Scoping PhD candidates’ interaction with information

Who owns the research findings and its dissemination?

What is this H-index all about?

How do I do a good literature review?

What ethical issues do I need to address in my research?

Where should I get published?

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Information Management for Knowledge Creation

2010-2012

Project phases

I. Literature review & focus group interviews
II. Design of instructional modules
III. Implementation and evaluation

http://inma.b.uib.no/
About the project

A collaboration between five Nordic libraries:

– Bergen University Library
– Norwegian School of Economics and Business Administration
– Bergen University College Library
– Oslo University Library
– Aalborg University Library

Funded by the National Library in Norway
Aim

Gain knowledge about PhD candidates’ interaction with information

- Information behaviour, use and management
- Library services and user education
- Knowledge of various aspects in writing and publishing
Aim

Based on the findings, educational content will be developed

- Online instructional modules in English
- The modules aim to make a contribution to the overall PhD programme training in transferable skills.
Outline

Information Management for Knowledge Creation

Scoping literature review
Specific findings
Conclusions

Focus group interviews
Main findings
Specific findings

Conclusions
Scoping literature review

• We chose to do a scoping review as this is a broad field of enquiry with a vast body of literature

• A scoping review can be used to determine core issues and research gaps
General findings

- PhD candidates are often grouped with others, i.e. researchers or MA students

- Studies are mostly conducted within sciences and social sciences. Fewer within the humanities

- Type of research methods applied
  - User surveys
  - Case studies
  - Statistical analysis
  - Interviews
  - Literature reviews
Specific findings

- PhD candidates’ information skills
  - Skills are deficient. However, candidates seem to feel confident, but indicate a lack of advanced skills in information management.
  - They are independent information users and rarely ask for help. They are not aware of the services offered by the library. Help should be available when and where it is needed.
  - Information searching changes during the research process and depends on the research field
    - Simple Google-searching is used as a starting point of inquiry
    - Reference chasing is used to obtain an overview
    - Multi-disciplinary research questions require more advanced database searching

- PhD candidates’ citation practice indicates
  - A general tendency to use of freely available online sources and a declining use of printed material, partly lacking authoritative sources
  - PhD candidates reveal a lack of accuracy when citing
Conclusion

• Our findings indicate that
  – PhD candidates still need to improve their scholarly skills and increase their awareness of ethical issues
  – Database tools may support critical evaluation of scientific information and make research networks visible

• The PhD candidates’ literature review is a potential area for library intervention

• The scoping review
  – Has given us an overview
  – Did not provide sufficient information to draw conclusions about plagiarism or copyright issues
  – The body of 55 studies in a broad field of enquiry represents limited data. For future studies, a revision of search strings for selected subfields is advisable.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Systematic Searches</th>
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<tbody>
<tr>
<td>PhD student</td>
<td>(phd* OR doctora* OR postdoc* OR &quot;post-doc&quot;)</td>
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<tr>
<td>Information behaviour</td>
<td>(&quot;information need&quot; OR &quot;information behavio<em>r&quot; OR &quot;user behavio</em>r&quot; OR &quot;information seeking&quot; OR &quot;information search*&quot; OR &quot;database search*&quot; OR &quot;search* strateg*&quot; OR &quot;user stud*&quot; OR &quot;information retrieval&quot; OR &quot;reference chasing&quot;)</td>
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<tr>
<td>Library instruction</td>
<td>(&quot;information literacy&quot; OR &quot;user education&quot; OR &quot;user training&quot; OR &quot;bibliographic instruc*&quot;)</td>
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<td>Library services</td>
<td>(&quot;information service*&quot; OR (reference AND (service* OR interview* OR encount*)) OR &quot;library service*&quot; OR &quot;academic librar*&quot;)</td>
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<tr>
<td>Publishing / citing</td>
<td>(Scientometr* OR Bibliometr* OR &quot;Citation analysis&quot; OR &quot;H-index&quot; OR &quot;performance indicator*&quot; OR &quot;research impact&quot; OR &quot;research evaluation&quot; OR &quot;research assessment&quot;)</td>
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<td>Plagiarism</td>
<td>(plagia* or &quot;scientific dishonesty&quot; or &quot;scientific honesty&quot; or &quot;academic integrity&quot; or &quot;academic honesty&quot; or &quot;academic dishonesty&quot; or self-plagia*)</td>
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Outline

Information Management for Knowledge Creation

- Scoping literature review
  - Specific findings
  - Conclusions

Focus group interviews
  - Main findings
  - Specific findings

Conclusions
Focus group interviews

- PhD students:
  - 3 groups (Oslo, Bergen, Aalborg)
    - 21 PhD students
    - Different disciplines

- Supervisors:
  - 2 groups (Oslo, Aalborg)
    - 15 supervisors
    - Different disciplines
Main emerging themes

• Independence
• Time and efficiency
• Literature: access and overview
• Challenges posed by citing practices
• Publishing
• Evaluating litterature/sources/channels for publishing
• Libraries research support
Main emerging themes

- Independence
- Time and efficiency
- Literature: access and overview
- Challenges posed by citing practices
- Publishing
- Evaluating literature/sources/channels for publishing
- Libraries research support
Time and efficiency

I say, it is not easy. When I was doing my PhD, there was no time limit really. I spent five and a half years. In the third year I felt I had plenty of time left (laughter). These candidates only get to spend three years. After two they panic if they have not succeeded in publishing any articles. Then it is hard to sit calmly down reading. (Supervisor, Oslo P4).

Most articles you get in seconds, as long as you know about them, while books you need to get by going to the library to get them ordered, so I believe this influence the kind of information you collect. (Candidate, Bergen P7)

- Time is a scarce resource
- Finding efficient methods
  - Literature searching
- Time pressure influences choice of literature, sometimes leading to practice changes
- Experienced hindrances:
  - Lacking confidence in own skills
  - Competencies are not aligned
  - Services and systems, like lending regulations or subject headings, may not be convenient/logical

If I actually want to find something, I think of the efficiency (Candidate, Bergen P0)
Literature: access and overview

I consider it extremely important to be as in touch with the literature as possible of course. (Kandidat, Oslo P3).

Well generally English languages books and articles are not that difficult to get hold of. They have a good selection here for my subject. [...] But what happens, what is written in [language] is much more difficult to get hold on. (Kandidat, Oslo PO)

- Big differences in accessibility across literature and types of sources
  - Age, price, place of origin, copyright issues, infrastructure of libraries and databases

- Have a wide range of strategies for getting hold of identified materials

- Important research task to have an overview of relevant literature

- Unsure of methods for gaining a comprehensive overview
  - Better understanding of research processes normalises feeling of insecurity
Libraries research support

I think that I would like to see some practical example of search strategies carried out. If you can follow search strategies, so you can apply your own strategy according to the strategy that you can see as an example, that would be really helpful. (Candidate, Aalborg P1)

Support main themes

• International students
• Time pressure
• Timing
• Complex processes
  • Blended learning seen as fruitful approach
  • Become aware of methods and tools
• Interaction
  • Learning styles
  • Face-to-face
  • Online
• Interdisciplinarity
• Visibility and marketing
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  Specific findings

Conclusions
Conclusions

• The candidates’ ability to deal with information could be improved

• Extended knowledge will lead to a rise in quality (literature review chapter)

• The demand for quick results (getting hold of information/materials fast) can imply changes in research practice
Conclusions

• Unclear expectations as regards research performance and skills

• Information skills and information literacy deficient or competent?
Conclusions

• To improve their academic skills, candidates need some kind of training

• It is relevant to develop educational materials for this target group
Thank you for your attention

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