

The Automation Policy and Research Organizing Network

APRON aims to build a community of scholars, practitioners, and policymakers and advance communication research focused on the future of data-intensive, automated work. The APRON Lab currently focuses on health and healthcare where the stakes of getting automation right are very high.

For example, these four projects each involve efforts to address complex health information technologies. We're investigating how the implicated changes in organizing and technology unfold in and through everyday communication about how work is and ought to be accomplished. We're looking at communication practices such as advocating for new technologies; seeking information from managers, peers, and other experts; and deliberating about technology adoption and use.

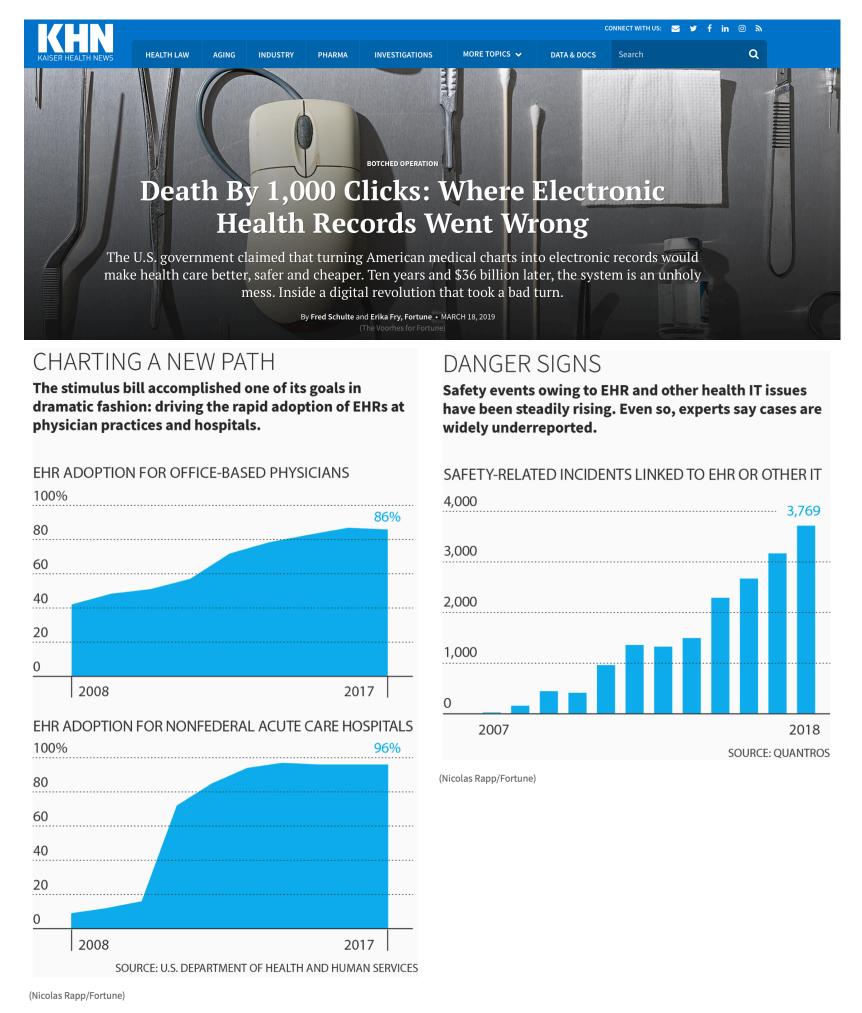
Can we help healthcare organizations have effective deliberations about the future of health and work as they automate and augment healthcare work?

Thanks to generous funding from the NSF (SES-1750731), this project asks, how do healthcare organizations develop and implement data-intensive health information technologies such as clinical decision support systems, analytics dashboards, and EHRs?

The APRON Lab is in the process of interviewing analysts, clinicians, administrators, and other key stakeholders as well as observing at healthcare organizations. We also want to answer fundamental questions about how changes in communication, organizing, and technology are intertwined.



"Analytics" from https://twitter.com/HR_TIHR/status 952858039891132417 for Barbour, J. B., Treem, J. W., & Kolar, B. (2018). Analytics and expert collaboration: How individuals navigate relationships when working with organizational data. *Human Relations*, 71, 256-284. doi:10.1177/0018726717711237.



Drawn from Schulte, F., & Fry, E. (2019). Death by 1.000 clicks: Where electronic health records went wrong. Retrieved from https://khn.org/news/deathby-a-thousand-clicks/

The Future of Work in Health Analytics and Automation: Investigating the Communication that Builds Human-Technology Partnerships



Photo taken at demo by https://www.stradigi.ai Photo © 2019 Joshua B. Barbour

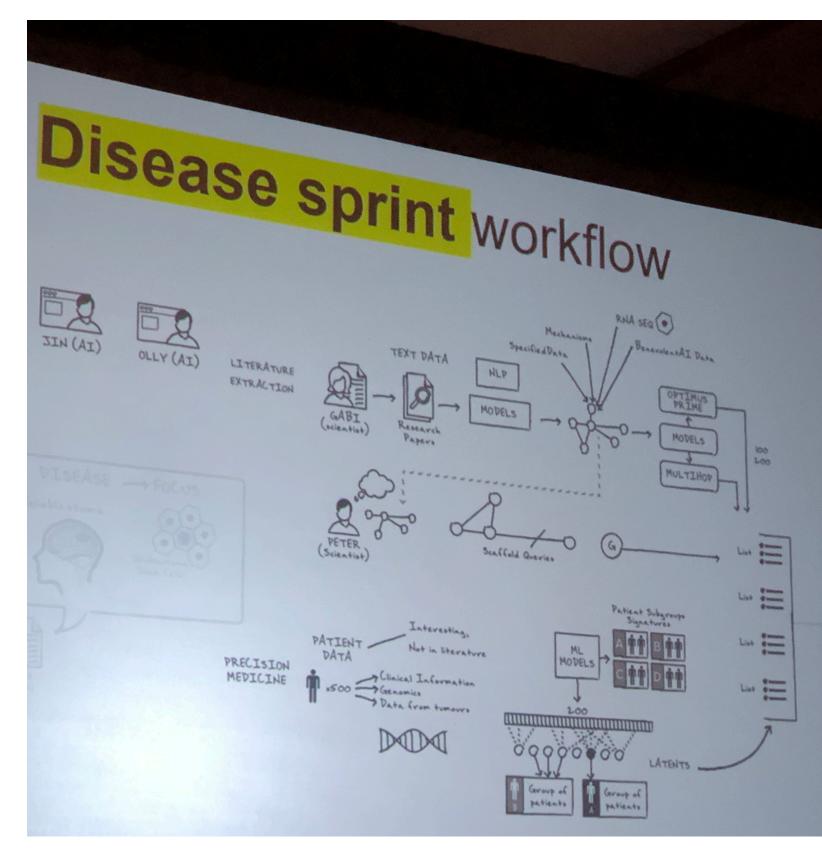
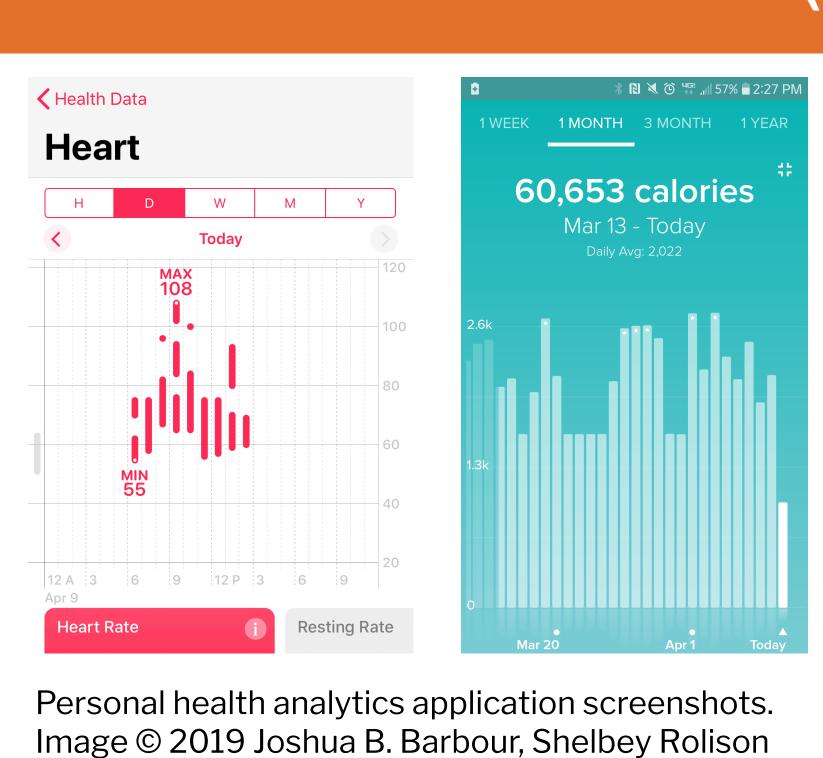
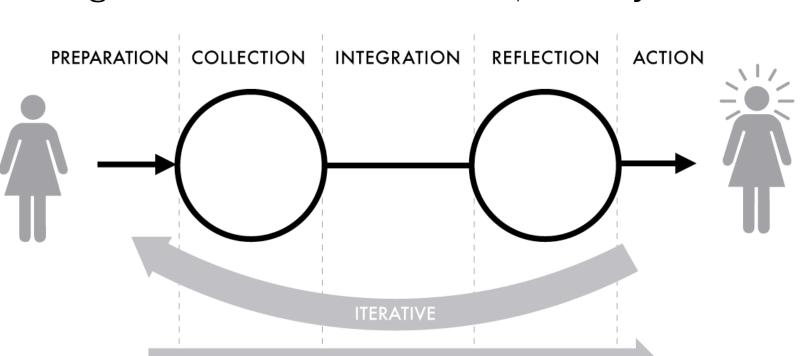
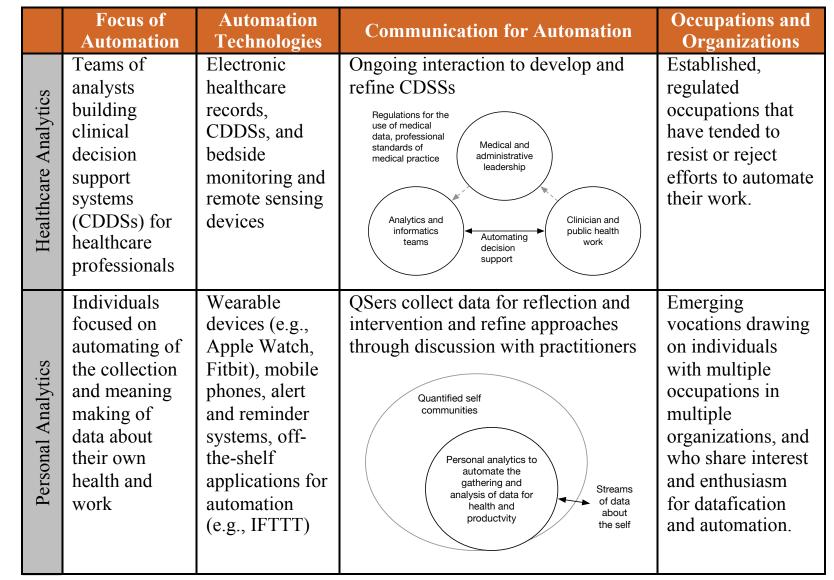


Photo © 2019 Joshua B. Barbour





Stage-Based Model of Personal Informatics from p. 561 of Li, I., Dey, A., & Forlizzi, J. (2010). A stage-based model of personal informatics systems. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Atlanta, Georgia, USA

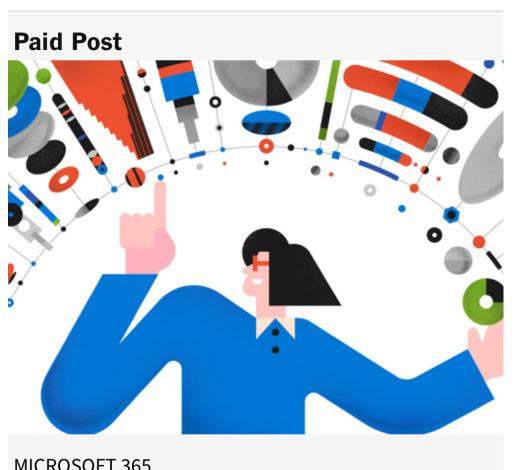


Comparing and contrasting communication practice for automation. Image © 2017 Joshua B. Barbour

Can we generate insights about what is fundamentally human about data-intensive work by looking at the work and play of personal analytics?

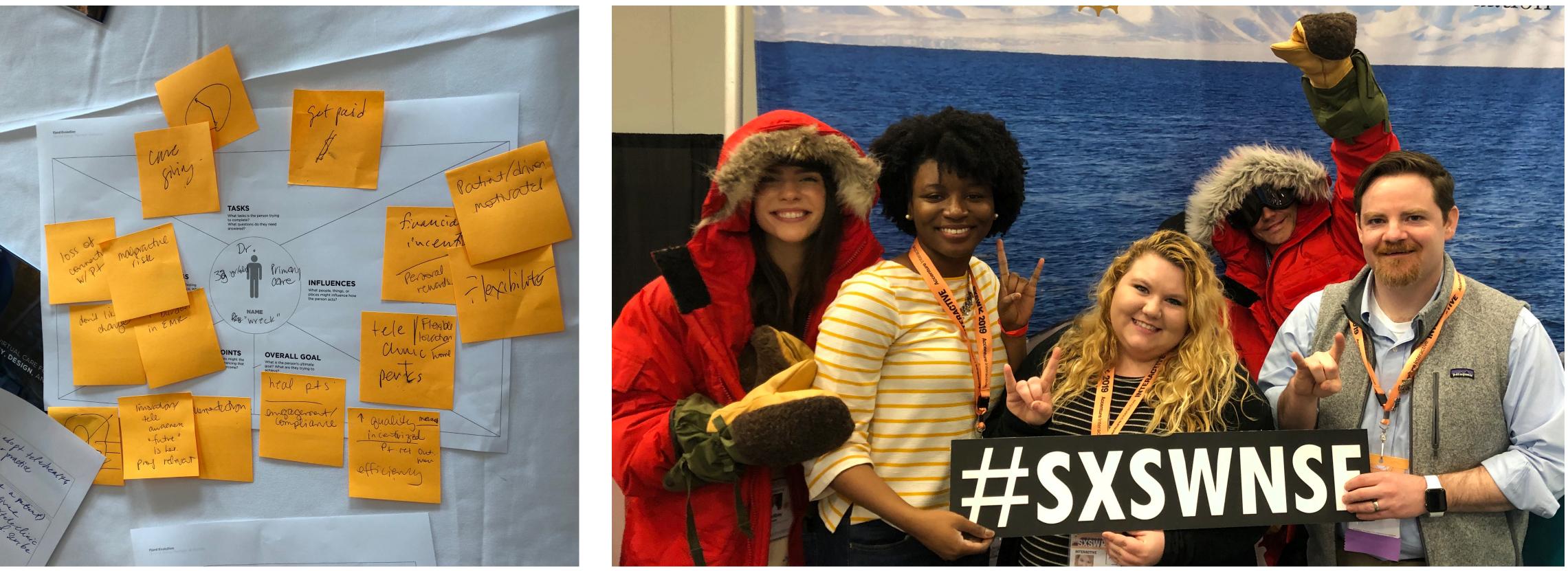
A second, related empirical project funded by NSF SES-1750731 focuses on how and why practitioners of personal analytics are creating new human-technology partnerships, new forms of work and play, through automation. Datafication and automation in personal analytics, self-tracking, or the Quantified Self (QS) movement have empowered novel humantechnology partnerships, including the means for individuals to understand and intervene in their own health, productivity, and the health of their families. It is important to study their technology choices because they are creating new forms of work and play using the very technologies that threaten to eliminate and diminish work.

Photo taken at talk by https://benevolent.ai

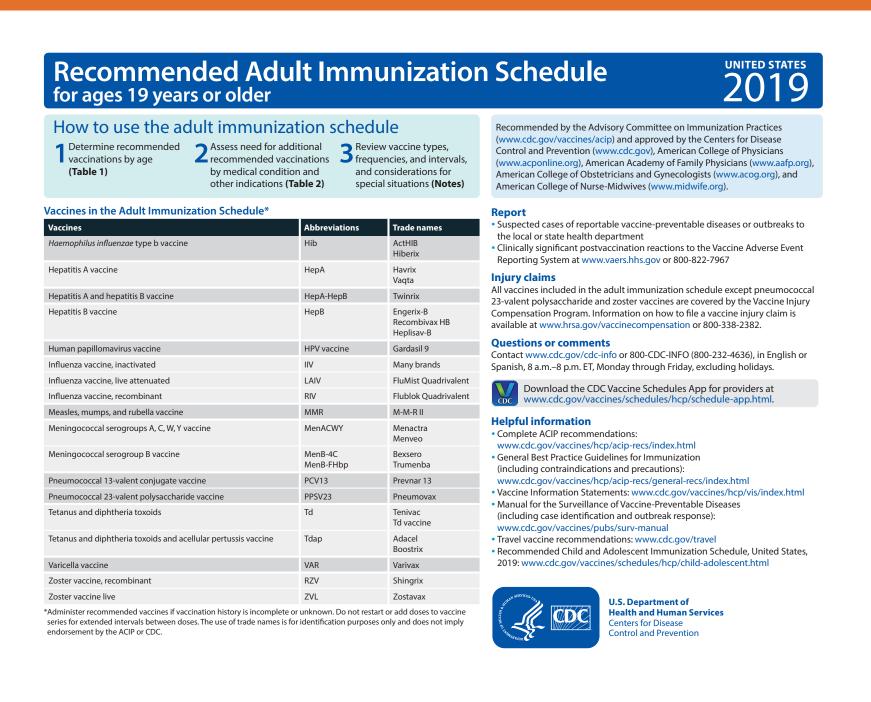


Can A.I. Help Improve Work-Life uitive tech can free up time to help you focu and think differently.

Advertisement for AI via the New York Times



Telehealth user case exercise Photo © 2019 Joshua B. Barbour



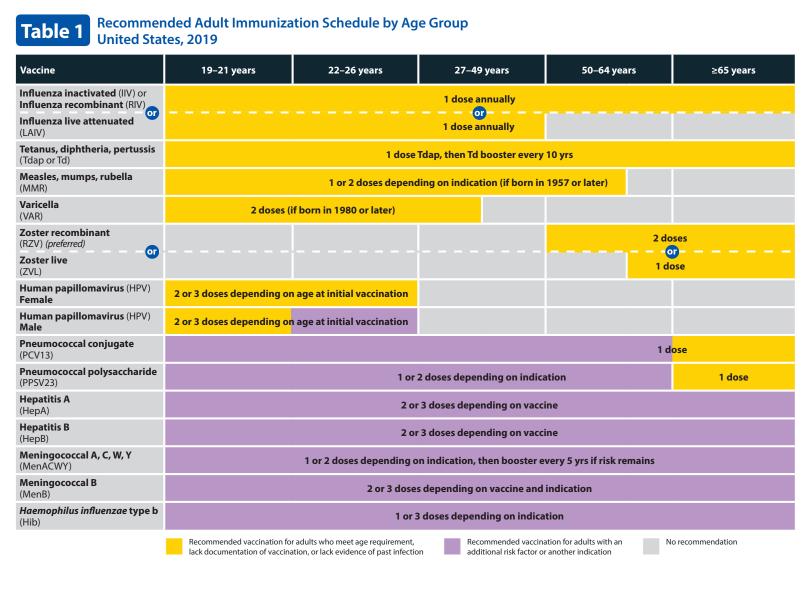


 Table 2
 Recommended Adult Immunization Schedule by Medical Condition and Other Indications

 United States, 2019
 United States, 2019
 End-stage Heart or renal lung disease, Chronic liver Diabetes Health care Men who disease, on alcoholism¹ disease personnel² sex with r 1 dose annually PRECAUTION dose Tdap, then Td booster every 10 yrs or 2 doses depending on indication CONTRAINDICATED eferred) DELAY
CONTRAINDICATED 2 doses at age ≥50 yrs or 1 dose at age ≥60 yrs HPV Female DELAY 3 doses through age 26 yrs or 3 doses through age 26 yrs or 3 doses through age 21 yrs 1, 2, or 3 doses depending on age and indication 2 o<mark>r 3 doses depen</mark>ding on vaccine Recommended vaccination for adults who meet age requirement, lack documentation, or lack evidence of past infection indication

Centers for Disease Control and Prevention. (2019). **Recommended Adult Immunization Schedule, United** States. Retrieved from https://www.cdc.gov/vaccines/ schedules/

Can we improve adult vaccine delivery by optimizing clinical and health information technology processes in Austin/Travis County, Texas?

This project is a collaboration with Principal Investigator Dr. Leanne Field, Clinical Professor (College of Natural Sciences) and Director for Digital Healthcare Innovation (McCombs School of Business) and Dr. Vince Fonseca, Affiliate Faculty and member of the Health Informatics and Health IT research team. With support from Blue Cross-Blue Shield of Texas, the two-year project will help create and implement clinical decision support tools in clinics in Texas and investigate effects on provider adoption and vaccination rates.

Dr. Joshua Barbour and Billy Table, of the APRON Lab, are collaborating with Dr. Virginia A. Brown, Principal Investigator and Assistant Professor at Dell Medical School, and Dr. Jorge Almeida, CO-PI and Director of the Bipolar Disorder Integrated Practice Unit. This study joins Dr. Brown's larger effort focused on the adoption and institutionalization of psychiatric advance directives in clinical settings. This project is supported by a flash-funding grant from the UT Austin Center for Health Communication.

Questions? Email us at apronlab@utexas.edu.

Thanks to our supporters and collaborators, and special thanks to the National Communication Association for funding of our visit to The Coalition for National Science Funding 2019 Capitol Hill Exhibition.

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APRON Lab team photo, from left to right, Shelbey Rolison, Anastazja Harris, Courtney Powers, Jared Jensen, and Joshua B. Barbour. Kendall Tich and Billy Table not pictured. Photo © 2019 Joshua B. Barbour

Can health information technology help people in mental health crises by prompting conversations that create, memorialize, and retrieve psychiatric advance directives?



Poster designed by Dr. Virginia A. Brown. Brown, V. A. (2019). Be Your ADVOCATE: For Your Health, for Your Future. Presented at the 19th Annual CTAAFSC in Austin, TX. Poster © 2019 Virginia A. Brown.

NATIONAL COMMUNICATION ASSOCIATION

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