

## CTG Online News

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### CTG Contributes White Papers to SBE 2020: Future Research in the Social, Behavioral & Economic Sciences

Last year, the Directorate for the Social, Behavioral, and Economic Sciences of the National Science Foundation (NSF/SBE) invited individuals and groups to contribute white papers to help frame innovative research for the year 2020 and beyond that enhances fundamental knowledge and benefits society in many ways. The call was part of an initiative called: SBE 2020: Future Research in the Social, Behavioral & Economic Sciences.

According to NSF/SBE, the white papers are “part of a process that will help make plans to support future research. Other activities will include a report by the Directorate’s Advisory Committee about the grand challenges facing the SBE sciences over the next decade and recommendations from the Directorate’s staff. The insights resulting from this process are threefold: They will inform the substance of future research, the capacities to pursue that research, and the infrastructure to enable investigations that will be increasingly interdisciplinary and international and will involve multiple perspectives and intellectual frameworks, differing scales and contexts, and diverse approaches and methodologies.”

NSF/SBE received 244 unique white papers that lay out visions for the future of the SBE sciences, the capacities necessary to pursue that research, and the infrastructure required to support it. CTG submitted two white papers and participated in a third as part of a team representing the Digital Government Society of North America.

**Information and Technology: Improving Public Sector Capability to Address Societal Challenges** *Theresa Pardo, Anthony Cresswell, Meghan Cook* This paper argues for a dedicated, social science-based research program to address the question “How do the societal context and institutional character of government interact with emerging information and communication technologies to shape the capabilities and performance of the public sector?” The ability to answer this question can only result from non-domain specific research that studies the societal context of government and the information resources and technologies affecting government. Because of government’s inherent complexity and unique role as the leader in addressing the world’s grand societal challenges, there is an urgent need to understand the practice context of government and how it influences the policy, management, and organizational political, and public factors that shape information use and IT applications. Currently there is a lack of research on the public sector and while there are devoted resources to government areas there is little scientific attention to the government organizations and processes that are both the sources and customers of the programs. With focus on this cross-cutting research, government can improve its capacity to serve society and researchers can seek opportunities for new theory development that links government context to the fundamental questions of organizational and technical action.

**Information Technology: The Connective Tissue of Organizing** *Anthony M. Cresswell, Senem Güney, CTG & Department of Informatics, UAlbany* This paper proposes the following challenge question for SBE research for the year 2020 and beyond, “How can we advance the study of the ways information technology connects and influences organizational action from the micro (local) through to the macro (global) levels of analysis?” Exploring this question requires social scientists to focus on meso-level theorizing for information technology (IT) as an organizational phenomenon. Most existing research focuses on either macro-level abstractions or micro-level behavior of IT use. This constrains the building of scientific knowledge on how today’s technological capabilities are impacting our society’s future. We argue that future SBE research should build a coherent theory framework for empirical investigations into the technology-organization interplay at the meso-level of analysis, where it impacts our lives. In the paper, we give examples of emerging social developments and needs that indicate the importance of building such a theory framework and suggest first steps for creating the necessary intellectual infrastructure. We conclude by pointing to some promising theoretical directions for future work.  
[http://www.nsf.gov/sbe/sbe\\_2020/submission\\_detail.cfm?upld\\_id=301](http://www.nsf.gov/sbe/sbe_2020/submission_detail.cfm?upld_id=301)

**A Grand Challenge: Shaping the Government of the Information Age** *Hans J Scholl (President, University of Washington), Eduard Hovy (Former President, University of Southern California), Andrea Kavanaugh (Secretary, Virginia Tech), Theresa Pardo (Board Member, University at Albany), Christine Williams (Board Member, Bentley University), and Jay Kesan (Society Member, University of Illinois at Urbana-Champaign) (Representing the Digital Government Society of North America, an association of scholars and practitioners from multiple disciplines engaged in research on and practice in transforming government.)* Government in the Information Age must act and react swiftly to the complex problems faced by society. In the Information Age, governments are

also under greater scrutiny. In response, government must be more flexible, agile, informed, transparent, and inclusive than ever before. Yet, despite recent advances in modernizing government practices, today's governments have not taken full advantage of many opportunities made possible by information technology, and are not ready to meet the challenges of the Information Age. Shaping government to be flexible, dynamic, and technologically innovative is a grand challenge that involves the collaboration and joint effort of multiple academic and practice disciplines. The gaps in what we know about government itself as an institution and how information and technology interact with the institutions of government are great. To fill these gaps we propose a ten-year/\$250m program to develop the academic domain, its capacity, critical mass, and infrastructure. Centers of Excellence in Teaching and Research (COEs) are needed to create, disseminate and employ smart information, leverage social media to engage citizens, and help transform the practice of government.

All papers submitted are available on the NSF/SBE website.