Hauptseminar Medieninformatik
Summer term 2021
Sven Mayer, Francesco Chiossi, Sylvia Rothe, Robin Welsch
Team

Sven Mayer
Francesco Chiossi
Sylvia Rothe
Robin Welsch

Contact:
Prof. Dr. Sven Mayer (sven.mayer@ifi.lmu.de)
Francesco Chiossi (francesco.chiossi@um.ifi.lmu.de)
Dr. Sylvia Rothe (sylvia.rothe@ifi.lmu.de)
Dr. Robin Welsch (robin.welsch@um.ifi.lmu.de)
Information

What you need
- master student in Media Informatics, Computer Science, HCI
- English skills

What you get
- 2 SWS / 6 ECTS
- experience in scientific writing and research

- Website: [http://www.medien.ifi.lmu.de/lehre/ss21/hs/](http://www.medien.ifi.lmu.de/lehre/ss21/hs/)
- Discord: [https://discord.gg/EHUxcAp88p](https://discord.gg/EHUxcAp88p)
Housekeeping

- Have yourself muted if you are not speaking
- Always have your video on if possible. Its nicer for everyone.

- Please respect others’ presentation and intellectual property. No recording. No second usage.
  - Strongly punished: expelled from the course
  - Link to official policy: http://www.medien.ifi.lmu.de/online-lehre/ifi-statement.xhtml.de
Agenda

- Goals
  - Topic Assignment
  - Organization
  - Scientific Publishing
  - Scientific Literature Review
  - How to Write a Research Paper
  - Write a Review
Goals

- Select / be assigned to a research topic today
- Work independently on your topic over the next weeks
- Write a scientific paper (6-8 pages, excluding references)
- Review two fellow students’ papers
- Give a 60s pitch
- Final presentation (7min talk + 3min discussion)
Agenda

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Topics

See topics in extra slide deck
Agenda

▪ Goals
▪ Topic Assignment

▪ Organization
▪ Scientific Publishing
▪ Scientific Literature Review
▪ How to Write a Research Paper
▪ Write a Review
Process

- Research topic > find literature > write paper > review > improve paper > present
### Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.04.21</td>
<td>Kick-Off session – distribution of topics</td>
<td></td>
</tr>
<tr>
<td>30.04.21</td>
<td>1st draft paper submission</td>
<td>get feedback meet your supervisor before!</td>
</tr>
<tr>
<td>02.05.21</td>
<td>60s pitch slides submission</td>
<td></td>
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<tr>
<td>04.05.21</td>
<td>60s pitches session – pitches with collective feedback</td>
<td></td>
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<tr>
<td>30.05.21</td>
<td>Full paper submission</td>
<td></td>
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<tr>
<td>06.06.21</td>
<td>Review submission</td>
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<tr>
<td>10.06.21</td>
<td>Distribution of reviews and meta-reviews</td>
<td></td>
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<tr>
<td>04.07.21</td>
<td>Final paper submission</td>
<td>get feedback meet your supervisor before!</td>
</tr>
<tr>
<td>04.07.21</td>
<td>1st draft slides submission</td>
<td></td>
</tr>
<tr>
<td>11.07.21</td>
<td>Final slides submission</td>
<td>practice talk with your supervisor!</td>
</tr>
<tr>
<td>13.07.21</td>
<td>Final presentation (6h long) session – final presentations, 13:00 - 19:00</td>
<td></td>
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</tbody>
</table>
Presentations - Time and Location

- Short pitch presentations:
  - Tuesday, 04.05.21 (16:00 - 18:00), Zoom

- Final presentation sessions:
  - Tuesday, 13.07.21 (13:00 - 19:00), Zoom
Paper – Outline & Abstract

- Interesting title (not just the research topic)
- Abstract ~150 words
- Section headings + bullet points
- Putting effort into a good outline saves time and effort later
- Submission: Outline & Abstract in template as one PDF using the template
- LaTeX template [1] (A modified version of the ACM SIGCHI Conference template)
  - Remove placeholder text and images!

Pitch Presentation

- Introduce your topic in 60 seconds (in English)
  - Check out pitch guidelines [1]
  - Also check out “3 Minute Thesis”
- Max 3 slides
  - PDF format – no animations

[1] https://mindfulsalestraining.net/pitch-your-idea-in-90-seconds-or-less/
Final Paper Submission

- 6-8 pages in English
  - excluding references
- Use figures, diagrams, and images to illustrate
  - Refer to them in text!

- Submission: PDF
Presentation

▪ 7 min presentation (in English)
▪ 3 min discussion (in English)

▪ No slide template – be creative!
  ▪ Many tips on the web, e.g. [1]
  ▪ **Max. 10 words per slide** – Use figures and diagrams!
▪ Anticipate questions

[2] https://opac.ub.uni-muenchen.de/TouchPoint/perma.do?q=+0%3D%224821872%22+IN+%5B2%5D&v=sunrise&l=de
Evaluation

- Checklist
  - Structure
  - Extent
  - Citation
  - Abstract
  - Language
  - Design
  - Goal description/contribution
  - Related work
  - Innovation
  - Coherence

All 4 submissions (short presentation slides, outline, final presentation slides, and paper) have to be submitted completely and in time

Incomplete or delayed submission may not be considered

Paper: 67%
Presentation: 33%
Agenda

- Goals
- Topic Assignment

Organization

- Scientific Publishing
- Scientific Literature Review
- How to Write a Research Paper
- Write a Review
Aim of scientific research

“Research is a **process of steps** used to collect and analyze **information** to **increase** our **understanding** of a topic or issue” (Creswell 2008)

Systematic process of steps
- Pose a **question** (research question & research gap)
- **Collect data** to answer the question
- **Present** a proofed answer to the question
Distributing knowledge

- Books
- Articles in journals
- Articles in conferences
- Thesis (Bachelor, Master, PhD)
- Internet sources (e.g. blogs, Wikipedia)
- Talks and lectures
- Personal communication
- Patents
Distributing knowledge

- Books
- Articles in journals
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- Internet sources (e.g. blogs, Wikipedia)
- Talks and lectures
- Personal communication
- Patents
Conference Publication Formats in HCI

- **Book Chapter** (Profound Topic Description)
- **Journal Articles** (Profound Research Project)
- **Full Paper** (Complete Research Work)
- **Extended Abstract** (Late Breaking Works / Demos)
Peer review
Peer review
Peer review

Double Blind Peer Review
Scientific Conferences in HCI

- Human Factors in Computing Systems (CHI)
- ACM Conference on Computer-Supported Collaborative Work & Social Computing (CSCW)
- ACM Conference on Pervasive and Ubiquitous Computing (UbiComp)
- ACM Symposium on User Interfaces Software and Technology (UIST)
- ACM/IEEE International Conference on Human Robot Interaction (HRI)
- Conference on Designing Interactive Systems (DIS)
- International Conference on Multimodal Interfaces (ICMI)
- MobileHCI
- International Conference on Intelligent User Interfaces (IUI)
- ....
Scientific Conferences in HCI

Specific topics

- IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)
- International Conference on Tangible, Embedded and Embodied Interaction (TEI)
- International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutoUI)
- ACM International Symposium on Pervasive Displays (PerDis)
- Symposium on Usable Privacy and Security (SOUPS)
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Scientific Publishing

- Scientific Literature Review
- How to Write a Research Paper
- Write a Review
Research in General

- Starting point for your work: your topic
  - First orientation
  - Look for synonyms, leading researchers, frequently cited literature
  - Some source can NOT be used (e.g., online articles without author, contributions in online communities, Wikipedia)
  - References: Papers, conference proceedings, journals, books, and online sources with author and date of access
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Finding Literature

- Almost all literature is available online!
  - Google/Google Scholar (http://scholar.google.com)
  - ACM Digital Library (https://dl.acm.org/)
  - Citeseer (http://citeseer.ist.psu.edu)
  - IEEE Xplore (http://ieeexplore.ieee.org)
  - Springer (https://link.springer.com)
  - Elsevier (https://www.elsevier.com/catalog)
  - ScienceDirect (www.sciencedirect.com)
  - Semantic Scholar (https://www.semanticscholar.org/)
  - Microsoft Academic (https://academic.microsoft.com)
  - OPAC der Universitätsbibliothek (http://opacplus.ub.uni-muenchen.de)

- For the full functionality log in at
  - „LMU E-Medien-Login/Datenbanken“
  - and find the needed library (e.g., ACM DL)
Finding Literature (Google Scholar)
Finding Literature (ACM Digital Library)

This two-day workshop will bring together an interdisciplinary group of designers and practitioners who are interested in the topic of wellbeing interaction design. Wellbeing is defined as positive mental health, and of mental illness, but also the presence of positive psychological function will provide a platform to share resources, create new ideas for designing future collaborations. During the first day participants will present their exchange their knowledge and experiences in the field. The workshop interactive activities to support participants in collaboratively constructing understanding of the concept of wellbeing and its challenges in terms

References

Index Terms

Comments

Feedback

Cited By

https://doi.org/10.1145/322276.3322304

Blythe M and Monk A. 2018. Funology 2: Critique, Ideation and Directions Funology 2. 10.1007/978-3-319-68213-6_1, (3–13).
http://link.springer.com/10.1007/978-3-319-68213-6_1

https://doi.org/10.1145/3148330.3148351

HCI Flagship Publications

- Conference (SIGCHI [1]):
  - CHI
  - CSCW
  - UIST
  - IUI
  - MobileHCI
  - DIS
  - ISS
  - ....

- Journal:
  - TOCHI
  - IJHCS
  - CSCW
  - IWC
  - IMWUT (formerly UbiComp)
  - ....

[1] https://sigchi.org/conferences/upcoming-conferences/
Systematic Review

1. Review question: clearly stated objectives (may include secondary ones)

2. Literature search:
   - Comprehensive literature search conducted
   - Searched information sources listed (i.e., ACM Library)
   - Keywords used for electronic literature search provided („tech and wellbeing“)
   - Manual search conducted through references of articles, abstracts
3. Data Abstraction*:

- Structured data abstraction form used
- Disagreements listed between authors and how they were resolved
- Characteristics of studies listed (i.e., manuscript type, keyword interpretation)
- Inclusion and exclusion criteria provided for studies
- Number of excluded studies and reasons for exclusion included
- Variables of interest (primary and secondary variables)
Systematic Review

- You do NOT necessarily follow all steps.
- Five GOOD papers are essential in your review.

More Reading Material:
- ACM Computing Surveys [1]

[1] https://dl.acm.org/journal/csur
Why should I care about citations?

- Copyright / intellectual property
- Foundation of scientific work
- Citations links belonging work together
- Reader needs all the information you had to check if you are correct
Citations

- Quotation
  - Direct (in quotation marks) -> “text text“ [1]
  - Indirect -> Mustermann et al. [1]
  - No secondary citation

- Wikipedia: not citable (but good for quick research)

- Citation style:
  http://www.medien.ifi.lmu.de/studierende/abschlussarbeiten/master/richtlinien.xhtml#zitate-und-quellenangaben
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How to write a paper - Story

Classic paper
- What problem did you solve?
- Why and how?
- vs.

Survey (in this seminar)
- Introduce research topic
- State of the art

Logical structure

Abstract
Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Introduction
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Main part
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Conclusion
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## How to write a paper - Example structure

<table>
<thead>
<tr>
<th>Abstract</th>
<th>Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.</td>
</tr>
<tr>
<td>Main part</td>
<td>Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.</td>
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</tbody>
</table>

### Short, appealing summary of this paper.  

- Context and **aims** in the research field.  
- Structure and approach of this paper.  
- Historical development.  
- **Definitions, terminology, background.**  
- Different **approaches** (strengths, weaknesses, …).  
- (Own) **categorization.**  
- **Discussion:** problems, unsolved challenges.  
- **Conclusion, outro.**  
- Future **outlook**  

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**Hauptseminar Medieninformatik - SS21**
How to write a paper - Style

Consider

▪ Tell a story
▪ Logical structure – fish / hourglass
▪ Clear and neutral language
▪ Correct grammar, no typos
▪ Short and simple sentences
▪ Introduce abbreviations (e.g. ‘Virtual Reality (VR)’)
▪ Use active voice (e.g. ‘we conducted a literature survey’ / ‘authors et al. found out…’)

▪ Follow the CCC scheme: Context – Content – Conclusion
▪ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5619685/
How to write a paper - Style

Avoid

- Fuzzy descriptions (e.g. ‘high’, ‘low’, ‘almost’)
- Empty phrases (e.g. ‘Based on these and various other findings…’)
- Fill words (e.g. ‘indeed’, ‘remarkably’)
- Autologies (e.g. ‘LCD Display’ = ‘Liquid Crystal Display Display’)
- Pseudo-arguments (e.g. ‘of course’, ‘as expected’, ‘without doubt’)
- Unverifiable / overclaims (e.g. ‘This is the best seminar ever!’)
- Passive voice (e.g. ‘This work was conducted by Authors et al.’)
- Long complex sentences (e.g. ‘First they did this, then they this, this led to this, and l…’)
- Tempus changes (e.g. ‘they find out […], they did this.’)
How to write a paper - Style

**Avoid**

- Fuzzy descriptions (e.g. ‘high’, ‘low’, ‘almost’)
- Empty phrases (e.g. ‘Based on these and various other findings…’)
- Fill words (e.g. ‘indeed’, ‘remarkably’)
- Autologies (e.g. ‘LCD Display’ = ‘Liquid Crystal Display’)
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- Tempus changes (e.g. ‘they find out […], they did this.’)

**But don’t be boring!**

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Table 1. Top-10 list of recommendations for writing consistently boring publications.

- Avoid focus
- Avoid originality and personality
- Write long contributions
- Remove implications and speculations
- Leave out illustrations
- Omit necessary steps of reasoning
- Use many abbreviations and terms
- Suppress humor and flowery language
- Degrade biology to statistics
- Quote numerous papers for trivial statements

K. San-Jensen, 2007 ‘How to write consistently boring scientific literature’
Literatur

- Writing and Presenting in English
- PDF Download from the UB [1]

[1] https://opac.ub.uni-muenchen.de/TouchPoint/perma.do?q=+0%3D%22ZDB-30-PAD-EBC285807%22+IN+%5B2%5D&v=sunrise&l=de
Plagiarism

- No plagiarism, NO plagiarism, not even a little!
- Plagiarism
  - Material of third parties, without reference
  - Direct quotations, without reference
  - Copied pictures, diagrams, or graphics without reference
- Your work will be checked automatically
- Work with plagiarism will fail the course!
- http://www.medien.ifi.lmu.de/lehre/Plagiate-IfI.pdf
Overleaf  https://www.overleaf.com/
Other Reference Managers

- Citavi
  - http://www.ub.uni-muenchen.de/schreiben/literaturverwaltung/citavi/index.html
- JabRef
  - http://www.jabref.org/
Further Information on LaTeX

- If you want to use LaTeX without Overleaf:
  - Windows: MikTeX (http://www.miktex.org/) + TeXnicCenter (http://www.toolscenter.org/) or Sublime (How to: https://jdhao.github.io/2018/03/10/sublime-text-latextools-setup/)
  - Mac OS: MacTex (http://tug.org/mactex/), with TeXShop IDE (http://www.uoregon.edu/~koch/texshop/index.html) or TexMaker (http://www.xm1math.net/texmaker/) or Sublime

- Download LaTeX-Templates
  - Open .tex- and .bib-file in your IDE, check and understand the source files
  - Setup LaTeX => PDF, compile .tex-file twice
  - Further help can also be found online and in dedicated LaTeX-Tutorials
LaTeX Resources

- LaTeX-Packages and Documentation (http://www.ctan.org)
- A (Not So) Short Introduction to LaTeX2e (http://www.ctan.org/tex-archive/info/lshort/english/)
- LaTeX Symbols List (http://www.ctan.org/tex-archive/info/symbols/comprehensive/)
- Import and format graphics (http://tug.ctan.org/tex-archive/info/epslatex/english/epslatex.pdf)
- German FAQs (http://www.dante.de/faq/de-tex-faq/html/de-tex-faq.html)

- BibTeXs can often be found in the digital libraries themselves (e.g., ACM, IEEE)
- How-To: http://www.bibtex.org/Using/de/
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- Write a Review
Review Instructions

Example bases on CHI’21

Write your review of the paper here. Please address each of the following issues:

▪ **Significance of the paper’s** contribution to HCI and the benefit that others can gain from the contribution: why do the contribution and benefit matter?
▪ **Originality of the work**: what new ideas or approaches are introduced? We want to emphasize that an acceptable paper must make a clear contribution to Human-Computer Interaction;
▪ **Validity of the work** presented: how confidently can researchers and practitioners use the results?
▪ **Presentation clarity**;
▪ **Relevant previous work**: is prior work adequately reviewed?

If you have concerns about the methodological or statistical approaches taken by the authors, or its level of advancement over prior work, please cite a source for your objection (e.g., a definitive paper, a set of professional guidelines or a standard textbook). This is needed to help authors improve their submissions and to enable the Associate Chair to evaluate potentially conflicting reviews.

Please consider making any other recommendations that you think might be of use to the author(s).

Please be sure to address your review to the program committee. Any use of the word "you" should be referring to the committee, and not to the authors.
Recommendations

- Each venue has their own recommendation system
- Typical recommendations are
  - Acceptance
  - Acceptance with Minor Revision
  - Acceptance with Major Revision
  - Rejection

**Recommendation**

- Strong Accept: I would argue strongly for accepting this paper; 5.0
- . . . Between possibly accept and strong accept; 4.5
- Possibly Accept: I would argue for accepting this paper; 4.0
- . . . Between neutral and possibly accept; 3.5
- Neutral: I am unable to argue for accepting or rejecting this paper; 3.0
- . . . Between possibly reject and neutral; 2.5
- Possibly Reject: The submission is weak and probably shouldn't be accepted, but there is some chance it should get in; 2.0
- . . . Between reject and possibly reject; 1.5
- Reject: I would argue for rejecting this paper; 1.0
Writing a Review

Structure

- Summary (~1 paragraph)
  - A simple summary of the paper
  - Highlight all the positive aspects
- Major Issues
  - State what the major issues and how they impact the paper
  - Make clear why and how it can be corrected if possible, if not state why
  - Major issues can be, e.g., design flaws, missing information, ethical issues, missing related work, statistical issues
- Minor Issues
  - List all other issues, e.g., missing figures, broken references, spelling mistakes
- Conclusion (~1 paragraph)
  - Make clear recommendation and state why
  - If you mandatory changes need to be applied for acceptance repeat them here
Writing a Review

Summary

The authors present an investigation of … However, the specifics are not clear, …

The authors of this paper present a …

Major Issues

How were the interviews analyzed?

The related work section has an unclear structure.

I have strong concerns with the presentation of the results due to …

The related work section has an unclear structure.

Minor Issues

don’t => do not

Proofreading is needed.

Conclusion

In summary, presents a clear contribution …

To summarize my review, …

The paper lacks important information in …

As I raised a number of questions, …

The paper presents a strong study.
What is a Meta-Review?

- A review summarizing the reviews of others.
- It highlights the common themes in all of the reviews.
- In special cases the meta-reviewer will add more points.
- A senior researcher typically writes it.
- The meta-review lines out specific steps to improve the manuscript.
Next Steps

- Write your supervisor this week!
- Meet your supervisor and discuss the structure of your paper
- Write and submit your first draft