



Ciclo de Coloquios 2016

Charla técnica



El Departamento de Informática de la Universidad Técnica Federico Santa María tiene el agrado de invitar a la comunidad Universitaria a su ciclo de coloquios. Esta presentación se realizará en el Auditorio Claudio Matamoros (F-106), en la Casa Central el día **Martes 23 de Agosto a las 12:00** y por videoconferencia a la Sala de Reuniones, Departamento de Informática, Campus San Joaquín, UTFSM.

Título

The Hearts and Minds of Data Science

Expositores



Cecilia R. Aragon
Professor
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Mini Bio

Cecilia Aragon is Director of the Human Centered Data Science Lab, Professor in the Department of Human Centered Design & Engineering, and Senior Data Science Fellow in the eScience Institute at the University of Washington, Seattle, Washington, USA. She holds courtesy appointments in Computer Science and Engineering, Electrical Engineering, and the Information School, and co-leads UW's Data Science Studies Working Group as one of the PIs of the US\$37.8M Moore/Sloan Data Science Environment. She is Founding Co-Director of the new UW Data Science Master's Program, which will start its inaugural class in September 2016. She earned her Ph.D. in computer science from UC Berkeley in 2004 and her B.S. in mathematics from the California Institute of Technology. Her research focuses on human-centered data science, an emerging field at the intersection of computer-supported cooperative work (CSCW) and the statistical and computational techniques of data science.

In 2008, Aragon received the Presidential Early Career Award for Scientists and Engineers (PECASE) for her work in collaborative data-intensive science. Her research has been recognized with over US\$24M in grants from federal agencies, private foundations, and industry, and has garnered over 4,500 citations and six Best Paper awards since 2004. She won the Distinguished Alumni Award in Computer Science from UC Berkeley in 2013, the Faculty Innovator in Teaching Award from her department at UW that same year, and was named one of the Top 25 Women of 2009 by Hispanic Business Magazine. Aragon has an interdisciplinary background, including over 15 years of software development experience in industry and NASA, and a three-year stint as the founder and CEO of a small company.

Resumen

Thanks in part to the recent popularity of the buzzword "big data," it is now generally understood that many important scientific breakthroughs are made by interdisciplinary collaborations of scientists working in geographically distributed locations, producing and analyzing vast and complex data sets. The extraordinary advances in our ability to acquire and generate data in physical, biological, and social sciences are transforming the fundamental nature of science discovery across domains. Much of the research in this area, which has become known as data science or eScience, has focused on automated methods of analyzing data such as machine learning and new database techniques. Less attention has been directed to the human aspects of data science, including how to build interactive tools that maximize scientific creativity and human insight, and how to train, support, motivate, and retain the individuals with the necessary skills to produce the next generation of scientific discoveries. In this talk, I will argue for the importance of a human centered approach to data science as necessary for the success of 21st century scientific discovery. Further, I attest that we need to go beyond well-designed user interfaces for data science software tools to consider the entire ecosystem of software development and use: we need to study scientific collaborations interacting with technology as socio-technical systems, where both computer science and social science approaches are interwoven. I will discuss promising research in this area, describe ongoing initiatives at the UW eScience Institute, including the US\$37.8M Moore/Sloan Data Science Environment, and speculate upon future directions for data science.

Lugar y Fecha

23 de Agosto de 2016, 12:00

Auditorio Claudio Matamoros (F-106)

Departamento de Informática, Valparaíso. UTFSM