

Advanced Seminar Media Informatics

Ceenu George | Sylvia Rothe | Kai Holländer | Prof. Dr. Heinrich Hußmann
Winter 2020

Information

Lecturer Prof. Dr. Heinrich Hußmann

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Kai Holländer kai.holländer@ifi.lmu.de

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 <https://www.medien.ifi.lmu.de/lehre/ss19/hs>

Contents

What you will do

- select / be assigned to a research topic today
- work **independently** on your topic over the next weeks
- write a **scientific paper** (6-8 pages)
- review two fellow students' papers
- give a **60s pitch** and a final **presentation** (15min talk + 5min discussion)

Schedule (preliminary)

03.11.20	Kick-Off	session - compulsory attendance
01.12.20	1st draft paper submission	get feedback meet your supervisor before!
08.12.20	60s pitch slides submission	
15.12.20	60s pitches	session - compulsory attendance
07.01.21	Review-ready paper submission	
12.01.21	Review submission	
19.01.21	Final paper submission	get feedback meet your supervisor before!
26.01.21	1st draft slides submission	
02.02.21	Final slides submission	practice talk with your supervisor!
09.02.21	Presentation	session - compulsory attendance, about ~5 hours!

Scientific publishing

Why we write papers and how we spread them

Advanced Seminar Media Informatics



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** an 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

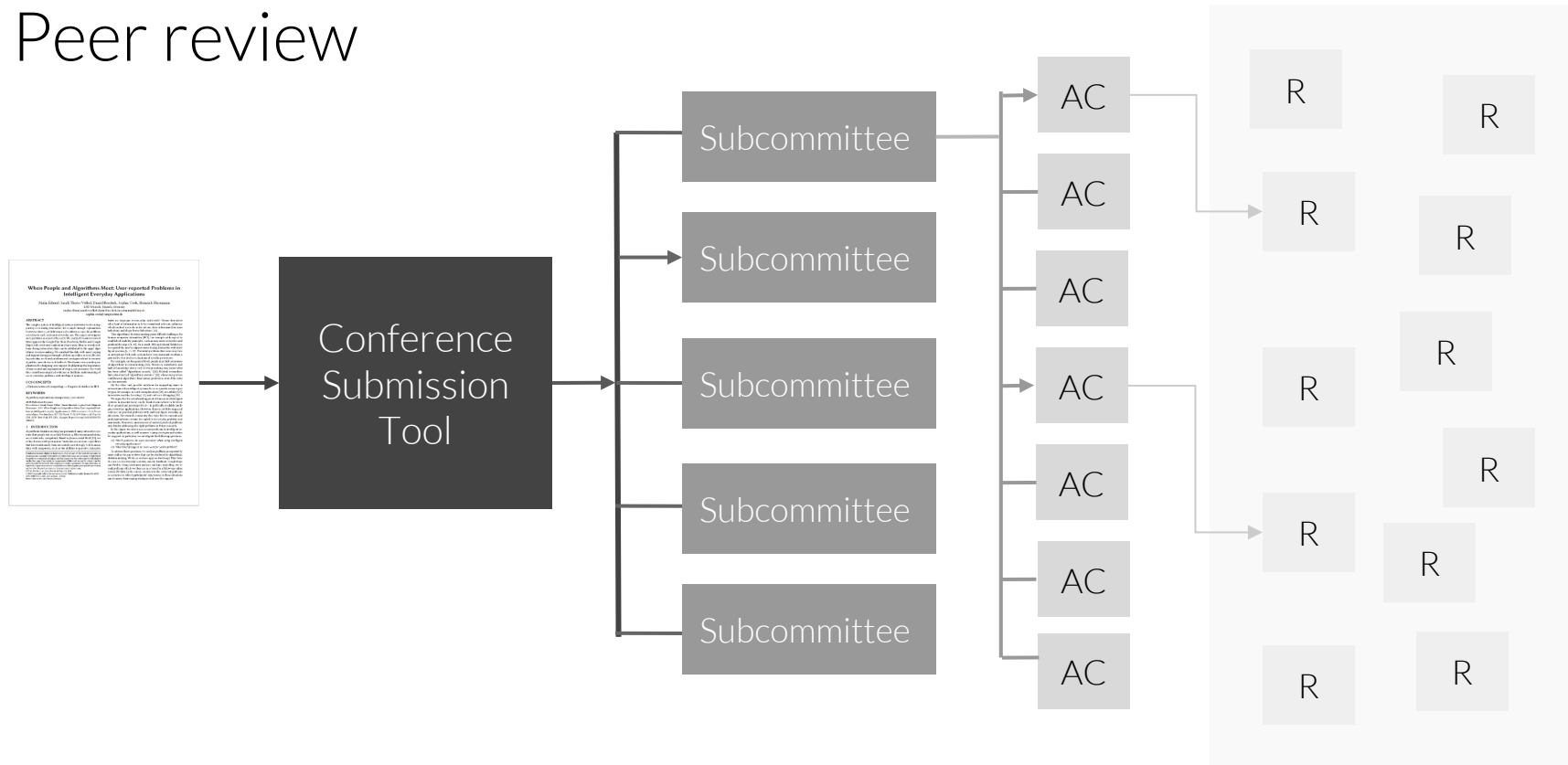


Distributing knowledge

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- **Articles in journals**
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Peer review



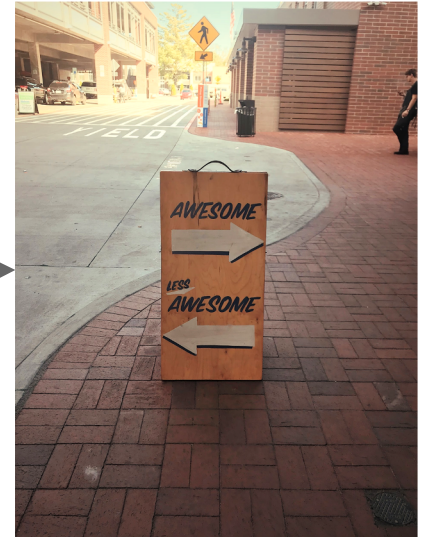
Peer review

When People and Algorithms Meet: User-reported Problems in Intelligent Everyday Applications
Maini Ehsani, Sarah Thero-Vikari, David Barabak, Sophia Cook, Heinrich Hussmann
maini@uni-bielefeld.de, thero@uni-bielefeld.de, david.barabak@uni-bielefeld.de, sophia.cook@uni-bielefeld.de, hussmann@uni-bielefeld.de

ABSTRACT
The complex nature of dialogue systems requires well-tailored guidelines for their evaluation. In particular, through identifying user-reported problems, we can gain insight into the user's perspective on the system's performance. This paper introduces a methodology for identifying user-reported problems in everyday intelligent applications. We propose a taxonomy of user-reported problems and a methodology for identifying them. We evaluate our methodology on a dataset of user-reported problems from a commercial intelligent personal assistant. The results show that our methodology is effective in identifying user-reported problems. We discuss the implications of our methodology for the design and evaluation of intelligent personal assistants.

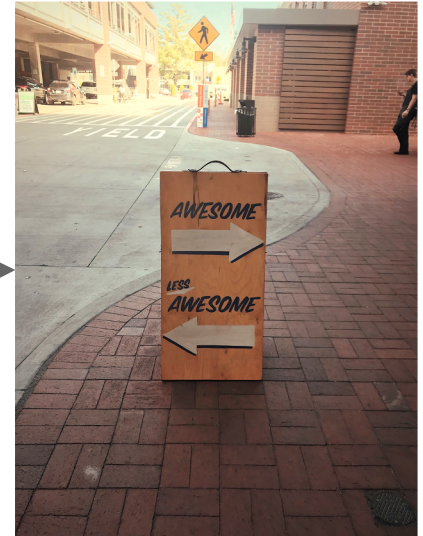
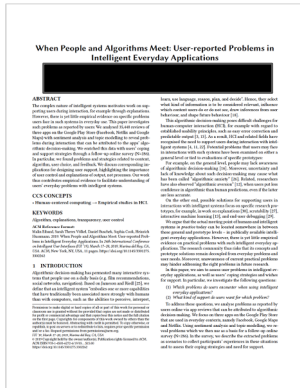
KEYWORDS
Dialogic systems, user-reported problems, intelligent personal assistants

1 INTRODUCTION
The complex nature of dialogue systems requires well-tailored guidelines for their evaluation. In particular, through identifying user-reported problems, we can gain insight into the user's perspective on the system's performance. This paper introduces a methodology for identifying user-reported problems in everyday intelligent applications. We propose a taxonomy of user-reported problems and a methodology for identifying them. We evaluate our methodology on a dataset of user-reported problems from a commercial intelligent personal assistant. The results show that our methodology is effective in identifying user-reported problems. We discuss the implications of our methodology for the design and evaluation of intelligent personal assistants.

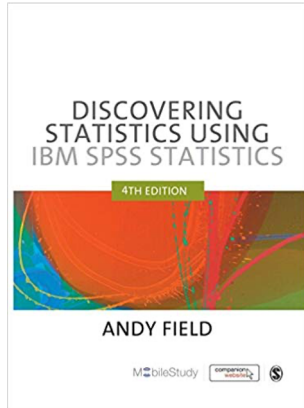
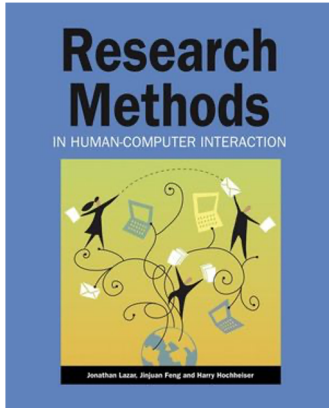


Peer review

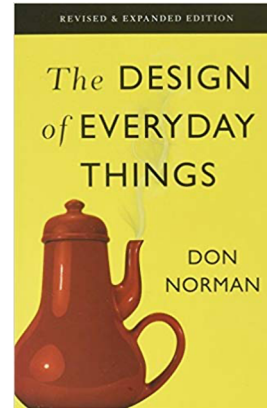
Double Blind Peer Review



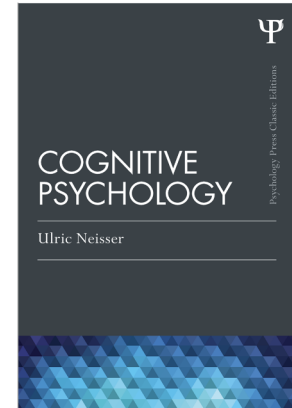
Books in HCI



Methodology

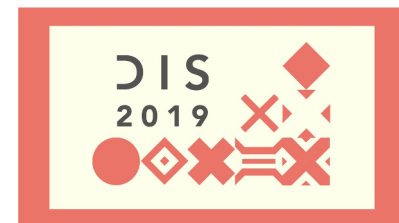


Basic Research



Scientific conferences in HCI

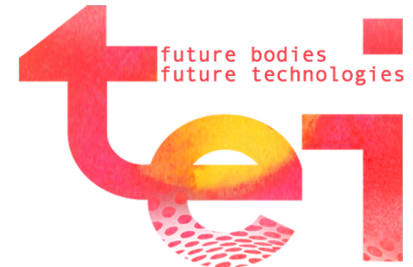
- **Human Factors in Computing Systems (CHI)**
- ACM Conference on **Computer-Supported Collaborative Work & Social Computing (CSCW)**
- ACM Conference on **Pervasive and Ubiquitous Computing (UbiComp)**
- ACM Symposium on **User Interfaces Software and Technology (UIST)**
- ACM/IEEE International Conference 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)

IEEE VR 2019
OSAKA



Scientific conferences in HCI



Conference publication formats in HCI

When People and Algorithms Meet: User-reported Problems in Intelligent Everyday Applications

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ABSTRACT

The complex nature of intelligent systems requires work to be conducted over many iterations to support final deployment. This paper describes the iterative process of developing a system that can be used to assist in the management of a smart home. The system is designed to be used in a smart home and is designed to be used in a smart home. The system is designed to be used in a smart home and is designed to be used in a smart home.

KEYWORDS

Intelligent systems, user-reported problems, smart homes, smart homes, smart homes

1 INTRODUCTION

Intelligent systems require a process to be followed in order to be able to be used in a smart home. The process is iterative and involves many iterations. The process is iterative and involves many iterations. The process is iterative and involves many iterations.

I Drive My Car and My States Drive Me: Visualizing Driver's Emotional and Physical States

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Renée Hees
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ABSTRACT

Driver's emotional and physical states have a big impact on their driving performance. New technological sensing methods are currently investigated and will soon allow to automatically detect the driver's state. Yet, how to communicate the detected state to the driver is less well understood. In an iterative design process, we developed two concepts to increase the driver's awareness of this issue: (1) a dashboard which provides a continuous overview of four potentially safety-critical states, namely drowsiness, aggressiveness, high workload, and hypoglycemia, and (2) an on-line warning which alerts the driver to an immediate safety risk. We then led 70 driver experience both concepts in a driving laboratory which varied the driver to an immediate safety risk. We then led 70 driver experience both concepts in a driving laboratory which varied the driver to an immediate safety risk.

StringTouch – A Scalable Low-Cost Concept for Deformable Interfaces

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Alexander Weithoff
LMU Munich
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ABSTRACT

This paper describes a demo prototype of a tangible user interface (TUI) concept that is derived from the expressive play of musical string instruments. We translated this interaction paradigm to an interactive demo which offers a novel gesture vocabulary (drumming, picking, etc.). In this work we present our interaction concepts, prototype description, technical details and insights on the rapid and low-cost manufacturing and design process. (Video demonstration: <https://www.youtube.com/watch?v=305337379>)

KEYWORDS

Human-centered computing, Haptic devices, User interface design, Interaction design theory, concepts and paradigms

KEYWORDS

Tangible User Interface, Ambient Interaction.




Figure 1: StringTouch combines features of touch screens with haptic elements. Along three silicone ridges the user can perform gestures and deform the material inwards and outwards direction.

Full Paper

Late Breaking Work

Demos

Scientific journals in HCI

- ACM Transactions on **Computer-Human Interaction** (ToCHI)
- IEEE Transactions on **Affective Computing**
- **Behaviour & Information Technology**
- International Journal of **Human-Computer Interaction**
- ACM Transactions on **Interactive Intelligent Systems** (TiiS)
- IEEE Transactions on **Human-Machine Systems**
- ...

How to research a topic

Search, read and organize scientific literature



How to research a topic - Search

Search literature (papers, articles, books, ...)

- Libraries
- ACM, IEEE digital libraries
- Google Scholar, CiteSeer
- researcher's / university's website
- classic web search
- LMU OPAC

Google Scholar

ACM **DL** DIGITAL LIBRARY

IEEE
Xplore[®]
Digital Library

How to research a topic - Search

Google Scholar

Artikel Ungefähr 16.500 Ergebnisse (0,11 Sek.)

Beliebige Zeit

Seit 2019

Seit 2018

Seit 2015

Zeitraum wählen...

Nach Relevanz sortieren

Nach Datum sortieren

Beliebige Sprache

Seiten auf Deutsch

Patente einschließen

Zitate einschließen

Alert erstellen

Avocados crossing borders: the missing common information infrastructure for international trade

T Jensen, N Bjørn-Andersen, R Vatrapu - Proceedings of the 5th ACM ..., 2014 - dl.acm.org

... theory has been applied in multiple academic domains such as developmental psychology [13], educational psychology [14], learning sciences [15], **human-computer interaction** [16, 17], and ... A farmer located 70 km from Nairobi with ten **avocado** trees: "**Avocados** are more ...

☆ Zitiert von: 16 Ähnliche Artikel Alle 4 Versionen

[PDF] researchgate.net

A Flexible Prototyping Tool for 3D Real-Time User-Interaction

R Blach, J Landauer, A Rösch, A Simon - Virtual Environments' 98, 1998 - Springer

... Obvious examples are **human** users, external simulation programs, hardware devices, etc ... In classical virtual reality systems the user is surrounded by **computer** generated environments ... The **Avocado** system of GMD [3] follows an approach similar to our system ...

☆ Zitiert von: 39 Ähnliche Artikel Alle 7 Versionen

[PDF] researchgate.net

Research commentary—Digital infrastructures: The missing IS research agenda

D Tilson, K Lyytinen... - Information systems ..., 2010 - pubsonline.informs.org

... 23, No. 4. Design challenges for CPS-based service systems in industrial production and logistics. 6 December 2018 | International Journal of **Computer** Integrated Manufacturing ... 16 November 2018 | The **Computer** Games Journal, Vol ...

☆ Zitiert von: 689 Ähnliche Artikel Alle 14 Versionen

[PDF] researchgate.net

A highly flexible virtual reality system

R Blach, J Landauer, A Rösch, A Simon - Future Generation **Computer** ..., 1998 - Elsevier

... The **Avocado** system of GMD [7] follows an approach similar to our system ... feature of the system is the user representation by a realistic virtual **human** called VirtualAnthropos ... the assembly process,

[PDF] researchgate.net

define keywords

How to research a topic - Search

The screenshot shows a Google Scholar search for "avocados \"human computer interaction\"". The search results are sorted by "Beliebige Zeit" (Arbitrary Time), with filters for "Seit 2019", "Seit 2018", and "Seit 2015". The first result is "Avocados crossing borders: the missing common information infrastructure for international trade" by T Jensen, N Bjørn-Andersen, and R Vatrapu, published in 2014. The second result is "A Flexible Prototyping Tool for 3D Real-Time User-Interaction" by R Blach, J Landauer, A Rösch, and A Simon, published in 1998. The third result is "Research commentary—Digital infrastructures: The missing IS research agenda" by D Tilson and K Lyytinen, published in 2010. Annotations include a green box "limit publication date" pointing to the "Seit 2015" filter, a green box "refine keywords" pointing to the search bar, and a green box "# citations (click to search within citations)" pointing to the citation count "Zitiert von: 89" in the third result.

Google Scholar

avocados "human computer interaction"

Artikel

Ungefähr 272 Ergebnisse (0,03 Sek.)

Beliebige Zeit

Seit 2019

Seit 2018

Seit 2015

Zeitraum wählen...

Nach Relevanz sortieren

Nach Datum sortieren

Beliebige Sprache

Seiten auf Deutsch

Patente einschließen

Zitate einschließen

Avocados crossing borders: the missing common information infrastructure for international trade [PDF] researchgate.net

T Jensen, N Bjørn-Andersen, R Vatrapu - Proceedings of the 5th ACM ..., 2014 - dl.acm.org

... theory has been applied in multiple academic domains such as developmental psychology [13], educational psychology [14], learning sciences [15], **human-computer interaction** [16, 17], and ... A farmer located 70 km from Nairobi with ten **avocado** trees: "**Avocados** are more ...

☆ 77 Zitiert von: 16 Ähnliche Artikel Alle 4 Versionen

A Flexible Prototyping Tool for 3D Real-Time User-Interaction [PDF] researchgate.net

R Blach, J Landauer, A Rösch, A Simon - Virtual Environments' 98, 1998 - Springer

... CAD systems. We see the main purpose of VR-technology in the enhancement of **human computer interaction**. Especially in problem ... processors are available. The **Avocado** system of GMD [3] follows an approach similar to our system. It is ...

☆ 77 Zitiert von: 39 Ähnliche Artikel Alle 7 Versionen

Research commentary—Digital infrastructures: The missing IS research agenda [PDF] researchgate.net

D Tilson, K Lyytinen... - Information systems ..., 2010 - pubsonline.informs.org

☆ 77 Zitiert von: 689 Ähnliche Artikel Alle 14 Versionen

y flexible virtual reality system

J Landauer, A Rösch, A Simon - Future Generation Computer ..., 1998 - Elsevier

ent. These techniques serve one main purpose: the enhancement of **human computer interaction**. Espe ... 178 169 if more processors are available. The **Avocado** system of GMD [7] follows an approach similar to our sys- tem. It ...

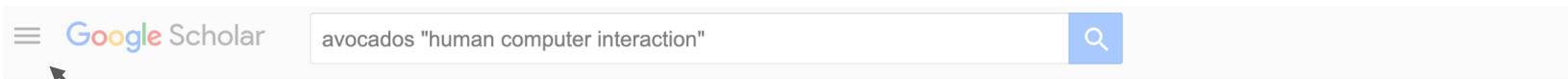
☆ 77 Zitiert von: 89 Ähnliche Artikel Alle 9 Versionen

limit publication date

"refine keywords"

citations (click to search within citations)

How to research a topic - Search



Artikel Ungefähr 104 Ergebnisse (0,04 Sek.)

Beliebige Zeit
Seit 2019
Seit 2018
Seit 2015
Zeitraum wählen...

Nach Relevanz
sortieren
Nach Datum s...

Beliebige Sprac...

Seiten auf Deutsch

- Patente einschließen
- Zitate einschließen
- Alert erstellen

Avocados crossing borders: The problem of runaway objects and the solution of a shipping information pipe PDF researchgate.net

T Jensen, R Vatrapu... - Informati...
... psychology (Wertsch, 1985), ed...
sciences (Greeno, 1998), **human-c**
activity system performs an activity

☆ Zitiert von: 7 Ähnliche A...

a broad variety of information relat...

☆ Zitiert von: 21 Ähnliche

Development of an Interac... and Prevent Overweight a...
DM Sepúlveda, C Delgado, L Alva...
... International Conference on Hu...
Posters' Extended Abstracts pp 28...
It is better to eat some eggs, toasts

☆ Zitiert von: 1 Ähnliche Artikel

Using Activity Theory Succ... Theory's Key Challenges t...

F Wiser, C Durst... - ... of the 52nd ... , 2019 - scholarspace.manoa.hawaii.edu

advanced search

Erweiterte Suche

Artikel finden

mit **allen** Wörtern

mit der **genauen Wortgruppe**

mit **irgendeinem** der Wörter

ohne die Wörter

die meine Wörter enthalten

irgendwo im Artikel

im Titel des Artikels

z. B. "Stephen Hawking" oder Hawking

Artikel zurückgeben, die von folgendem Autor **verfasst** wurden:

Artikel zurückgeben, die hier **veröffentlicht** wurden:

z. B. *NJW* oder *Nature*

Artikel zurückgeben, die in folgendem **Zeitraum** geschrieben wurden: 2015 —

z.B. 1996

focus on specific conference

ssex.ac.uk

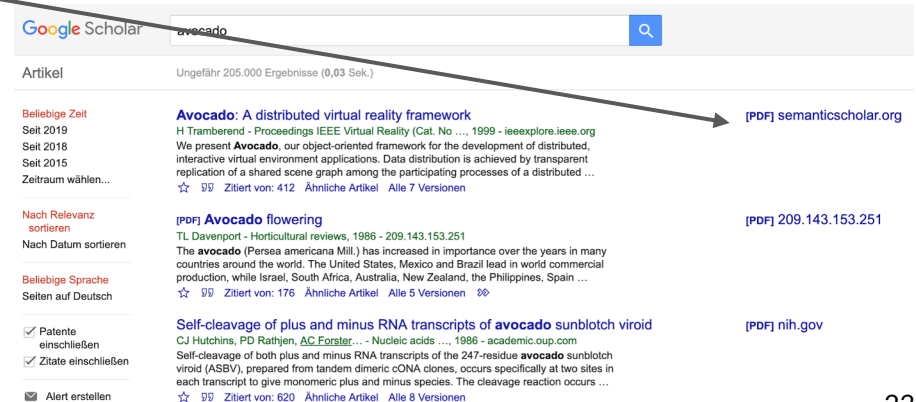
waii.edu

How to research a topic - Get a paper

Publications are usually not freely available (especially on ACM, IEEE).

Therefore try:

1. ACM, IEEE, ... from within university network (LMU has subscriptions)
2. Use LMU University Library: OPAC (Online catalogue)
3. Google Scholar [PDF] link
4. ResearchGate: www.researchgate.net
5. author's website, <https://arxiv.org>, ...
6. ask people with access to ACM etc.
7. polite email to author

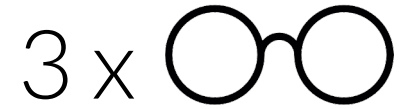


The screenshot shows a Google Scholar search for 'avocado'. The search bar at the top contains the word 'avocado' and a search icon. Below the search bar, it indicates 'Ungefähr 205.000 Ergebnisse (0,03 Sek.)'. The results are listed in a table-like format with columns for filters and article details. The first result is 'Avocado: A distributed virtual reality framework' by H Tramberend, published in 'Proceedings IEEE Virtual Reality (Cat. No. ...)' in 1999. It has 412 citations and a PDF link to 'semanticscholar.org'. The second result is 'Avocado flowering' by TL Davenport, published in 'Horticultural reviews' in 1986. It has 176 citations and a PDF link to '209.143.153.251'. The third result is 'Self-cleavage of plus and minus RNA transcripts of avocado sunblotch viroid' by CJ Hutchins, PD Rathjen, and AC Forster, published in 'Nucleic acids ...' in 1986. It has 620 citations and a PDF link to 'nih.gov'. On the left side of the results, there are filter options: 'Beliebige Zeit' (with sub-options for 'Seit 2019', 'Seit 2018', 'Seit 2015', and 'Zeitraum wählen...'), 'Nach Relevanz sortieren', 'Nach Datum sortieren', 'Beliebige Sprache', 'Seiten auf Deutsch', 'Patente einschließen', 'Zitate einschließen', and 'Alert erstellen'.

How to research a topic - Read

Read in multiple steps

1. skim over abstract and images → worth reading?
2. read complete → get it
3. read en detail → detailed understanding



While reading

→ **take notes**

→ mark text passages

→ what were they doing? how? why? results?



Finally

→ see referenced papers

How to research a topic - Literature management

Tools

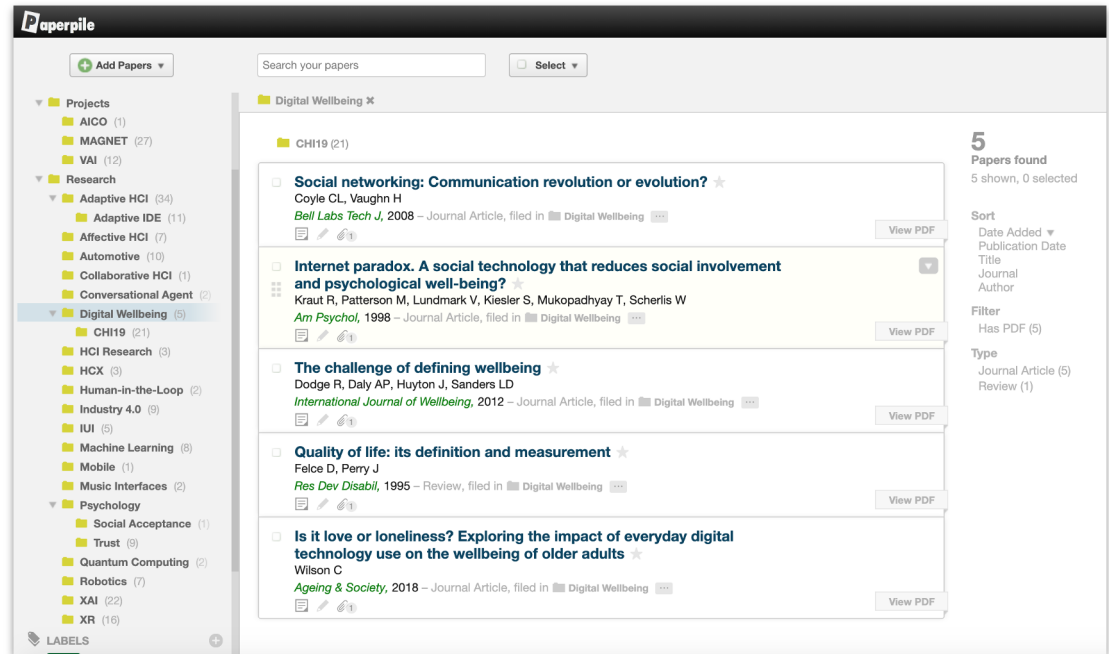
→ JabRef, Zotero, Mendeley, Paperpile, ...

Why?

→ search and retrieve

→ labeling ('nice', 'bullshit', ...)

→ notes, citations, ...



The screenshot shows the Paperpile interface. On the left is a sidebar with a tree view of projects and research topics. The 'Digital Wellbeing' project is selected, showing a list of sub-topics like 'CHI19' and 'HCI Research'. The main area displays a search for 'Digital Wellbeing' with 5 papers found. The papers listed are:

- Social networking: Communication revolution or evolution?** by Coyle CL, Vaughn H. *Bell Labs Tech J*, 2008. Journal Article, filed in Digital Wellbeing.
- Internet paradox. A social technology that reduces social involvement and psychological well-being?** by Kraut R, Patterson M, Lundmark V, Kiesler S, Mukopadhyay T, Scherlis W. *Am Psychol*, 1998. Journal Article, filed in Digital Wellbeing.
- The challenge of defining wellbeing** by Dodge R, Daly AP, Huyton J, Sanders LD. *International Journal of Wellbeing*, 2012. Journal Article, filed in Digital Wellbeing.
- Quality of life: its definition and measurement** by Felice D, Perry J. *Res Dev Disabil*, 1995. Review, filed in Digital Wellbeing.
- Is it love or loneliness? Exploring the impact of everyday digital technology use on the wellbeing of older adults** by Wilson C. *Ageing & Society*, 2018. Journal Article, filed in Digital Wellbeing.

On the right side of the interface, there are filters for 'Sort' (Date Added, Publication Date, Title, Journal, Author), 'Filter' (Has PDF (5)), and 'Type' (Journal Article (5), Review (1)).

How to write a paper

About storylines, citations and Tex



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

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Introduction

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Main part

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Conclusion

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How to write a paper - Example structure

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**

Abstract

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Introduction

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Main part

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Conclusion

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.

How to write a paper - Style

Consider

- logical structure
- 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...')



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')
- tautologies (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 I...')
- tempus changes (e.g. 'they find out [...], they did this.')



How to write a paper - Style



Avoid

- fuzzy descriptions (e.g. 'high', 'low', 'big', 'most')
- empty phrases (e.g. 'Based on these and various other findings...')
- fill words (e.g. 'indeed', 'remarkably')
- tautologies (e.g. 'LCD Display' = 'Liquid Crystal Display')
- pseudo-arguments (e.g. 'of course', 'as everyone knows')
- unverifiable / overclaims (e.g. 'This is the first time...')
- passive voice (e.g. 'This work was conducted by...')
- long complex sentences (e.g. 'First they found out that...')
- tempus changes (e.g. 'they find out [...], then they...')

But don't be boring!

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

- Avoid focus
- Avoid originality and personality
- Write l o n g 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

How to write a paper - Citations



Plagiarism

- any reuse of text has to be clearly marked (direct / indirect citations)
- plagiarism counts as attempt to deceive, resulting in failure of class

<https://www.medien.ifi.lmu.de/lehre/Plagiate-lfl.pdf>

How to write a paper - Citations

Sources

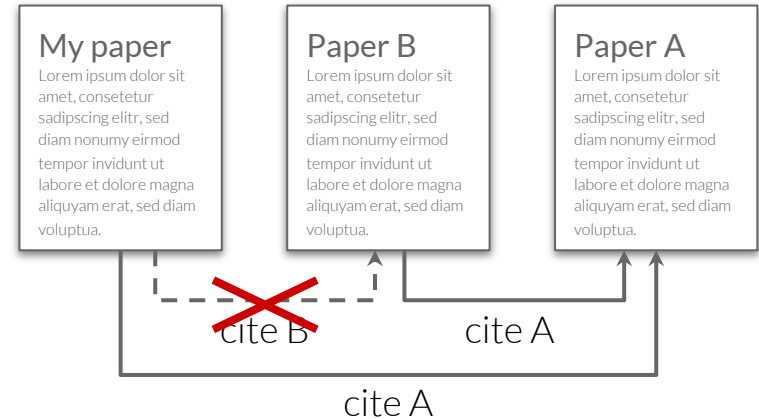
→ always reference the primary source

Indirect

- Lorem ipsum dolor sit amet [1].
- Authors et al. [2] found out that [...]
- put references *always* before the dot [2].
- multiple sources: [1, 2, 3]

Direct

- only use direct quotes sparsely, e.g. for definitions
- use correct English quotation marks for direct quotes: “This is a direct quote” [5].



How to write a paper - Requirements

→ ACM Conference Proceedings Format

→ 6-8 pages incl. references, 2 columns

→ English

→ abstract ~150 words

→ add illustrations

(no picture book, no wall-of-text)

The Name of the Title is Hope

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Woodstock '18, June 03-05, 2018, Woodstock, NY

Table 1: Frequency of Special Characters

Non-English or Math	Frequency	Comments
¶	1 in 1000	For Finnish names
ε	1 in 5	Common in math
§	4 in 5	Used in business
¶?	1 in 40,000	Unexplained image

The Name of the Title is Hope

Regardless of the rights management choice, the author will receive a copy of the completed rights form once it has been submitted. This form contains RRG commands that must be copied into the source document. When the document source is compiled, these commands and their parameters add formatted text to several areas of the final document:

- the "ACM Reference Format" text on the first page.
- the "Rights management" text on the first page.
- the conference information in the page header(s).

Rights information is unique to the work; if you are preparing several works for an event, make sure to use the correct set of commands with each of the works.

8 CCS CONCEPTS AND USER-DEFINED KEYWORDS

Two elements of the "smart" document class provide powerful taxonomic tools for you to help readers find your work in an online search.

The ACM Computing Classification System – <https://www.acm.org/publications/class-2012> – is a set of classifiers and concepts that describe the computing discipline. Authors can select entries from this classification system, via <https://dl.acm.org/ccs/ccs.cfm>, and great features for commands to be included in the RRG source.

User-defined keywords are a comma-separated list of words and phrases of the author's choosing, providing a more flexible way of describing the research being presented.

CCS concepts and user-defined keywords are required for all short and full-length articles, and optional for two-page abstracts.

9 SECTIONING COMMANDS

Your work should use standard RRG sectioning commands: section, subsection, subsection, and par and par-agg. They should be numbered, but not remove the numbering from the commands.

Summing is a sectioning command by setting the first word or words of a paragraph in boldface or italicized text is not allowed.

10 TABLES

The "booktabs" document class includes the "booktabs" package – <https://ctan.org/pkg/booktabs> – for preparing high-quality tables.

Table captions are placed above the table.

Because tables cannot be split across pages, the best placement for them is typically the top of the page nearest their initial cell. To ensure this proper "floating" placement of tables, use the environment table to enclose the table's contents and the table caption. The contents of the table itself must go in the tabular environment, to be aligned properly in rows and columns, with the desired horizontal and vertical rules. Again, detailed instructions on tabular material are found in the RRG User's Guide.

Immediately following this sentence is the point at which Table 1 is included in the input file; compare the placement of the table here with the table in the printed output of this document.

To set a wide table, which takes up the whole width of the page's live area, use the environment table* to enclose the table's contents and the table caption. As with a single-column table, this wide table will "float" to a location deemed most desirable. Immediately

Woodstock '18, June 03-05, 2018, Woodstock, NY

Table 1: Frequency of Special Characters

following this sentence is the point at which Table 2 is included in the input file; again, it is instructive to compare the placement of the table here with the table in the printed output of this document.

11 MATH EQUATIONS

You may want to display math equations in three distinct styles: inline, numbered or non-numbered display. Each of the three are discussed in the next sections.

11.1 Inline (In-text) Equations

A formula that appears in the running text is called an inline or in-text formula. It is produced by the math environment, which can be invoked with the usual $\backslash eqn*$... \end{eqn} construction or with the shorter eqn^* ... \end{eqn} . You can use any of the symbols and structures, from σ to ω , available in RRG [20]. This section will simply show a few examples of in-text equations in context. Notice how this equation $\lim_{x \rightarrow \infty} x = \infty$, set here in an in-line math style, looks slightly different when set as display style. (See next section).

11.2 Display Equations

A numbered display equation – one set off by vertical space from the text and centered horizontally – is produced by the equation environment. An unnumbered display equation is produced by the displaymath environment.

Again, in either environment, you can use any of the symbols and structures available in RRG; this section will just give a couple of examples of display equations in context. First, consider the equation, shown as an inline equation above:

$$\lim_{x \rightarrow \infty} x = \infty \quad (1)$$

Notice how it is formatted somewhat differently in the displaymath environment. Now, we'll enter an unnumbered equation:

$$\sum_{i=1}^n x_i = 1$$

and follow it with another unnumbered equation:

$$\sum_{i=1}^n x_i = \sum_{i=1}^{n+1} x_i \quad (2)$$

Just to demonstrate RRG's table handling of numbering.

12 FIGURES

The "figure" environment should be used for figures. One or more images can be placed within a figure. If your figure contains thirty-three material, you must clearly identify it as such, as shown in the example below.

How to write a paper - Tools

ACM Conference Proceedings LaTeX template (incl. Overleaf integration)

→ <https://www.acm.org/publications/proceedings-proceedings-template>

→ Open template directly in Overleaf

L^AT_EX

The screenshot displays the Overleaf web interface for the ACM Conference Proceedings LaTeX template. On the left, there is a sidebar with the title "ACM Conference Proceedings - New Master Template" and buttons for "Open as Template", "View Source", and "Download PDF". Below this, it lists the author as "Association for Computing Machinery (ACM)" and provides a "View Count" of 84102. The main editor area shows a file browser with a menu of files including "ACM-Reference-Format...", "acmart.cls", "acmart.pdf", "README", "sample-authordraft.tex", "sample-base.bib", "sample-franklin.png", "sample-sigconf.tex", "sample-xelatex.tex", and "sampleteaser.pdf". The right sidebar shows the rendered PDF output, featuring a title page with the text "The Name of the Title is Hope" and a list of authors including Ben Travençolo, Lars Thorsvold, Valeri Kulkarni, and others. The PDF also includes an abstract, keywords, and a table of contents.

How to write a paper - Formatting

Best practice (which we expect)

- add text after section headings
- having section x.1 requires at least a section x.2
- section headings should not exceed one line
- avoid footnotes
- use `/input{ }` to distribute text to multiple .tex files
- reference `/cite{ }` literature in the bibliography
- reference `/ref{ }` figures and tables

2 TEMPLATE OVERVIEW

As noted in the introduction, the “acmart” document class can be used to prepare many different kinds of documentation — a double-blind initial submission of a full-length technical paper, a two-page SIGGRAPH Emerging Technologies abstract, a “camera-ready” journal article, a SIGCHI Extended Abstract, and more — all by selecting the appropriate *template style* and *template parameters*.

2.1 Template Styles

The primary parameter given to the “acmart” document class is the *template style* which corresponds to the kind of publication or SIG publishing the work. This parameter is enclosed in square brackets and is a part of the `documentclass` command:

```
\documentclass[STYLE]{acmart}
```

2.2 Template Parameters

In addition to specifying the *template style* to be used in formatting your work, there are a number of *template parameters* which modify some part of the applied template style. A complete list of these parameters can be found in the *L^AT_EX User's Guide*.

Frequently-used parameters, or combinations of parameters, include:

- `anonymous, review`: Suitable for a “double-blind” conference

How to write a paper - Submissions

Final paper

→ LaTeX sources (.zip)

→ .pdf file

Presentation slides

→ .pdf file

Upload via **Uniworx**

Watch the deadlines!



Topic Assignment

Choose wisely

Next steps

- ┆ write your supervisor this week!
- ┆ meet your supervisor and discuss the structure of your paper
- ┆ write and submit your first draft (according to deadlines provided)

See you at your 60s pitch!
(mandatory attendance)

