

Vitality

Promote Serendipitous Discovery of Academic Literature

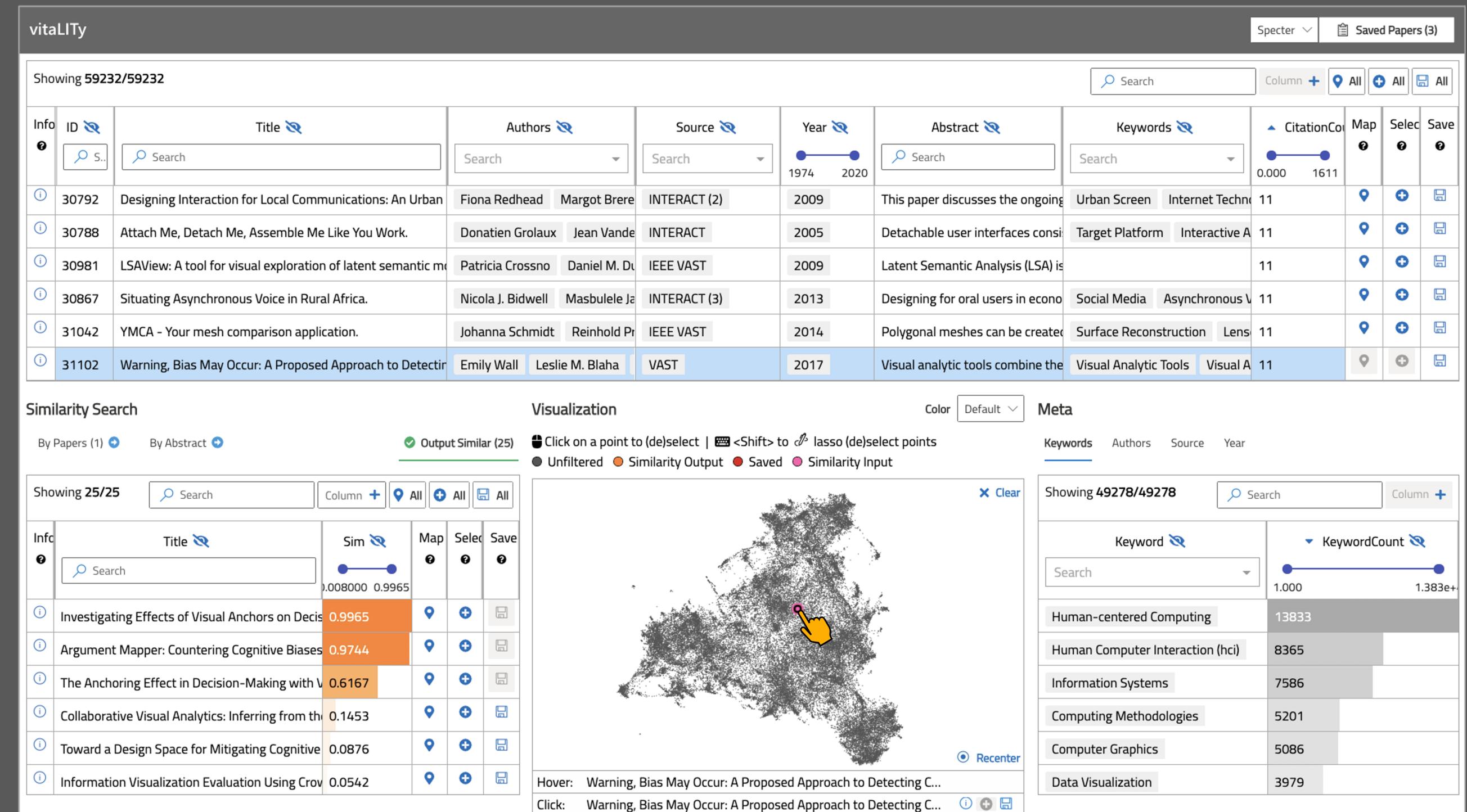
Problems with Literature Reviews

- Inconsistent / missing keywords
- Less cited but relevant papers not discoverable



Web Scrapers 59k VIS Papers Web UI

(38 VIS-research venues, 47 years, and 82k authors)



Using Transformers & Visual Analytics,

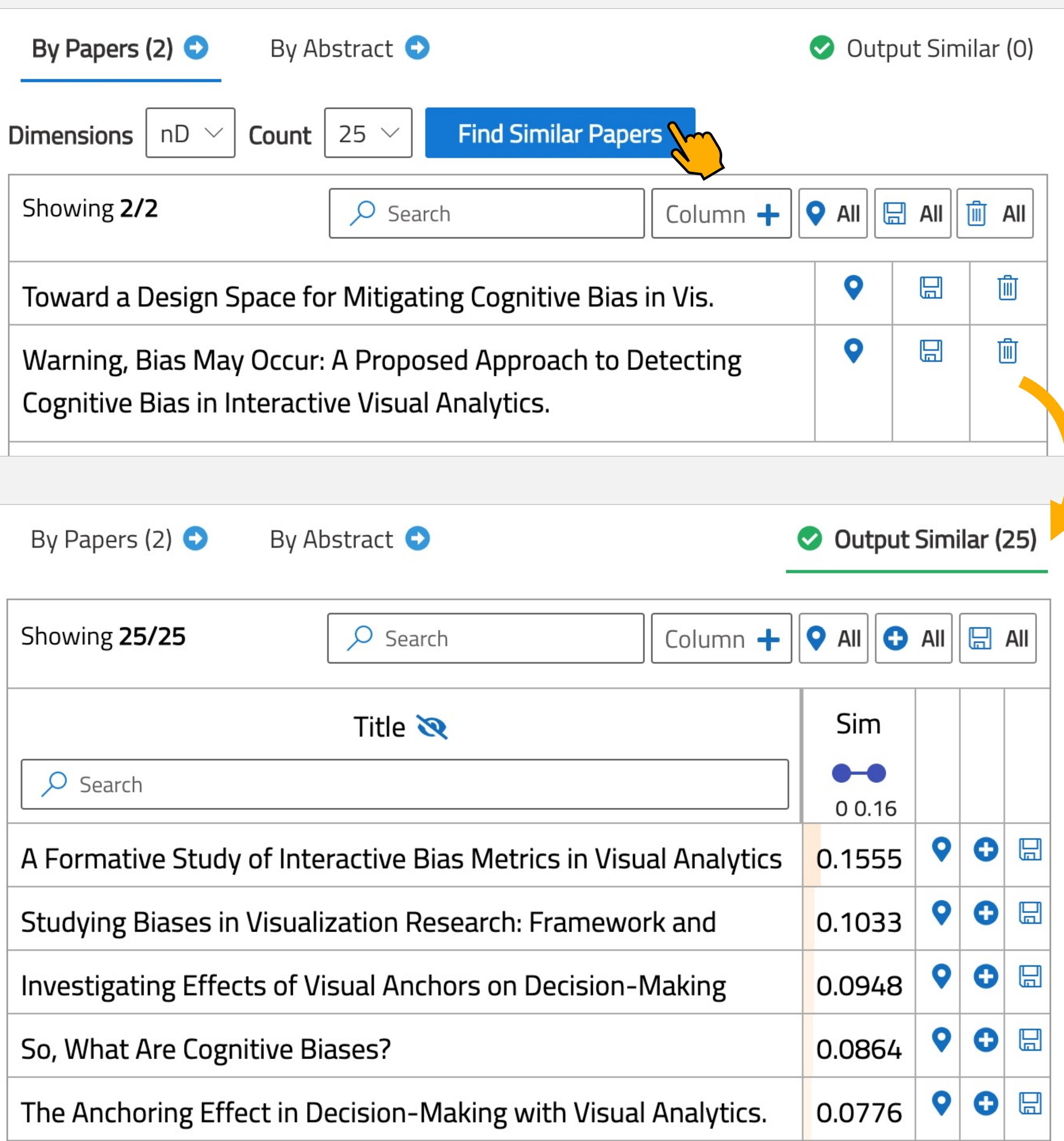
- Search by a set of seed papers
- Search by a working title & abstract



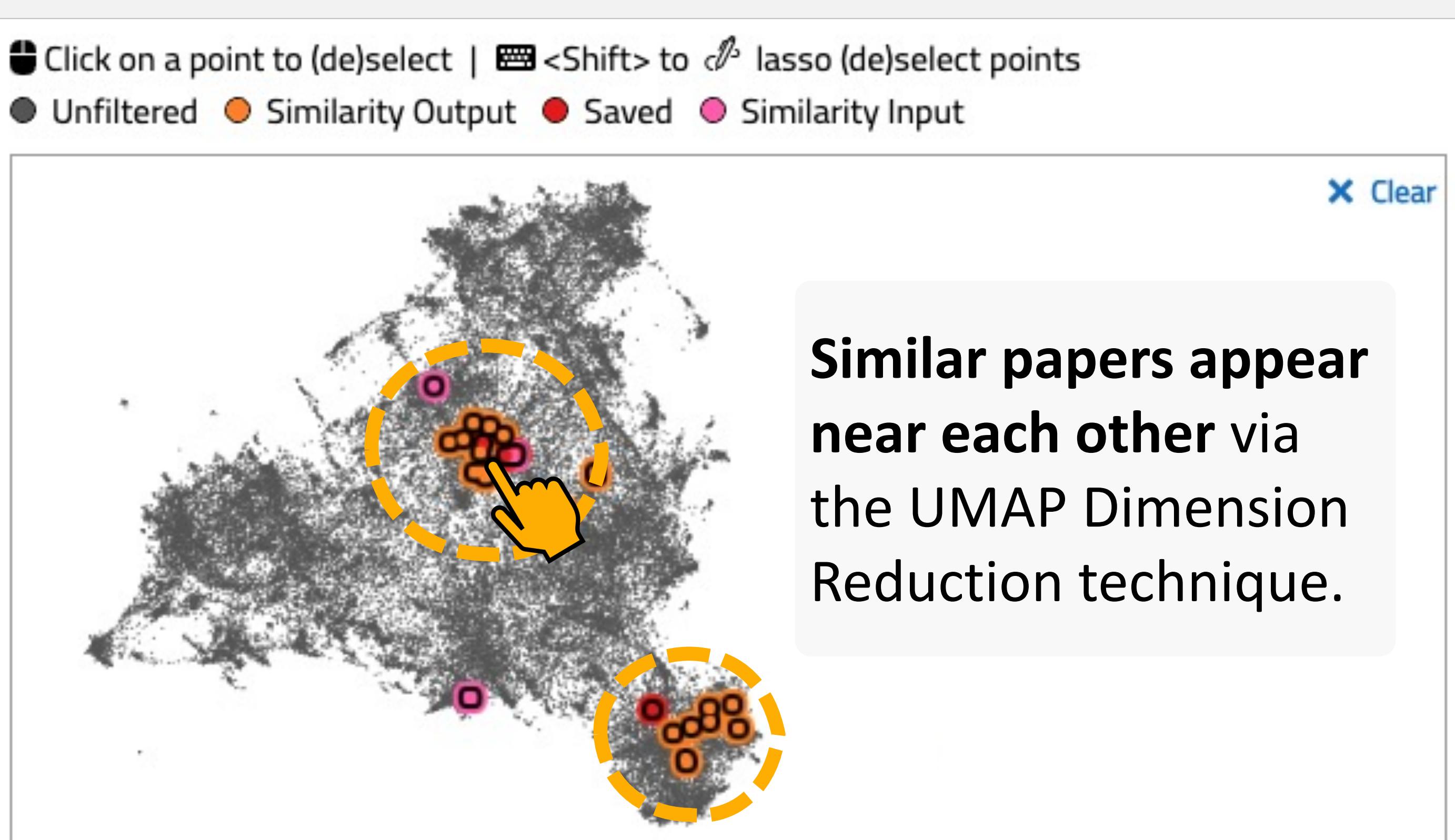
Arpit Narechania
anarechania3@gatech.edu
Alireza Karduni
Ryan Wesslen
Emily Wall

1 Have a Set of Seed Papers?

Find semantically related papers that do not necessarily have shared keywords **by search based on one or more known seed papers** in an n-D embedding space...

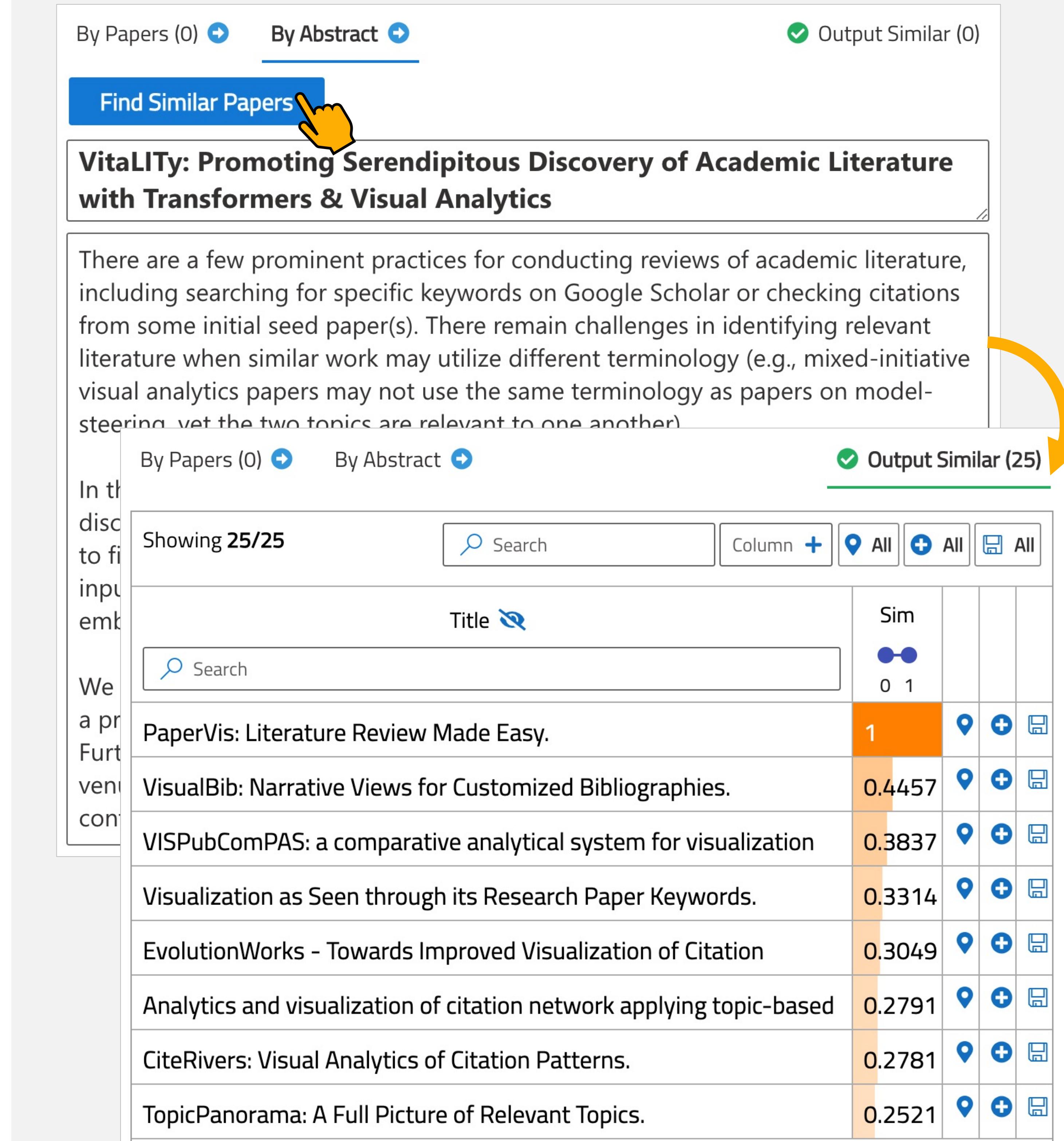


... or stumble upon some **by visual exploration** in a 2-D embedding space.



2 Have a Working Title & Abstract?

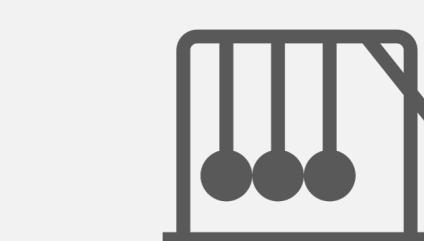
Find semantically related papers **by n-dimensional search based on the author's own unpublished ideas** in the form of sentences / abstracts.



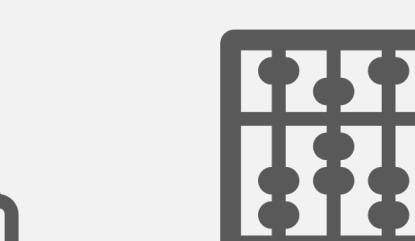
DID YOU KNOW? "We used VitalITY for its own Literature Review!"

Where else can we apply Vitality?

Beyond VIS...



Physics



Maths

Beyond Papers...



Medical



Datasets

Patents

eCFR