Big Data Science Alliance at San Diego State University
A Proposal for an Area of Research Excellence at San Diego State University, April 2015.
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Big data provide untapped potential for discovering and analyzing dynamic human problems, including business analytics, disease outbreaks, traffic patterns, urban dynamics, and environmental changes. Such data offer golden opportunities for scientists to develop new tools, new methods, and new theories. However, Big Data Science requires transdisciplinary collaboration and to integrate multiple perspectives and research methods into collaborative research endeavor.

This is a proposal to build a Big Data Science Alliance of areas of excellences to promote and enhance Big Data Science Research, Teaching, and Applications at SDSU by bring together SDSU colleagues from the four Areas of Excellence built in 2013 (Human Dynamics in the Mobile Age, Climate and Sustainability Studies, Clinical and Cognitive Neuroscience, and Viral Information Institute), the Department of Computer Science, the Department of Mathematics and Statistics, and the College of Business Administration (Figure 1). It is expected that this alliance will establish a university wide research infrastructure and community to support and promote Big Data Science at SDSU.

Four faculty positions will be requested by the four areas of excellences (created in 2013). The Center for Human Dynamics in the Mobile Age will request a faculty line in the College of Business Administration for Big Data Business Analytics Expert. C2S2 will request… Clinical and Cognitive Neuroscience will request… Viral Information Institute will….

**Alliance Core Members:**
1. Ming-Hsiang Tsou (Director of HDMA Center, Coordinator of the Big Data Science Alliance).
2. C. Janie Chang (Director of Charles W. Lamden School of Accountancy in College of Business Administration).
4. Sam Shen (Co-Director of the C2S2 Center).
5. Robert Edward or Forest Rohwer (the Viral Information Institute).
6. One faculty from Statistics Division.
7. One faculty from Computer Science department.