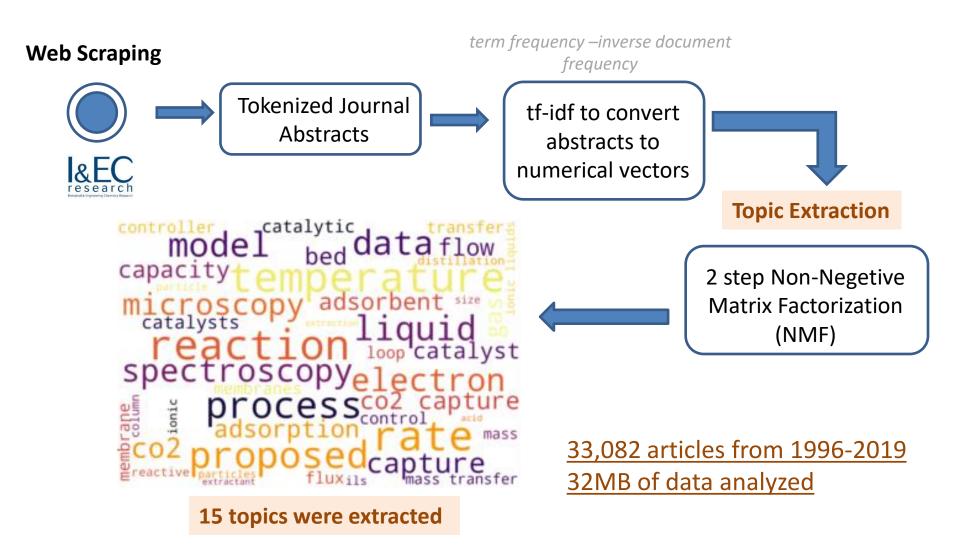
How to select an area of research?

Trisha Sen

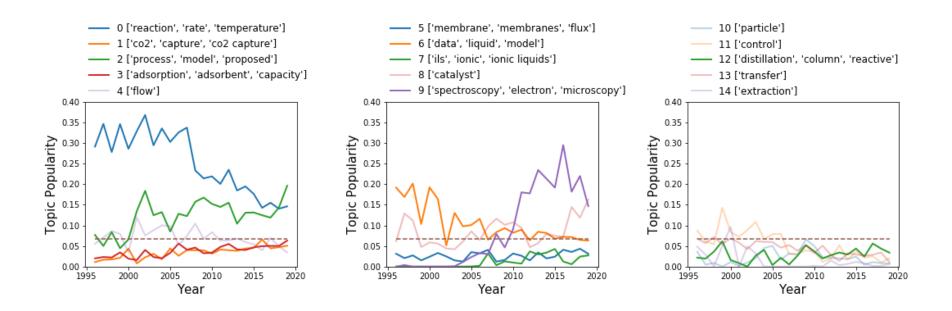
Georgia Institute of Technology

Topic extraction from IECR journal



The WordCloud shows the top 3 words per topic and their relative frequency in the journal

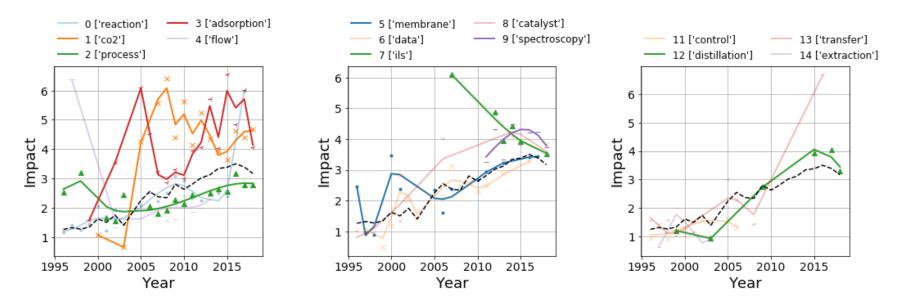
Popularity is a measure of the percentage of research dealing with a given topic



- [9] "Spectroscopy & Electron Microscopy", [7] "Ionic Liquids" emerged suddenly around 2005 and are plateauing now.
- [12] "Distillation", [5] "Membranes", are small but steady fields
- [1] "CO2 capture", [3] "Adsorption", are seeing steady growth
- [0] "Reaction Engineering", [6] "Fluid Mechanics" are seeing a dramatic and steady decline

Topic-wise impact factor is the average number of citations received per year per paper

Impact is a measure of general outreach & relevance of research findings in a field



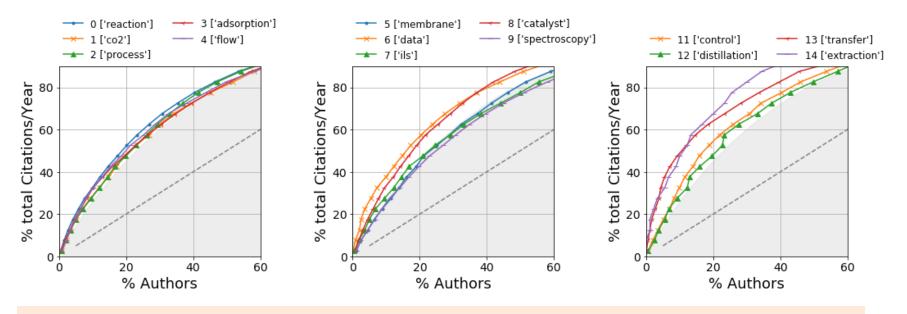
[9] "Spectroscopy & Electron Microscopy", [7] "Ionic Liquids" started strong but are seeing steep decline in Impact

[1] "CO₂ capture", [3] "Adsorption", are the "Hot Topic" fields getting cited significantly more than the average (although number of contributions is lesser than average)

[2] "Process Modeling" has a lower than average outreach although the <u>number of</u> publications is well above the average

Backup Slides

What percentage of authors end up being cited in each research area?



Degree of collaboration overall

