The media uses the humanities as boundary-crossing frameworks to help the public understand science and technology.

The humanities, understood here to include history, literature, TV shows, and philosophy, are deployed in the media as boundary-crossing frameworks to help the public understand scientific and technological concepts. That's the conclusion that can be drawn from our Collection 1 of 82,324 articles mentioning the "humanities" or "science(s)," Collection 21 of 28,957 articles mentioning the "humanities" or "science(s)," and Collection 18 of 81,445 articles from university student newspapers mentioning the "science(s)." In topic models of these articles, a variety of humanities themes are used as a bridge to connect lay audiences with science and technology and to facilitate understanding.

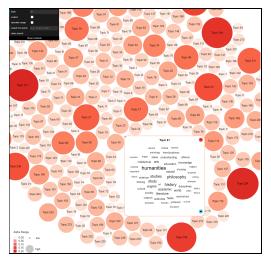
In topic <u>#123</u> in C-1.250 (our 250-topics model of Collection 1), regarding the dissemination of science, the top ten recurring words are *philosophy, science, human, theory, scientific, world, philosophers, nature, evolution, scientists.* Similar is <u>#242</u>, which is about STEM fields. Its top ten recurring words are *science, engineering, sciences, math, stem, computer, physics, humanities, mathematics, technology.*

The connection of the humanities with STEM fields shows that humanities objects are used in academic settings to provide a deeper understanding of core concepts. In addition, the portrayal of accurate scientific concepts in humanities-based entertainment brings scientific terminology and concepts into everyday life.

Topic $\frac{\#61}{1}$ in C-21.250 shows that science-fiction novels and television shows

introduce ideas such as faster-than-light travel to the public, and concepts such as String Theory have become intertwined with popular culture following appearances on widely consumed television shows. A similar result is found in topic <u>#221</u>, in C-18.250, which shows that novels are used to explain real-life technological advancements and scientific issues such as climate change.

This invites an important question for the humanities: how can they be used in education to help students better understand STEM fields while fostering a deeper appreciation for the humanities? (For possible answers, see our key findings $\underline{KF-5-6}$ and $\underline{KF-8-5}$).



Topic #81 in C-18.250 viewed in TopicBubbles.

Document collections studied: <u>C-1 (start page);</u> <u>C-21 (start page); C-18 (start page)</u> Interesting sample topics: C-18.250 <u>#81</u>, <u>#221</u>; C-1.250 <u>#123</u>, <u>#242</u> Representative articles: <u>a</u>, <u>b</u>. Reports & lab notes behind finding: Lab-5 documentation, DOI <u>10.5281/zenodo.4831113</u>