

# AGENDA

4 - 5 October 2018



**CORNELL  
TECH**

## OECD-GCOA-Cornell-Tech Expert Consultation

### Growing and Shaping the Internet of Things Wellness and Care Ecosystem

Enablers and Barriers

Venue: Cornell-Tech- New York - US

Thursday 4 October 2018

09:00-09:30 Registration/coffee

09:30-09:40 Welcome remarks and introduction

OECD Secretariat and Hosts

09:40-11:30 **Session 1: Internet of Things Wellness/Health Care Ecosystem : State of Play**

The OECD refers to IoT as *“an ecosystem in which applications and services are driven by data collected from devices that sense and interface with the physical world”*. A growing important part of this ecosystem is remote care, which can be deployed in smart home settings to monitor health, enhance wellness and support functional ability for aging populations. Session I will review the emerging health and wellness IoT ecosystems providing examples of applications for greater access to treatment, treatment adherence, remote care monitoring; and for personalised care solutions including for prevention and promotion of healthy behaviours.

Proposed questions: What is the potential of IoT to support the promotion of healthy behaviours and a more active ageing population? What smart home solutions exist today to manage more effectively the rising prevalence of chronic conditions such as diabetes and dementia?

Moderator: Jenni Nordberg (Director and Head of health division at Vinnova; Sweden)

***The current state of play of IoT for Health and Wellness (09:45-10:05)***

Speaker: Nick Padula, Vice President Solutions Strategy, Philips (US)

***Integrating AI for scaling IoT in health care(10:05-10:25)***

Speaker: Evan W. Patton, Ph.D. Development Lead, Massachusetts Institute of Technology (US)

***Growing the IoT remote care and wearables market in Europe (10:30-10:50)***

Speaker: Jose Valverde Programme Officer, European Commission

***The Case for Remote Care and the Aging Market (10:50-11:10)***

Speaker: Dave Ryan General Manager, Health & Life Sciences Sector, Internet of Things Group, Intel CorporationIntel (US)

*Followed by discussion (11:10-11:30)*

11:30-11:45

**Coffee break**

11:45-12:30

**Session 2: Enablers of progress: Security , Privacy and Trust in the IoT**

Harnessing the broad range of IoT opportunities for health and wellness and addressing the associated complex societal and policy questions requires a multidisciplinary approach. How society responds to these questions and the actions of both public and private actors will make a significant difference to how quickly and how well we are able to benefit from IoT innovations in health care. Many of the benefits associated with IoT - especially where the functionality of devices are reliant on Artificial Intelligence – will not be possible without data collection at scale. Session 2 will examine the IoT value chain which resides in the collection and transformation of massive amounts of raw data into useful knowledge. It will examine the ‘privacy’ challenges, and more generally how personal information should be collected, stored, transmitted and used. It will discuss how the open and ubiquitous nature of the IoT may increase its vulnerability to malicious attacks and the implications for product and patient safety.

**Proposed questions:** What data is needed to unlock the value of IoT for wellness and healthcare? How can the data flows generated within the smart home IoT ecosystem enable the new remote care pathways? What are the main IoT-related data privacy, security and safety concerns?

Moderator: Jennifer Stoddart, Former Privacy Commissioner of Canada (Canada)

***Privacy Risks and Accountability in the Internet of Things ecosystem (11:50-12:10)***

Speaker: Gilad L. Rosner, IoT Privacy Forum

***Trust and Ethical Frameworks for IoT (12:10-12:30)***

Speaker: Robin Wilton, Technical Director for Identity and Privacy at the Internet Society

12:30-13:30

**Lunch**

13:30-14:30

**Session 2: Enablers of progress. Security , Privacy and Trust in the IoT (cont’d)**

***Securing the customer/patient data in an IoT environment (13:30-13:50)***

Speaker: Bodil Josefsson, Ericsson's head of IoT security (Sweden)

***Consumer product safety in the Internet of Things (13:50-14:10)***

Speaker: Brigitte Acoca, Consumer Policy Analyst, (OECD)

*Followed by discussion*

**14:30-16:00 Session 3: Health and Wellness Apps : Quality assurance Challenges and Solutions**

Mobile applications or “apps” (software programs on mobile devices) are one of the key components of the new connected health environment, in particular for patient self-monitoring and the management of non-communicable diseases such as diabetes and cardiac disease and for mental health where continuous interaction and support is imperative. These data collection apps, along with equipment used for self-monitoring, are behind the surge in the “quantified self-care movement”. Regardless of the growing appreciation of the health and wellness gains from greater use of mHealth and apps, numerous issues critical for their effective uptake and adoption remain. In particular there are persisting questions about i) Clinical effectiveness and safety and ii) Privacy and security (Many health and fitness apps have access to sensitive, physiological, location, etc. data collected by sensors on a mobile phone, wearable, or other device) . This session will discuss public and private sector experiences in assuring good quality assurance practice and principles.

**Proposed questions:** What are the main quality assurance challenges and solutions? What possible or further role could governments and private sector play in addressing quality assurance concerns, respectively? Where is international cooperation needed and what role should the OECD play?

Laura VanDruff, Assistant Director, Federal Trade Commission , Senior Attorney, Division of Privacy and Identity Protection; (US)

**Smartphone apps for diabetes management: A global overview (14:35-14:55)**

Speaker: Josip Car ,Centre for Population Health Sciences, Lee Kong Chian School of Medicine, NanyangTechnological University, (Singapore)

***Is consent and privacy self-management possible in the App and IoT environments? (14:55-15:15)***

Speaker: Jonathan A Obar , Assistant Professor , Department of Communication Studies York University, Toronto (Canada)

**15:15-15:30 Coffee break**

**15:30-16:15 Session 3: Health and Wellness Apps: Opportunities and Challenges (cont'd)**

**Privacy and data protection non-medical Apps for Health and Wellness : review of OECD countries good practice(15:30-15:50)**

Speaker: Effy Vayena (ETH Zurich, Switzerland) and Elettra Ronchi (OECD)

*Followed by Roundtable discussion*

**16:15-18:00 Session 4: Understanding the value and potential benefits of an IoT-based care**

IoT can be used to remotely monitor and report data on patient indicators such as blood pressure, oxygen levels, cholesterol and other vitals. Data streams fed into tracking software can help early detection and prevention. In combination with advanced analytics, and artificial intelligence the data collected may also enable new insights for both care and cure. It will be critical to evaluate the benefits to patients and health care systems from early pilot implementations of IoT as well as its potential for cost-effective innovation in care delivery. Session 4 will discuss what progress is being made in evaluating the health and wellness impacts of IoT, in particular how they can add to quality of life, and where knowledge gaps are still not being filled.

**Proposed questions:** What is the value of IoT and AI for the patient/consumer? Can IoT improve access, time to service, and provide care with less costs? What opportunities and challenges does this transition bring for health professionals and care-givers? What is the value to payors? What are the needs for evidence-based policy? What should be the key elements of a workable and effective framework for monitoring and evaluating IoT initiatives?

Moderators: Deborah Estrin, Associate Dean and Professor of Computer Science at Cornell Tech , (US); Louise Rosborough (Manager of the National Initiatives Unit, Health Care Programs and Policy Directorate, Strategic Policy Branch, Health Canada (Canada)

**Key Note: Innovative Environments In Health Care: Where And How New Approaches To Care Succeed (16:15-16:45)**

Speaker: David Bates, Chief of the Division of General Internal Medicine at Brigham and Women's Hospital , Boston, Massachusetts (US)

*Followed by Q&A*

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**Benefits and Costs: A Private Payor Perspective (16:50-17:10)**

Speaker: Chris Madsen, Co-founder and CEO Aegon Bluesquare

**Remote Patient Monitoring: Impacts of the new Medicare reimbursement rules (17:10-17:30)**

Speaker: Mei Wa Kwong, JD, Executive Director, Center for Connected Health Policy (US)

**Putting People First: What do consumer/patients and their care-givers want? (17:30-17:50)**

Speaker: Paul de Raeve , Secretary General, European Federation of Nurses Associations

*Followed by discussion*

18:00

Cocktail/Dinner

Friday 5 October 2018

**09:00 – 10: 00    Session 4: Understanding the value and potential benefits of an IoT-based care (cont'd)**

Moderators: Deborah Estrin, Associate Dean and Professor of Computer Science at Cornell Tech, (US); Louise Rosborough (Manager of the National Initiatives Unit, Health Care Programs and Policy Directorate, Strategic Policy Branch, Health Canada (Canada)

***The UK NHS Test Bed Programme (09:00 – 09: 20)***

Speaker: Shana Vijayan, Innovation, Research and Life Sciences Group, Strategy and Innovation Directorate (UK)

***Digital Health Innovation : Policy perspectives from the Netherlands (09:20 – 09: 40)***

Speaker: Wim Rullens, Head International Organisations, Dutch Ministry of Economic Affairs and Climate, Netherlands

*Followed by discussion*

**10:00 – 11: 30    Session 5: Beyond the Hype: Use cases for new models of care**

In the last two decades it has become increasingly clear that while digital technology may work, the care pathways may not. There is a need to understand how big data, IoT and AI can play into healthcare and how care can be redesigned in a privacy-protective way to harness the digital potential. Getting the most from IoT for the remote care of older people will not only require thinking about how to redesign care but also how to finance it. This session will review and discuss today's caregiving realities and innovative care solutions and how they translate into tangible patient benefits, followed by comments and questions from the participants.

Moderator : Michael Hodin, CEO , Global Coalition on Ageing

***AI, robotics, and automation: Putting humans in the loop (10:00-10:20)***

Speaker: Jeff Schwartz, Principal at Deloitte Consulting

***The informal elder care-giving journey (10:20- 10:40)***

Speaker: Surya Kolluri, Bank of America Merrill Lynch

***The iHope Network (10:40- 11:00)***

Speaker: Steven Locke, Founder and CMO of iHope Network

***Home Instead (11:00-11:20)***

Speaker: David Weigelt, VP of Innovation for Home Instead Senior Care

*Followed by discussion*

**11:30-11:45**

**Coffee break**

**11:45-12:30**

Closing Roundtable Session moderated by Elettra Ronchi of the OECD Secretariat with Rapporteur and Moderators highlighting the key insights from the five substantive sessions and possible priorities for further policy action and international work.

Rapporteur: David Glance (Director UWA Centre for Software Practice, Australia)

**End of Workshop**