work group 1

Egon L. van den Broek
Part I – Planning
The course’s two parts

• Project   60%
• Exam      40%
Gantt chart

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* With all deliverables, for all project members, a specified hour state needs to be delivered.
Part II – Preparation
Making groups

- Size: 4 (or 5) persons

- determine competences (which one do you need? are they all there?)
- define roles

- **Topic**: Make a MR system, with a *novel* element of choice!
  - define *your* multimedia
  - define *your* novelty
  - Do you close *the semantic gap*?
What do we want? On valorization

One, two or all of the following:
• Serious stuff ... base for a fundamental academic article
• Demonstrators: Applied academic article + demonstrator @ conference
• “just” Cool!
  • Talk in the pub or at the party
  • Twitter
  • Facebook
  • Newsgroups
  • ...

and

• Get to newspapers, magazines, radio, and/or TV
Is it really *novel* ???

1. How can we know?
2. Can we be (ever) sure?
3. Become as sure as you can!
Is it really *novel*? Do a quick and dirty check!

1. Ask experts (e.g., your lecturer :P )
2. Check handbooks
3. Check review / survey articles
4. Google
5. Google Scholar (include patents)
Is it really *novel*? And what now?

1. Found *nothing*: that’s suspicious, are you sure; if so, next slide 😊
2. Found *something*: Check it and refine query! :S
3. Found *a lot*! Rethink and redefine query. 😞
Part III –
A structured literature review
3 phases

1. Plan
2. Execution
3. Report
Plan

1. Identification of the need for a review
2. Commissioning a review
3. Specifying the research question(s)
4. Developing a review protocol
5. Evaluating the review protocol
Execution

1. Identification of research
2. Selection of primary studies
3. Study quality assessment
4. Data extraction and monitoring
5. Data synthesis
Report

1. Specifying dissemination strategy
2. Formatting the main report
3. Evaluating the report
Search engines: Some suggestions

• Google Scholar
• ACM Digital Library
• DBLP Computer Science bibliography
• Scopus
• Web of Science
• For an overview, see: http://bibe.library.uu.nl/zoeck/biblio/
• Can the review be replicated?
• Google juggles with retrieval results!
Search engines: Replication

• Can the review be replicated?

• Google juggles with retrieval results! 😞

• Possible fixes:
  • don’t use Google
  • don’t allow tracking (e.g., cookies)!
  • DuckDuckGo (but, not a Scholar variant available)
  • Use Tor Browser
Queries

• Use Boolean queries (but, check how they are parsed!)
• Use advanced search (and see how it parses)

• Use synonyms (check thesaurus; e.g., Merriam Webster)
• Use abbreviations
• Check spelling; e.g., words concatenated and UK vs. USA English

• Limit your search; e.g., search since year xxxx and sort on date.
• Also: you can sign up for email alerts.
• ...
Queries, a compressed, simple example (1)

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Queries, a compressed, simple example (2)

- Use tooling to parse your query/queries

- MS Excel (see below)
  - \texttt{tcsh}
  - \texttt{Perl}
  - ...
References

• Kofod-Petersen, A. (2014). *How to do a Structured Literature Review in computer science, version 0.2*. Department of Computer and Information Science, Norwegian University of Science and Technology (NTNU), Trondheim, Norway.

Some ideas

• Mimicking human perceptual abilities
• Mimicking human intelligence
• Integrating multiple modalities or media
• Design of closed-loop relevance feedback paradigms
• Text Priming: Finding an optimal reading order