

Popular Grant Funders Over Time

Students at Carnegie Mellon University Use Dimensions to Create Research Funding Dashboards

Carnegie Mellon University (CMU) receives grant funding to pursue research in many subject areas. Professors and researchers frequently asked the CMU Library for help locating information about university research activities and these requests often required a lot of time consuming manual labor and analysis.

The library reached out to a group of seniors (Melissa Dy, Michael Li, Veda Lin & Kyra Balenzano) with majors such as machine learning, statistics, and computer science and asked them to build an online tool making this information accessible and easy to understand across the university.

Using the Dimensions API, the students created dashboards on CMU's intranet which are available to staff, students, and other university affiliates. The group created dashboards answering several common questions:

- 1. Which funding organizations have funded research at CMU? How has this changed over time? What categories of research is each funder supporting?
- 2. How are the topics within each category changing over time?
- 3. Which researchers are associated with a certain category of research?
- 4. How do funded research topics change over time?

Grant Funding Information

To understand who funded the most research in specific time periods, the students built an interactive visualization allowing users to compare top funders over a user selected time span.

Another visualization allows users to select a research topic and discover who has funded the most grants.

Trending Topics by Research Category

Professors and university staff need to understand how the topics within a research category are trending in interest from funders. The team created a visualization which groups similar grants together using NLP. Using the slider to select grant start years clusters subject matter into common groups.



Scrolling below these graphs shows example grants from each cluster with a link to more detailed information in Dimensions.



Grant Researchers

Modern Language & Linguistics Economics

Mathematics & Statistics

All Categories

Grant Recipients

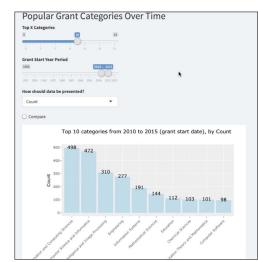
To discover who is receiving grant funding by category, the interactive tool provides data which can be filtered by year or searched by keyword.

Collaborations between university professors and researchers can also be discovered.



Funding Changes by Category

To understand how funding for research categories may be growing or declining, this feature provides the top categories from a user specified period of time. When the compare box is checked, a second time period can be selected.



Results

The students were impressed with the quality of data from Dimensions. Normally they spend a significant amount of time cleaning up data to use in projects, but in this case they were able to start working on their dashboards right away.

Faculty at CMU is impressed with the project and is excited to use it and explore all the functionality.

To learn more details about this project, watch a recording of the webinar.

