Good/Bad, Happy/Sad: Conducting Sentiment Analysis on User Survey Data from Houghton Library with R

EMILIE HARDMAN

Abstract:
In 2016 Houghton Library conducted its first user survey, compiling data from more than 500 patrons on their experiences of using the Reading Room to consult rare books, manuscripts, and archives. A number of open-ended questions provided respondents ample opportunity to share their thoughts, feelings, and experiences in—sometimes—great detail. These qualitative data were coded in a traditional way, but also subjected to a technique used prominently in business known as sentiment analysis, process whereby textual data are computationally classified to identify and quantify the opinions and emotions present in the text. Using R and a trained logistical model, the qualitative data were examined to determine how study participants felt about our various services, tools, systems, policies and procedures. A built-in confidence rating along with small sample inter-coder reliability checks performed by Houghton colleagues helped create a neutrally-constructed and verifiably sound way of accounting for how participants felt about their experiences with us. Knowing that "the machine" labeled an encounter negative, rather than your colleague may aid reception of the analysis and open up more conversation about the components of a positive or negative experience that we may provide in the course of our work. While there are some technical elements of this analysis, it is a method that may be much more broadly adopted to provide an additional layer of insight into our user feedback, and some interfaces exist to streamline the work and make it accessible even to novices.

About the Author:

Emilie Hardman is Research, Instruction, and Digital Initiatives Librarian at Houghton Library, Harvard College's primary rare books and manuscripts library. She joined the Houghton staff in 2010. Previously she worked at the Murray Research Archive and as digital archivist for the Jewish Women's Archive. Currently, with the support of a Bibliographical Society Association/Pine Tree Foundation Fellowship in Culinary Bibliography, she is working on an annotated bibliography of American vegetarian and vegan cookbooks and zines. She holds an MA and is ABD in sociology (Brandeis University); her MLS with a concentration in archives management is from Simmons Graduate School of Library and Information Science.