

Citizens as More Than Sensors, Citizens as Agents for Change.

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ABSTRACT

How might we tap into citizens' knowledge, context, and passion on social media to have them be much more than just sensors, but rather, agents of change? What would it take to be able to orchestrate citizens on social media to execute ambitious goals, e.g., creating new infrastructure to support the indoor navigation of the visually impaired? The main challenge that is blocking these type of interactions at scale is that citizens have heterogeneous knowledge and usually lack the skills needed to complete the work needed to reach the collective goals. To address this problem, I introduce a novel architecture conformed of Intelligent Civic Blocks that use machine learning to: 1) help citizens on social media to build at execution time the skills they need to complete work associated with the large-scale collective effort; 2) empower citizens to develop their creativity and entrepreneurship to propose creative solutions to build improved societies. In this talk, I will present case-studies showcasing how this proposed architecture can lead to collective action organized on social media in a range of areas (see Fig. 1 for an example). In difference to prior work that focused primarily on using citizens as simple sensors, this research pushes towards new intelligent systems that enable the orchestration of collective action on social media to create improved societies.

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1 BIOGRAPHY

Saiph Savage directs the HCI Lab at WVU where she conducts data analysis to understand how collective action is organized. She then uses these findings to design crowdsourcing systems that can power citizen crowds to produce collective action to build improved democracies.

Impact. Dr. Savage's research has had observable impact, as well as noticeable influence on national and local governments. For example, she was named one of the 35 Innovators under 35 by the MIT Technology Review. Her research helped push the creation of a Federal Advisory Committee in Mexico for exponential technology. She has collaborated directly with Mexico's Federal Government and social companies to create research and systems that are used throughout the nation. She has also shared her research with Latin American presidencies, European Government officials, as well as well-established civic organizations, such as the Organization of American States (OAS), the National Democratic Institute, the Atlantic Council, the Carnegie Council, as well as the Center for Strategic and International Studies (CSIS). Through these networks of collaborations, she has designed technology that

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Figure 1: Dr. Savage's collective action systems organizing citizens in rural areas to rebuild their communities.

empowers untraditional crowds (e.g., rural adults, Governments in the Global South, gig workers). For instance, Dr. Savage's new 2.5 million dollar NSF grant studies systems to empower networks of displaced U.S. rural workers to develop their digital skills and access better jobs. She is also currently working with Mexico's Secretary of Foreign Affairs to create intelligent interfaces to help immigrants in the Global South. Dr. Savage's work has been covered on major news outlets, such as: the BBC, Deutsche Welle, Vice News and the New York Times.