

Collaborative Workshop on IoT Ethical Dilemmas on a Smart Campus, September 11, 2017 at Princeton University

Internet2, Princeton University's Chief Information Officer, and Princeton's Center for Information Technology Policy hosted a fullday workshop on September 11th, 2017 at Princeton University to discuss IoT ethical dilemmas related to the use of Internet of Things (IoT) technologies. Topics relevant for the discussion included Trust, Identity, Privacy, Protection, Safety & Security (TIPPSS) for IoT and the ethics related to the use of data created and captured on a Smart Campus.

Workshop [attendees](#) included academics from technology and policy disciplines, administrators, Chief Information Officers and staff from several universities, industry executives, and representatives from Internet2.

Four scenarios, each introduced by a panel, was followed by a structured discussion, allowing participants to examine the challenges and implications from an information technology and policy point of view, reflect what the potential solutions and consequences could be, and suggest an appropriate response.

The workshop outcome will be a reflective and provocative document about the upcoming challenges of IoT in a Smart Campus environment, particularly as they relate to privacy and security concerns. The final documentation will be circulated for comment among all university stakeholders across the Internet2 community, to be ready by the end of 2017.

As food for thought:

- Recent article in Communications of the ACM by Francine Berman and Vinton G. Cerf discuss viewpoints about the need for policies, ethical behavioral guidelines, and frameworks related to ethics and IoT. (http://www.cs.rpi.edu/~bermaf/Berman+Cerf_IoT.pdf).
- Recent article on The Huffington Post about a conversation with Cisco's VP of Corporate Strategic Innovation Group, "[Enterprises Are Leading the Internet of Things Innovation](#)"
- Smart Campus Case Study - Georgia Institute of Technology, "[The Connected Campus: Using Sports Technology to Improve Student Health, Well-being, and Success](#)"

Agenda for the day:

8:30-9:00AM: Welcome

- Nick Feamster, Professor and Deputy Director of Center for Information Technology Policy, Princeton University
- Jay Dominick, Vice President for Information Technology and Chief Information Officer, Princeton University
- Florence Hudson, Senior Vice President and Chief Innovation Officer, Internet2

9:00-10:00AM: Multidisciplinary Open Discussion: IoT in a Smart Campus Environment

- CISO experiences with IoT connections on Campus
 - Mark Cather, Chief Information Security Officer, University of Maryland, Baltimore County
- Potential Solutions and Use Cases from Industry
 - Charles Curran, Co-Founder and Chief Executive Officer, Armored Things
 - Rob Curtin, Regional Leader, Americas, Microsoft
- Legal and Ethics Perspectives for IoT and Data - Privacy and Security
 - Elana Zeide, Visiting Professor, Seton Hall University School of Law
 - Ben Zevenbergen, Research Fellow, Princeton University

10:00-10:30AM Break

10:30-11:30AM Use Case #1

- The use of data regarding student tracking, focused on student experience and success
 - Stephanie Bond Huie, Vice Chancellor for Strategic Initiatives, The University of Texas System
 - Kelli Trosvig, Vice President for Information Technology and CIO, University of Michigan
 - Sol Bermann, Interim Chief Information Security Officer, University of Michigan
 - Tina Thorstenson, Assistant Vice President and Chief Information Security Officer, Arizona State University
 - Bobby Gray, Director Application & Information Services, Arizona State University
 - Group Discussion

11:30-12:30PM Use Case #2

- Readiness of IRBs to handle issues related to data utilization in research
- Group Discussion

12:30-1:30PM Lunch and Discussion.

1:30-2:30PM Use Case #3

- Trust, Identity, Privacy, Protection, Safety and Security (TIPPSS) challenges for IoT devices and data
 - Mark Cather, Chief Information Security Officer, University of Maryland, Baltimore County
 - Tina Thorstenson, Assistant Vice President and Chief Information Security Officer, Arizona State University
 - Bobby Gray, Director Application & Information Services, Arizona State University
 - Group Discussion

2:30-3:30PM Use Case #4

- Privacy and security of connected biomedical devices on campus and within Academic Medical Centers
 - Susan Ramonat, Chief Executive Officer, Spiritus Partners
 - Group Discussion

3:30-4:00PM Break

4:00-5:00 PM Reflections and Next Steps

- Finished the day with a discussion on the ethical implications that have been raised and agree on a final document structure.