UNIVERSITY OF MARYLAND
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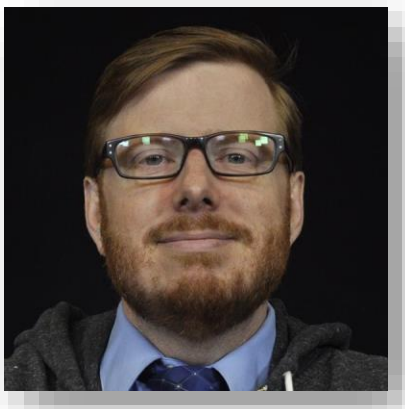
DATA EDITOR MUSSENDEN AND STUDENTS DEMONSTRATE THE INNOVATIVE DATA WORK THAT DRIVES HOWARD CENTER PROJECTS

As the data editor for the Howard Center, Sean Mussenden and his students have won dozens of regional and national journalism awards for in-depth investigative packages, long-form feature stories, data-driven reporting projects, innovative data visualizations and interactive graphics. During this presentation, Mussenden explained how vital data analysis, computer programming and computational journalism are to every Howard Center project. Afterward, his students demonstrated the innovative data work that drives Howard Center projects, including the public records request system created at Merrill College that is now being shared with Arizona State University. A summary of his and his students' presentations is provided below.



SEAN MUSSENDEN – DATA EDITOR, HOWARD CENTER

"Thank you very much for the support you give to Howard Center. None of this work we do, the things we are going to talk about, would be possible without you." "At the Howard Center, I'm fortunate to work with a lot of talented student data reporters who are learning how to do data-driven investigative reporting while doing meaningful work."

How Data and Computation Help the Howard Center

According to Mussenden, data and computation factor into Howard Center projects in five ways:

1. Obtain information at scale. Mussenden and his students can write programs that collect massive amounts of information from the internet or other sources. The Howard Center uses these large data sets to discover stories no one else can;
2. Find patterns (e.g., systemic patterns) and examples. The Howard Center does a lot of work looking at the equity of government systems and other public policy topics.
3. Go big (e.g., looking for anecdotes bigger than patterns);
4. Go small (e.g., looking for patterns bigger than anecdotes). According to Mussenden, early research informs them of a problem then they try to figure out how widespread it is. Analyzing the data helps the Center understand whether an anecdote is an isolated incident or represents something more significant. Further, analyzing data sets can help pick out examples, figure out where to do reporting, which neighborhood to focus on, and identify characters or people; and
5. Helps the Howard Center tell great stories and populates everything the Center does.

Students Are Currently Working On

Mussenden's students focus on producing stories in text, video and audio. They also create news applications allowing individuals to independently explore large databases and web maps. Almost all of their work is done by writing unique programs. Once completed, the programs become a key part of the students' portfolios when applying for jobs. According to Mussenden, "the ability to do programming work, in addition to reporting, is a big part of what makes these students so sought after."

Mussenden's students produce data for Howard Center stories and for other journalists to use. Often on projects, students collect large amounts of information, analyze their results, take relevant slices of information, and make the rest available for others to use. Lastly, Mussenden and his students create software tools as a part of their work, and once done, they release those tools to the public for others' use.

Students Explain Their Recent Work

Four data team students explained how they are collaborating with the Associate Press. Although they could not discuss the project, they did say they are doing live collaboration sessions with the AP. The AP reporters come to the sessions with questions that the students live-answer. The students believe the sessions and their answers help reporters better understand what Howard Center students can do for them, given that the students are very familiar with the data being collected. Not only are the students able to query [Howard Center] databases, but they are also able to query the AP's database as well. The students call these "joins." Joins put the two databases together to allow the students to analyze both databases in real-time. According to the students, analyzing in real-time allows them to come up with questions and offer follow-up questions once initial questions are answered.

Building Infrastructure

After the presentations, Mussenden explained that it is "important for [us] to know [he and his students] are not [creating] bells and whistles technology like seen in Silicon Valley. [They're] building infrastructure. A type of plumbing that helps reporters do things better. It makes it possible for students to do reporting [professional newsrooms] can't possibly do at scale. [They] would need hundreds to do this work." Mussenden firmly added, "every newsroom needs systems like this, whether they realize it or not, and every newsroom needs people who can build systems like this, and we have both. That is what our

students are working on. It's consequential for journalism and our journalism students that they see that in action because they can do things now that they couldn't do before."