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### Workshop outline

- Introduction – our research (methods) philosophy
- 3 methods for IM/LIS research – Northumbria case examples
  - Delphi studies
  - Co-operative inquiry
  - Community consultation
- Choosing a method
  - Advantages & drawbacks of different methods
  - Group activity
- Conclusions

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### IM research @ Northumbria

Introduction	<input type="checkbox"/> research paradigms & methodologies
Methods:	<input type="checkbox"/> mixed methods
Delphi study	<input type="checkbox"/> novelty & innovation
Co-operative inquiry	<input type="checkbox"/> interdisciplinary methods
Community consultation	<input type="checkbox"/> engagement
Advantages & drawbacks	<input type="checkbox"/> virtual & physical/face-to-face
Conclusions	<input type="checkbox"/> sharing experience

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## Research methods

Introduction  
Methods:  
Delphi study  
Co-operative inquiry  
Community consultation  
Advantages & drawbacks  
Conclusions

### The Delphi study

- developed in the 1950s at the RAND Corporation
- 'classic' Delphi
  - gathers a consensus of 'expert' opinion
- purpose
  - prediction
- use
  - business, education, health and records management

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## In a classic Delphi study...

Introduction  
Methods:  
Delphi study  
Co-operative inquiry  
Community consultation  
Advantages & drawbacks  
Conclusions

- establish a panel of experts
  - send a first round questionnaire to the panel
  - analyse results
  - distribute results & summary of comments and arguments to all panel members
  - repeat until consensus is reached (at least two rounds)
- Linstone and Turoff (2002) [www.is.njit.edu/pubs/delphibook/](http://www.is.njit.edu/pubs/delphibook/)

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## 'Modified' Delphi studies

Introduction  
Methods:  
Delphi study  
Co-operative inquiry  
Community consultation  
Advantages & drawbacks  
Conclusions

- 'rule(s)' deliberately omitted from study design but based on Delphi principles
- examples
  - e-format (traditionally paper)
  - definition of 'expert'
  - identities disclosed among the panel
  - panel may meet
  - divergence not just consensus

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## Practical case examples

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Assessing the impact of ISO 15489: the first international standard for records management
- A critical assessment of records management capacity and compliance toolkits
- AC<sup>+</sup>erm - Accelerating Positive Change in electronic records management

[www.northumbria.ac.uk/sd/academic/ceis/re/isrc/themes/rmarea/](http://www.northumbria.ac.uk/sd/academic/ceis/re/isrc/themes/rmarea/)

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## Research methods

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

The co-operative inquiry:

- Derivation of action research developed by John Heron in the 1970s
- inquiry
  - co-researchers design, manage, take action and draw conclusions from the inquiry
- purpose
  - to link research and action
  - to empower people so that it is 'research with people' rather than 'research on people'
- use
  - professional studies, education, health and information management

Heron (1977)  
<http://www.human-inquiry.com/cionepeq.htm>

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## In a classic co-operative inquiry

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- a group of co-researchers with a common concern/interest come together
- the group co-operate to mutually develop the research through action research cycles
  - Diagnosing
  - Action planning
  - Action taking
  - Evaluating action
  - Specifying learning

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### In a classic co-operative inquiry

Introduction

Methods:

- Delphi study
- Co-operative inquiry**
- Community consultation
- Advantages & drawbacks
- Conclusions

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graph TD; AIM((AIM)); 1[1. Diagnosing] --> 2[2. Action planning]; 2 --> 3[3. Action taking]; 3 --> 4[4. Evaluation]; 4 --> 5[5. Specifying learning]; 5 --> 1;
```

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### In a classic co-operative inquiry

Introduction

Methods:

- Delphi study
- Co-operative inquiry**
- Community consultation
- Advantages & drawbacks
- Conclusions

McKay and Marshall, 2001 , p. 5  
[http://www.utas.edu.au/infosys/publications/research/Qual\\_Research/mckay%20&%20marshall\\_%20Action%20Research%20process%20model.pdf](http://www.utas.edu.au/infosys/publications/research/Qual_Research/mckay%20&%20marshall_%20Action%20Research%20process%20model.pdf)

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### In a classic co-operative inquiry

Introduction

Methods:

- Delphi study
- Co-operative inquiry**
- Community consultation
- Advantages & drawbacks
- Conclusions

- a standard project moves through approximately 6 action research cycles
- the timescales for each cycle tend to be short
- the chain of cycles cannot be predefined

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## Practical case examples

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Continued Communication: maximising CMC for organisational benefit taking into account the impact of the individual
  - 80 international cross disciplinary co-researchers
  - Collaborative global partnership delivered through using and simultaneously testing CMC

Brown M, Demb S and Lomas E (2009)

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## Practical case examples

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Centre for Action Research in Professional Practice  
<http://www.bath.ac.uk/carpp/index.htm>
- Changing interprofessional practice in child welfare provision
- Tool for professional development
- Carbon emissions  
<http://www.lowcarbonworks.org.uk/>

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## Research methods

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Public consultation
  - long history of use
  - a deliberative method
    - gathers views from the public on a topic/issue
  - purpose
    - enable wide range stakeholders with an interest in the topic to express their views often in the context of (policy) decision making
  - use
    - eg government; public bodies; health, biomedicine, environment
    - e.g. Data Sharing Review Richard Thomas, ICO & Dr Mark Walport, Wellcome Trust  
<http://www.justice.gov.uk/reviews/datasharing-intro.htm>

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## Community consultation

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- A derivation/variation of a public consultation
  - focused on a community e.g. a profession, a sector
  - purpose
    - enable a range of community stakeholders with an interest in a topic/issue/findings to express their views
  - use
    - health/medical field, public sector (eg schools, local government)

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## Practical case examples

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Uptake and usage of SharePoint by UK HEIs
  - [www.northumbria.ac.uk/sharepoint\\_study](http://www.northumbria.ac.uk/sharepoint_study)  
[www.eduserv.org.uk/research/studies/sharepoint2009](http://www.eduserv.org.uk/research/studies/sharepoint2009)
- Users' trust in information resources in the Web environment
  - [http://ie-repository.jisc.ac.uk/470/2/JISC\\_User\\_Trust\\_final\\_report.pdf](http://ie-repository.jisc.ac.uk/470/2/JISC_User_Trust_final_report.pdf)

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## Practical case examples

Introduction

Methods:

Delphi study

Co-operative inquiry

Community consultation

Advantages & drawbacks

Conclusions

- Morris MC, Nadkarni VM, Ward FR & Nelson RM. (2004). Exception from informed consent for pediatric resuscitation research: Community consultation for a trial of brain cooling after in-hospital cardiac arrest. *Pediatrics*, V114(3), pp. 776 -781
- Dickert N & Sugarman J. (2005). Ethical Goals of Community Consultation in Research. *American Journal of Public Health*, V95(7), pp. 13-18

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## Form varies

- Introduction
- Methods:
  - Delphi study
  - Co-operative inquiry
  - Community consultation
  - Advantages & drawbacks
  - Conclusions
- Data Sharing Review
  - structured questions to answer; letters (individual & group)
- SharePoint in HE study
  - online questionnaire (emailed back) anonymised
- Users' trust in Web resources
  - online modified Delphi; round table
- Paediatric resuscitation
  - Focus groups, written responses, e-mails, telephone conversations

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## Choosing a method

- Introduction
- Methods:
  - Delphi study
  - Co-operative inquiry
  - Community consultation
  - Advantages & drawbacks
  - Conclusions
- What are the advantages & drawbacks of different research methods
  - Delphi study
  - co-operative inquiry
  - community consultation
- for a specific research scenario?

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## Research scenario

### Cloud Computing: The New Horizon?

- Research Questions
  1. What are the benefits of utilising the Cloud?
  2. What are the risks associated with using the Cloud in the short, medium and longer terms?
  3. What are the differences between individual suppliers' performance and service?
  4. Are there ethical questions about the management and ownership of 'Cloud' environments?

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## Group Activity

1. As a group chose **ONE** of the research questions related to cloud computing services. **Choose** a context for the research (eg individuals, SMEs, international organisations)
2. How you would develop your research method to answer this chosen research question in that context?
3. What are the advantages and drawbacks of your method in relationship to the research question?  
*Please record these on your flipchart*
4. Nominate a member of the Group to briefly present your discussion

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## Cloud research examples

- ARA. Cloud computing toolkit: guidance on outsourcing**  
[www.archives.org.uk/images/documents/Cloud\\_Computing\\_Toolkit-2.pdf](http://www.archives.org.uk/images/documents/Cloud_Computing_Toolkit-2.pdf)
- ENISA. SME perspectives on cloud computing**  
[www.enisa.europa.eu/act/rm/files/deliverables/cloud-computing-sme-survey/?searchterm=cloud%20computing](http://www.enisa.europa.eu/act/rm/files/deliverables/cloud-computing-sme-survey/?searchterm=cloud%20computing)
- JISC. Using cloud computing for research**  
[www.jisc.ac.uk/whatwedo/programmes/researchinfrastructure/usingcloudcomp.aspx](http://www.jisc.ac.uk/whatwedo/programmes/researchinfrastructure/usingcloudcomp.aspx)

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## Advantages & drawbacks - our experience

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|-----------------------------------|---|
| Introduction                      | <input type="checkbox"/> <b>Assessing the impact of ISO 15489</b><br><a href="http://www.northumbria.ac.uk/sd/academic/ceis/re/isrc/themes/rmarea/">www.northumbria.ac.uk/sd/academic/ceis/re/isrc/themes/rmarea/</a>   |
| Methods:                          | <input type="checkbox"/> <b>AC<sup>+</sup>erm - Accelerating Positive Change in electronic records management</b><br><a href="http://www.northumbria.ac.uk/acerm">www.northumbria.ac.uk/acerm</a>   |
| Delphi study                      | <input type="checkbox"/> <b>Continued Communication: maximising CMC for organisational benefit taking into account the impact of the individual</b><br><a href="http://www.northumbria.ac.uk/sd/academic/ceis/re/isrc/phd/e_lomas/">www.northumbria.ac.uk/sd/academic/ceis/re/isrc/phd/e_lomas/</a> |
| Co-operative inquiry              | <input type="checkbox"/> <b>Uptake of SharePoint in HEIs</b><br><a href="http://www.northumbria.ac.uk/sharepoint_study">www.northumbria.ac.uk/sharepoint_study</a>  |
| Community consultation            |   |
| <b>Advantages &amp; drawbacks</b> |   |
| Conclusions                       |   |

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## Final thoughts...

- Introduction
- Methods:
- Delphi study
- Co-operative inquiry
- Community consultation
- Advantages & drawbacks
- Conclusions

- IM/LIS research opportunities are wide ranging
- IM/LIS discipline has no unique research methods other than bibliometrics
  - adopt & adapt methods from other disciplines
  - develop our own?
- share, develop and consolidate

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## Research in action...

- Introduction
- Methods:
- Delphi study
- Co-operative inquiry
- Community consultation
- Advantages & drawbacks
- Conclusions

- Your chance to vote!
  - which of the research method(s) explored here do you think you are most likely to use in your own research in the future?

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Information Management Innovation Research Group

Information and communication technologies are ubiquitous and dynamic in nature. Information is created, stored, retrieved and shared for personal and social purposes and for increasing organisational efficiency, effectiveness and business competitiveness. Our aim is to explore the development of theory, policy, good practice and innovation grounded in the needs of a range of stakeholders. These are information users, practitioners/professionals, academia and organisational communities.

Our philosophy is to investigate, analyse and evaluate our approach to research topics. Our strengths are comparative and cross-disciplinary research using mixed methods including ethnography, critical analysis, design research, user studies, usability evaluations, surveys, scenario workshops/workshops, teaching, design systems and historical research.

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