

Location SIG**'Location Technology for Assisting Disabled People'**Thursday 3rd May 2018**Sponsored by Qualcomm Technologies Inc and hosted by Digital Greenwich, London**This SIG is championed by David Bartlett, **u-blox**; Bob Cockshott, **The KTN**
and Ben Tarlow, **Qualcomm Technologies International****Wifi: DEG-GUEST Password: givemewifi****AGENDA****12:30** Registration over networking lunch**13:30** Introduction to the Location SIG from Bob Cockshott, **The KTN****Session chaired by SIG Champion, Ben Tarlow, Qualcomm Technologies International****13:35** **'Will Location Technology be of Practical Help to Disabled Travellers?'****Dr John Gill**

John will describe the needs of disabled travellers, and some of the issues relating to possible technological solutions.

13:55 Q&A**14:05** **'People-centred thinking and design: How to design information systems that navigators with (or without) disabilities can access and use'****Colette Jeffrey, Senior Lecturer, Graphic Communication, Birmingham City University & Director, Copper Jetty Ltd**

Colette will focus on the people using location technology, describing the information needs of people with different disabilities using examples from her research for the London 2012 Inclusivity Audit, Legible London on-street sign inclusivity audits and will finish with a discussion of her ongoing PhD research on why people get lost inside buildings to find reasons for the lack of useful location technology currently being installed in public buildings.

14:25 Q&A**14:35** Refreshments and networking Demo session – with demonstrations from**Session chaired by SIG Champion, David Bartlett, u-blox****15:15** **'Blind Allies'****Roger Wilson-Hinds, Director, Screenreader.net @rogerwh**

Roger will speak about his life experience as a nearly blind man. He reflects on the various aids, allies, available to someone wanting to get about the world with little or no sight and looks forward to wonderful emerging technologies while greatly valuing what nature makes available.

15:35 Q&A**15:45** **'Future developments in transport and how could they impact location services?'****John Paddington, BSc (Hons) CMILT MCIHT, Senior Project Manager, Conigital Group @padders123**

The talk will look at developments in the world of transportation, such as Mobility as a Service and autonomous vehicles and how location services might interact with them.

16:05 Q&A**16:15** **Final Remarks provided by SIG Champion, David Bartlett, u-blox****16:20** **Event closes**

Profile of organisers

Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless and mobile, internet, semiconductor and software technologies. With over 400 members from major network operators and device manufacturers to innovative start-ups and universities, CW stimulates debate and collaboration, harnesses and shares knowledge, and helps to build connections between academia and industry. CW's 20 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and business developments and position their organisations in key market sectors. CW also organises major conferences and start-up competitions along with other high-quality industry networking events and dinners. With headquarters at the heart of Cambridge, UK, CW partners with other international industry clusters and organisations to extend its reach and remain at the forefront of global developments and business opportunities. www.cambridgewireless.co.uk

Profile of sponsor

Qualcomm Technologies Inc

Qualcomm Technologies Inc is the world leader in next-generation mobile technologies. For more than 30 years, Qualcomm's ideas and inventions have driven the evolution of wireless communications, connecting people more closely to information, entertainment and each other. These technologies now power the convergence of mobile communications and consumer electronics, making wireless devices and services more personal, affordable and accessible to all. www.qualcomm.com

Profile of host

Digital Greenwich

The Royal Borough of Greenwich launched its "Smart City" strategy on the 22nd October 2015. This set out how the Council proposes to implement "smarter" approaches to coping with the challenges ahead, and to create new opportunities for businesses and local communities, securing business regeneration and growth. Digital Greenwich is the Royal Borough of Greenwich's in-house team, setup to develop and implement its smart city strategy by:

- Leading the Council's engagement with stakeholders to develop a Service Transformation Roadmap to transform the way services are delivered.
- Advising the Council on its Ultra-Fast Broadband Strategy.
- Managing an Innovation Fund to pilot new approaches and develop the business case for roll-out of innovative ideas.
- Participating as hosts and subcontractors in Connected and Autonomous Vehicles projects including GATEway autonomous shuttles (TRL), MOVE-UK CAV advanced sensors (Bosch) and MAVEN autonomous vehicle management (Dylniq) and hosting Starship Technologies delivery robots.
- Engaging with leading cities, businesses and other organisations, committed to implementing smart city concepts, to harvest the latest thinking and good practice and ensure that Greenwich itself is a hub of excellence and forward thinking in this field.
- Developing a detailed framework to measure and to report publicly on a) the Borough's performance in delivering our Service Transformation Roadmap, and b) the benefits that this delivers, mapped against key performance indicators.
- Promoting citizen engagement and ensure its approach is citizen centric and rooted in neighbourhoods and communities.

www.digitalgreenwich.com

Profile of SIG Champions

David Bartlett, Senior Principal Engineer Positioning, u-blox

David Bartlett works in the positioning technology (R&D) group at u-blox with a focus on hybrid positioning: bringing together GNSS with terrestrial systems such as UWB and V2X, primarily in support of future autonomous vehicle, driverless car and robotics applications but also for IoT and indoor positioning. Prior to this he was CTO and co-

founder of Omnisense delivering high precision indoor IoT tracking solutions. He also worked at Cambridge Positioning systems with a focus on cellular positioning and network aided GNSS techniques. www.u-blox.com

Bob Cockshott, PNT Lead; Quantum Lead, The KTN

After graduating in Astronomy Bob worked for 25 years in the space industry as a systems engineer and project manager developing electro-optical and RF payloads. Bob joined the Location and Timing KTN in 2006, becoming KTN Director in 2008. Bob continues to cover all position, navigation and timing technologies and applications, and now looks also looks after quantum technology commercialisation following the launch of the £270m UK National Quantum Technology Programme. www.ktn-uk.co.uk

Ben Tarlow, Senior Staff Engineer, Qualcomm Technologies International

Ben has worked in positioning for 15 years, developing algorithms for satellite, cellular and other terrestrial RF technologies. At Qualcomm, Ben works in the Advanced Algorithms group, where current research areas in location are data fusion, use of sensor data for positioning and fitness applications; one day, he hopes to be given the remit to explore the area of olfactory positioning. Ben has a background in Pure Mathematics and a PhD in Combinatorics. He has over 20 different patents filed or granted, mostly on subjects relating to positioning. www.qualcomm.com

Profile of speakers

Dr John Gill

Dr John Gill OBE DSc FIET worked for over 40 years in the area of scientific and technological research for people with disabilities. His research has included assistive technology, mobility and orientation systems, accessibility of information and communication technology systems, and design for legibility. He has visited 43 countries and written over 300 publications.

Colette Jeffrey, Senior Lecturer, Graphic Communication, Birmingham City University & Director, Copper Jetty Ltd

Colette is a full-time lecturer in Graphic Communication and a part-time PhD researcher. Before joining Birmingham City University in 2009, she worked for 15 years as a wayfinding consultant, inclusive design director and information designer. She researched and co-wrote the NHS official guidance on wayfinding in hospitals, published in 1999 and has had research papers and articles published on wayfinding in hospitals and other complex environments.

As project director and inclusive design director at Applied, a specialist wayfinding and information design consultancy based in London, she carried out user-focused research and developed map and sign solutions for legible city projects in Brighton and Leeds. As wayfinding design director at The Brand Union and Information Design Unit she designed wayfinding systems for over 50 sites, including 20 NHS hospitals, the Natural History Museum London, Tower Bridge, Wembley Arena, Heathrow Airport and shopping centres in Dublin and Dubai. In 2012, Colette, as Director of Copper Jetty, researched and wrote a Wayfinding Inclusivity Report for the London 2012 Olympic and Paralympic Games, for LOCOG.

Colette has recently begun a PhD study exploring how people get disorientated inside buildings and what they do when they are spatially disorientated. She will compare her observational findings with data collected from professionals who design complex environments and develop wayfinding strategies to identify correlation or disparity.

Roger Wilson-Hinds, Director, Screenreader.net @rogerwh

Roger was educated as a blind child. He graduated in Social Science and later studied the sense of smell and special needs children at Warwick University in the early 1980's.

He has retained a personal and professional interest in disability access and navigation aids for the blind, having just taken on his first guide dog at the age of 77. His philosophy is to retain a multi-sensory navigation vision and mission while quickly ditching solutions as better ones come to market. He currently favours an IVR approach – Just speak 'where am I?' or 'what is nearby'? And assimilate the response amongst all the other clues and cues. It's not realistic to poke about on a small screen while you are getting from A to B in a busy noisy environment with a white cane or dog.

www.cambridgewireless.co.uk/members/6801-screenreadernet-cic

John Paddington, BSc (Hons) CMILT MCIHT, Senior Project Manager, Conigital Group

John is a Senior Project Manager at Conigital, responsible for winning and delivering projects at Conigital. He joined Conigital at the start of the year. Prior to that I worked at AECOM, delivering transport technology projects for fifteen years. I've been involved in passenger information systems for bus, tram and train. He has been involved in projects in the UK, South Africa and Middle East. His relevant background to the group includes delivery of talking bus stop sign projects using RNIB React and the development of a prototype talking tactile map.

www.conigitalgroup.com

Profile of demo

BrightSign

BrightSign is a smart glove that translates sign language to text and speech. The glove is equipped with multiple sensors and machine learning software to support customisation. BrightSign is designed to enable individuals who use hand gestures, as their primary mean of communication, interact directly with the public without the need of an accompanying translator. BrightSign can be used by the Deaf community, children with non-verbal autism who use Makaton to communicate, and stroke survivors who do not conform to a standard library of sign language.

www.brightsignglove.com