



# Literature Review

Research Methods for Human-Centered Computing



# Literature Review

Today's goal:

Teach you how to review, manage, and cite literature

Outline:

- Finding related works
- Managing the papers you want to cite
- Citing papers correctly



**But first...**  
Study participation task



# Study participation

Goal: experience what it is like to participate in a study

Task: participate in a research study (e.g. at Clemson, online)

Instructions:

- Participate in a research study on campus or online
- Write a report with details of your experience (see assignment on Canvas)
- Submit as a PDF

**Deadline: Oct 9**



# Literature review

How to find related works?



# Literature review

Purposes of reviewing the literature:

- Provide a context for your research
- Avoid duplication effort
- Argue relevance of your work
- Find relevant theories
- Identify potential problems in conducting the research
- Identify “acceptable” practices of the field

Resources:

[dl.acm.org](http://dl.acm.org), [ieeexplore.ieee.org](http://ieeexplore.ieee.org), [scholar.google.com](http://scholar.google.com)



# Types of papers

## Overview(s) of the topic(s)

Example: let's say you do research on the privacy of children online...

Find overview papers on:

- the privacy of children online (might not exist)
- children's Internet usage (not necessarily privacy)
- children's privacy (not necessarily online)
- online privacy (not necessarily children's)



# Types of papers

## Factoids

Useful to describe the state of the world

E.g. number of people who have a smartphone, number of teens who are on Facebook over time, etc.

Sources:

Pew ([pewresearch.org](http://pewresearch.org)), world bank, United Nations, dictionary, wikipedia\*

Could be work that argues why you work is important





# Types of papers

## Theory/theories

What theoretical lens are you going to use?

- Petronio's Communication Privacy Management
- Altman's Privacy Regulation Theory
- Smith et al.'s APCO model

No matter which one you choose, you may have to argue in your paper why you are not using the others!



# Types of theories

I. Taxonomic theories (describe “what is”)

E.g. a framework for classifying something

II. Theory for explaining (describe what and why)

E.g. a generalization of qualitatively observed phenomena

III. Theory for predicting (describe what will be, but not why)

E.g. a behavioral phenomenon such as the “default effect”

E.g. Moore’s law



# Types of theories

IV. Theory for explaining and predicting (“EP theory”)

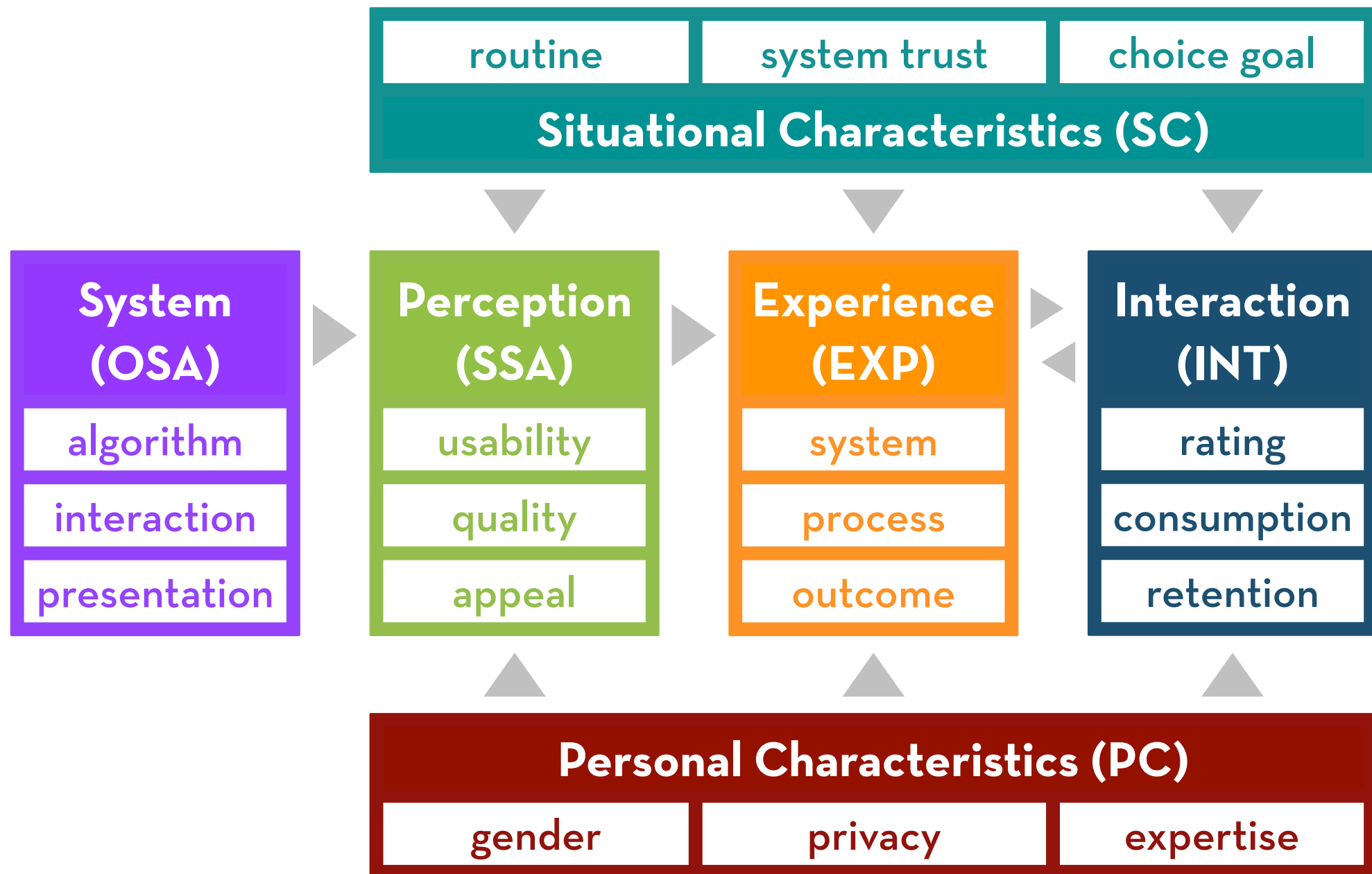
E.g. a model describing the workings of a phenomenon

V. Theory for design and action (describe what and why)

E.g. methodologies and prescriptions for design and development, such as Nielsen’s heuristics



# EP theory





# Design theory

1. Visibility of system status
2. Match between system and real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetics and minimalist design
9. Help users recover from errors
10. Help and documentation



# Types of papers

Works whose “gap” you will attempt to fill

A list of existing papers with a flaw:

- they make an unproven assumption
- they ignore an important variable
- they find something they cannot explain
- they use a certain framing/theory, but you have found a better one

Always use juxtaposition when covering related work!

How does this work relate to your work?



# Types of papers

## Work that support (an) assumption(s)

Usually you cannot account for everything in your study

You may have to make some assumptions that the reader must accept as “true” to buy into your argument

You better have ample evidence from other work for these assumptions!

Usually well-established phenomena, e.g. “intention-behavior gap”, “choice overload”, “improving usability will improve user satisfaction”



# Types of papers

## Work that contains support for your hypotheses

Since you are going to test the hypothesis, the evidence does not have to be ironclad

- could be based on qualitative results
- could be in different field / system / type of user
- could be anecdotal

If all your hypotheses are already fully and exactly supported by previous work, your research is pointless!





# Types of papers

## Work with similar methods

Defend against reviewer objections

“You should have used a different methodology” is hard to fix!

Defend against such criticism by citing existing work that uses the same method

Also useful to avoid pitfalls

What is \*not\* a good method to use?



# Finding papers

## Keyword search

You may have to revisit this once you have a better understanding of the terminology of the field

## Forward citation search

- Look at the references of papers you are reading (preferably newer papers)
- Single out specific references based on citations in the text
- Use DOI where possible! Otherwise: Google Scholar / Clemson library title search



# Types of papers

## Work with aligned conclusions

Your work will likely draw some higher-level conclusions in the discussion and conclusion sections of the paper

It is nice to cite work that came to a similar conclusion via a different route

This is a good way to couch your work in the context of existing work/evidence

The best advice is based on evidence from multiple studies!

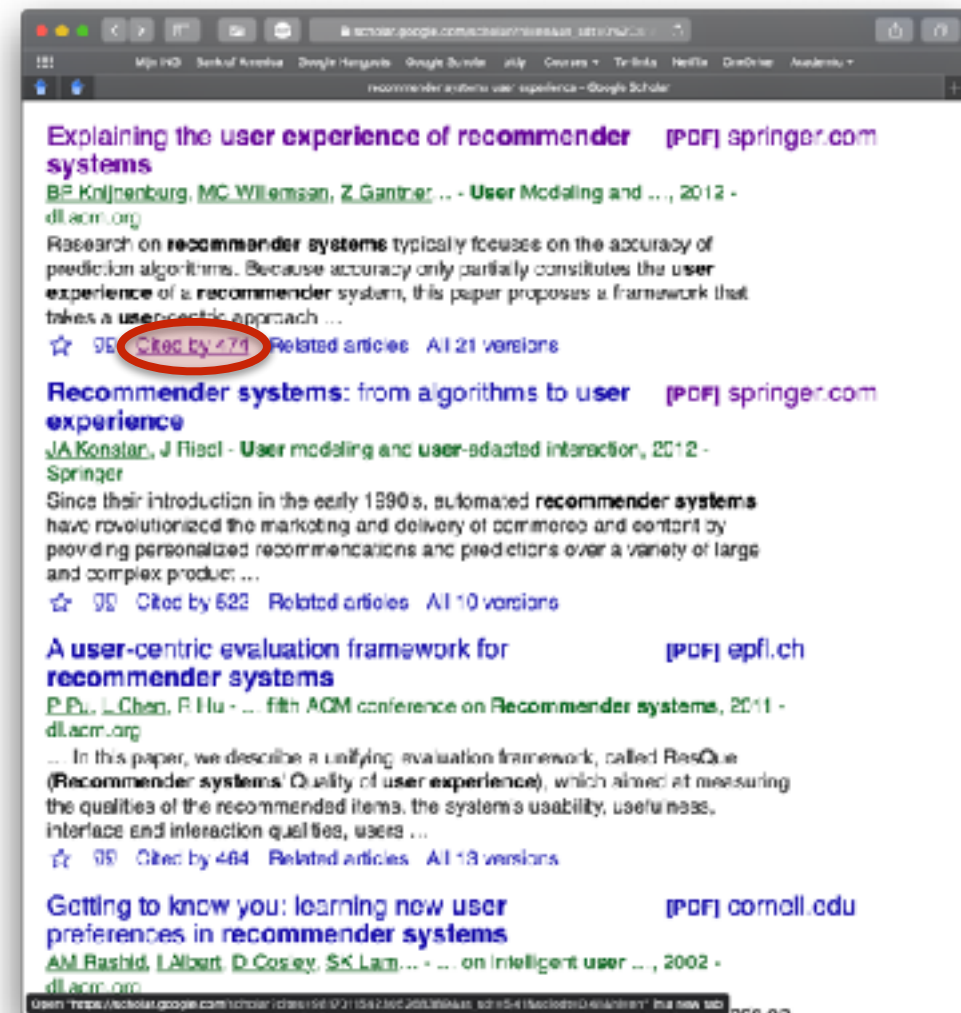


# Finding papers

Backward citation search

For each “core” paper, check other papers that cite it

- Did they do something similar to what you are planning to do?
- How did they use the paper?
- Has the argument ever been refuted?





# Finding papers

Backward citation search

For each “core” paper, check other papers that cite it

- Did they do something similar to what you are planning to do?
- How did they use the paper?
- Has the argument ever been refuted?





# Systematic review

A systematic review is a review of the literature that is conducted in a methodical manner based on a pre-specified protocol and with the aim of synthesizing the retrieved information

Why do a systematic review?

- You are writing an overview paper
- You are writing the first big (journal) paper on a new topic
- You are conducting a meta-analysis

For meta-analyses, you often also want **unpublished** work!



# Systematic review

A systematic review:

- Takes a lot of time and effort
- Involves a predetermined list of sources, keywords, search criteria (forward and backward search)
- Usually focused on a specific effect/phenomenon
- Includes useful categorizations of the found papers
- For meta-analyses: extract and standardize statistical results



# Example

Caine, 2016:

*We conducted a systematic literature review of all manuscripts published at CHI2014 and manually extracted data from each manuscript. We collected: the contribution type, presence or absence of a user study, sample size, number of studies per manuscript, setting, method, manuscript length, award status, student status and gender breakdown of participants. We used this data to generate summary information about typical sample size at CHI.*





# Example

Setting	Studies	Mean	SD	Median
In-person <sup>1</sup>	379	18	12	15
Remote <sup>1</sup>	105	197	285	77
Combo	14	15	6	15
Not reported	21	20	11	20
Total	519	54	147	16

<sup>1</sup>Note:  $\ln(n)$  used in the analysis to compare in-person and remote sample size distributions.

Table 7: Setting (in-person vs. remote)

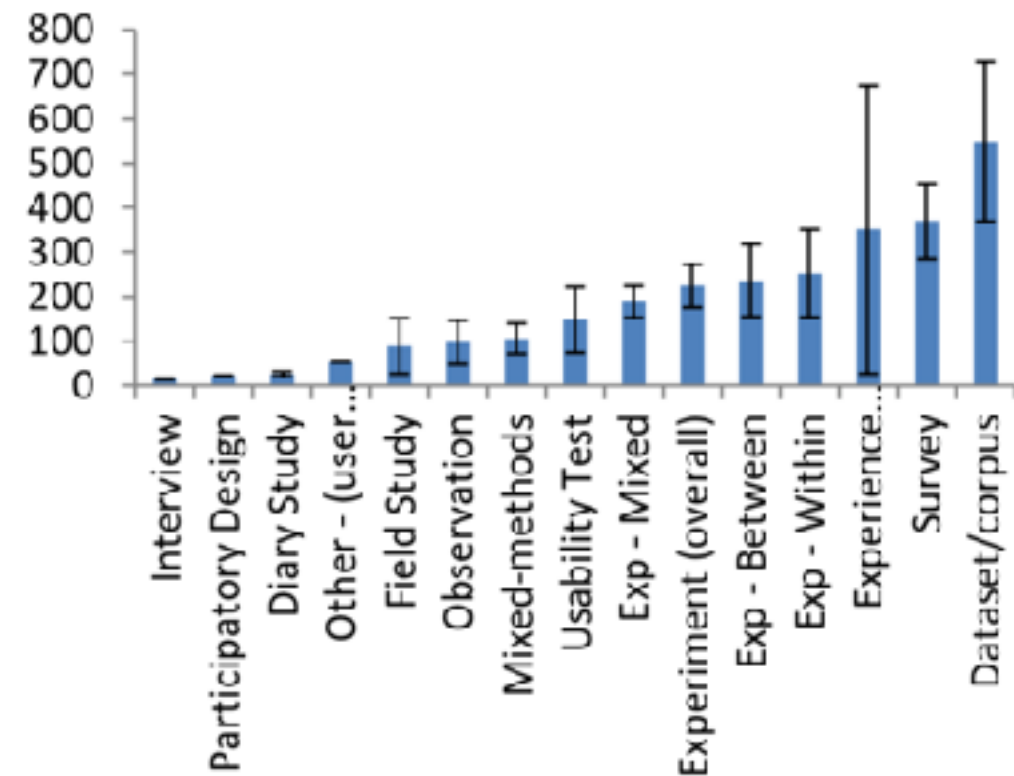


Figure 4. Mean sample size by method (SE) for remote studies.



# Citation management

How to manage the papers you want to cite?



# Citation management

## Advantages:

- Simple (with good software you'll rarely have to type!)
- Create your own database of good papers
- Easy to organize, annotate and tag papers
- Easy to share with others

## Don't try to do it manually!

- Lots of wasted time typing
- You'll end up citing less



Browser plug-in (safari, chrome, firefox)

To pull in papers

Reference manager (mac, win, linux)

To organize, tag, and annotate

Word processor plug-in (word, google docs)

To cite with a single click

For LaTeX: export functionality

Free, multi-device, collaborative, very interoperable



# Demonstration

The screenshot shows a web browser window displaying a SpringerLink article. The browser's address bar shows the URL `link.springer.com/article/10.1007/s11211-011-9112-x`. A red circle highlights the browser's address bar. Another red circle highlights a 'Saving to' dialog box that appears over the article content, showing the file name 'recommender systems: from algorithms to use...' and the source 'Springer Full Text PDF'. The article itself is titled 'Recommender systems: from algorithms to user experience' and is by Joseph A. Konstan and John Riedl. The abstract discusses the evolution of recommender systems from algorithms to user experience. The keywords are 'Recommender systems', 'User experience', 'Collaborative filtering', 'Evaluation', and 'Metrics'. A 'Download' button is visible at the bottom of the article content area.

link.springer.com/article/10.1007/s11211-011-9112-x

SpringerLink

Please take this quick survey to tell us about what happens after you publish a paper.

**Recommender systems: from algorithms to user experience**

Authors: Joseph A. Konstan, John Riedl

Original Paper  
First Online: 10 March 2012

Abstract

Since their introduction in the early 1990's, automated recommender systems have revolutionized the marketing and delivery of commerce and content by providing personalized recommendations and predictions over a variety of large and complex product offerings. In this article, we review the key advances in collaborative filtering recommender systems, focusing on the evolution from research concentrated purely on algorithms to research concentrated on the rich set of questions around the user experience with the recommender. We show through examples that the embedding of the algorithm in the user experience dramatically affects the value to the user of the recommender. We argue that evaluating the user experience of a recommender requires a broader set of measures than have been commonly used, and suggest additional measures that have proven effective. Based on our analysis of the state of the field, we identify the most important open research problems, and outline key challenges slowing the advance of the state of the art, and in some cases limiting the relevance of research to real-world applications.

Keywords: Recommender systems, User experience, Collaborative filtering, Evaluation, Metrics

Download to read the full article text



# Demonstration

Zotero

File, Creator, Year

My Library

- 1. Methodology
- 1. Privacy - general
- 2. Privacy in eCommerce
- 4. Privacy in Adaptive + Recon...
- 5. Adaptive + Recommender Syst...
- 6. Decision Theory
- 3. User Experience + Satisfaction...
- Biblio-Endnote
- Imported Mon Dec 24 11:47:28 2...
- Imported Sat Oct 6 11:17:17 2012
- mark
- 1R2012-711
- My Publications
- Duplicate Items
- Unfiled Items
- Trash

Group Libraries

- ADL
  - Biblio-BibTeX
  - google privacy policy
  - Personalization\_SOUPS
  - Feed - David
  - UTP
    - contextual factors
    - Data type factors (Yang)
    - Decision externalities (Reza)
    - General philosophy (All)
    - Nudges, Seals, Labels, etc (M...
    - Personal factors
    - Prediction papers (Yang)
    - Recipients (David)

Search: : privacy \*Attribution

\*Cognitive Processes

\*Demographic Characteristics

\*Experimental Instructions \*Feedback

Creator	Year	Title	Date Added
Kobza et al.	2016	The Effect of Personalization Provider Characteristics on Privacy Attitudes and Behaviors: An Elaboration Likelihood Model	8/5/2016, 2:08:39 PM
Kobza et al.	2014	Let's Do It at My Place Instead: Attitudinal and Behavioral Study of Privacy in Client-side Personalization	8/11/2017, 12:38:27 PM
Kobza et al.	2012	Privacy in instant messaging: an impression management model	8/5/2016, 2:08:39 PM
Kobza and Schreck	2009	Privacy through pseudonymity in user-adaptive systems	8/5/2016, 2:08:39 PM
Kolter and Penul	2009	Generating User-Understandable Privacy Preferences	8/5/2016, 2:22:10 PM
Konstan and Riedl	2012	Recommender systems: from algorithms to user experience	9/1/2019, 11:23:58 PM
		Springer Full Text PDF	9/1/2019, 11:24:00 PM
Konlewa et al.	2011	It's All About Networking! Empirical Investigation of Social Capital Formation on Social Network Sites	8/5/2016, 2:08:39 PM
Korraan and Eoswell	2008	The Influence of Personality Traits and Information Privacy Concerns on Behavioral Intentions	3/25/2017, 5:10:07 PM
Kosmizu et al.	2006	Factors on the sense of privacy in video surveillance	8/5/2016, 2:22:10 PM
Kosinski et al.	2013	Private traits and attributes are predictable from digital records of human behavior	8/5/2016, 2:08:39 PM
Krämer and Heferkamp	2011	Online Self-Presentation: Balancing Privacy Concerns and Impression Construction on Social Networking Sites	8/5/2016, 2:08:39 PM
Kramer-Outfield	2010	Beliefs and uses of tagging among undergraduates	9/3/2018, 10:13:17 AM
Krasnova et al.	2009	Investigating the Value of Privacy in Online Social Networks: Conjoint Analysis	8/5/2016, 2:08:39 PM
Krisnamurthy and W...	2009	Privacy diffusion on the web: a longitudinal perspective	8/5/2016, 2:08:39 PM
Kuka et al.	2015	Mixed methods study examining work reintegration experiences from perspectives of Veterans with mental health issues	10/17/2016, 4:11:18 PM
Kumaraguru and Cran...	2006	Privacy indexes: a survey of Westin's studies	9/9/2017, 12:38:21 PM
Kusler et al.	2016	"Blissful Your Privacy": Smartphone Notifications Increase Irritability and Hypersensitivity Symptoms	2/9/2017, 9:03:08 PM
Lai and Hui	2006	Internet Opt-In and Opt-Out: Investigating the Roles of Frames, Defaults and Privacy Concerns	8/5/2016, 2:08:39 PM
Lai and Hui	2006	Internet Opt-In and Opt-Out: Investigating the Roles of Frames, Defaults and Privacy Concerns	6/9/2017, 11:21:23 AM
Lampe et al.	2006	I face(book) in the crowd: social Searching vs. social browsing	8/5/2016, 2:08:39 PM
Lampinen et al.	2011	We're in It Together: Interpersonal Management of Disclosure in Social Network Services	8/5/2016, 2:08:39 PM
Langenderfer and Cook	2004	Oh, what a tangled web we weave: The state of privacy protection in the information economy and recommend...	8/5/2016, 2:22:38 PM
Langheinrich	2001	Privacy by Design: Principles of Privacy-Aware Ubiquitous Systems	10/11/2016, 3:21:22 PM
Lanier	2010	You Are Not a Gadget: A Manifesto	8/5/2016, 2:08:39 PM
Lao and Kobza	2006	Privacy Attitudes of Internet Users in the U.S. and Europe	8/5/2016, 2:22:50 PM
Lauter et al.	1973	Some Analytic Dimensions of Privacy	8/5/2016, 2:08:39 PM
Lauter and Wolfe	1977	Privacy as a Concept and a Social Issue: A Multidimensional Developmental Theory	8/5/2016, 2:08:39 PM
Leary	1994	Self presentation: impression management and interpersonal behavior	8/5/2016, 2:08:39 PM
Ledrer et al.	2004	Personal privacy through understanding and action: five pitfalls for designers	8/5/2016, 2:08:39 PM
Ledrer et al.	2003	Who wants to know what when? privacy preference determinants in ubiquitous computing	8/5/2016, 2:08:39 PM
Lee and Kobza	2016	Understanding user privacy in internet of things environments	2/1/2018, 2:13:33 PM
Lee and Kobza	2017	Privacy preference modeling and prediction in a simulated campuswide IoT environment	2/7/2018, 5:47:10 PM
Lee and Park	2007	MONERS: a news recommender for the mobile web	8/5/2016, 2:08:39 PM
Lee and Lee	2007	Context Awareness by Case-Based Reasoning in a Music Recommendation System	8/5/2016, 2:08:39 PM
Lee	2013	The Quantified Self (QS) Movement and Some Emerging Opportunities for the Educational Technology Field	12/31/2016, 3:53:32 PM
Leibinger et al.	2016	Privacy Challenges in the Quantified Self Movement - An EU Perspective	9/23/2016, 11:11:00 AM
Lenhart et al.	2015	Teens, social media & technology overview 2015	4/13/2018, 3:48:23 PM
Li et al.	2010	Understanding situational online information disclosure as a privacy calculus	4/13/2017, 7:42:50 PM
Li et al.	2011	The role of affect and cognition on online consumers' decision to disclose personal information to unfamiliar e...	8/5/2016, 2:08:39 PM
Li et al.	2015	Cross-Cultural Privacy Prediction	8/5/2016, 2:23:42 PM
Li et al.	2017	Cross-Cultural Privacy Prediction	6/23/2017, 11:08:18 AM
Li	2012	Theories in online information privacy research: A critical review and an integrated framework	8/5/2016, 2:08:39 PM
Lin et al.	2014	Modeling Users' Mobile App Privacy Preferences: Restoring Usability in a Sea of Permission Settings	4/13/2017, 7:17:30 PM

Info Notes Tags Related

Item Type Journal Article

Title Recommender systems: from algorithms to user experience

Author Konstan, Joseph A.

Author Riedl, John

Abstract Since their introduction in the early 1990's...

Publication User Modeling and User-Adapted Interaction

Volume 22

Issue 1

Pages 101-123

Date 2012-04-01 y m d

Series

Series Title

Series Text

Journal Abbr User Model User-Adapt Inter

Language en

DOI 10.1007/s11257-011-9112-x

ISSN 1533-1391

Short Title Recommender systems

URL https://doi.org/10.1007/s11257-011-9112-x

Accessed 9/1/2019, 11:23:58 PM

Archive

Loc. in Archive

Library Catalog Springer Link

Call Number

Rights

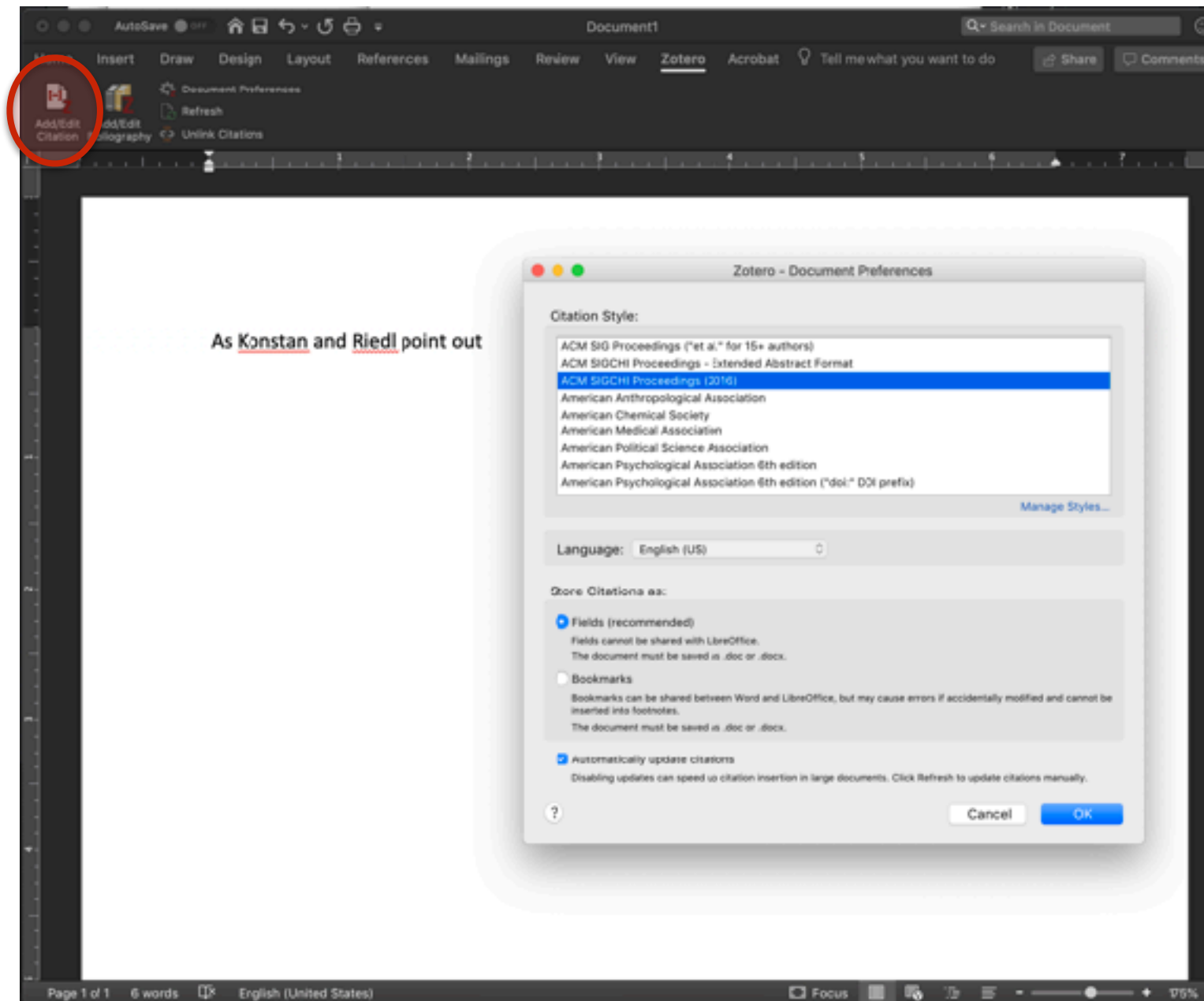
Extra

Date Added 9/1/2019, 11:23:58 PM

Modified 9/1/2019, 11:23:58 PM



# Demonstration





# Demonstration

**Z** \* konstan

My Library

**Recommender systems: from algorithms to user experience**  
Konstan and Riedl (2012), *User Modeling and User-Adapted interaction*, 22(1), 101-123.

kobsa-lab

**Recommender systems: from algorithms to user experience**  
Konstan and Riedl (2012), *User Modeling and User-Adapted interaction*, 22(1-2), 101-123.

**Recommender systems: from algorithms to user experience**  
Konstan and Riedl (2012), *User Modeling and User-Adapted interaction*, 22(1-2), 101-123.

**Recommender Systems in E-Commerce**  
Konstan and Riedl (2000).

**Recommender systems: from algorithms to user experience**  
Konstan and Riedl (2012), *User Modeling and User-Adapted interaction*, 22(1), 101-123.

**GroupLens: Applying Collaborative Filtering to Usenet News**  
Konstan et al. (1997), *Communications of the ACM*, 40(3), 77-87.

RSSA

**Recommender systems: from algorithms to user experience**  
Konstan and Riedl (2012), *User Modeling and User-Adapted interaction*, 22(1-2), 101-123.





# Demonstration

Zoomo

Format: BibTeX

Translator Options

- ☐ Export Notes
- ☐ Export Files
- ☐ Use Journal Abbreviation

Character Encoding: Unicode (UTF-8)

Cancel OK

Creator	Year	Title	Date Added
Kobsa et al.	2016	The effect of Personalization in	8/5/2016, 2:08:39 PM
Kobsa et al.	2014	Let's Do It at My Place Instead!	8/11/2017, 12:38:27 PM
Kobsa et al.	2012	Privacy in instant messaging: a	8/5/2016, 2:08:39 PM
Kobsa and Schreck	2003	Privacy through pseudonymity	8/5/2016, 2:08:39 PM
Kolter and Pernul	2009	Generating User-Understandable	8/5/2016, 2:22:10 PM
Konstan and Riedl	2012	Recommender systems: from a	9/1/2019, 11:23:58 PM
Koroleva et al.	2011	It's All About Networking! Empli	9/1/2019, 11:24:00 PM
Korzaan and Boswel	2008	The Influence of Personality Tr	8/5/2016, 2:08:39 PM
Koshinizu et al.	2006	Factors on the sense of privacy	3/25/2017, 5:10:07 PM
Kosinski et al.	2013	Private traits and attributes are	8/5/2016, 2:22:10 PM
Krämer and Haferkamp	2011	Online Self-Presentation: Ralan	8/5/2016, 2:08:39 PM
Kramer-Duffield	2010	Beliefs and uses of tagging am	9/3/2018, 10:13:17 AM
Krasnova et al.	2009	Investigating the Value of Privacy in Online Social Networks: Conjoint Analysis	8/5/2016, 2:08:39 PM
Krishnamurthy and W...	2009	Privacy diffusion on the web: a longitudinal perspective	8/5/2016, 2:08:39 PM
Kukula et al.	2015	Mixed methods study examining work reintegration experiences from perspectives of Veterans with mental he...	10/17/2016, 4:51:18 PM
Kumaraguru and Cran...	2006	Privacy indexes : a survey of Westin's studies	9/9/2017, 12:38:21 PM
Kushlev et al.	2016	"Silence Your Phones": Smartphone Notifications Increase Inattention and Hyperactivity Symptoms	2/5/2017, 5:03:06 PM
Lai and Hui	2006	Internet Opt-In and Opt-Out: Investigating the Roles of Frames, Defaults and Privacy Concerns	8/5/2016, 2:08:39 PM
Lai and Hui	2009	Internet Opt-In and Opt-Out: Investigating the Roles of Frames, Defaults and Privacy Concerns	9/9/2017, 11:21:23 AM
Lampe et al.	2006	A face(book) in the crowd: social Searching vs. social browsing	8/5/2016, 2:08:39 PM
Lampinen et al.	2011	We're in It Together: Interpersonal Management of Disclosure in Social Network Services	8/5/2016, 2:08:39 PM
Langenderfer and Cook	2004	Oh, what a tangled web we weave: The state of privacy protection in the information economy and recommend...	8/5/2016, 2:22:38 PM
Langheinrich	2001	Privacy by Design: Principles of Privacy-Aware Ubiquitous Systems	10/11/2016, 3:21:22 PM
Lanier	2010	You are Not a Gadget: A Manifesto	8/5/2016, 2:08:39 PM
Lao and Kobsa	2006	Privacy Attitudes of Internet Users in the U.S. and Europe	8/5/2016, 2:22:50 PM
Laufer et al.	1973	Some Analytic Dimensions of Privacy	8/5/2016, 2:08:39 PM
Laufer and Wolfe	1977	Privacy as a Concept and a Social Issue: A Multidimensional Developmental Theory	8/5/2016, 2:08:39 PM
Leary	1994	Self-presentation: impression management and interpersonal behavior	8/5/2016, 2:08:39 PM
Ledermann et al.	2004	Personal privacy through understanding and action: five pitfalls for designers	8/5/2016, 2:08:39 PM
Ledermann et al.	2003	Who wants to know what when? privacy preference determinants in ubiquitous computing	8/5/2016, 2:08:39 PM
Lee and Kobsa	2016	Understanding user privacy in Internet of Things environments	2/7/2018, 2:13:53 PM
Lee and Kobsa	2017	Privacy preference modeling and prediction in a simulated campuswide IoT environment	2/7/2018, 5:47:50 PM
Lee and Park	2007	MONERS: A news recommender for the mobile web	8/5/2016, 2:08:39 PM
Lee and Lee	2007	Context Awareness by Case-Based Reasoning in a Music Recommendation System	8/5/2016, 2:08:39 PM
Lee	2013	The Quantified Self (QS) Movement and Some Emerging Opportunities for the Educational Technology Field	10/31/2016, 3:53:32 PM
Leibinger et al.	2016	Privacy Challenges in the Quantified Self Movement - An EUPerspective	9/23/2016, 11:11:00 AM
Lenhart et al.	2015	Teens, social media & technology overview 2015	4/13/2018, 3:48:23 PM
Li et al.	2010	Understanding situational online information disclosure as a privacy calculus	4/13/2017, 7:42:50 PM
Li et al.	2011	The role of affect and cognition in online consumers' decision to disclose personal information to unfamiliar o...	8/5/2016, 2:08:39 PM
Li et al.	2015	Cross-Cultural Privacy Prediction	8/5/2016, 2:23:42 PM
Li et al.	2017	Cross-Cultural Privacy Prediction	6/23/2017, 11:04:18 AM
Li	2012	Theories in online information privacy research: A critical review and an integrated framework	8/5/2016, 2:08:39 PM
Lin et al.	2014	Modeling Users' Mobile App Privacy Preferences: Restoring Usability in a Sea of Permission Settings	4/13/2017, 7:17:30 PM

Item Type: Journal Article

Title: Recommender systems: from algorithms to user experience

Author: Konstan, Joseph A.

Author: Riedl, John

Abstract: Since their introduction in the early 1990's,...

Publication: User Modeling and User-Adapted Interaction

Volume: 22

Issue: 1

Pages: 101-123

Date: 2012-04-01

Series: User Model User-Adap Inter

Language: en

DOI: 10.1007/s11257-011-9112-x

ISSN: 1573-1391

Short Title: Recommender systems

URL: https://doi.org/10.1007/s11257-011-9112-x

Accessed: 9/1/2019, 11:23:58 PM

Loc. in archive: Springer Link

Call Number: Rights

Extra: Date Added: 9/1/2019, 11:23:58 PM

Modified: 9/1/2019, 11:23:58 PM



# Demonstration

```
konstan.bib — Downloads
1
2 @article{konstan_recommender_2012,
3   title = {Recommender systems: from algorithms to user experience},
4   volume = {22},
5   issn = {1573-1391},
6   shorttitle = {Recommender systems},
7   url = {https://doi.org/10.1007/s11257-011-9112-x},
8   doi = {10.1007/s11257-011-9112-x},
9   abstract = {Since their introduction in the early 1990's, automated recommender systems have revolutionized the
10  marketing and delivery of commerce and content by providing personalized recommendations and predictions over a variety
11  of large and complex product offerings. In this article, we review the key advances in collaborative filtering
12  recommender systems, focusing on the evolution from research concentrated purely on algorithms to research concentrated
13  on the rich set of questions around the user experience with the recommender. We show through examples that the embedding
14  of the algorithm in the user experience dramatically affects the value to the user of the recommender. We argue that
15  evaluating the user experience of a recommender requires a broader set of measures than have been commonly used, and
16  suggest additional measures that have proven effective. Based on our analysis of the state of the field, we identify the
17  most important open research problems, and outline key challenges slowing the advance of the state of the art, and in
18  some cases limiting the relevance of research to real-world applications.},
19   language = {en},
20   number = {1},
21   urldate = {2019-09-02},
22   journal = {User Modeling and User-Adapted Interaction},
23   author = {Konstan, Joseph A. and Riedl, John},
24   month = apr,
25   year = {2012},
26   keywords = {Collaborative filtering, Evaluation, Metrics, Recommender systems, User experience},
27   pages = {101--123},
28   file = {Springer Full Text PDF:/Users/bknijnen/Zotero/storage/BXAADPRB/Konstan and Riedl - 2012 - Recommender systems
from algorithms to user exper.pdf:application/pdf}
}
```

Line: 20:2 | BibTeX | Tab Size: 4 | konstan\_recommender\_2012



# Demonstration

```
200
201 %%
202 %% Keywords. The author(s) should pick words that accurately describe
203 %% the work being presented. Separate the keywords with commas.
204 \keywords{datasets, neural networks, gaze detection, text tagging}
205
206
207 %%
208 %% This command processes the author and affiliation and title
209 %% information and builds the first part of the formatted document.
210 \maketitle
211
212 \section{Introduction}
213 As Konstan and Riedl point out-\cite{konst
214 \cite{konstan_recommender_2012} reference
215 Press CTRL-Space to Search
216 ACM's consolidated article template, introduced in 2017, provides a
217 consistent \LaTeX\ style for use across ACM publications, and
218 incorporates accessibility and metadata-extraction functionality
219 necessary for future Digital Library endeavors. Numerous ACM and
220 SIG-specific \LaTeX\ templates have been examined, and their unique
221 features incorporated into this single new template.
222
223 If you are new to publishing with ACM, this document is a valuable
224 guide to the process of preparing your work for publication. If you
225 have published with ACM before, this document provides insight and
226 instruction into more recent changes to the article template.
```



# Other options

Mendeley

Also free, owned by Elsevier

Endnote

Very popular but expensive

RefWorks

Free for Clemson affiliates

Papers

High usability, but Mac-only



# Notes

Make sure to fix common problems in paper metadata:

- ALL CAPS TITLES
- Proceedings filed as journal article
- Missing page numbers, location, DOI
- Special character formatting

Use the correct citation style

May not always be available, unfortunately

Word plugin sometimes buggy



# Citing papers

How to cite others correctly in your paper?



# Citing papers

Citing correctly signals that you put effort into your paper

Common problems:

- Incorrect citation style / misspelled author names etc.

- Missing relevant work

- Incorrect / sloppy citations





# Citation styles

Numbered, consecutively

This one is the easiest

Numbered, by last name

Very easy with the help of a reference manager

Names, year

Usually for journals





# Citation styles

## Numbered:

- Privacy is an undying problem in social media [1].
- Inline citation: As Author and Author point out [1], privacy is an undying problem in social media.
  - Better than “As [1] points out...”
- Quoted text: Author and Author write [1]: “Privacy continues to be a problem in social networks, including Facebook” (p. 193).
- Multiple citations: Multiple researchers note that privacy is an undying problem in social media [1, 6, 8–10].



# Citation styles

The same, but for the “names, year” format:

- Privacy is an undying problem in social media (Author & Author, 2001).
- As Author and Author (2001) point out, privacy is an undying problem in social media.
- Author and Author (2001) write: “Privacy continues to be a problem in social networks, including Facebook” (p. 193).
- Multiple researchers note that privacy is an undying problem in social media (Author & Author, 2001; Johnson, 2012; Smith et al., 2009)



# Disambiguation

Let's say you cite a paper with Dave Johnson as the first author, and another paper with Michael James Johnson as the first author...

(D. Johnson et al., 2001) and (M.J. Johnson et al., 2012)

Let's say you cite multiple papers with the same first author and the same year...

(Knijnenburg et al., 2012), (Knijnenburg et al., 2012a),  
(Knijnenburg et al. 2012b), etc.



# Use of et al.

First time you cite authors: use all the names\*:

(Knijnenburg, Willemsen, Gantner, Soncu & Newell, 2012)

Subsequently, use “first author et al.”:

(Knijnenburg et al., 2012)

For inline citations in the numbered citation format, always use et al.:

Knijnenburg et al. [1] argue that...

Note the correct spelling of “et al.”



# Cite correctly

Don't something that is cited in another paper, cite the original work instead!

Don't use string citations:

Example: "Multiple researchers note that privacy is an undying problem in social media [1, 6, 8, 12, 24, 46, 51, 56]."

Are you citing too many papers?

Usually symptom of not covering each work deep enough

- What does each of these works contribute?
- How is your work different from each of these works?



# References

Format them correctly!

Much easier LaTeX and/or a good citation manager

Pay attention to:

- name formatting (full first name, yes/no?)
- use of venue abbreviations
- use of location of conference
- use of DOI

For journals, just make sure the DOI is correct



# References

Do they count towards the page limit?

If not (yay), do they have their own page limit?