Boise State University
ScholarWorks

Library Faculty Publications and Presentations | The Albertsons Library

11-28-2018

PlumX Data Hacks & the Integrated Impact Indicator

Ellie Dworak
Boise State University

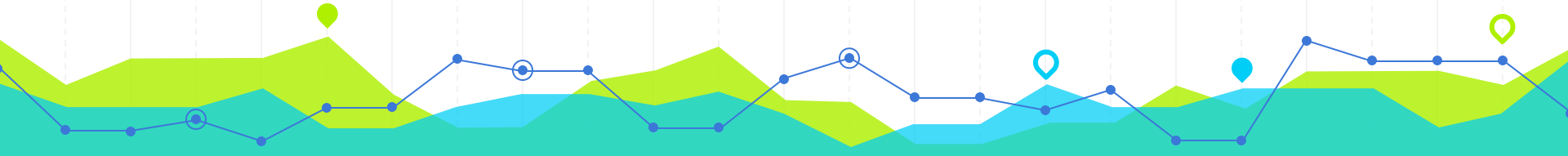
Presented at the Albertsons Library Research Colloquium at Boise State University, Boise, Idaho.

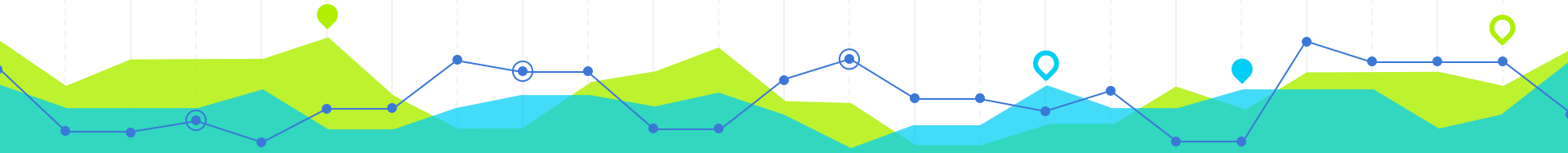
PlumX Data Hacks & the Integrated Impact Indicator

Ellie Dworak

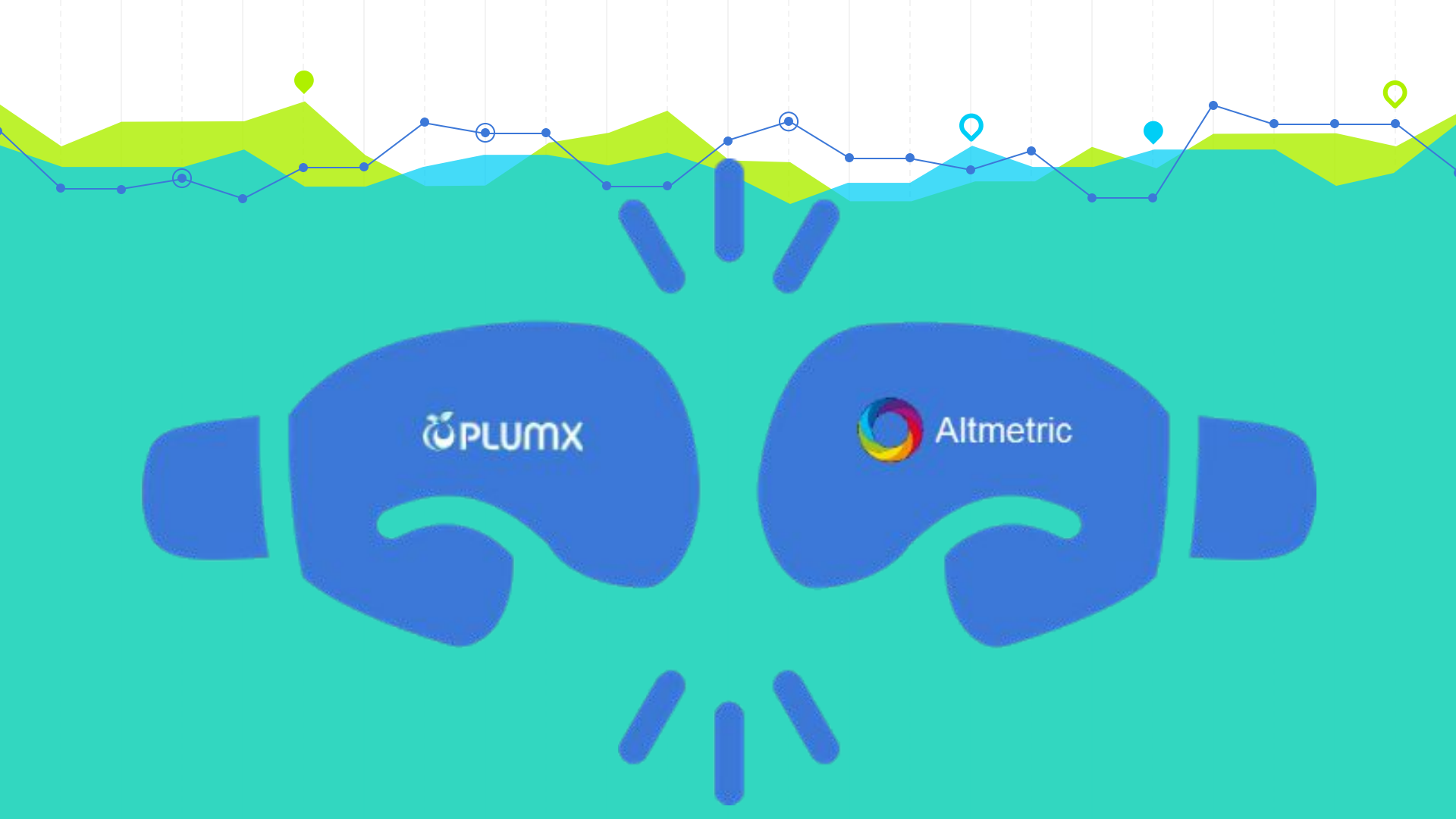
Information Design & Data Visualization Librarian

1. What Are PlumX Metrics?

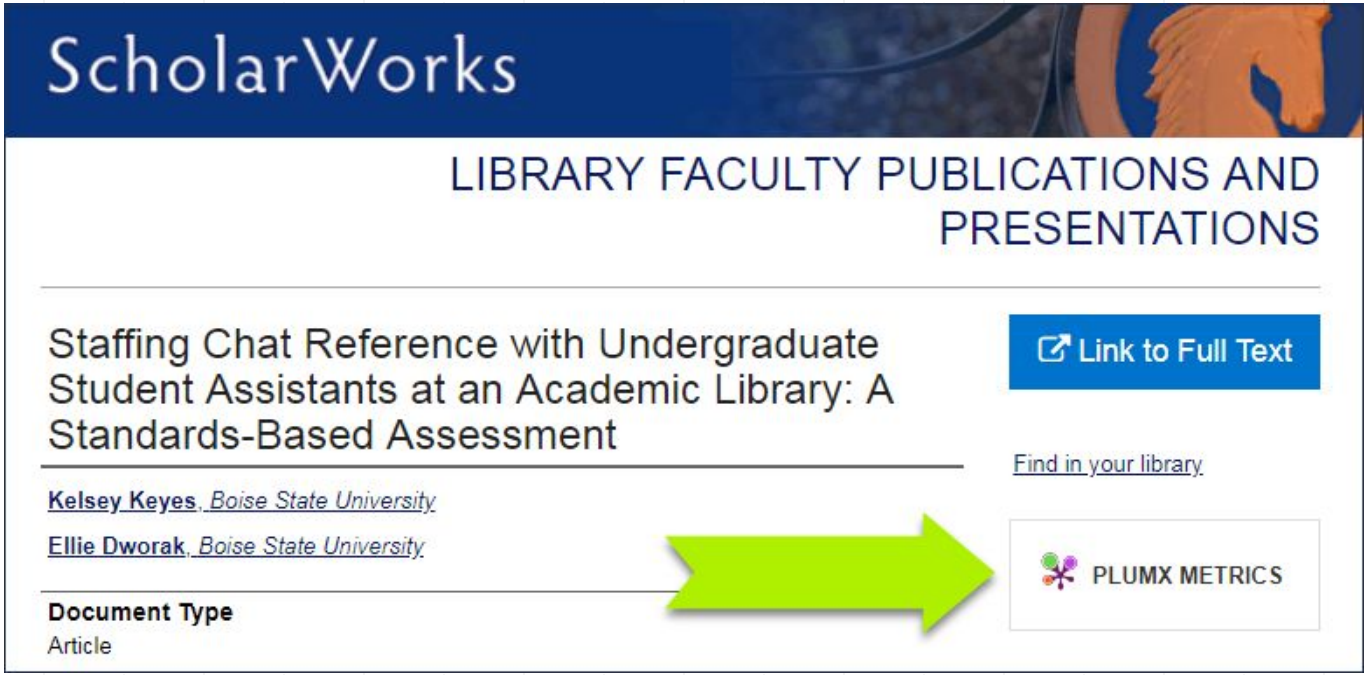




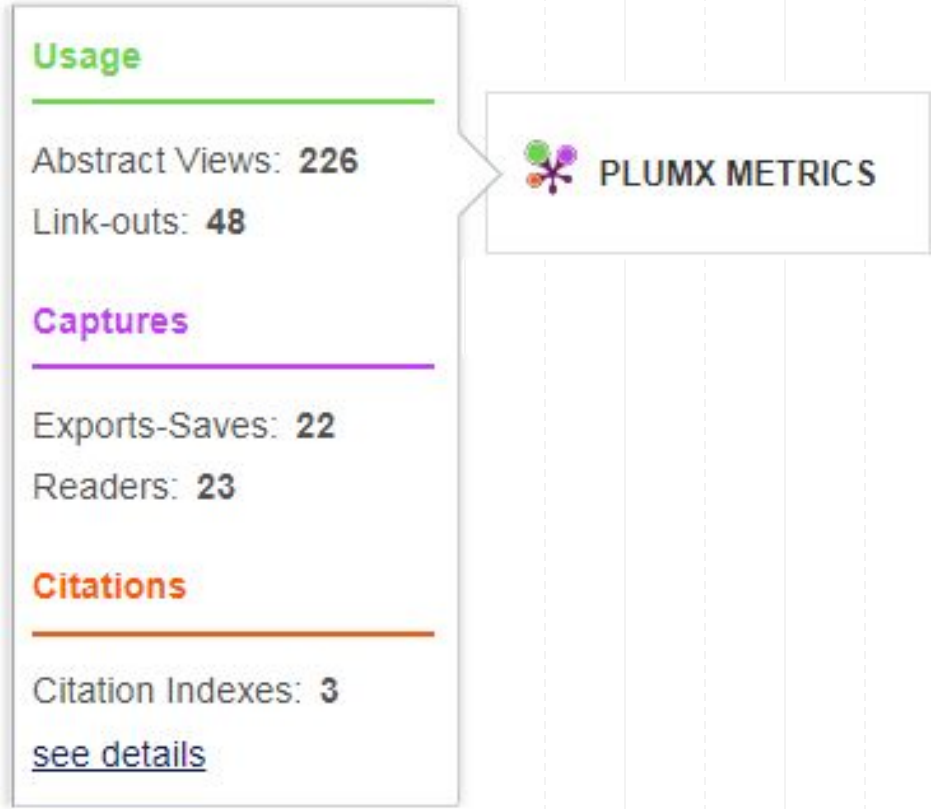
#altmetrics

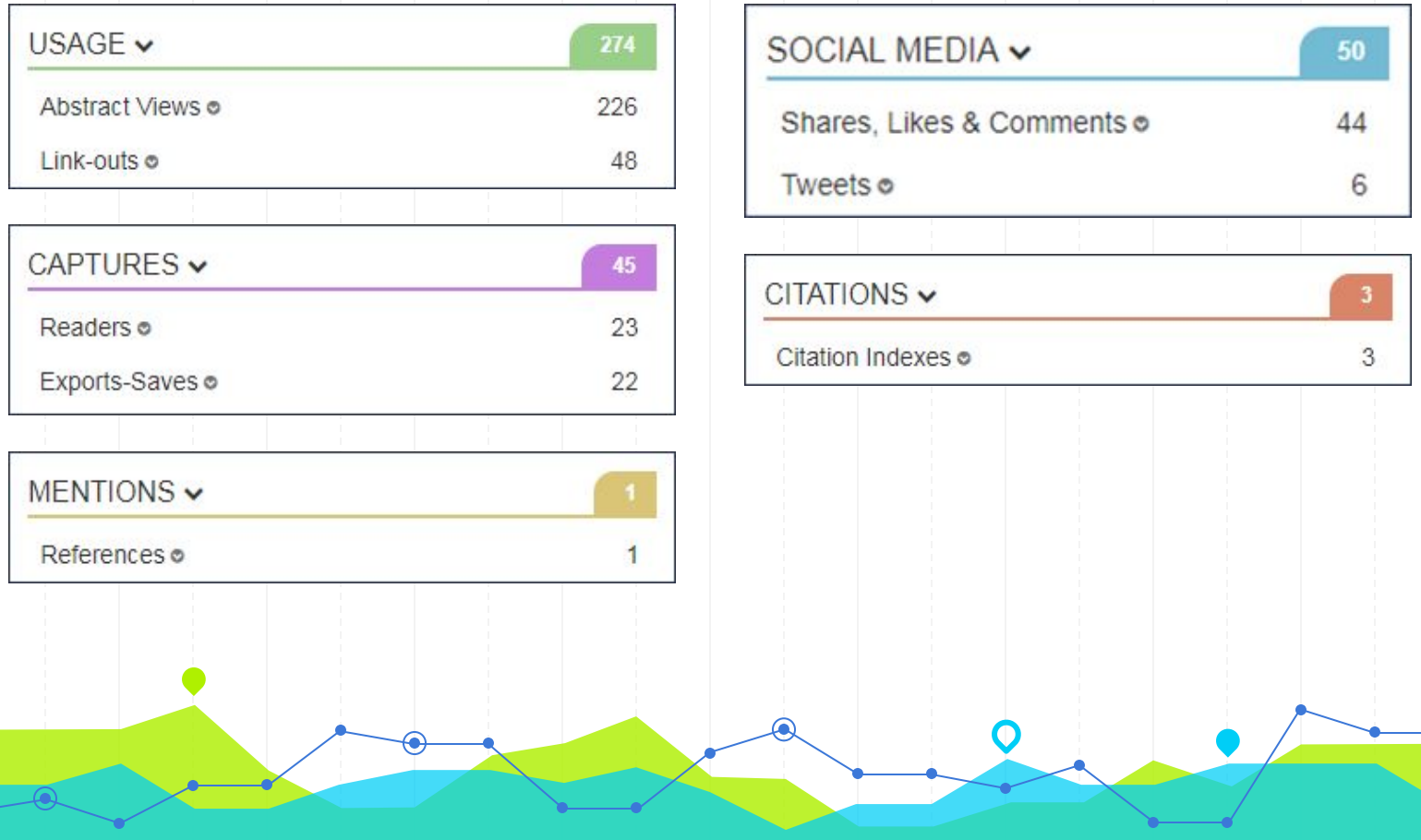

PLUMX
Altmetric

Scholarworks ➠ locate article



PlumX Widget




USAGE 274
Abstract Views 226
Link-outs 48
CAPTURES 45
Readers 23
Exports-Saves 22
MENTIONS 1
References 1
SOCIAL MEDIA 50
Shares, Likes & Comments 44
Tweets 6
CITATIONS 3
Citation Indexes 3

Selected Works of Ellie Dworak

Follow

Contact

Article

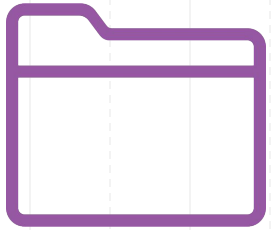
Staffing Chat Reference with Undergraduate Student Assistants at an Academic Library: A Standards-Based Assessment

The Journal of Academic Librarianship

Kelsey Keyes, *Boise State University*
Ellie Dworak, *Boise State University*

Usage

Abstract views	Full text views	Clicks	Collaborators
Link outs	Downloads	Plays & Views	Holdings

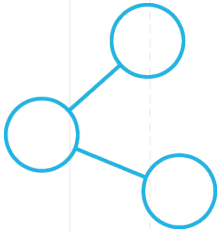


Captures

Favorites	Exports & Saves	Subscribers
Followers & Forks	Readers	Watchers

Mentions

Blogs	News	References
Comments	Q & A Site	Reviews



Social media

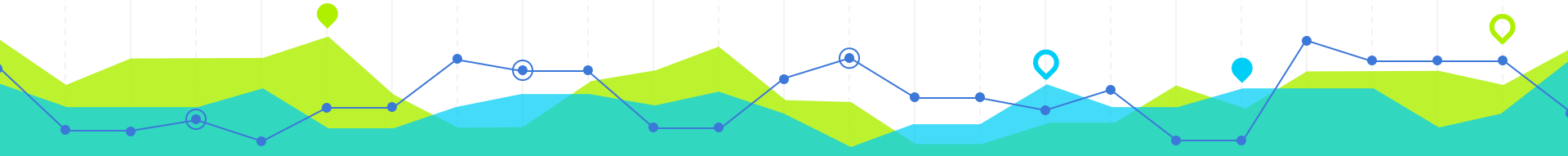
Likes	Ratings	Scores
Shares & comments	Recommend-ations	Tweets

Citations

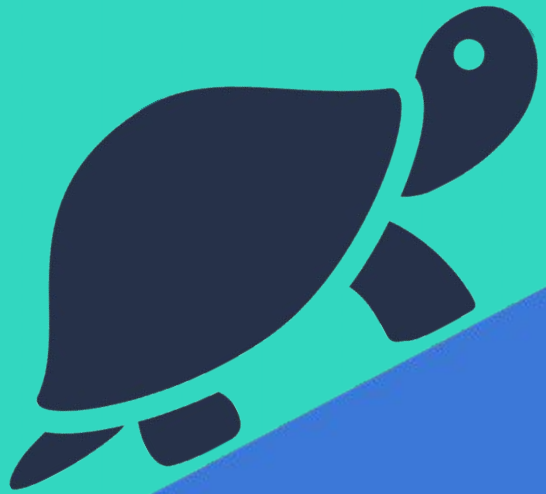
Citation indexes

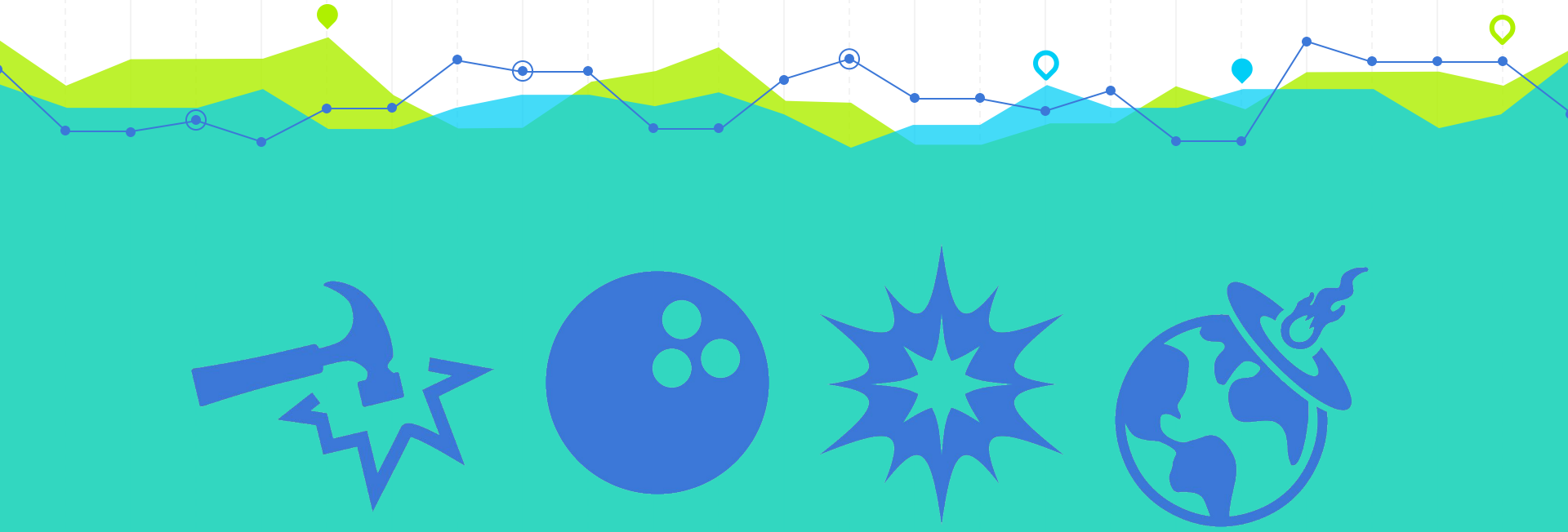
Patents

Clinical Citations

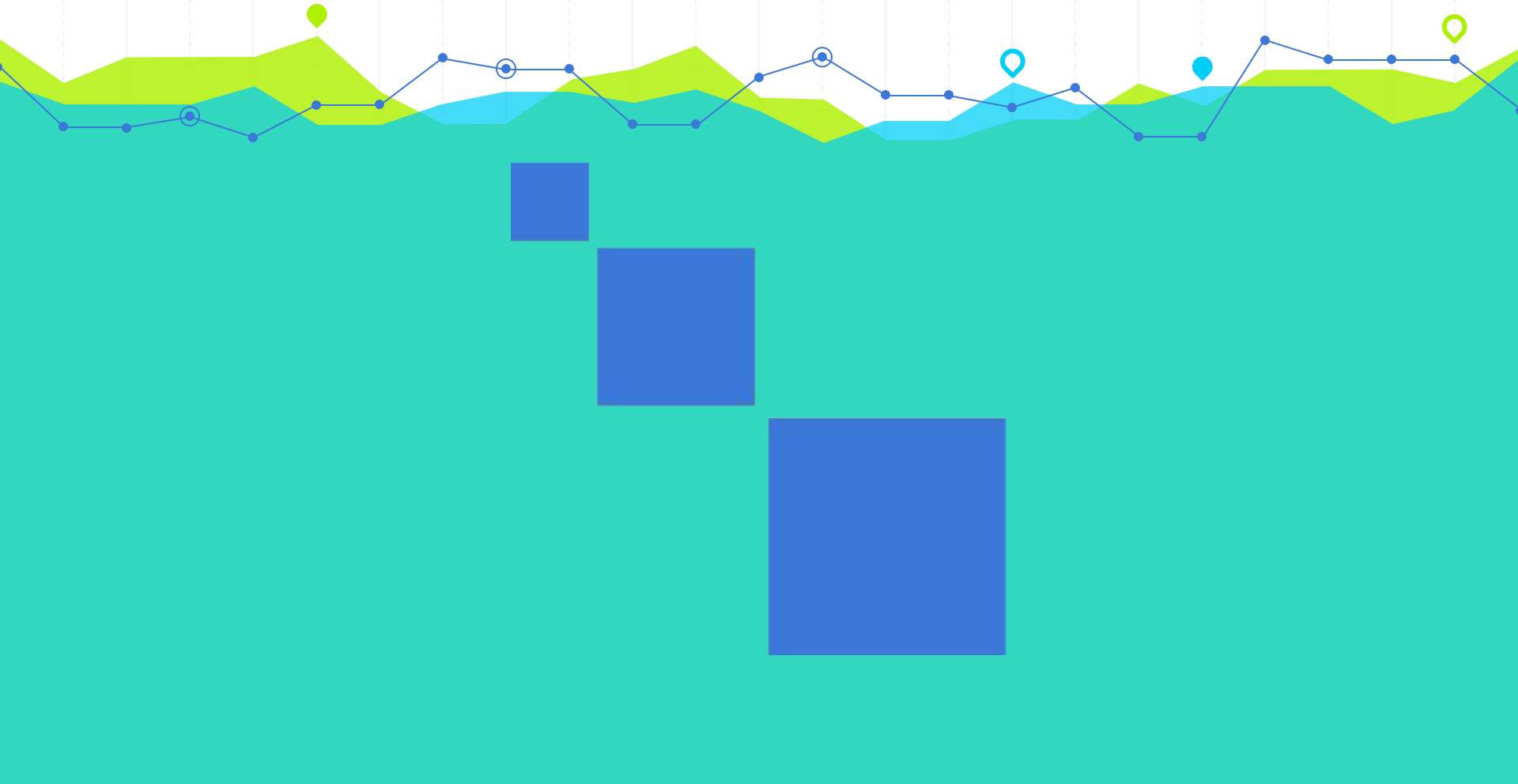


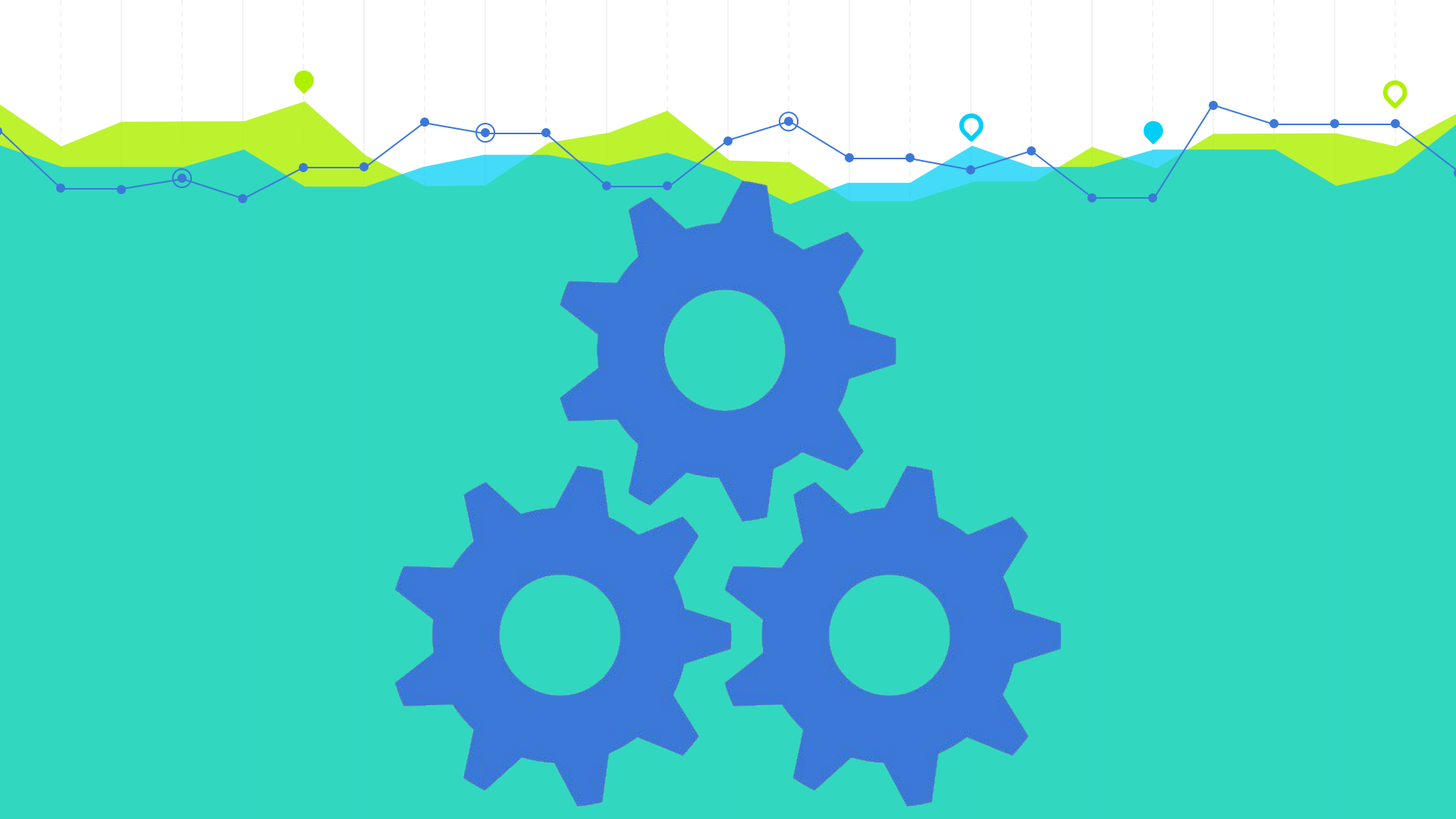
2. Altmetrics - Why Bother?

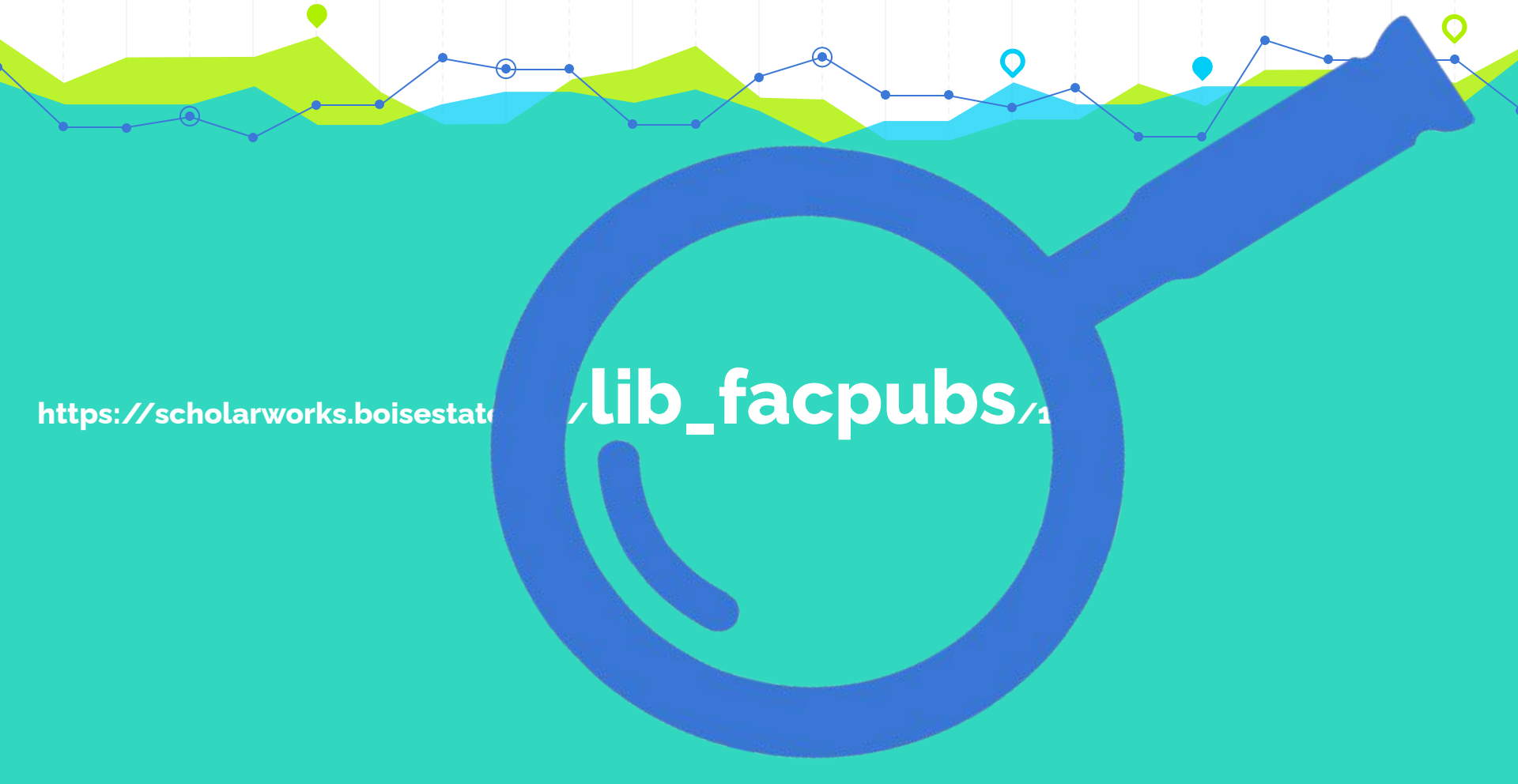


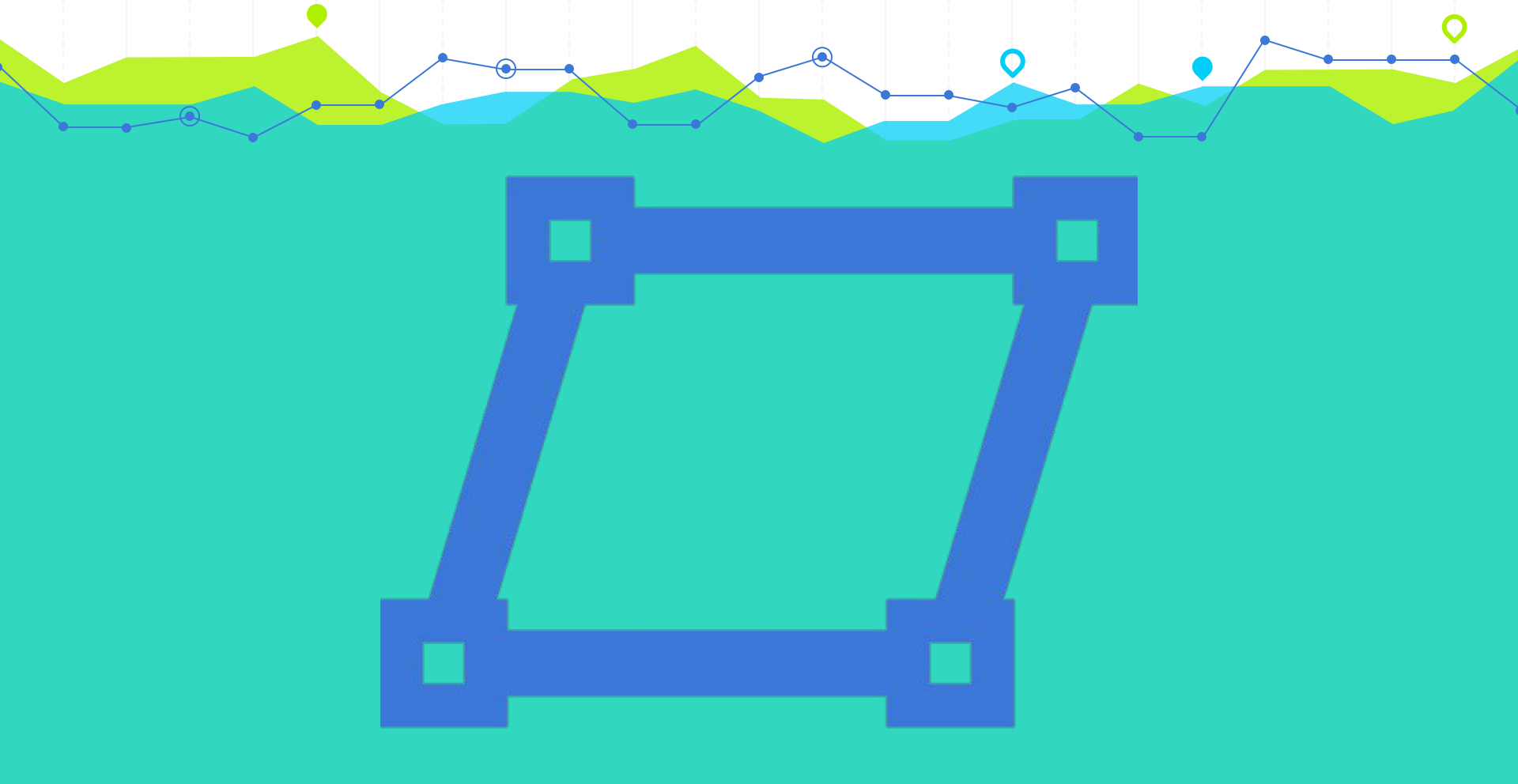


3. Data Hacks



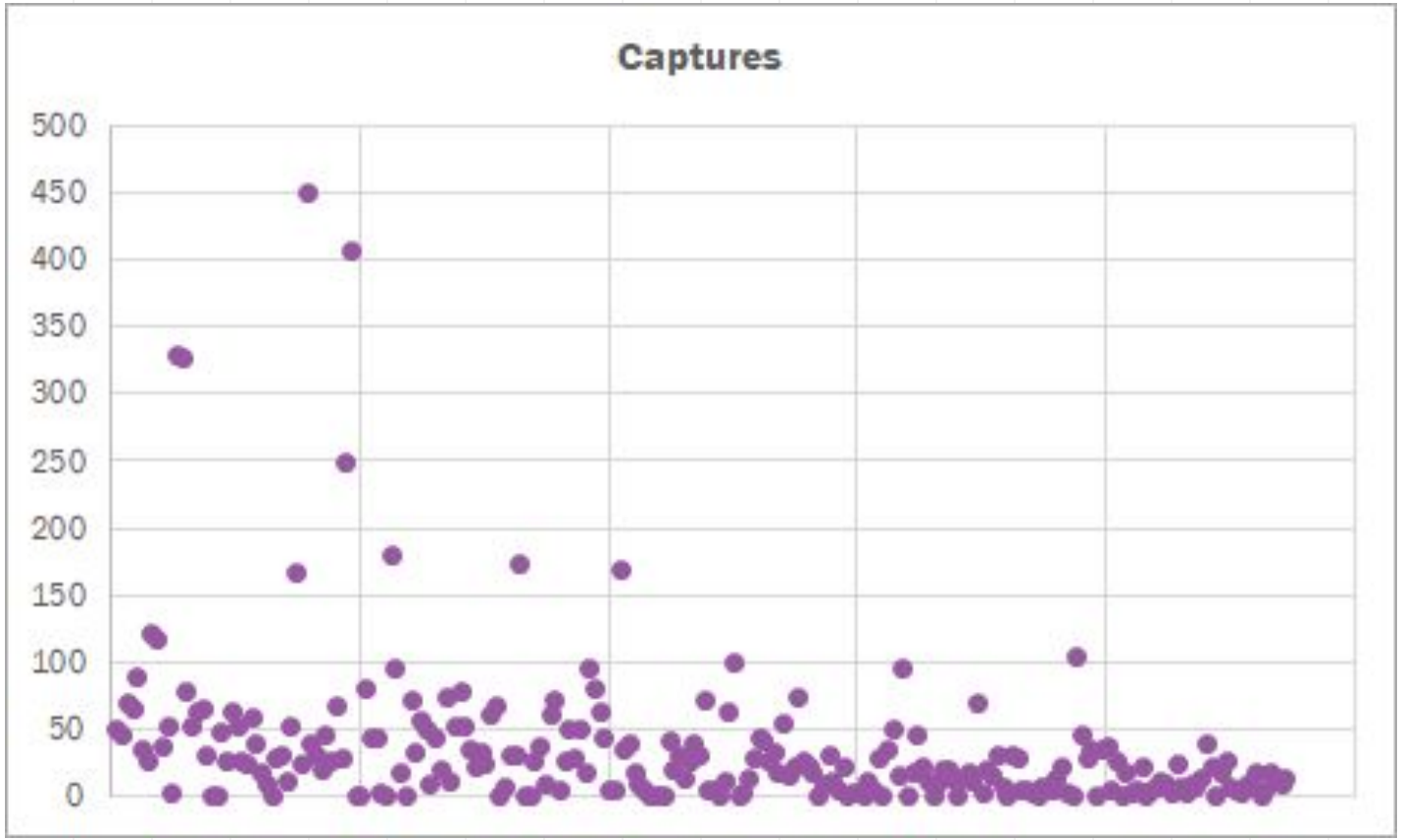



https://scholarworks.boisestat /lib_facpubs/1

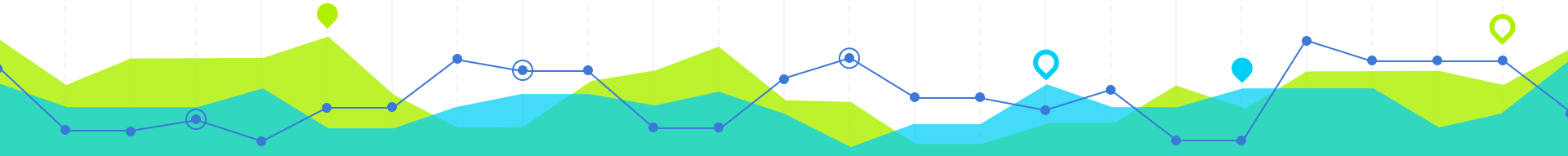


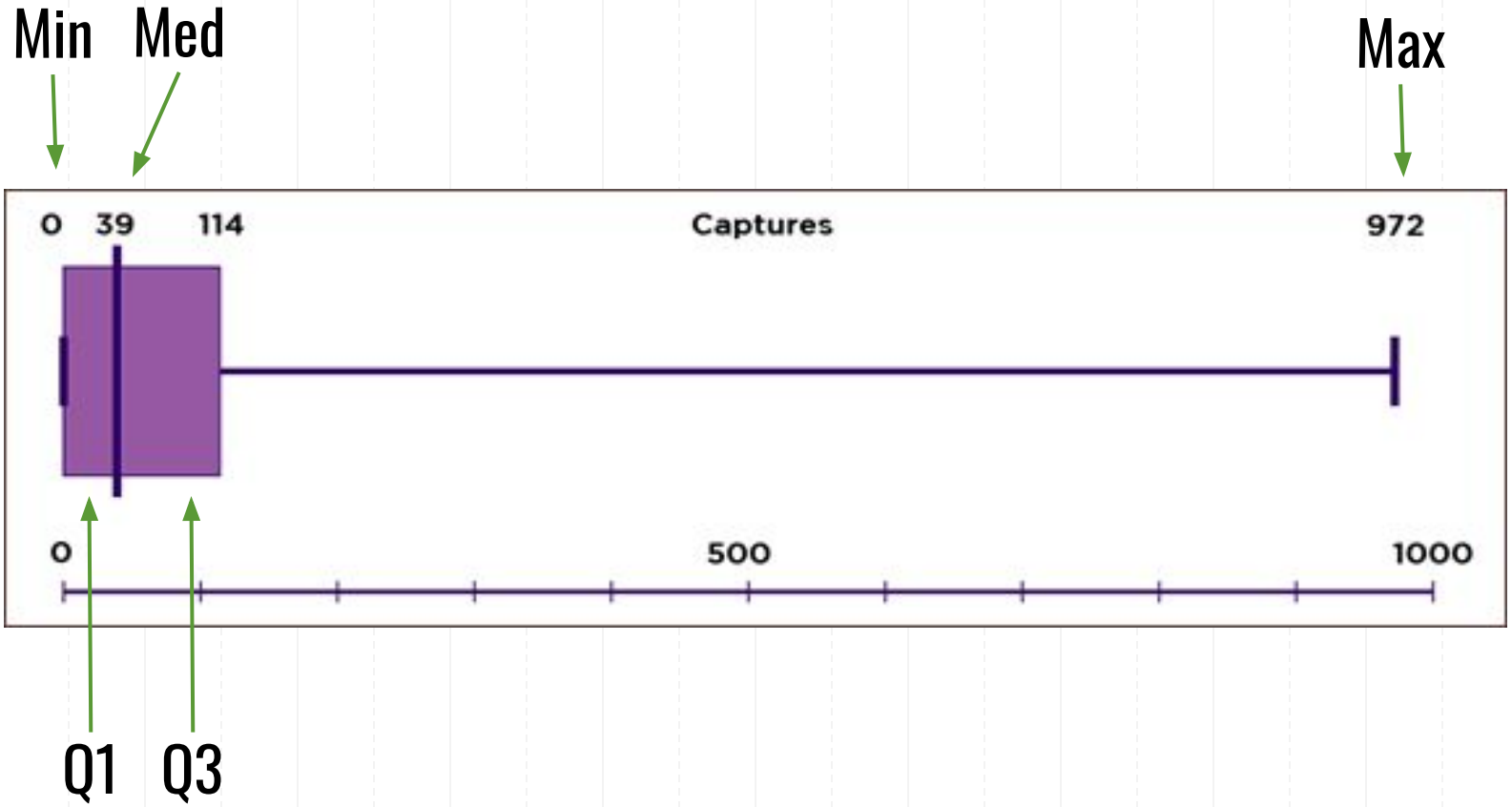
	Median	n
Captures	26	210
Usage	17	200
Social Media	3	58
Usage	125	235

	n
Articles	213
Books	4
Book Chapters	2
Conference Papers	15
Reviews	2

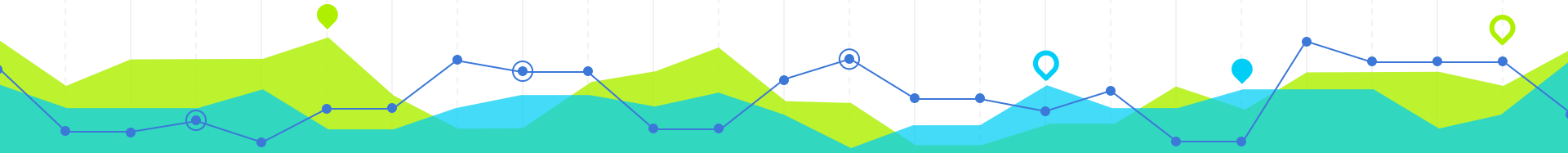

Captures
500
450
400
350
300
250
200
150
100
50
0

4. The Trouble with the H-Index

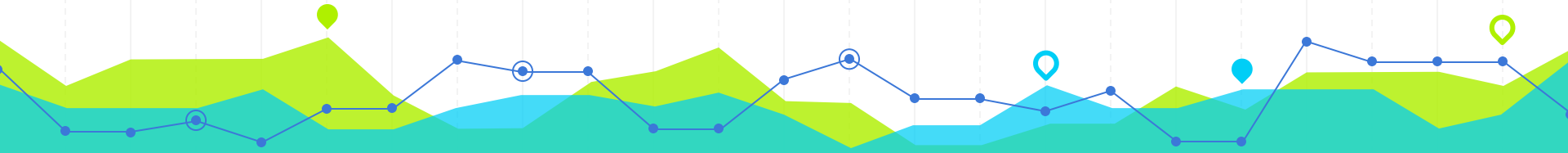



Min
Med
Max
0
39
114
Captures
972
0
500
1000
Q1
Q3

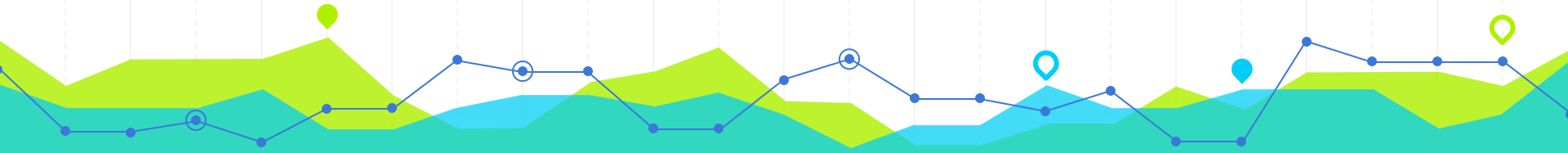
5. Enter the Integrated Impact Indicator



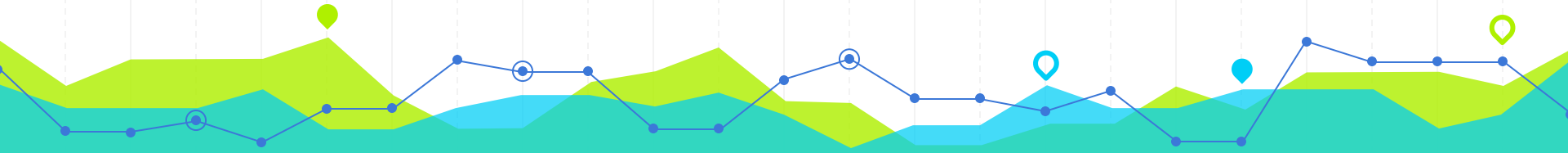
$$Iз = \Sigma_i x_i * n(x_i)$$



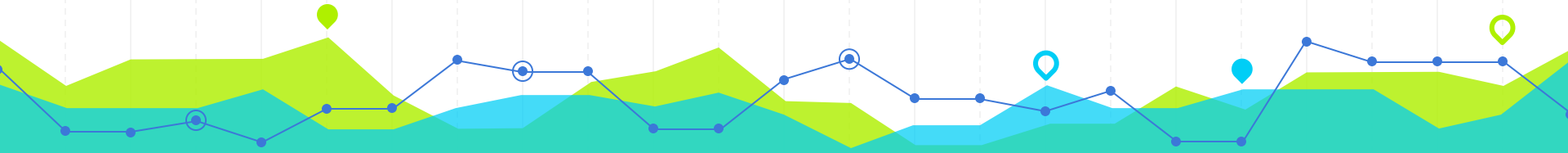
$$Из = \sum_i x_i * n(x_i)$$



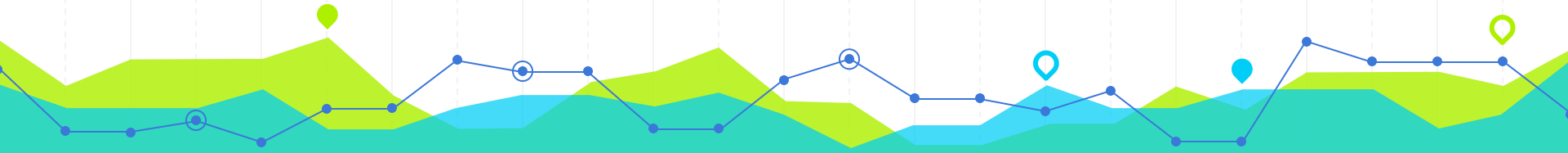
$$Iз = \sum_i x_i * n(x_i)$$



$$Из = \sum_i x_i * n(x_i)$$



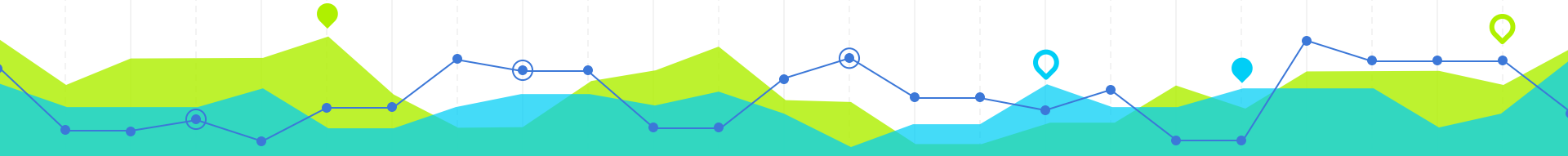
$$Из = \sum_i x_i * n(x_i)$$



I3 is the sum of the rank values for each publication in the set.

Percentile Rank	Rank Weight	n_i	$n_i * x_i$
Top 1%	6		
95-99%	5		
90-95%	4		
75-90%	3		
50-75%	2		
>0-50%	1		
		I3=	Σ

6. The I3 in its Native Habitat



LIBRARY

Percentile	Rank	Weight
≥24001	Top 1%	6
1904-24000	95-99%	5
1196-1903	90-95%	4
402-1195	75-90%	3
201 - 401	50-75%	2
1 - 200	>0-50%	1

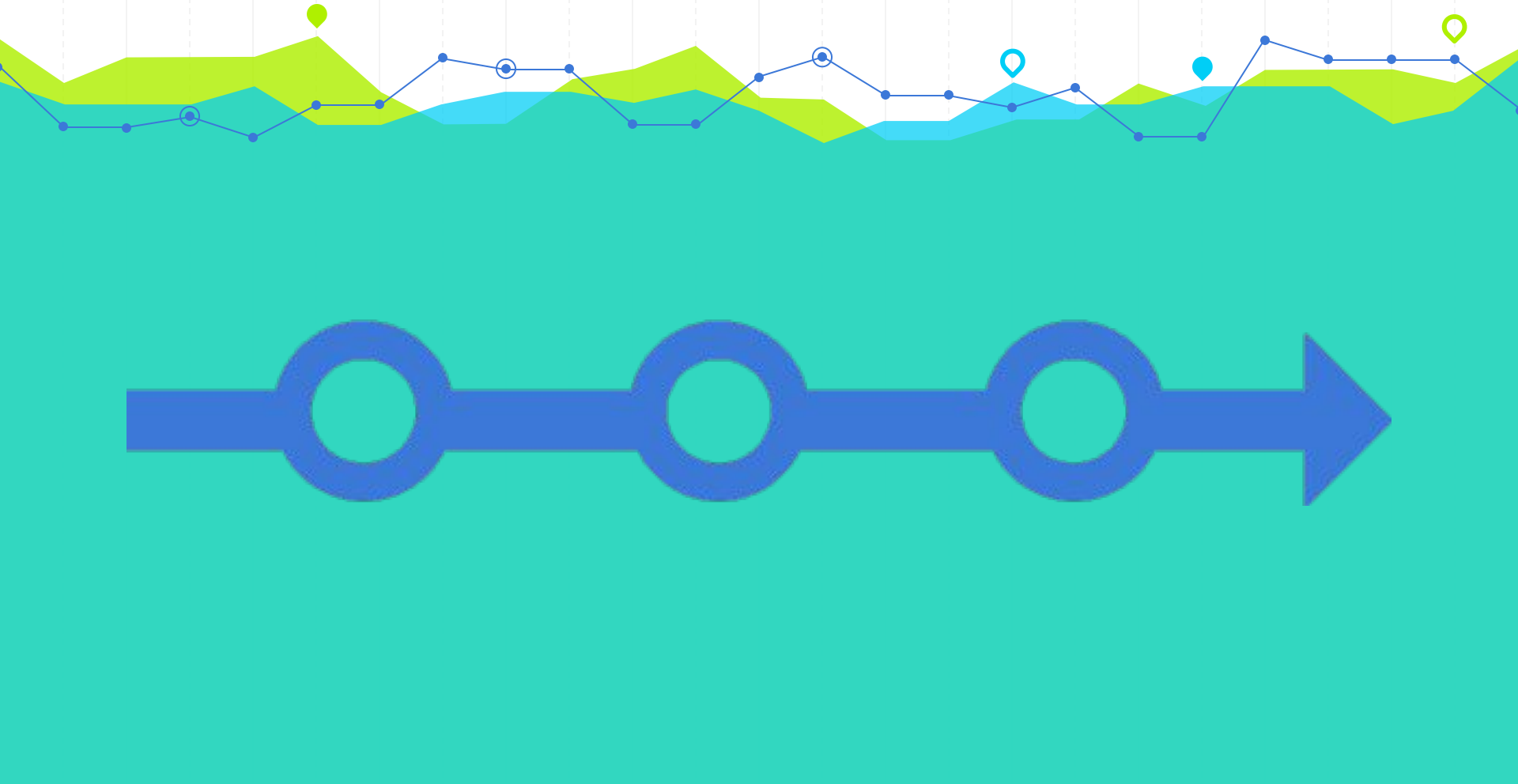
Note: these results have been modified to maintain privacy.

ELLIE

Rank	Weight	n_i	$n_i * x_i$
Top 1%	6	0	0
95-99%	5	0	0
90-95%	4	1	4
75-90%	3	3	9
50-75%	2	2	4
>0-50%	1	6	6
			I3=23

Note: these results have been modified slightly for demonstration purposes.

Library	Dept. B	Rank	Weight
≥24001	≥1409	Top 1%	6
1904-24000	1113-1408	95-99%	5
1196-1903	634-1112	90-95%	4
402-1195	241-633	75-90%	3
201 - 401	56-240	50-75%	2
1 - 200	1 - 55	>0-50%	1



Sources:

- Bornmann, Lutz. "How to Analyze Percentile Citation Impact Data Meaningfully in Bibliometrics: The Statistical Analysis of Distributions, Percentile Rank Classes, & Top-Cited Papers." *Journal of the American Society for Information Science and Technology* 64.3 (2013).
- Collister, Lauren B. and Timothy S. Deliyannides. "Altmetrics: Documenting the Story of Research." *Against the Grain.* 28.1 (2016).
- Costas, Rodrigo, Zohreh Zahedi, & Paul Wouters. "Do "Altmetrics" Correlate with Citations? Extensive Comparison of Altmetric Indicators with Citations from a Multidisciplinary Perspective." *Journal of the Association for Information Science and Technology* 66.10 (2015).
- Lindsay, J. Michael. "PlumX From Plum Analytics: Not Just Altmetrics." *Journal of Electronic Resources in Medical Libraries* 13.1 (2016).
- Mutz, Rüdiger, and Hans-Dieter Daniel. "Skewed citation distributions and bias factors: Solutions to two core problems with the journal impact factor." *Journal of Informetrics* 6.2 (2012): 169-176.
- Plum Analytics, 2018. "PlumX Metrics for Boise State University: ScholarWorks." Learn more.
- Smith, Jaden. "Quince Presentation Template," 2018. *Slides Carnival*.
- Wagner, Caroline S., and Loet Leydesdorff. "An Integrated Impact Indicator: A New Definition of 'Impact' with Policy Relevance." *Research evaluation* 21.3 (2012): 183-188.

Acknowledgements:

- Dr. Suzanne Hudson, for her help in learning the mathematics and statistics required for this work. Thanks Mom!
- The Noun Project & the creators who donate their work to this amazing project.