



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

Exploring Choice Overload in Related-Article Recommendations in Digital Libraries

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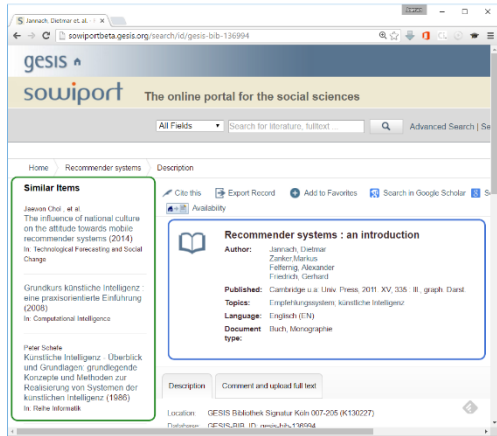
BIR2017: 5th International Workshop on Bibliometric-enhanced Information Retrieval

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2017-04-09

Mr. DLib



(3) The partner displays the related articles on its website

(1) A partner requests related articles



(2) Mr. DLib returns a list of related articles

[illegible]

Research Problem / Goal

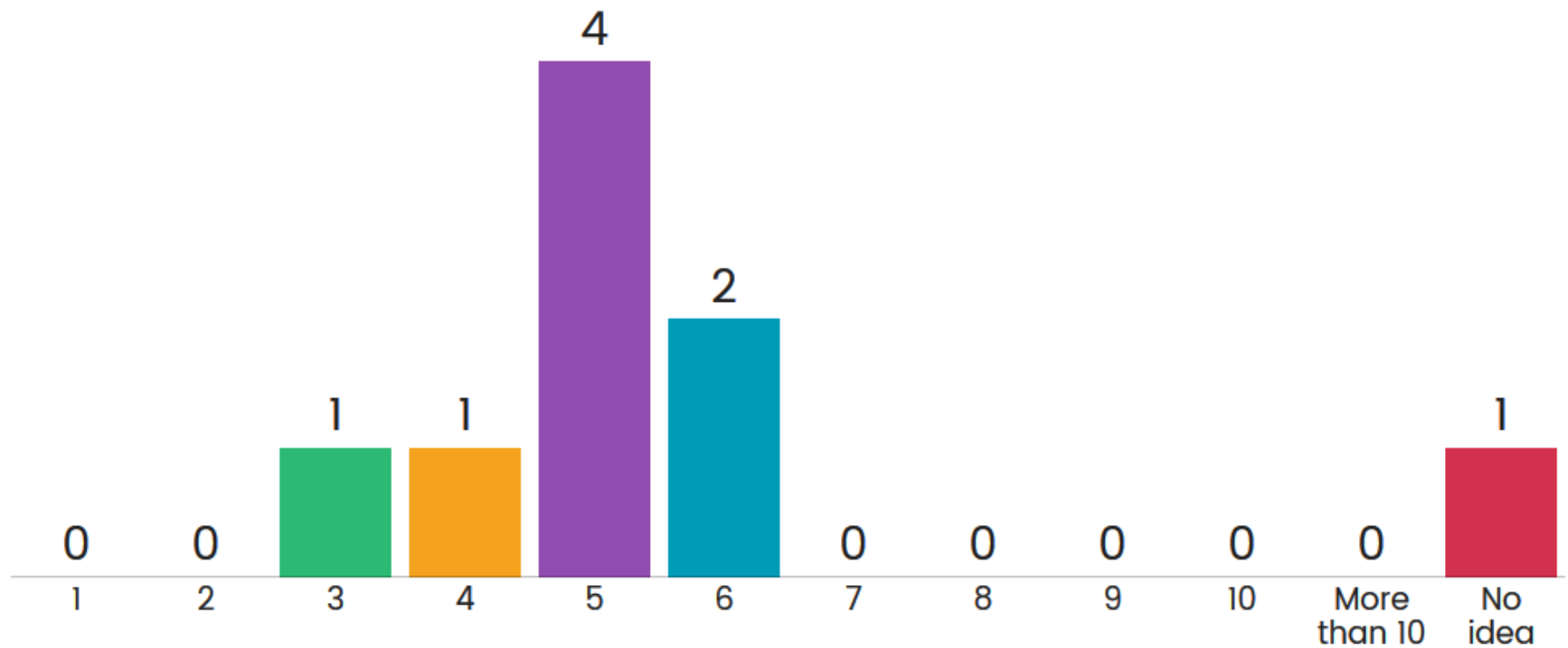
The screenshot shows the GESIS Sowipo portal interface. At the top, there's a header with the GESIS logo and 'sowipo' branding, followed by the tagline 'The online portal for the social sciences'. A search bar is present with a dropdown menu set to 'All Fields' and a search button. Navigation links for 'Advanced Search', 'Search History', and 'Favorites' are also visible.

The main content area displays search results for 'BIR 2015'. On the left, a sidebar titled 'Similar Items' lists several related publications, including 'BIR 2014 - Bibliometric-enhanced information retrieval: proceedings of the First workshop on bibliometric-enhanced information retrieval co-located with 36th European Conference on Information Retrieval (ECIR 2014); Amsterdam, The Netherlands, April 13, 2014. (2014)' and 'Advances in information retrieval: 37th European Conference on IR Research, ECIR 2015, Vienna, Austria, March 29 - April 2, 2015 : proceedings, 2014, proceedings (2015)'. The main content area shows the details for 'BIR 2015 - Bibliometric-enhanced information retrieval : proceedings of the second workshop on bibliometric-enhanced information retrieval co-located with 37th European Conference on Information Retrieval (ECIR 2015); Vienna, Austria, March 29th, 2015.' It lists the editor (Mayr, Philipp), publisher (Aachen: RWTH Aachen, 2015), conference (BIR 2015 - Workshop on Bibliometric-enhanced Information Retrieval, 2, 2015, Vienna), topics (information retrieval), language (English (EN)), and document type (Buch, Kongresspapier, Kongressbericht).

Below the main details, there's a 'Description' section. At the bottom of the page, there's a footer with copyright information and links to 'Imprint', 'About Sowipo', 'Team', 'Partners', 'Database description', 'OAI', and 'Feedback'.

1? 3? 5? 10? 100?

How many recommendations should be shown on Sowiport?



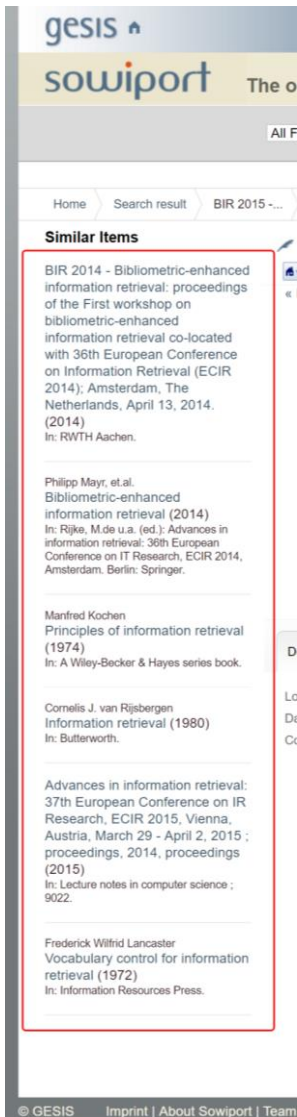
Related Work

- **What to include?**
 - Diversity
 - Serendipity
 - ...
- **How many items to show?**
 - In search: 10
 - In recommendations:???

Methodology

1. Look what others do (63 digital libraries, listed on Wikipedia)
2. A/B Test -> Randomly pick number between 1 and 15
3. Measure click-through rate (CTR)
4. 3.4 million recommendations

What do we want?

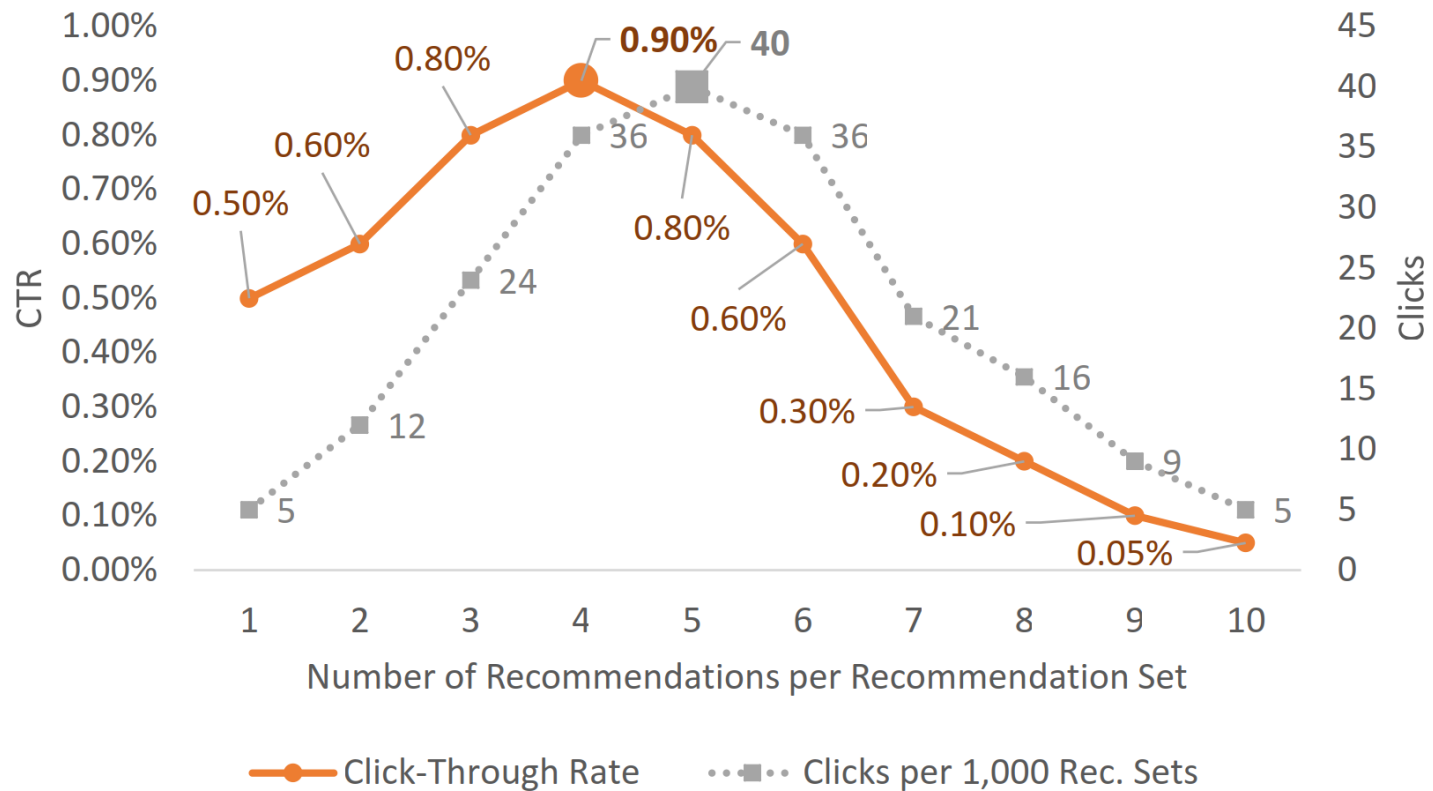


5 Recommendations and 3 Clicks (CTR=60%)

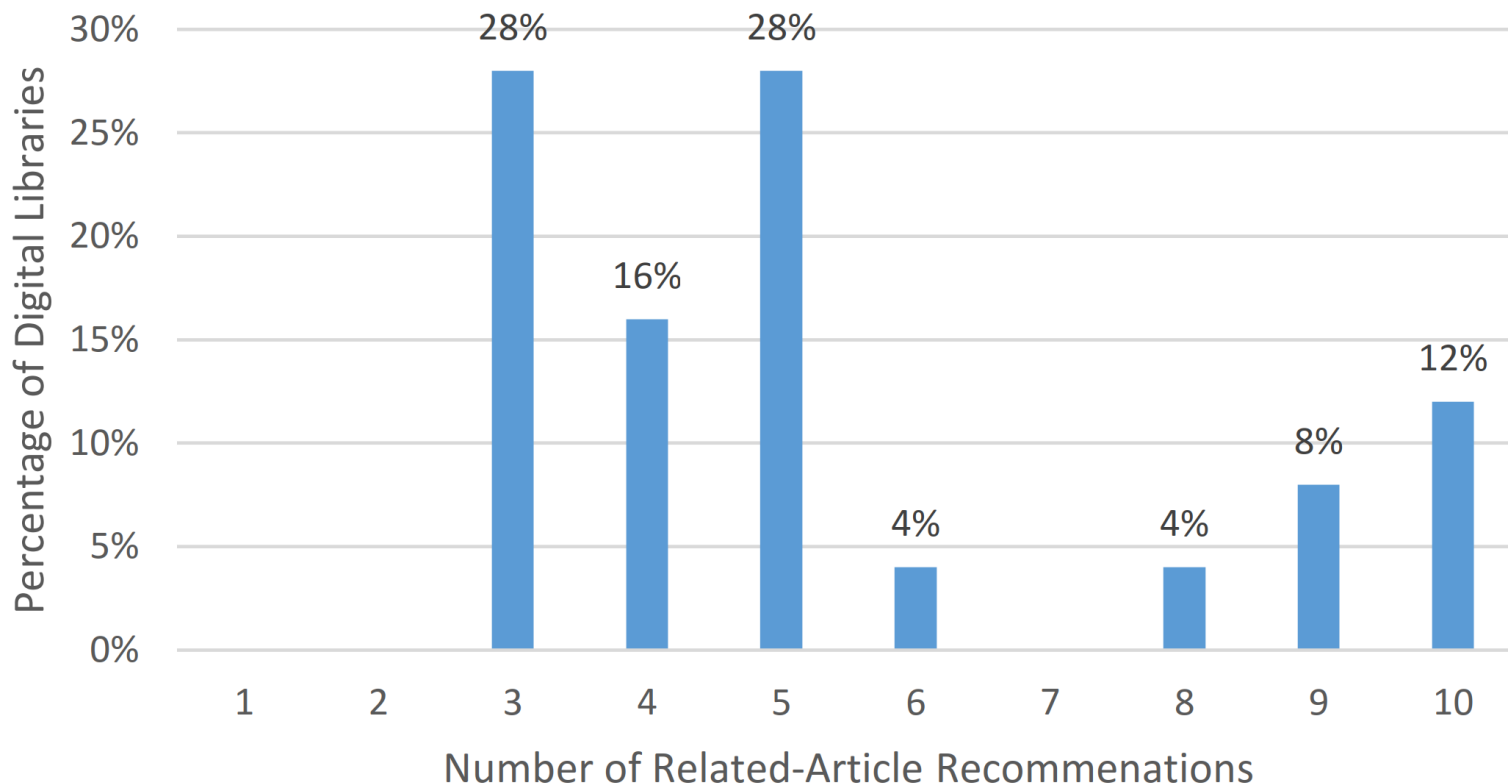
10 Recommendations and 4 Clicks (CTR = 40%)

100 Recommendations and 5 Clicks? (CTR = 5%)

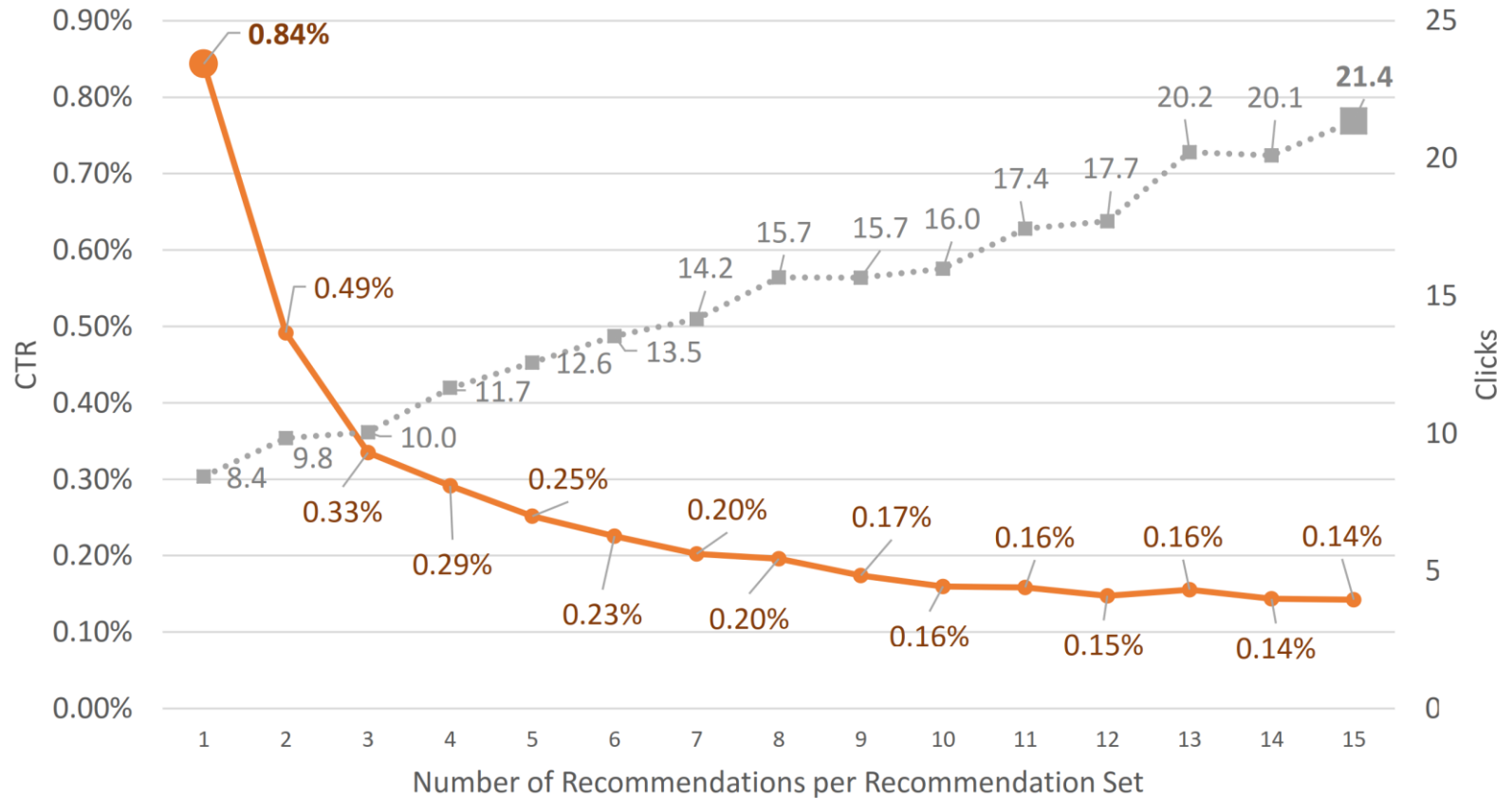
Potential Outcome



Number of Recommendations in Digital Libraries



Results A/B Test



Reasons / Outlook

Just bad recommendations? → Try other recommendation approaches

Recommendations open in new tab → Open in background

CTR inappropriate? → Try other evaluation metrics

Discuss in general what the „best“ number of recommendations would be

Conclusion





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Thank You