

# Deploying Technology to Revolutionize Science

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The technology revolution is raising new questions for both the science and the applications of psychology. Can mental health care be delivered remotely over the Internet? Can we use neuroimaging technology to adaptively control our own brain activity? How can technology be used to study people in settings far more natural than a lab?

In a cross-cutting theme program, “Advancing Psychological Science Through Technology,” at the 2016 APS Annual Convention in Chicago, leading researchers opened a window into the future role of technology in psychological science.

Psychological and computer scientist Rainer Goebel, who directs the Maastricht Brain Imaging Center at Maastricht University, the Netherlands, talked about the use of ultra-high magnetic field scanners as a way to link cognitive phenomena such as perception, attention, working memory, imagery, and awareness to cortical layers in the brain.

Noting the scientific potential of online panels and communities, such as Amazon Mechanical Turk, Tara S. Behrend of George Washington University (GWU) discussed the most effective ways to use crowdsourcing for behavioral studies. As director of the GWU Workplaces and Virtual Environments Lab, Behrend explores how people learn, interact, and perform with digital technologies.

APS Fellow Timothy Trull, University of Missouri, provided examples of ambulatory assessments, a wide range of methods used to study people in their natural environments. These methods include self-reports; observational measures; and biological, physiological, and behavioral assessments.

Steve Balsis, a Texas A&M clinical psychology researcher who studies the measurement of dementia, discussed his efforts to improve assessment instruments for measuring Alzheimer’s disease, with the goal of hastening early detection.

And clinical psychological scientist Kathleen M. Carroll of Yale University shared her perspectives on the potential for new technologies to help isolate and study effective therapies that can lead to novel treatments.

Look for more detailed coverage of this cross-cutting theme program in the Convention issue of the *Observer*, coming this summer.