Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Exploring Choice Overload in Related-Article Recommendations in Digital Libraries
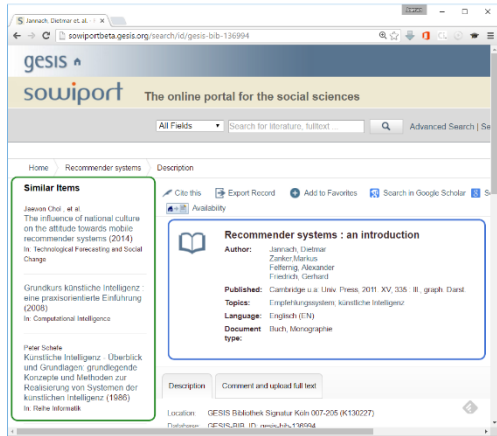
Felix Beierle, Akiko Aizawa, and Joeran Beel

Mr. DLib

(1) A partner requests related articles

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

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

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Research Problem / Goal

How many recommendations should be shown on Sowiport?

Mentimeter

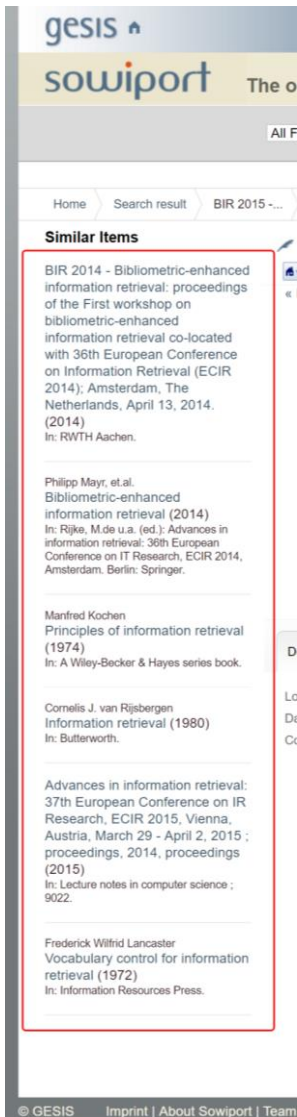| 0	0	1	1	4	2	0	0	0	0	0	1
1	2	3	4	5	6	7	8	9	10	More than 10	No idea

9
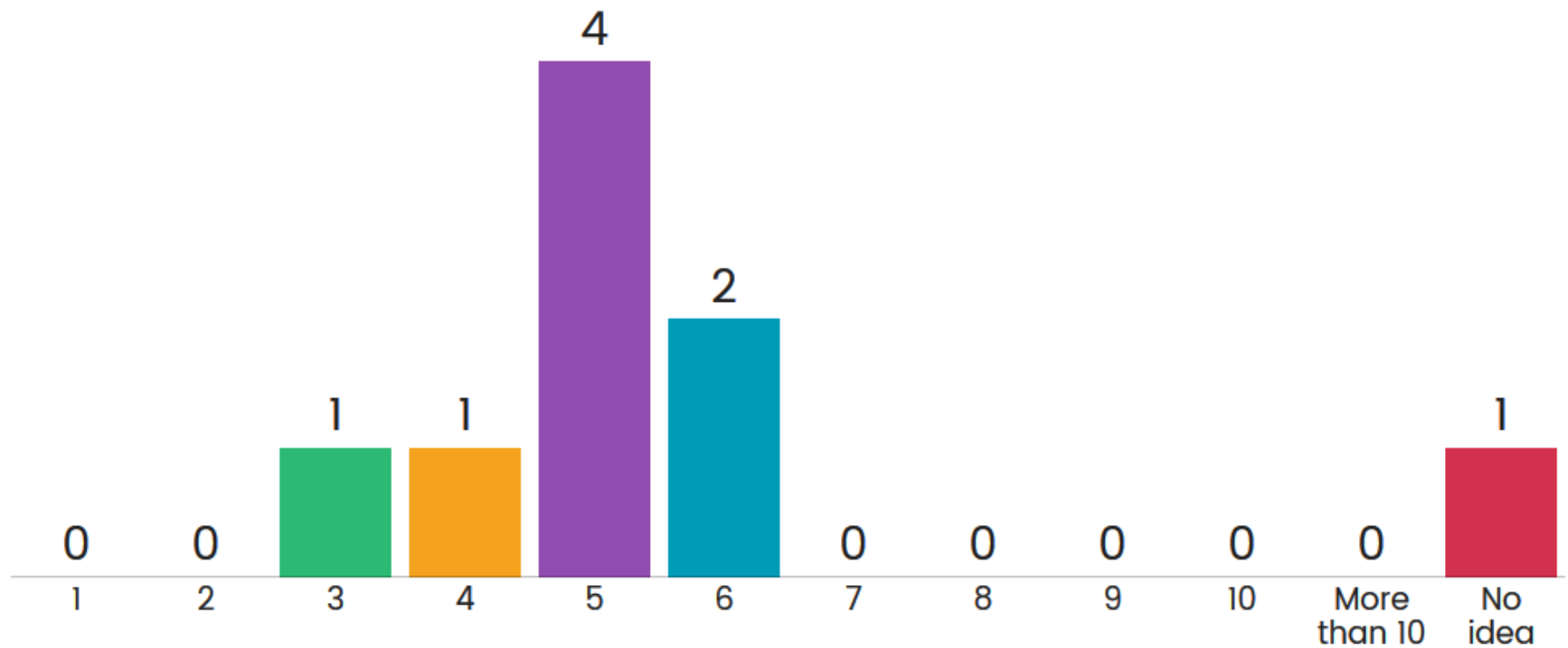
Related Work

- **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**
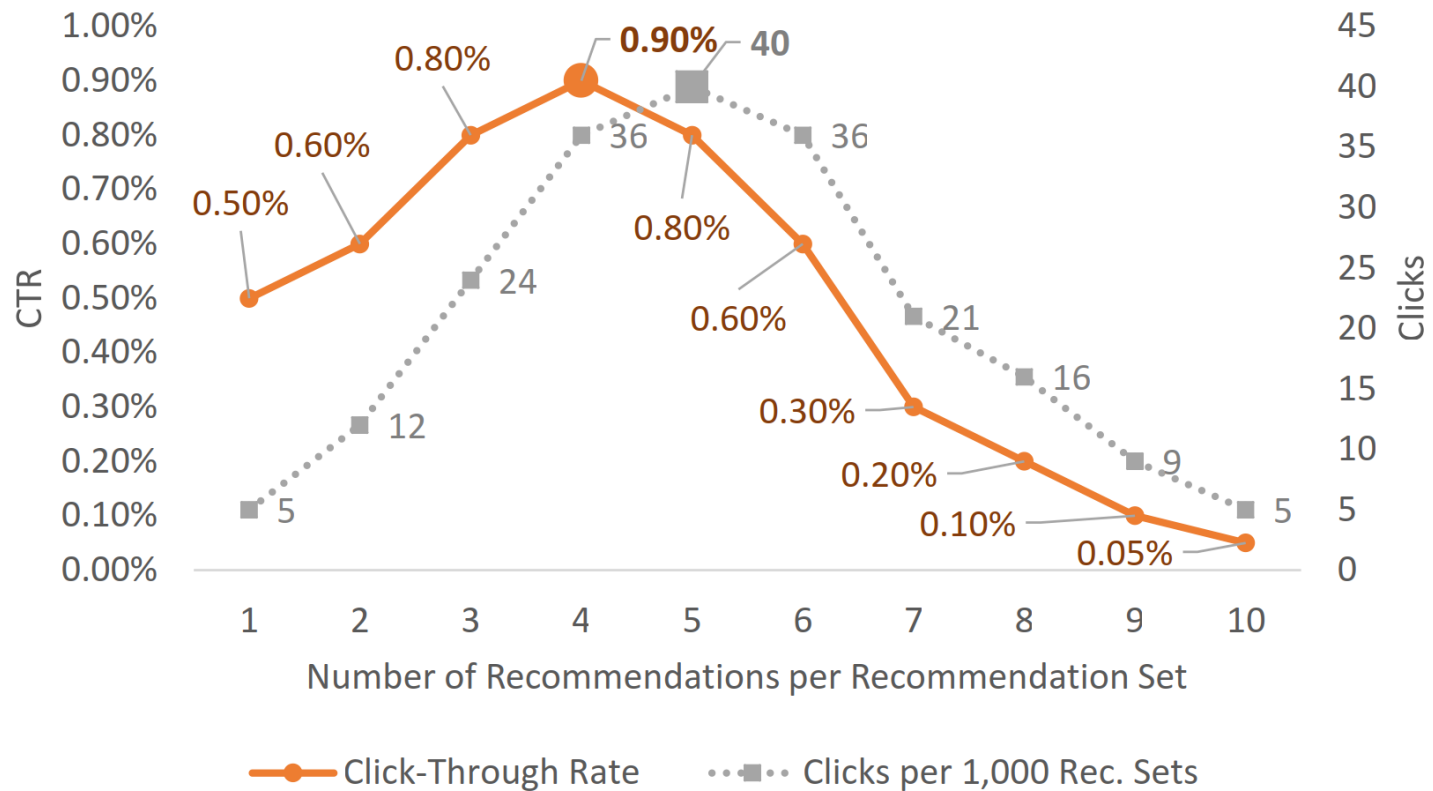
What do we want?

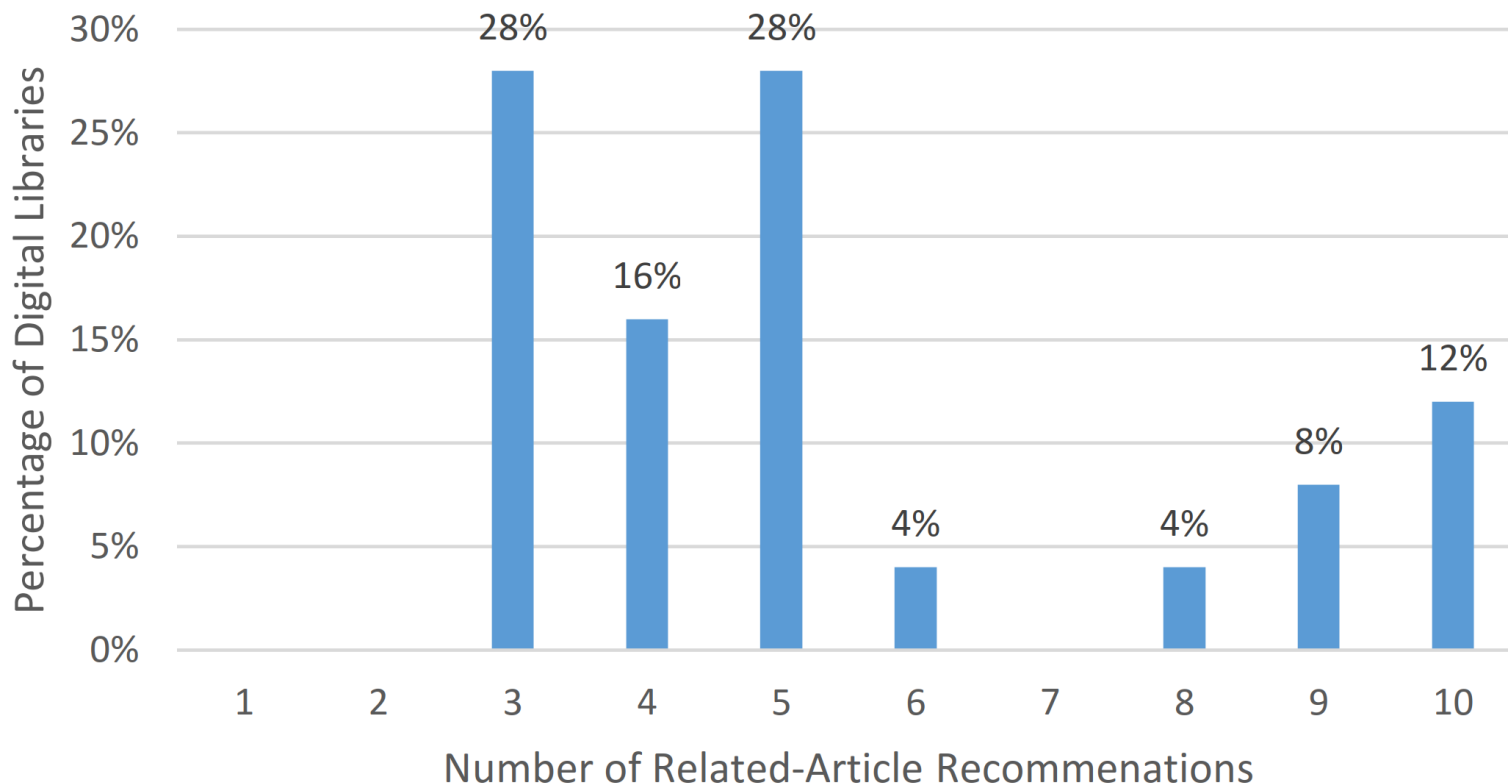5 Recommendations and 3 Clicks (CTR=60%)

10 Recommendations and 4 Clicks (CTR = 40%)
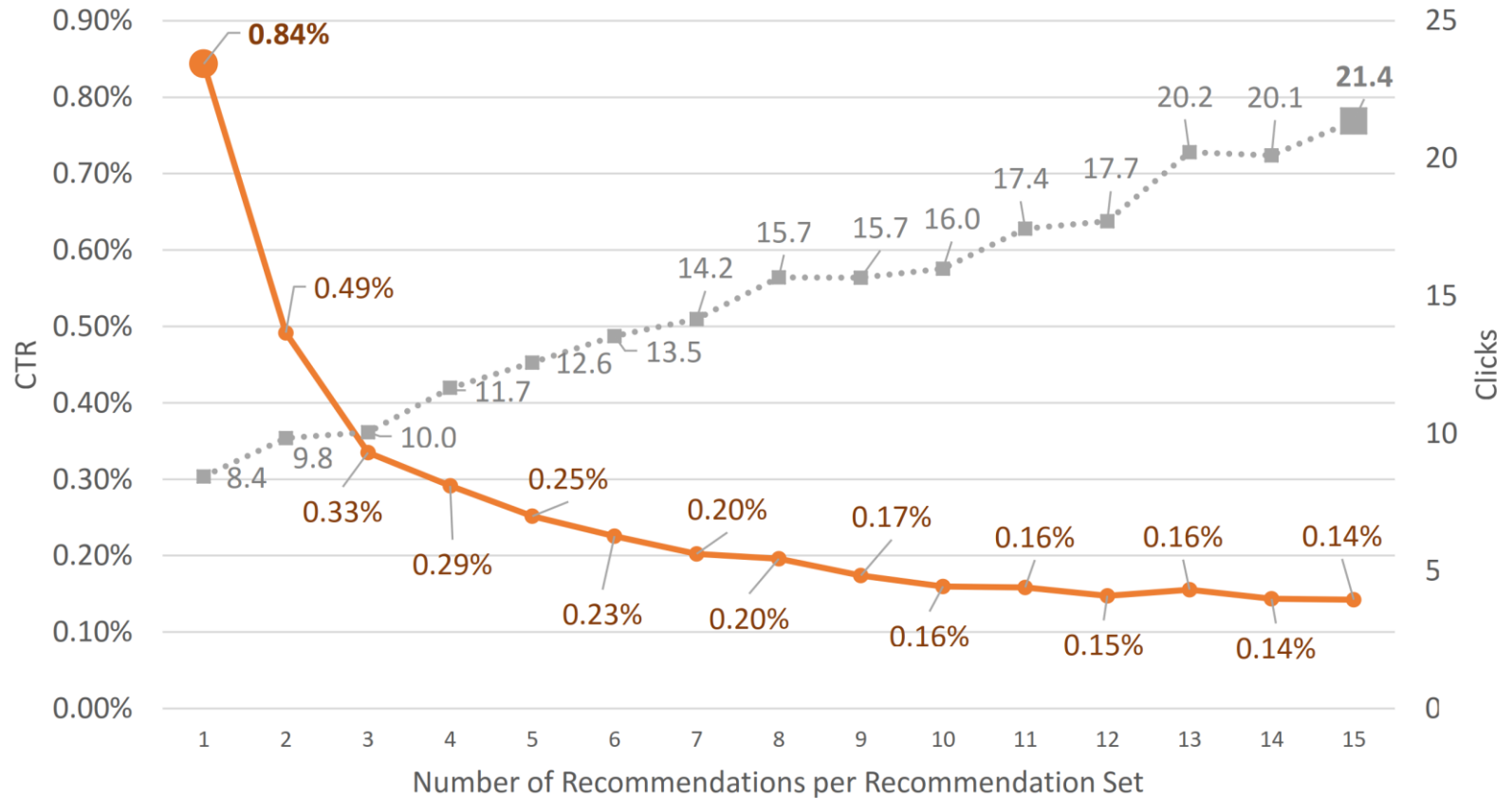
100 Recommendations and 5 Clicks? (CTR = 5%)

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