Keeping an Ear to the Ground

Evaluating Recent Developments in Citation Manager Technology with User Feedback

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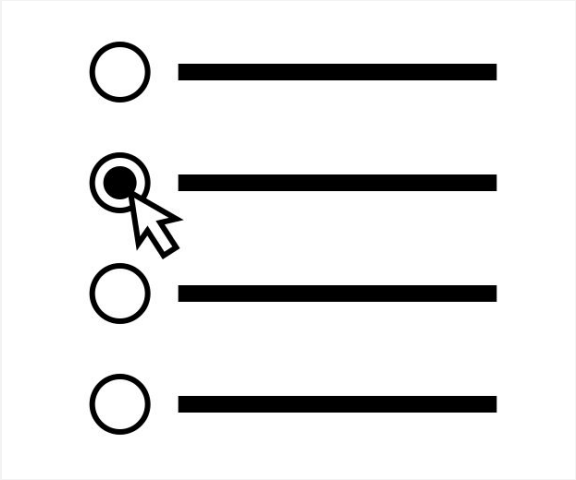
Poll - http://z.umn.edu/cmpoll



What citation managers do you support?

What citation manager do you recommend most?

Do you have an institutional subscription to a citation manager?

The setup: Where are we coming from?

- Large academic institution
- Currently support four citation managers at the Libraries
  - EndNote
  - Mendeley
  - RefWorks
  - Zotero
- Distributed expertise managed by a small group
- No recent overall comparison of citation managers
- Some data on users from some vendors

And then there was some big news from RefWorks...

... and very little follow-up.

Meanwhile, we ran into a Mendeley rep at a conference who tried to sell us on their institutional version.

This seemed like as good a time as any to do a serious evaluation of what our users needed and where we were spending our money.

Created by Gilbert Bages
from Noun Project

Roundup: What's New?

What's new with EndNote X7?

- New reference types

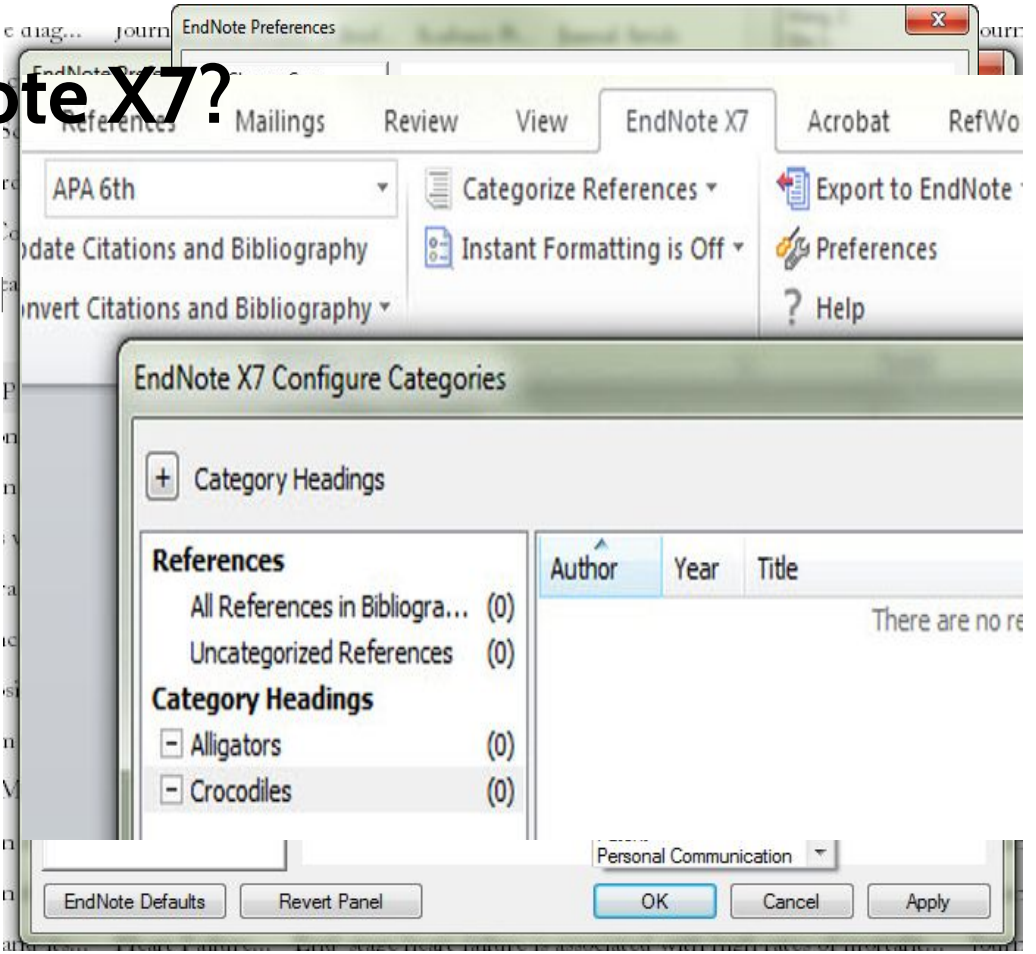
such as interview, podcast, conference and press release

- Advanced PDF handling

renames your pdf's during the import process based on your preferences.

- Install on 3 computers total

per user. Use same product key to install endnote on both mac and windows (with standard single-user license)



What's new with Mendeley

- **Connect to other apps**

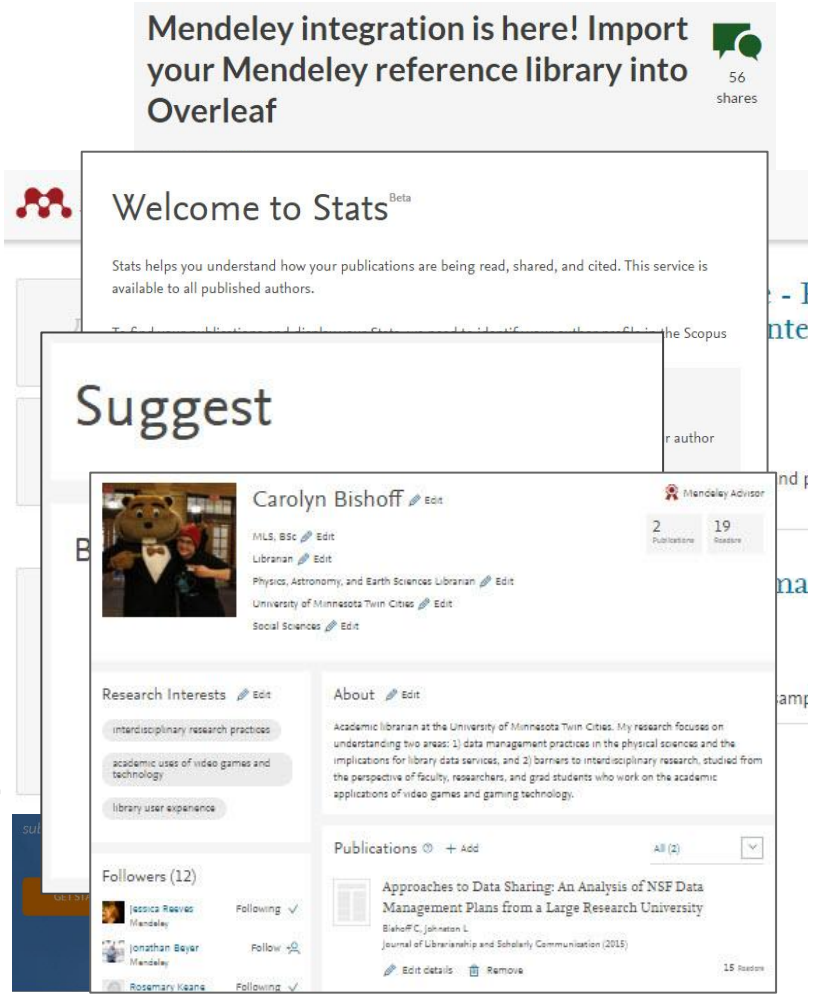
Shared logins and integration with Overleaf, Peerwith, Scopus

- **Now accepting research data**

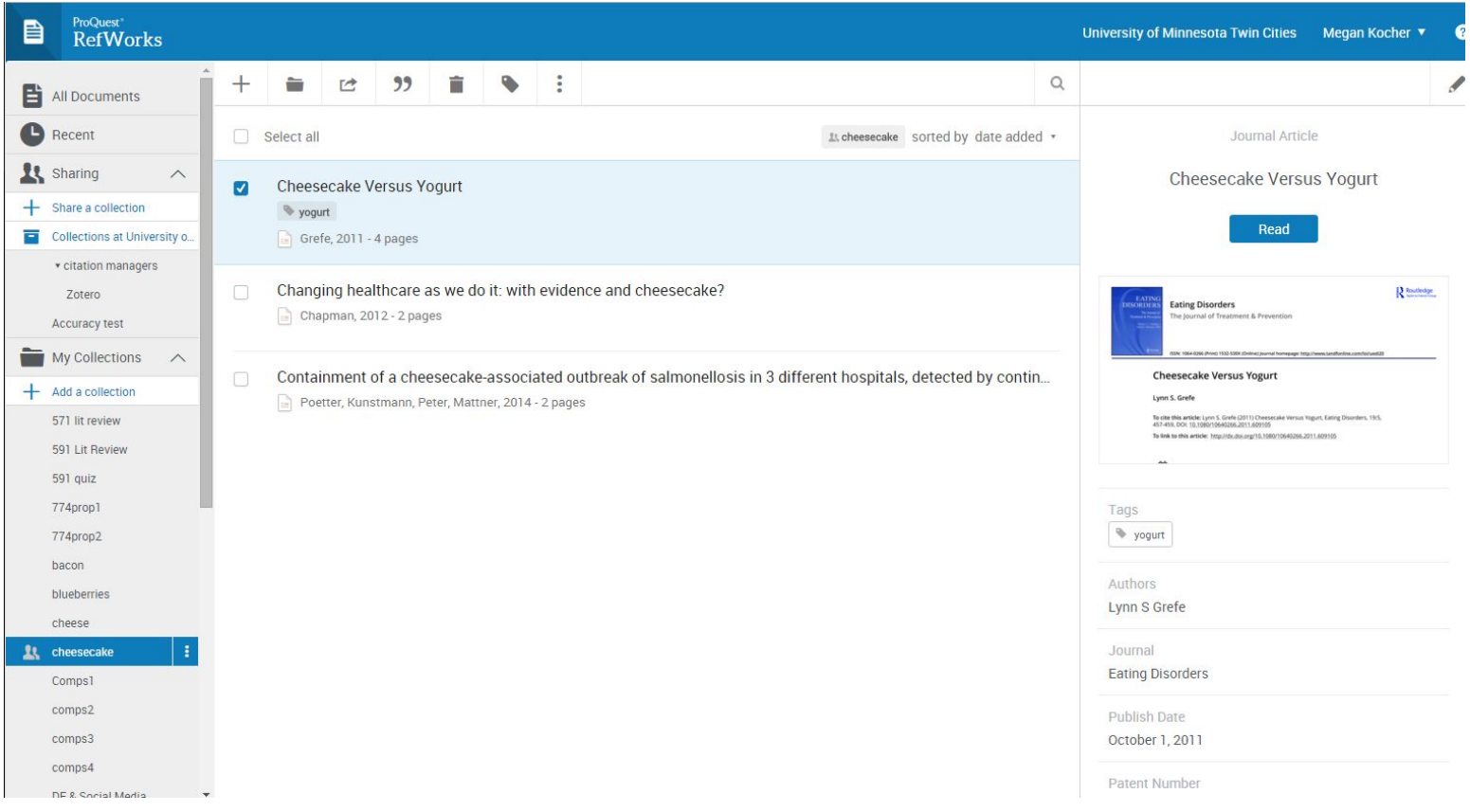
Mendeley Data, a new repository connected to ScienceDirect and Cell

- **Enhanced user features**

Altmetrics ("Stats"), suggested articles ("Suggest"), prettier profiles



What's New With RefWorks?

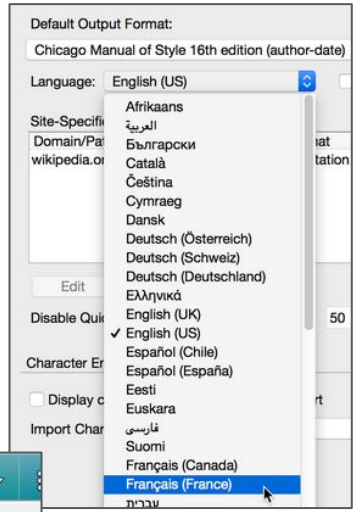


What's New With RefWorks?

- Flow = RefWorks
- Totally new interface
- PDF metadata extraction
- PDF annotation
- Google Docs add-on
- Groups for sharing citations and documents
- Write-N-Cite does not work with Word 2016 for Mac
- More information -- FAQs, feature comparison

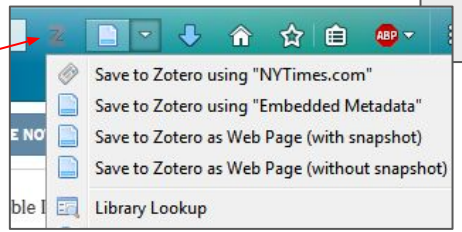
What's new with Zotero

- works well in a variety of different languages



- Save button has moved:

  from the address bar

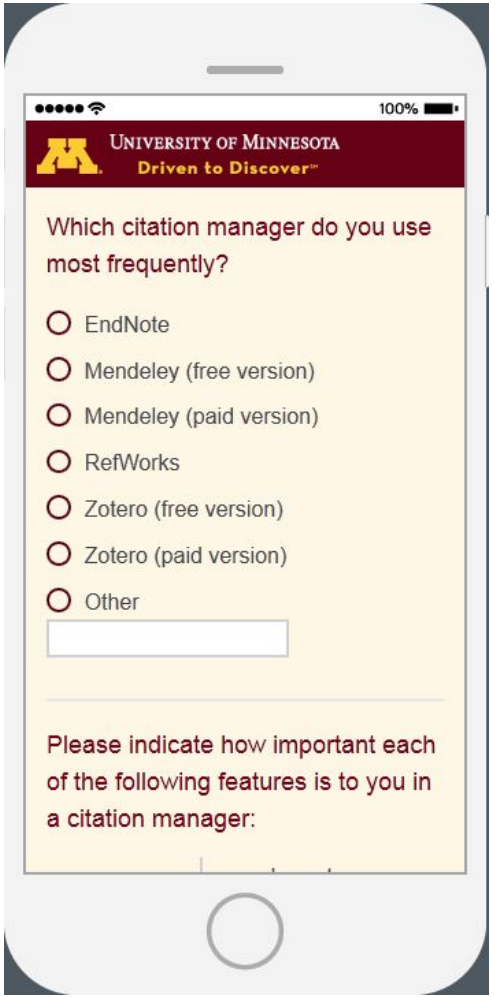


  to the toolbar

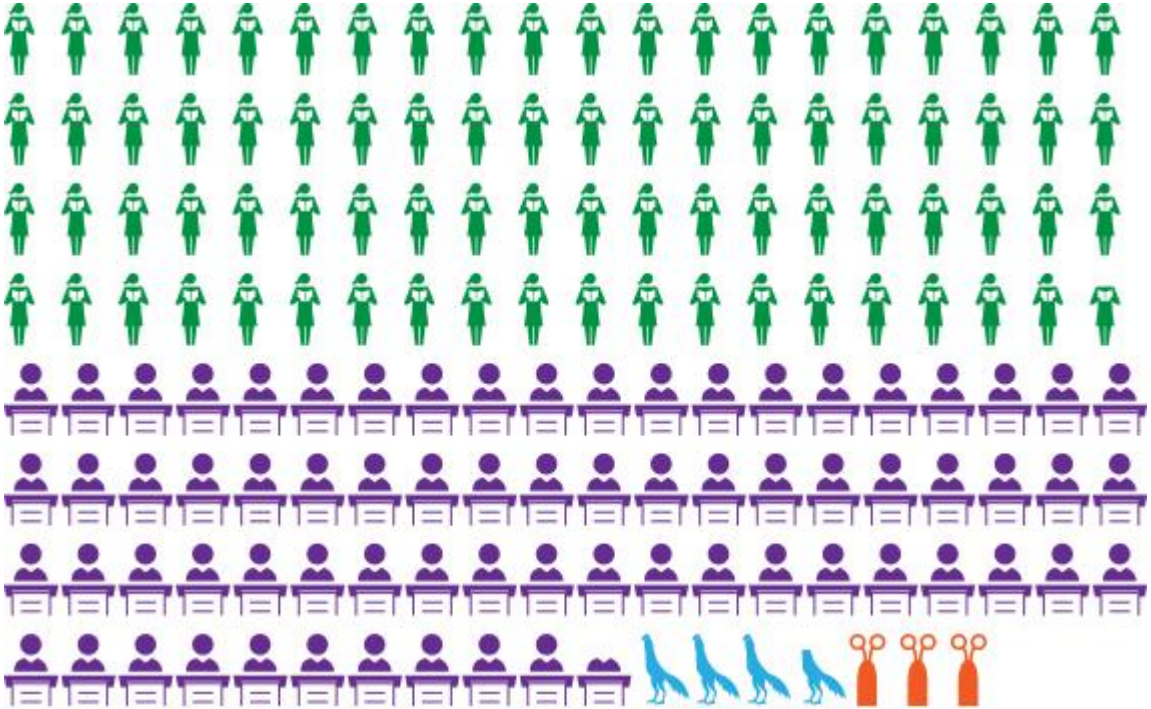
The Survey

Faculty and graduate student survey

- **Which citation manager** do you use most frequently?
- Please indicate how **important** each of the following **features** is to you in a citation manager
- Have you ever reached or come close to reaching a **storage space limit** with your citation manager?
- Is there **anything we have not covered** in this survey that is very important to you in a citation manager?
- **Department and Status**



Response by Status (N=787)



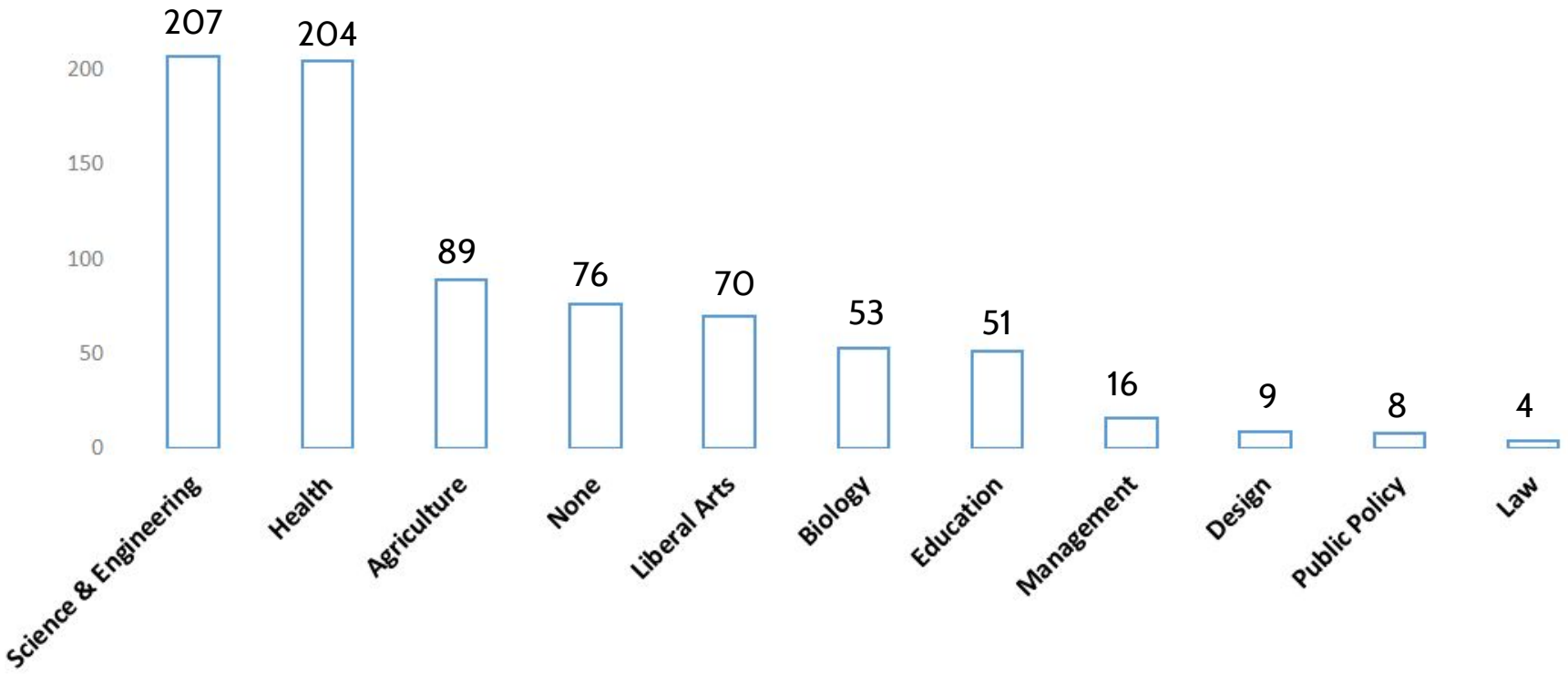
Grad Students
399

Faculty
354

(blank)
19

Other
15

Response by College (N=787)



Citation Manager preferences

THOMSON REUTERS
ENDNOTE

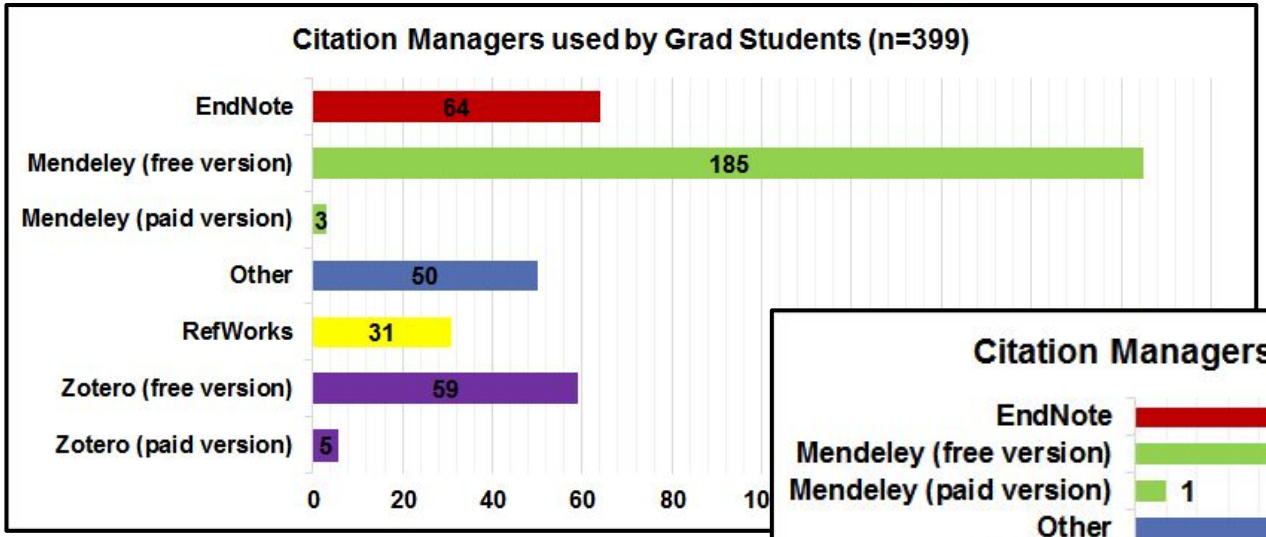
53% of faculty respondents use EndNote

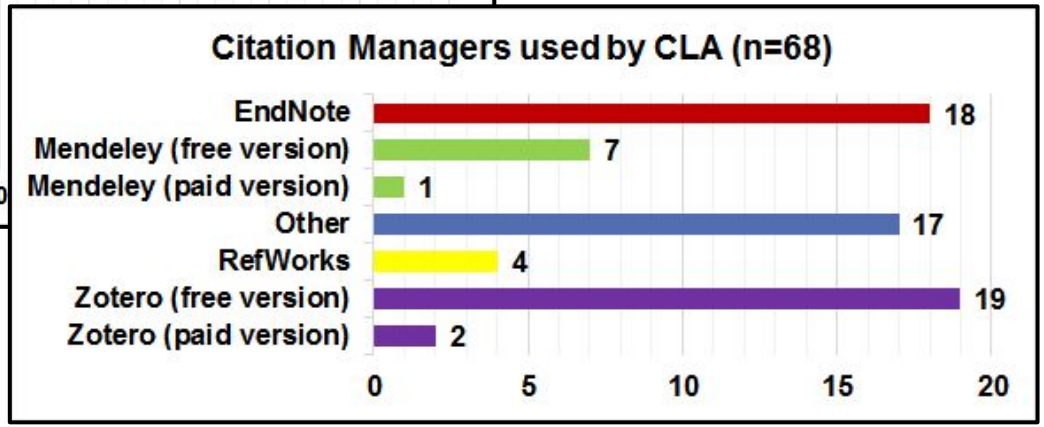
16% of graduate students use EndNote

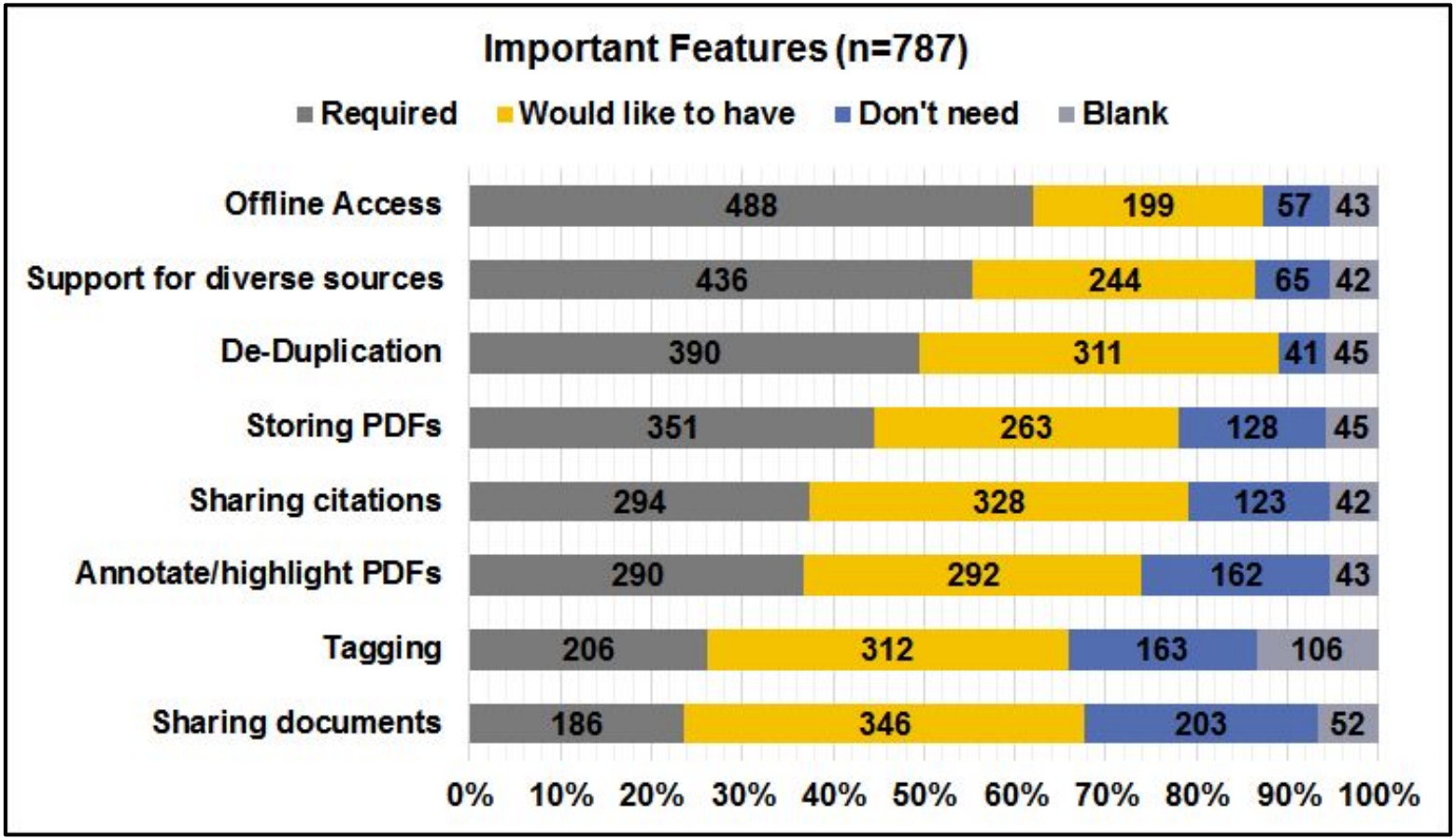
9% of faculty use Mendeley

46% of grad students use Mendeley

Subsets of users





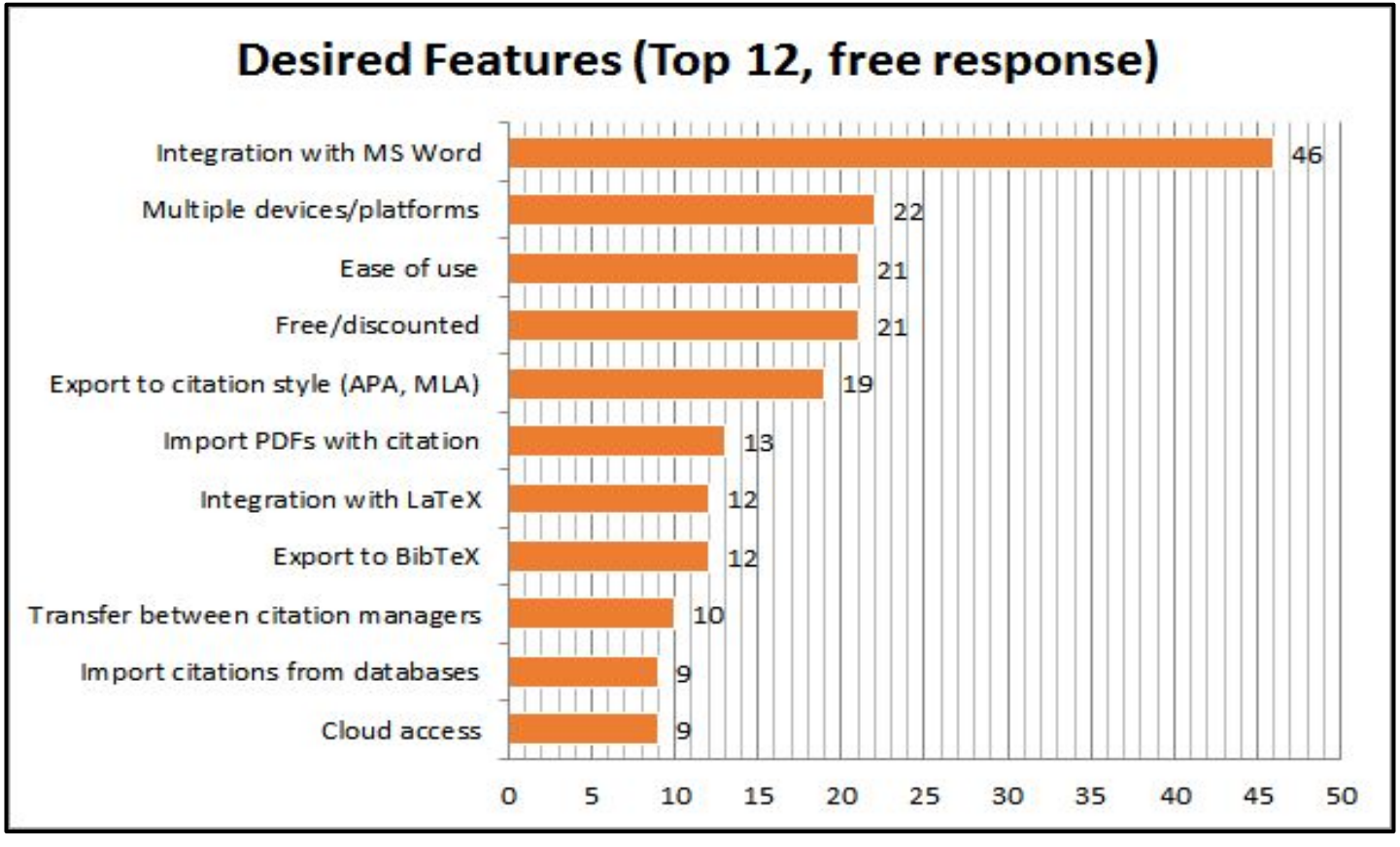

Important Features (n=787)
Required
Would like to have
Don't need
Blank
Offline Access
488
199
57
43
Support for diverse sources
436
244
65
42
De-Duplication
390
311
41
45
Storing PDFs
351
263
128
45
Sharing citations
294
328
123
42
Annotate/highlight PDFs
290
292
162
43
Tagging
206
312
163
106
Sharing documents
186
346
203
52
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Most important features in a citation manager or what do our users want?

Top Five

- Offline access
- De-duplication of results
- Support for diverse sources
- Storing PDFs
- Sharing citations

What else?


Desired Features (Top 12, free response)
Integration with MS Word
46
Multiple devices/platforms
22
Ease of use
21
Free/discounted
21
Export to citation style (APA, MLA)
19
Import PDFs with citation
13
Integration with LaTeX
12
Export to BibTeX
12
Transfer between citation managers
10
Import citations from databases
9
Cloud access
9
0
5
10
15
20
25
30
35
40
45
50

Less than 10%

of responding faculty and graduate students use RefWorks

10%

of respondents want additional storage beyond currently available free storage

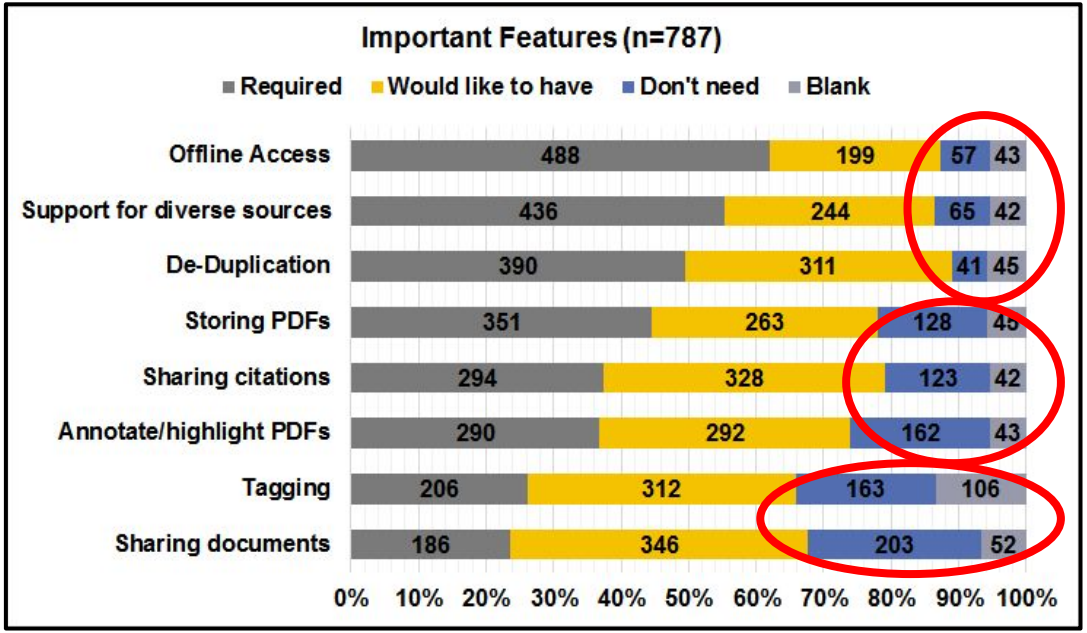
BibTeX **Papers** **JabRef**

are other commonly used citation managers

The Rubric

Applying the results

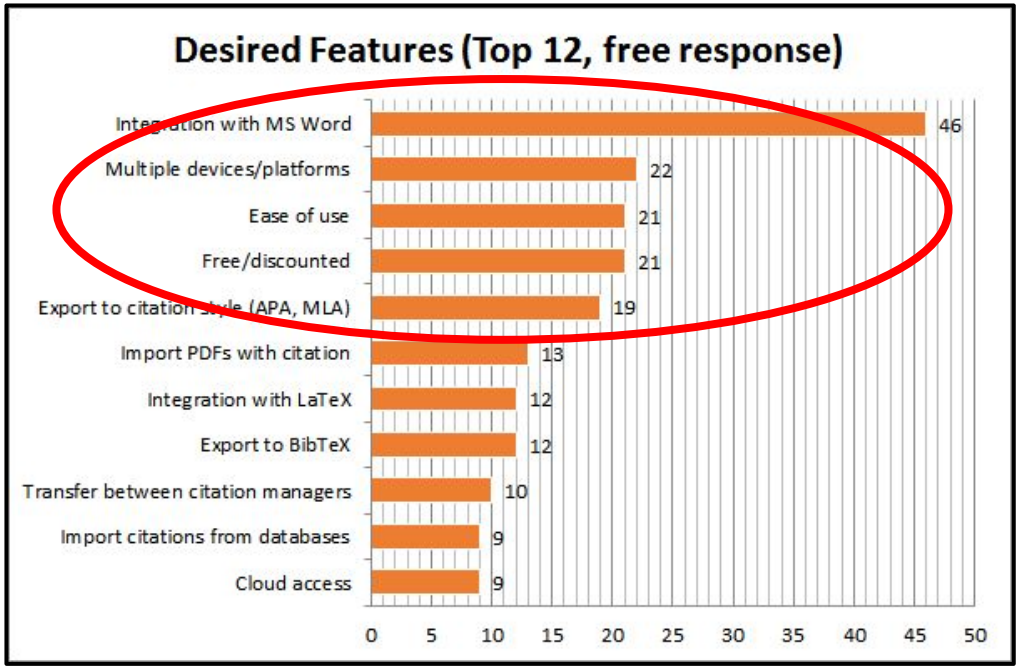
Features were weighted based on how they were ranked by survey respondents.



Core Criteria	Weight
Offline access	20%
Support for diverse sources	20%
De-duplication	20%
Storing PDFs	10%
Sharing citations	10%
Annotate/highlight PDFs	10%
Tagging	5%
Sharing documents	5%

Applying the results

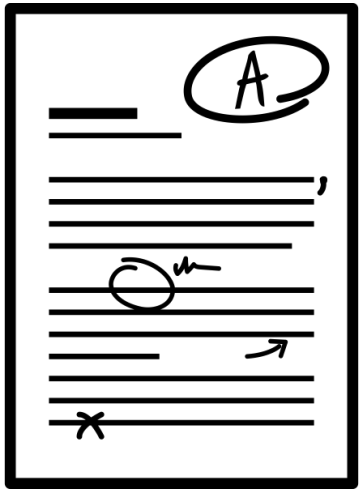
Write-in features were also weighted based on number of responses.



Bonus Criteria	Weight
Integration with MS Word	40%
Available on multiple devices/platforms	15%
Ease of use	15%
Free/discounted	15%
Export to specific citation styles	15%

Grading the citation managers

Grade (core criteria)	Point value
Perfect	Weight x 50pts
Great	Weight x 40pts
Adequate	Weight x 30pts
Poor	Weight x 20pts
The Worst	Weight x 10pts



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Grade (bonus criteria)	Point value
Perfect	Weight x 5pts
Great	Weight x 4pts
Adequate	Weight x 3pts
Poor	Weight x 2pts
The Worst	Weight x 1pt

Creating a rubric

Maximum possible points: 55 (50 + 5 bonus)
Citation managers are scored on a scale and receive points for each category
Available at z.umn.edu/cmrubric2016

Criteria (out of 50 points)	Perfect	Great	Adequate	Poor	The Worst
De-duplication	10	8	6	4	2
Offline access	10	8	6	4	2
Support for diverse sources	10	8	6	4	2
Sharing citations	5	4	3	2	1
Storing PDFs	5	4	3	2	1
Annotate PDFs	5	4	3	2	1
Tagging	2.5	2	1.5	1	0.5
Sharing documents	2.5	2	1.5	1	0.5
Bonus (out of 5 points)	**Perfect**	**Great**	**Adequate**	**Poor**	**The Worst**
Integration with MS Word	2	1.6	1.2	0.8	0.4
Available on multiple devices/platforms	0.75	0.6	0.45	0.3	0.15
Ease of use	0.75	0.6	0.45	0.3	0.15
Free/discounted	0.75	0.6	0.45	0.3	0.15
Export to specific citation styles	0.75	0.6	0.45	0.3	0.15

Testing the rubric

8 citation manager "experts" at the UMN rated them on all these criteria, based on a 1 (worst) - 5 (best) rating scale.

Ratings were applied to the rubric, and here are the averaged results:

MENDELEY (FREE)	**B+**	88%	48.6/55
ENDNOTE	**B-**	82%	45.4/55
ZOTERO	**C+**	78%	43.2/55
REFWORKS CLASSIC	**C-**	70%	38.7/55

Available at z.umn.edu/cmrubric2016

Using the rubric

Rubric scores help explain why Mendeley and Endnote are popular among graduate research assistants and faculty. *They score well on features that are important to that population.*

Information from the rubric scores can be combined with other data (cost, undergrad surveys, use cases) to evaluate long-term investments in each tool, such as:

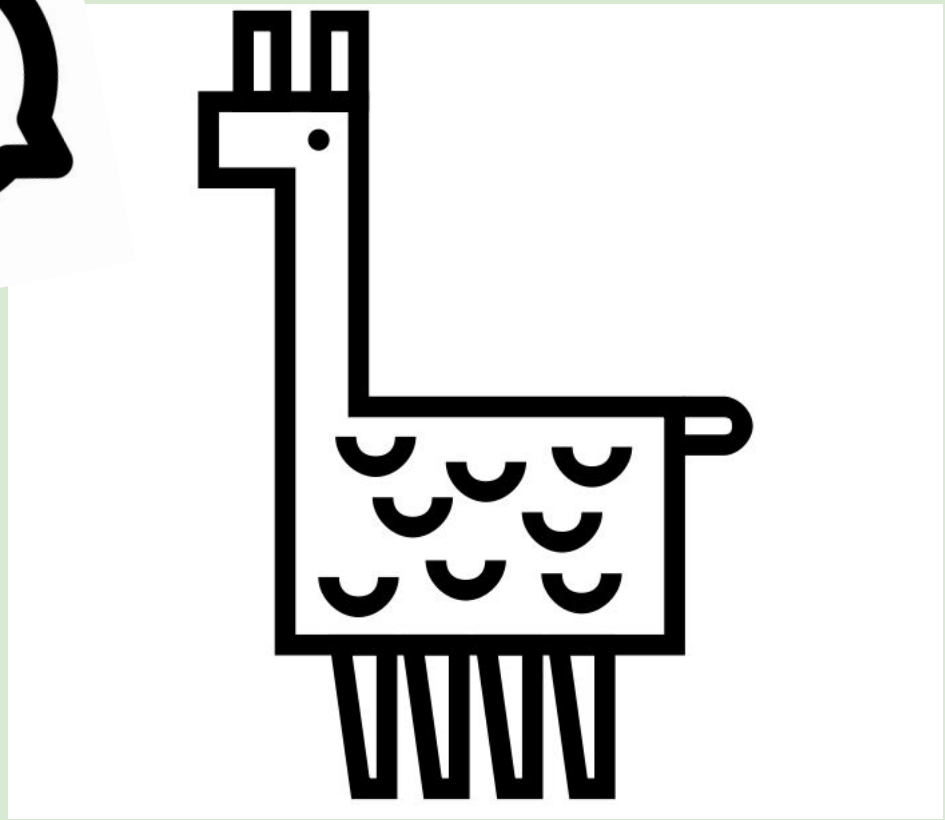
- Renewing/purchasing subscriptions
- Instruction
- Guidance for librarians on citation managers to recommend to specific populations

Available at z.umn.edu/cmrubric2016

Where do we go from here?

To do:

- Give liaisons college-level reports from user survey
- Talk more with vendor reps about our concerns
- Look at "off-label" uses of RefWorks to see if we could support those with other tools
- Engage with other audiences for our citation managers (e.g. librarians, undergraduate students) to find out what is important to them
- Weigh other, more slippery factors (e.g. customer support)
- *IF* we do decide to change our citation manager offerings, create a timeline and plan for migrating and assisting users.



Discussion

- Has anyone else done a similar survey?
- What features are most important to your users?
- What is your users' biggest problem with citation managers.
- Share your experiences with a citation manager in terms of customer support from the vendor (or lack of customer support) ;)

Resources

- Weighted rubric
- Our survey results (Data Repository for University of Minnesota)

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