The book comes with a video of Handle with Care? Women living with metastatic breast cancer and No Big Deal? (about the experiences of men with prostate cancer and their wives). Available through Mills library.

The documentary: http://www.fanlight.com/catalog/films/354 hcwlu.php

How Can We Love You? Behind the Scenes With the Play Handle With Care By Laura Sky Sky Works Charitable Foundation Available at the Health Sciences library.

# The scripts:

Ivonoffski, V., & Gray, R. (1998). Handle with Care? Women living with metastatic breast cancer. Toronto: Toronto Sunnybrook Regional Cancer Centre.

Ivonoffski, V., & Gray, R. (1999). No Big Deal? Toronto: Toronto Sunnybrook Regional Cancer Centre.

# The process of creating the drama:

Gray, R., Ivonoffski, V., & Sinding, C. (2002). Making a mess and spreading it around: Articulation of an approach to research-based drama. In A. Bochner & C. Ellis (Eds.), Ethnographically Speaking: Autoethnography, literature and aesthetics (pp. 57-75). Walnut Creek, CA: AltaMira Press.

Sinding, C., & Gray, R. (2002). Coming to knowledge about metastatic breast cancer: A drama. Resources for Feminist Research, 29(3/4).

Sinding, C., Gray, R., Fitch, M., & Greenberg, M. (2002). Staging Breast Cancer, Rehearsing Metastatic Disease. Qualitative Health Research, 12(1), 61-73.

Gray, R. (2000). Graduate school never prepared me for this: reflections on the challenges of research-based theatre. Reflective Practice, 1(3), 377-390.

#### The ethical issues:

Sinding, C., Gray, R., & Nisker, J. (accepted). Ethical issues and issues of ethics. In J. G. Knowles & A. L. Cole (Eds.), Handbook of the Arts in Qualitative Social Science Research. Thousand Oaks: Sage.

# What we learned about illness experience, and cancer in culture, from the dramas:

Gray, R., Sinding, C., & Fitch, M. (2001). Navigating the social context of metastatic breast cancer: Reflections on a project linking research to drama. Health, 5(2), 233-248.

Sinding, C., & Gray, R. (2005). Active Aging - Spunky Survivorship? Discourses and experiences of the years beyond breast cancer. Journal of Aging Studies, 19, 147-161.

## How the dramas made a difference (and problematizing 'making a difference!')

Gray, R., Fitch, M., Labrecque, M., & Greenberg, M. (2003). Reactions of Health Professionals to a Research-Based Theatre Production. Journal of Cancer Education, 18(4), 223 - 229.

Sinding, C., Gray, R., Grassau, P., Damianakis, F., & Hampson, A. (2006). Audience Responses to a Research-Based Drama about Life after Breast Cancer. Psycho-Oncology, 15, 694-700.

Sinding, C., Gould, J., & Gray, R. (forthcoming 2009). Making a Difference with Research. In J. Gould, J. Nelson & S. Keller-Olaman (Eds.), Method and Meaning: Participatory Research with Marginalized Cancer Communities. Toronto: University of Toronto Press.

# **TRANSFORMATIVE**

The fifth section presents transformative research practices. The inclusion of a sample of work below is to stress the role of transformative work on methodological developments. The areas and disciplines these are observed in are mainly ethnography, social anthropology and social work.

#### **Julie Park**

The University of Auckland, New Zealand

# The impact of multi-sited ethnography on researcher involvement

#### Introduction

Julie Park has been involved in experimenting with ethnographic approaches to social anthropological concerns, and health in particular.

# Description and Explanation of Method

The work presents novelty in how the project is put together, *vis a vis* the kind of involvement by academics and students. In particular, both the extent of researcher involvement with the community studied and writing up about departs from conventional ethnographic research. Namely, the researchers (PhD students) were involved in all sorts of jobs for the well being of these communities.

The projects are participatory, transformative and involve mixed methods such as life history interviews, participant observation, clinics, interviews, note taking, group discussions, community interviews, visual prompts with sensitive topics, media and policy analysis. The analysis included thematic analysis and Geographic Information System (GIS) of networks. In this sense it is the work is multi-cited and interdisciplinary with a 'syndemic' orientation. Using a syndemic framework enables the examination of the clustering of health conditions in the context of history and culture. By selecting these conditions the study takes a comprehensive approach to health ecology incorporating historical political economy, cultural and biological interactions.

# Example of Method Application

Ethnographic work on tuberculosis

# **Colleagues**

The research team is based in anthropology, and draws in colleagues, students and perspectives from population health, history, geography, development studies and policy disciplines

#### References

Park, J. & Littleton, J. (2007) Ethnography Plus in Tuberculosis Research. SITES Vol. 4, No. 1, pp. 3-23

# **Elizabeth Whitmore**

Carleton University, Ottawa, Canada

# Participatory Learning and Action

#### Introduction

Elizabeth Whitmore has been involved in participatory action research, participatory evaluation and community-based research for the past 25 years during which time she has had to develop various tools and techniques to 'involve' the community researched.

# Description and Explanation of the Method

Her work involves hiring members of the community studied to do the research on the principles of Participatory Learning and Action (PLA). This work has involved conventional and non-conventional methods. In data collection non-conventional included the use of sticky notes while during the research process and analysis user-friendly language is used for the research terms involved. In the presentation stage then these terms are substituted with formal ones. On one of the cases researched (street youth dropping centre) the participants compiled a kit to teach others to do this kind of work.

# Example of Method Application

Street youth drop in centre

# Inspiration and Rationale for developing the Method

Governments and universities are picking up this type of research very slowly, too slowly in Whitmore's opinion to incur any serious transformations.

#### References

Whitmore, E. (ed) (1998) *Understanding and practicing participatory evaluation*. San Francisco: Jossey-Bass Publishers

See also www.manifestationjournal.org

# Margareta Hyden

Linkoping University, Linkoping, Sweden

# Narrating Sensitive Topics: Applied and Basic Research

#### Introduction

Margareta Hydén is a professor of social work and a licensed psychotherapist. Her primary research areas have been battered women's, battering men's, and their children's experiences and responses to interpersonal violence. Recently her interests have expanded to include the social networks of the involved, and their responses to the violence. Her awareness of the fact that a research interview concerning sensitive issues forms a complex power relation has been a driving force for the development of the method. Her primary aim has been to develop research that could be used in the efforts of taking action against interpersonal violence.

# Description and Explanation of the Method

Her contribution in conducting transformative research on interpersonal violence has been both to meet the ethical concerns and methodological challenges concerning the study of sensitive topics, as well as open up the empirical base of narrative research. In the first case, she offers a suitable physical space and an open discursive space by conducting a teller- focused way of interviewing which assists the interviewee in his/her way of telling things rather than pushes interviewer's agenda. In such an interview, the concepts of "question" and "answer" are to be thought of as a part of a circular process, with the interviewer and the interviewee trying to make continuing sense of what they are talking about. Experiences of sensitive events essentially are "untold stories". Stories of that type are not well suited to a format of pre-prepared questions followed by brief answers. The method consists of a series of interviews, in order for the interviewer to follow participants of the process of telling. Hydén has conducted the method in three variations, one for individual interviews with adults, one focus-group interview with troubled adolescents, and one groupinterview to be used in therapeutic settings for interviewing children. In the second case, she explores the boundaries of narrative analysis by using it as an approach for understanding experiences of interpersonal violence. The results are fed back to the community studied for reflection - yet in this case Hydén observes that this process also empowers the community studied.

## Example of Method Application

Interpersonal violence, Children exposed to violence, Troubled young people

# Inspiration and Rationale for developing the Method

The development of the method was informed by narrative theory in sociology and psychology as well as of psychotherapeutic practises.

#### Application and Applicability

Linking academia and practice-based work, this method could be used for basic research on sensitive topics, as well as it could be applied for the development of practices. It could be used in a wide array of research projects, for example in social work, health and human rights research.

#### References

Hydén, M. (2009) Listening to children's experiences of being participant witnesses to domestic violence. In H. Forsberg & Teppo Kröger (eds.) *Social Work and Child Welfare Politics*, pp. 129-146 Bristol, UK: The Polity Press

Hydén, M. (2008) Narrating Sensitive Topics. In M. Andrews, C. Squire & M. Tamboukou (eds.) *Doing Narrative Research*, pp. 121-136. London: SAGE

Hydén, M (2008) "Break-up narratives". In Hydén, L-C & Brockmeier, J. (eds.) *Health, Illness and Culture: Broken Narratives*, pp. 154-168. New York: Routledge

Hydén, M. & Överlien, C. (2005) "Applying narrative analysis to the process of confirming or disregarding cases of suspected sexual abuse" *Child and Family Social Work, 10* (1): 57-65

Hydén, M. (2005) 'I Must Have Been an Idiot to Let it Go On': Agency and Positioning in Battered Women's Narratives of Leaving. *Feminism & Psychology*, 15(2): 171-190.

Hydén, M. (2004) "Doing" Narrative Analysis. I D. K. Padgett (ed.) *The Qualitative Research Experience*, pp. 254-272. Belmont, CA: Wadsworth.

Överlien, C. & Hydén M. (2004) "'You want to have done your living if you know what I mean' - incarcerated young women speaking about motherhood". Feminism & Psychology 14 (2): 226-230

# **SOFTWARE**

The sixth section presents software development. It was considered relevant for the purposes of this report to draw attention to experts outside the UK whose software development activity provides the professional and academic social science community with research tools. The sample areas and disciplines presented here are criminology, geography, methodology, social network analysis, statistics and government.

# **Jerry Ratcliffe**

Temple University, Philadelphia, Pennsylvania, USA

# Intelligence-Led Policing Software

# Description

Jerry Ratcliffe has designed software that corresponds to the Intelligence-Led Policing Model - a business model and managerial philosophy where data analysis and crime intelligence are pivotal to an objective, decision-making framework that facilitates crime and problem reduction, disruption and prevention through strategic management and effective enforcement.

# References

Ratcliffe, J. H. (in press) Intelligence-led policing. In Wortley, R., Mazerolle, L., and Rombouts, S. (Eds) *Environmental Criminology and Crime Analysis*. Cullompton, Devon: Willan Publishing:

# **Peter Kleiweg**

Rijksuniversiteit, Groningen, Netherlands

Dialectometry: Measures Structure in Geographical Dialect Networks: Rug/Lo4 Software

## Description

Peter Kleiweg's work focuses on applying computational methods to derive dialect areas without expert intervention. This work is part of research into dialectology which is conducted as part of LAMSAS: Linguistic Atlas of the Middle and South Atlantic States, at Rijksuniversiteit, Groningen. Along with a group of colleagues, his work is based on the assumption that dialectology must reveal geographic coherence in language variation in order to propose a yardstick with which to compare measurements made using various parameter settings. Dialectometry then measures the differences between dialects in ways that may involve many independently varying parameters. The existence of many parameters of measurement and possible interaction introduces the problem of how to choose parameter values and combinations. The software tool Rug/Lo4 is developed to: derive a difference matrix for a set of locations based on sets of strings for each location, derive a difference matrix for a set of locations based on sets of labels for each location, permutate linguistic data, perform hierarchical clustering of a difference matrix, perform multidimensional scaling on a difference matrix, validate the difference matrix and draw various maps.

# **Sharlene Nagy Hesse-Biber**

Boston College, Boston, Massachusetts, USA

HyperResearch: Computer-assisted programme for analysing qualitative data

HyperTranscribe: transcription tool

# Description

Sharlene Hesse-Biber is renowned for the work on qualitative methodologies including grounded theory and the use of technology in qualitative research. She is involved in identifying emergent research methods for the social sciences. As part of this activity Hesse-Biber has published in the field of research methodology. She has co-edited *Approaches to Qualitative Research* (Oxford, 2004) and the *Handbook of Emergent Methods* (Guilford, 2008), has co-authored *The Practice of Qualitative Research* (SAGE, 2005) and *Emergent Methods in Social Research* (SAGE, 2005) and has edited the forthcoming *Handbook of Emergent Technologies for Social Research* (Oxford, 2009). She co-developed the software programme HyperRESEARCH, a programme for analysing qualitative data, and the transcription tool HyperTRANSCRIBE (see <a href="https://www.researchware.com">www.researchware.com</a>). HyperRESEARCH allows you to work with text, graphics, audio, and video sources and HyperTRANSCRIBE enables the transcription of most audio or video files with keyboard shortcuts. Customisable shortcuts allow the text entry in a single keystroke while the media can be played in segments of definable length to pace transcribing.

# **Christopher McCarty**

Director of the Bureau of Economic and Business Research, University of Florida, Gainesville, Florida, USA

# Personal Network Analysis & EgoNet Software

## Description

Christopher McCarty is survey director of the Bureau of Economic and Business Research at the University of Florida. Among his areas of research is the development of new methods and tools for studying personal networks in a transcultural framework and authoring the software EgoNet. EgoNet is used in the collection, analysis and visualisation of personal network data.

## References

McCarty, C., Molina, J. L., Aguilar, C. & Rota, L. (2007) A Comparison of Social Network Mapping and Personal Network Visualisation. *Field Methods*. Vol. 19, pp. 145-162

## **Mark Handcock**

University of Washington, Seattle, Washington, USA

## Description

Dr Handcock's research involves methodological development based on motivation from questions in the social sciences. He develops statistical models for the analysis of social network data, spatial processes and longitudinal data arising in labour economics. Some of the software for modelling social network data that he has developed are:

- statnet: Software tools for the representation, visualisation, analysis and simulation of social network data.
- latentnet: Software to fit and evaluate latent position and cluster models for statistical networks.
- networkis: A Package to Simulate Bipartite Graphs with Fixed Marginals through Sequential Importance Sampling.
- ergm: A Package to Fit, Simulate and Diagnose Exponential-Family Models for Networks.
- glmc: Fitting Generalised Linear Models Subject to Constraints.

# **Gary King**

Harvard University, Cambridge, Massachusetts, USA

# Verbal Autopsy Software

#### Introduction

Professor Gary King and his research group develop and apply statistical methods in social research, focusing on innovations that span the range from statistical theory to practical application. His research areas are: Causal Inference, Content Analysis, Data Sharing and Informatics, Ecological Inference, Event Counts and Duration Models, Incumbency Advantage, International Conflict, Legislative Redistricting, Missing Data, Mortality Studies, Presidency Research and Voting Behaviour, Qualitative Research, Rare Events, Survey Research, Unifying Statistical Analysis. King's work is widely read across scholarly fields and beyond academia. The statistical methods and software he developed are used extensively in academia, government, consulting, and private industry. An example of King's work presented here is on verbal autopsy methods, including an open source software that implements these methods.

## Description and Explanation of Method

Verbal autopsy is a technique for estimating the cause-of death distribution in populations without vital registration or other medical death certification. It involves collecting information about symptoms (including signs and other indicators) from the caretakers of each of a randomly selected set of deceased in some population of interest, and inferring the cause of death. Inferences in these data are extrapolated either by physicians from their prior experiences or by statistical analysis of a second data set from a nearby hospital where information on symptoms from caretakers as well as validated causes of death are available.

### Application and Applicability

The structure of the inferential problem studied can also be found in application areas fairly distant from verbal autopsy applications. Some version of the methods may be of use in these areas as well. For example, a goal of paleodemography is to estimate the age distribution in a large sample of skeletons from measurements of their physical features by using a small independent reference group where validated ages are available and skeletal features are also measured (Hoppa and Vaupel, 2002). The verbal autopsy methods seem to have already proven useful for estimating the proportion of text documents in each of a set of given categories, using a smaller reference set of text documents hand coded into the same categories (Hopkins and King, 2007). The methods introduced here imply that individual level classifiers can greatly reduce the assumptions necessary for accurate generalisation to test sets with different distributional characteristics.

### Other Statistical Methods for Social Research

- CEM: Coarsened Exact Matching
- MatchIt: Nonparametric Preprocessing for Parametric Causal Inference
- JudgeIt II: A Programme for Evaluating Electoral Systems and Redistricting Plans
- ReadMe: Software for Automated Content Analysis
- Amelia II: A Programme for Missing Data
- YourCast: Time Series Cross-Sectional Forecasting
- WhatIf: Software for Evaluating Counterfactuals
- ReLogit: Rare Events Logistic Regression
- CLARIFY: Software for Interpreting and Presenting Statistical Results
- EI: A Programme for Ecological Inference

• COUNT: A Programme for Estimating Event Count and Duration Regressions

# References

King, G. & Ying, L. (2008) Verbal Autopsy Methods with Multiple Causes of Death. *Statistical Science*. Vol. 23, No. 1, pp. 78–91

## **OTHERS**

The final section presents other sources of potential innovation. The sample areas and disciplines cited here are survey methodology and demography, while a case for disciplinary integration is also described.

## **Marcel Das**

CentERdata, Tilburg University, Tilburg, The Netherlands

Facility for online data collection: Advanced Multi-disciplinary Facility for Measurement and Experimentation in the Social Sciences (MESS)

## Description

In 2006, CentERdata Tilburg University, Tilburg, The Netherlands received major funding from the National Science Foundation (NSF) for the project entitled "An Advanced Multi-disciplinary Facility for Measurement and Experimentation in the Social Sciences (MESS).

The grant was instituted by the Dutch Cabinet with a view to boosting the Dutch knowledge economy and the climate for innovation in the country. The proposal was submitted by Arie Kapteyn, Arthur van Soest, and Marcel Das. The funds have been used to establish a new online panel of 5,000 Dutch households: the LISS panel (Longitudinal Internet Studies for the Social sciences). The panel is the core component of the MESS project and is based on a true probability sample of households drawn from the population register by Statistics Netherlands. Households that could otherwise not participate are provided with a computer and Internet connection.

The recruitment strategy for the online household panel was based on an experiment in order to assess five factors: contact mode, incentive amount, timing of the incentive, content of the information letter and timing of the panel participation request. To meet scientific demands, the panel is based on a traditional probability sample. It was found that participants for an online panel based on a probability sample could be recruited quite effectively using telephone contacts supplemented with face-to-face contacts for households without a known telephone number. Satisfactory response rates were obtained when a monetary incentive of 10 euros was sent in advance of participation. These rates were independent of information provided in an accompanying letter.

The LISS panel focuses on fundamental longitudinal research and provides a laboratory for the development and testing of new, innovative research techniques. The first questionnaires presented to the LISS panel were fielded in the autumn of 2007. CentERdata invites universities, research schools, and individual academics to submit research proposals, which they can carry out in this panel free of charge. A Board of Overseers protects the project's quality and will assess and select the submitted research proposals. The Board of Overseers is composed of professors from a variety of disciplines and universities.

The MESS project is strongly geared to integrating different academic disciplines. Economics and the social sciences often collaborate in survey-based research, and now it means to branch out into the medical and biomedical sciences and the behavioural sciences. It also aims to investigate themes that are current in other national household panels in Europe and the US, which will facilitate international comparison.

#### Colleagues

Annette Scherpenzeel, project leader of MESS

#### References

Scherpenzeel, A. (2008) Recruiting a probability sample for an online panel: effects of contact mode, incentives and information. CentERdata, Tilburg: Tilburg University

http://lissdata.nl

## **Gabriele Bammer**

The Australian National University, Canberra, Australia

# Integration and Implementation Sciences (I2S)

#### Description

Gabriele Bammer has been developing a new cross-cutting discipline called Integration and Implementation Sciences (I2S) based on a set of conceptual and methods skills. I2S covers four domains, namely concepts and methods to enhance:

- 1. fresh thinking on intractable problems;
- 2. integration of disciplinary and stakeholder knowledge;
- 3. understanding and management of ignorance and uncertainty; and
- 4. the provision of research support for decision making and practice change.

I2S provides (a) the hub around which research institutions can organise teams to investigate real world problems, (b) a baseline level of quality for such work, (c) an avenue for transmitting new theory and methods between groups focusing on different real-world problems, and (d) a home for methodologies addressing recurrent concerns in tackling complex problems that are not the province of any discipline or practice area. This more about a framework of research than a method and it is based on six key questions:

- 1. What is the integration aiming to achieve and who is intended to benefit?
- 2. What is being integrated?
- 3. Who is doing the integration?
- 4. How is the integration being undertaken?
- 5. What is the context for the integration?
- 6. What is the outcome of the integration?

Research integration has three intertwined dimensions:

- 1. the synthesis of a range of knowledge, information and perspectives to improve understanding of an issue or problem;
- 2. using research knowledge to support decision makers in various domains, including public policy, business, professional practice and community activism; and
- 3. using research knowledge to underpin the implementation of decisions in effective social change.

It involves integrative methods (in the making). This approach may involve five classes of methods:

- (i) dialogue-based; for example, there are a wide range of dialogue approaches such as Delphi Technique, Nominal Group Technique and principled negotiation. For example, the Delphi Technique is useful for integrating judgements, Nominal Group Technique for synthesising different experiences and principled negotiation for integrating different interests.
- (ii) model-based; for example, there are many types of modelling from conceptual mapping to formal system dynamics or agent-based models.
- (iii) product-based; for example, designing and developing a new product can provide an effective way of integrating different perspectives. Building the atomic bomb illustrates this integrative method.
- (iv) vision-based, for example, having an ideal to work towards. This is illustrated by the World Commission on Dams, which was guided by the idea of "development effectiveness", in other words equitable and sustainable human development (World

- Commission on Dams, 2000, p. xxxiii). Working towards the vision can then involve one or more of the other methods outlined here. And
- (v) common metric based, for example converting everything to a dollar value, which then allows integration through a range of methods from simple arithmetic to modelling. Other common metrics include disability-adjusted life years (DALYs) which are used in public health (http://www.who.int/healthinfo/boddaly/en/index.html) and the ecological footprint (http://www.footprintnetwork.org/).

### Inspiration and Rationale for developing the Method

Effectively tackling real-world problems requires a new type of researcher, who can enhance collaboration between discipline and practice experts. Such researchers need a solid foundation in a set of conceptual and methods skills. In addition to research that advances understanding through a single discipline, there is growing appreciation of the importance of cross-disciplinary research that focuses on real-world problems.

### Colleagues

Integration and Implementation Sciences Network (www.anu.edu.au/iisn):

## References

Bammer, G. (2006) A systematic approach to integration in research. Integration Insights #1, September. Available at www.anu.edu.au/iisn.

Bammer, G. (2006) Principled negotiation – a method for integrating interests. Integration Insights #3, November. Available at www.anu.edu.au/iisn.

Bammer, G., McDonald, D., Deane, P. (2007) Dialogue methods for research integration. Integration Insights #4, May. Available at www.anu.edu.au/iisn.

Bammer, G. (2008) The case for a new discipline of Integration and Implementation Sciences (I2S). Integration Insights #6, May. Available at www.anu.edu.au/iisn.

# **Hayward Derrick Horton**

# Critical Demography

#### Introduction

Critical Demography was founded by Dr. Hayward Derrick Horton, Associate Professor of Sociology at the State University of New York at Albany in 1996. In 2000, he received a grant by the National Science Foundation to develop it further.

### Description

Critical Demography is not quite a method but a paradigm which facilitates the development of theories, methods and concepts that do not neatly fit within the boundaries of the prevailing paradigm, conventional demography. Critical Demography makes explicit the manner in which the social structure differentiates dominant and subordinate populations. Thus, critical demography necessitates discussions of population control and population power. For example, one cannot speak of race and sex without likewise articulating the impact of racism and sexism. In sum, critical demography reintroduces and articulates the nature of the social structure and how it impacts upon population phenomena.

# Inspiration and Rationale for developing the Method

The inspiration came when Professor Horton submitted a paper to be included as a chapter in a proposed volume on racial and ethnic demography: "Toward a Critical Demography of Race and Ethnicity: Introduction of the 'R' Word". The reaction to the paper by the editors was so explosive that it became clear that the issue at hand was greater than the inclusion of racism in demographic analysis. There need for a new paradigm that would promote the development and nurturing of a broad range of ideas that "don't fit" within the dominant paradigm of the field was identified. Professor Horton came to the realisation that he had emphasized the wrong issue from the "R Word" paper's title. It was in fact Critical Demography that was being introduced and not racism.

#### **Colleagues**

http://www.albany.edu/~hdh/criticaldemography/index.html

### References

Horton, D. H. (1999) Critical Demography: The Paradigm of the Future? *Sociological Forum*, Vol. 14, No. 3, pp. 363-367

Horton, H. D. & Sykes, L. (2003) Critical Demography and the Measurement of Racism: A Reconsideration of Wealth, Status and Power. *Race & Society*. Vol. 4, pp. 207-217

## 5. DISCUSSION AND REFLECTION

In this section some general observations about the innovative methods summarised in the previous section will be attempted by clustering, grouping and reflecting on the types of method, innovations, areas/disciplines, geographies and structures that have been found.

First, a schematic representation of the methods is presented including their approaches, methodologies, methods, techniques, tools, software, panel structures and disciplinary developments (see Table 1). This is arranged on the basis of the vertical axis of research methods classification categories, presented hierarchically (see Figure 1).

Second, a map depicting geographical concentration of Innovations in Social Science Research Methods (ISSRM) is presented (see Map 1).

Third, a timeline is attempted to locate the inception of the innovative methods summarised in the report chronologically (see Figure 2).

Finally, a view of the key networks identified in the search for Innovations in Social Science Research Methods outside the UK is examined (see Figure 3).

TYPE	NAME	DISCIPLINE(S)	QUANTITATIVE/QUALITATIVE/MIXED	GEOGRAPHY	INSTITUTION	INNOVATION
Approaches	Genetically Transmitted Political & Value Orientations	Politics	QUANTITATIVE	VA, USA	Academic	СВ
	Netnography	Management	MIXED	CANADA	Academic	CB/TI
	Research-based Drama	Psychology	QUALITATIVE	CANADA	Academic/Professional	INTRA
	Journalism as Research & Reporting	Journalism	MIXED	AUSTRALIA	Academic/Professional	СВ
Methodologies	Folkbiology		MIXED	TN, USA	Academic	СВ
	Kinship Algebra Expert System (KAES)	Anthropology	QUANTITATIVE	CA, USA	Academic	CB/TI
	Intuitive Inquiry	Psychology			Academic/Professional	СВ
	Situational Analysis	Sociology	QUALITATIVE		Academic	
	Water Cooler Logic				Professional	
	Ethnography as a Non-linear Dynamic System	Ethnography	MIXED	NM, USA	Academic/Professional	
	Institutional Ethnography		QUALITATIVE	CANADA	Academic/Professional	
	Appreciative Inquiry as a Research Method	Management	MIXED	CANADA		INTRA
Methods	Research Poem	Social Work	QUALITATIVE	AZ, NC, WI, USA	Academic/Professional	СВ
Withouts	Reflecting Interview	Psychology	QUALITATIVE	SWISS, USA	1 1000 0 1110 1 10 1000 10 1101	INTRA
	Semiotic Analysis and Mapping for Agent-Based Modelling	Multidisciplinary	MIXED	TURKEY	Academic	INTRA
Techniques	Orbital Decomposition		QUANTITATIVE	WI, USA	Academic	СВ
	New Item Response Theory Models: Tests without Items	Psychology		MN, USA	Academic	INTRA
	Internet Survey Software Tools				Research	СВ
	Methods for Achieving Equivalence of Samples in Cross- National Surveys	Survey Methodology		GERMANY	Research	СВ
Tools	Intermediate Data Structure (IDS)	History	QUANTITATIVE MIXED	MI, USA	Academic	TI
	Survey Interviewing using Animated Agents (Avatars)	Survey Methodology			Academic	
	WeSearch	Communication Studies		ITALY	Academic	
Software	Statistical Software for Social Research	Government	QUANTITATIVE	MA, USA	Academic	CB/TI
	Statistical Software for the Analysis of Social Network Data	Statistics		WA, USA	Academic	TI
	Personal Network Analysis: EgoNet Software	Business & Economics		FL, USA	Academic	

TYPE	NAME	DISCIPLINE(S)		GEOGRAPHY	INSTITUTION	INNOVATION
Software	Intelligence-led Policing Software	Criminology		PA, USA	Academic	
	Dialectometrics: Rug/Lo4	Geography	QUANTITATIVE	NETHERLANDS	Academic	
	Software HyperResearch: Computer-assisted programme for analysing Qualitative Data	Sociology	QUALITATIVE	MA, USA	Academic	TI
Panel Structure	Advanced Multi-disciplinary Facility for Measurement and Experimentation in the Social Sciences (MESS)	Survey Methodology	MIXED	NETHERLANDS	Research	CB/TI
Disciplines	Critical Demography Integration & Implementation Sciences (I2S)	Demography Interdisciplinary	MIXED MIXED	NY, USA AUSTRALIA	Academic Academic	СВ

Note: CB is the acronym for Crossing Boundaries; TI is the acronym for Technological Innovation; INTRA is the acronym for Intra-disciplinary and Intra-methodological. Acronyms in the geography column represent the state initials in the US. Colouring is used to highlight clusters within categories.

Table 1. ISSRM outside the UK

Table 1 indicates that the disciplines and areas primarily affected are ethnography, anthropology, psychology and survey methodology. In particular, developments in research methodologies figure higher in ethnography<sup>4</sup> followed by anthropology while developments in research techniques are shared between psychology and survey methodology. Overall, across the research methods categories, psychology figures prominently in methodological developments followed by survey methodology, ethnography, sociology and management. With the exception of software, panel structure and discipline development, the types of research that the methodological innovations and developments may be classified into are mixed (N=8), qualitative (N=7) and quantitative (N=7), though these are treated as a continuum rather than discreet categories in this report.

Developments in quantitative methods figure higher in survey methodology while developments in qualitative methods figure higher in psychology followed by sociology and then social work and ethnography<sup>5</sup>. If one takes mixed methods into account on the basis of including qualitative research, psychology retains its prominence in fostering methodological developments in qualitative research, ethnography is strengthened, while management and survey methodology are added into the mix. Developments is mixed methods are mainly shared between ethnography and survey methodology.

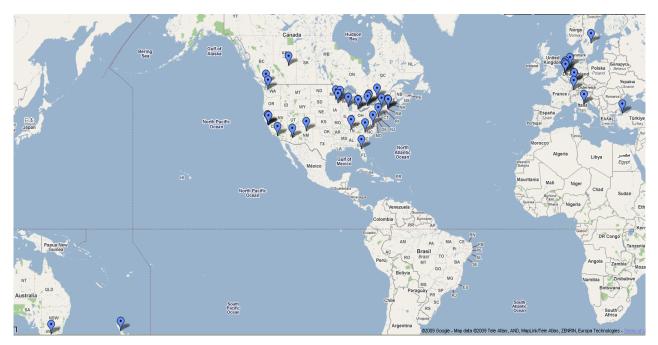
Overall, the institutional structures identified as 'hosting' developments are primarily Academic (N=19) followed by both Academic and Professional (N=7), then Research Centres and finally Professional and Consultancy institutions. The institutional structures identified as 'hosting' developments in qualitative research are primarily both Academic and Professional (N=5), and then Academic (N=1) and Professional/Consultancy institutions (N=1). This marks a clear difference between the developments identified in qualitative research and overall methodological developments as in the former hosting institutions are primarily both Academic and Professional (N=5) while in the latter hosting institutions are primarily Academic (N=19). On the basis of the results of the project therefore, it could be argued that developments in qualitative research and methods derive from an interventionist, participatory and consultancy-type of approach to research. The institutional structures identified as 'hosting' developments in quantitative and mixed methods research are primarily Academic.

Finally, with the exception of software, panel structure and discipline development, the majority of the innovations are a consequence of working across disciplinary boundaries, followed by developments within methods and disciplines and then by developments in technology. However, if one includes software, panel structure and discipline development in the count, there is then an (nearly) equal distribution between innovations from working across disciplinary boundaries and from developments in technology

The geographic concentration is depicted and discussed below.

<sup>&</sup>lt;sup>4</sup> It should be noted here that sociology may also be included in the disciplines from which developments derive by taking the developers specialisation into account which is true in this case for both situational analysis and institutional ethnography.

<sup>&</sup>lt;sup>5</sup> It should be noted here that sociology may figure equally high as psychology in fostering methodological innovations in qualitative methods if the developers' specialisation is taken into account (institutional ethnography).



Map 1. Concentrations of ISSRM outside the UK

Map 1 depicts the geographical concentrations of developments in Social Science Research Methods (SSRM). The map indicates a concentration of these developments – as defined for the purposes of this project (see Section 1) – in North America, the United States in particular. The East Coast features the highest concentration of innovations and developments in SSRM, represented by such tools such as Virtual Anthropomorphic Interviewers (Avatars) and Intermediate Data Structure (IDS), methods such as the Research Poem, methodologies such as Folkbiology and Genetically Transmitted Political and Value Orientations. In the Mid West, methods and techniques in Psychology have been developed, including New Item Response Models, Orbital Decomposition and Reflecting Interview. The West Coast features methodologies practised in academic and non-academic institutions (consultancy services and centres); in the first case this refers to Situational Analysis and Kinship Algebra Expert System (KAES); in the second case this refers to the Water Cooler Logic and Ethnography as a Non-linear Dynamic System, while Intuitive Inquiry is practised in both types of institutional contexts. Overall, the distribution between East and West coast is weighted towards the former.

Canada features as the geographical locus for methodologies and methods derived from Marketing and Consumer Research – Netnography – and Management and Organisation Studies – Appreciative Inquiry as a research method. More purely qualitative and institutionally transgressive methodologies and approaches such as Institutional Ethnography, Research-based Drama and transformative research in general are also located there.

In Europe, noting the exclusion of the UK for the purposes of the project, there seems to be a concentration of technique development in survey methodology at the Gesis-Liebniz Institute in Germany for both online surveys and large cross-national surveys. Web 2.0 tool development is spotted in Italy – WeSearch. The Netherlands is depicted for the development of Appreciative Inquiry as a research method, software and panel structure development – Advanced Multi-disciplinary Facility for Measurement and Experimentation in the Social Sciences (MESS). Switzerland has Reflecting Interviews; Turkey, the practice of an innovative approach to Agent-based modelling and Sweden, Transformative research.

In Australasia, Australia features for the practice of Journalism as both Research and Reporting and for the development of Integration and Implementation Sciences (I2S) while New Zealand is included here for the practice of transformative research.

It should be noted that the map is inclusive as apart from methodological developments and innovations it also depicts spots active in software, panel structure and discipline development, and transformative research.

Moving from geography to time of development, Figure 2 shows the chronological inception of the methodological developments identified as part of this project.

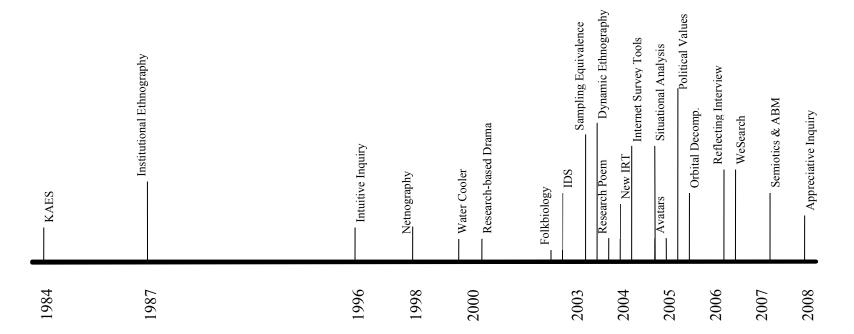


Figure 2. ISSRM Timeline

The four methodologies distributed between 1984 and 1998 are included in this report for being reformulated and adapted since their original development and/or for not having penetrated as such the UK SSRM. This may tell a tale of marginal diffusion (KAES primarily and Intuitive Inquiry secondarily), or a tale of development amidst resistance (scholarly and/or related to parallel developments in research – Institutional Ethnography and Netnography). The rest of the developments identified here are concentrated in the period between 2003-2006, with most appearing in 2004 (N=5), followed by 2003 (N=3) and 2005 (N=3), then 2000 (N=2) and 2006 (N=2) and finally 2007 (N=1) and 2008 (N=1). Taking this into account, diffusion for some – Avatars, IDS, WeSearch, Appreciative Inquiry as a Research Method etc. – remains to be seen. For methodologies such as Water Cooler Logic, Folkbiology and Ethnography as a Non-linear Dynamic System, the process of diffusion appears to be more long term and ongoing, while the impact of techniques and tools is only detectable in more micro applications. This report itself contributes to raising awareness for methodological innovations and developments outside the UK and may, thus, ultimately have an impact on their penetration.

Finally and with a view to awareness, penetration, diffusion and impact, a network view of the key networks identified in the search for methodological innovations and developments is shown in Figure 3.

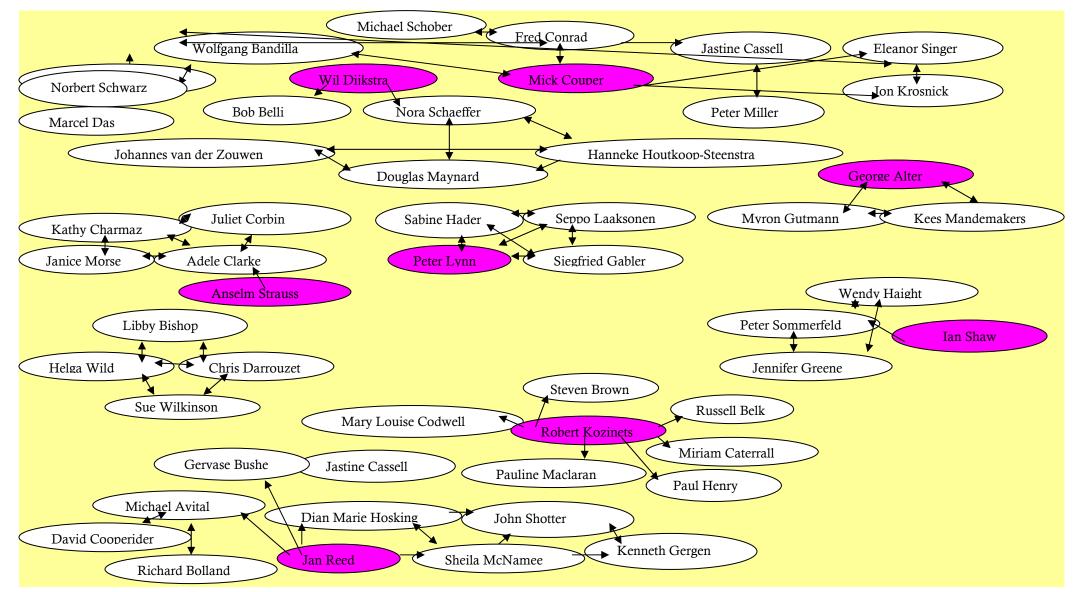


Figure 3. ISSRM Key Networks

Note: The names highlighted indicate a shared link, key figure or point of departure in the network; Arrows indicate the direction of the relationship. Overall, the Institute for Social Research, University of Michigan figures prominently in concentration of experts and methodological developments; the National Science Foundation (NSF) appears in one quarter of the methodological innovations in the US.

Reflecting on the developments in Social Science Research Methods identified as part of this project, there are a few points to be made. First, it is acknowledged that results occur within the context in which they are framed. Thus, the methodological innovations and developments presented here reflect the way in which methodological innovations were defined in the first place. Second, the methodology employed also impacts on the types of results identified. Other methodologies (such as the use of link analysis, citation analysis or bibliometrics) may not fully replicate the results presented in this report. This project sought deep understanding of methodological developments and processes involved in them, which is not achieved through the use of link analysis or bibliometrics. Nevertheless, link analysis or bibliometrics would provide interesting additional insights for further research. Fourth, access restrictions due to language barriers and academic / research cultures particularities are acknowledged. In particular, it is acknowledged that the methodological innovations and developments presented here are located in the so-called 'developed' world. Fifth, while the decision to present the particular methodological innovations in this report was based on a meticulous and critical background reading of material on them, it was not the purpose of this project to reflect on the methods themselves in terms of their ontological and epistemological assumptions and methodological implications. Finally, the methodological innovations are presented here for *not* having penetrated the UK. The penetration and diffusion of the ones still in the development process remains to be seen, while the penetration and diffusion of existing ones appears to be more marginal.

# 6. CONCLUSION

To sum up, we can make four main generalisations about innovative research methodologies. Firstly, innovative methodologies usually entail the use of one or more technological innovations (visual, digital or online). This could be new software (e.g. animated agents, unitising datasets, statistical analysis or CAQDAS) or new online methods to conduct research (e.g. Netnography, analysing RSS feed and paradata collected online). Secondly, innovative methodologies entail crossing boundaries, either those between disciplines or between existing methods or both. This is observed in the combination of disciplines and methods such as in ethnography and anthropology (where complexity theory seems to drive a significant amount of development in research practice), psychology, social medicine and politics among others. Thirdly, innovative methodologies entail the use of existing theoretical approaches and methods in reformed or mixed and applied ways. This is observed in participatory methods, action research, professional work, social and consultancy work (e.g. appreciative inquiry, intuitive inquiry and the water cooler logic). Finally, innovative methodologies reside both inside traditional academic institutions (universities) and outside (research centres, institutes, consultancy agencies and organisations), but even in the latter case methods developers and experts have academic backgrounds and close academic ties.

Overall, psychology figured prominently in methodological innovations and developments followed by survey methodology, ethnography, sociology and management. These developments were classified into mixed, qualitative and quantitative types of research, treating these classifications as part of a continuum rather than as discreet categories. The institutional structures identified as 'hosting' these developments are primarily Academic followed by both Academic and Professional, then Research Centres and finally Professional and Consultancy institutions. The majority of the innovations are a consequence of working across disciplinary boundaries, followed by developments within methods and disciplines and then by developments in technology. Innovations were mainly spotted in North America – the USA and Canada – Italy, Germany and the Netherlands.

The observations derived from this project about ISSRM will be further reflected on and disseminated as part of conferences in the UK and Europe. A workshop to bring together the methods developers and experts identified in this report is being arranged, which will emphasise talking about the experience and processes involved in developing methods as well as the mechanisms, networks and structures involved in their diffusion. The workshop is planned to be adjacent to the NCRM Research Methods Festival to be held in July 2010.

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