Dr. Kate McDowell, School of Information Sciences, University of Illinois
IMLS Laura Bush, Community Catalysts, Planning Grant, 2 years

Data Storytelling Toolkit for Libraries (DSTL)
We are requesting funds to plan, develop, and pilot a data storytelling toolkit with and for public libraries (PLs) and community college libraries (CCLs).

Statement of broad need:

Greater datafication, in e-government and open data portals, presents challenges and opportunities for storytelling as a powerful way of conveying meaning. Libraries can make data and information into meaningful and powerful communication through storytelling, for themselves and their communities. Data storytelling is an emerging area; at the School of Information Sciences, this is fourth year of offering the first graduate-level data storytelling course of which we are aware, co-taught by PI Kate McDowell who has taught library and information science storytelling and led a storytelling festival for 13 years and co-PI Matt Turk who directs the Data Exploration Lab and brings data visualization expertise across astronomy and information science. This course content has great potential for transforming the impact of libraries by helping them to tell more effective stories. However, the syllabus would need significant transformation to be effective, retooling 1) to meet the needs of professional librarians and their obstacles to data storytelling, 2) for efficient delivery in workshops, and 3) in a pandemic context, virtually.

The goal of this project is to plan, develop, and pilot a **Data Storytelling Toolkit for Libraries (DSTL),** derived from the data storytelling course and refined with input from participating PLs and CCLs in order to serve data and communication needs of libraries and position them to serve their communities. Thanks to a 2020 seed grant from the University of Illinois Center for Social & Behavioral Science, 26 interviews are in process of thematic analysis (Braun, V. and Clarke, 2006), and a preliminary Data Storytelling Obstacles Questionnaire has received 38 responses. Interviewees and questionnaire respondents came from iSchool alumni (in PLs and academic libraries including CCLs), the Illinois Library Association (ILA), the Consortium of Academic and Research Libraries in Illinois (CARLI, with high CCL membership), and the national IMLS-funded Measures that Matter group. Initial interview findings include that libraries are predominately retelling stories they have told for a long time. Initial questionnaire responses indicate that, of 8 possible obstacles, the top three are: too little time; don't have data they need; and too little focus on storytelling with not enough connection to data. We see an enormous gap where data storytelling could serve to make librarians' stories more current and compelling and prompt more effective data collection practices that are directly connected to communicating with communities, meeting the "build capacity" goal and the "share and adopt best practices" objective, and supports all other categories of objectives of that goal.

Project Design:

This toolkit will equip individuals in PLs and CCLs to tell stories with their data. The toolkit will initially be presented in short-form workshops (1 and 2 hour formats). Professional librarians will then give feedback toward iterative toolkit development. The toolkit will be an online resource, comprising content related to effective storytelling practices, curated online data tools and portals, and example data stories developed with partner librarians.

Initial toolkit designs will be piloted with libraries whose input will be central to developing and refining the toolkit. The final toolkit will be available nationally and internationally to anyone who could make use of or contribute to the ongoing project. The research assistant (RA) will assist the PI with data collection and analysis for the following project phases:

Phase 1: Identify obstacles to data storytelling and recruit participants via a questionnaire and follow-up interviews. This will be similar to work already under way, but at a larger scale, including 1-hour introductory workshops. Protocol has pre-existing IRB approval. (6 months)

Phase 2: Create the DSTL. Participants from phase 1 will be invited to a series of 2-hour small group online workshops. Participant will be organized into 2 or more cohorts of 10-15 librarians by specialty and 2 or more combined PL/CCL cohorts. The toolkit and workshops will be refined via feedback forms and optional follow-up interviews. Phase 2 participants will be asked to contribute data sources to become teaching examples for later toolkit iterations. (1 year)

Phase 3: Pilot data storytelling toolkit through publicly advertised 1-hour introductory and 2-hour workshops of up to 80 online participants. These pilot workshops will be publicized through national organizations, and feedback and selected follow-up interviews will inform the final iteration of the DSTL. (6 months)

The methods will draw from the IRB-approved Storytelling at Work interview protocol, previously tested with over 100 interviews, with slight modifications to semi-structured questions. The research team will include: PI Dr. Kate McDowell, storytelling expert; co-PI Dr. Matthew Turk, data visualization expert; Dr. Martin Wolske, expert in community informatics; Dr. Rachel Magee who empowers librarians to conduct research; Dr. Kyungwon Koh, expert in the library maker movement; and Dr. Sharon Comstock who serves on the Public Library Data Alliance board. Initially, we expect the toolkit to reach at least the 300 member libraries of Measures that Matter, with expanding audiences as the toolkit is developed.

Diversity Plan: The first stage will focus on recruiting libraries with a history of strong diversity programs and requesting their input as to other diversity leaders to invite. Designing for inclusion will require incorporating approaches from critical race theory and research on library services to diverse populations, in both project framing and data collection, in order to make the resulting data storytelling toolkit as relevant as possible to diverse audiences.

Broad Impact: The DSTL will empower libraries with innovative digital tools "to spark rapid change in their communities."[1] The goal of this grant will be to use the toolkit developed to help public and academic libraries become data storytelling practitioners. The long-term goal is to create a network of librarians as data storytelling experts serving communities nationally. This planning project could lead to a "train the trainer" model distribution, so that these participants can carry the toolkit forward into all of their professional networks, particularly community organizations. The long-term vision is to transform librarianship through data storytelling expertise, so that when communities have data storytelling needs, they are met at libraries and by librarians.

Budget Summary:
The total amount requested over two years from IMLS is $99,558 with no cost sharing; 0.25 of one summer month salary including fringe for PI and co-PI ($18,978); one RA to coordinate interviews, run workshops, and help with data analysis, including fringe and tuition remission ($50,687); and indirect costs ($29,893).

References:
Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

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[1] https://www.imls.gov/blog/2018/03/2018-community-catalysts-funding-opportunity-chance-innovate