

Horizon: Creating Our Lives in Data

Information for potential industry/external partners

The Horizon Centre for Doctoral Training (CDT) – Creating Our Lives Life in Data – provides an integrated four-year PhD programme to train a community of at least 60 PhD students with the interdisciplinary skills required to harness personal data in order to make smarter products in a responsible way:

- Smarter products combine physical and digital technologies to deliver personalised blends of goods, services and user experiences
- These are made through co-creation and data creativity in which consumers actively engage in shaping the products they use

In collaboration with industry, other organisations and international partners, our students will establish the enabling technologies and also ethical principles to enable consumers to co-create these new data driven products in a responsible and secure way that will build consumer trust.

Collectively, they will innovate applications across sectors including consumer goods and food, creative industries, high value products, and health and wellbeing – seeking out new synergies between them.

The PhDs that emerge from our CDT are distinct from conventional PhDs; we produce rounded individuals with the skills to work in interdisciplinary teams, including technologists who appreciate the societal context for emerging technologies, and social scientists who are able to shape new technologies.

Your experience of partnering with Horizon

Each student collaborates with an external partner to ground their research in a real-world context.

As a partner, you will have involvement at various stages of the PhD programme:

- Helping draw up an initial theme that we use to recruit students
- Helping interview and select students for this theme
- Engaging with students to shape their PhD project in detail during the first year
- Hosting students as interns so they can work on your projects for you
- Gaining early access to research results (with the potential to commercialise these)
- Attending industry events that provide an opportunity to experience research across the centre and engage with other students and partners

Why partner with Horizon?

- It is a cost-effective way for you to be involved in relevant leading edge research in the responsible use of personal data where you may not have the resource or expertise to undertake this alone
- The research project is co-created with you as the partner so the research is of genuine commercial or societal significance to you
- Our students are graduates who possess excellent academic track records and are highly committed to solving real world research problems. They experience broad training in interdisciplinary research and professional skills ready for careers in industry as well as having delivered a deep PhD thesis
- By hosting the student for internships, you are shaping the employees of the future
- Through the CDT you will have access to a network of expert supervisors across a range of disciplines, and the opportunity to collaborate with other industry partners.

What will it cost?

The standard contribution for a four year studentship is £50,000 (£12,500 pa), with EPSRC contributing £50,000. This is excellent value for money compared with the costs of hiring a new graduate, and the student is not part of your company headcount (no NI contributions). Sponsors may also be able to claim Research and Development Tax Credits as detailed at hmrc.gov.uk/manuals/cirdmanual/CIRD81100.htm

We understand if you are a third sector partner or a small company, you may not have the funds to cover the full amount – please talk to us as there are various models we can utilise, including sharing the project with another company which has worked very well in a number of cases already.

Timeline

Each cohort of between 10-15 students commences the programme in September, and we start advertising in November to ensure we attract the best students, with 2 to 3 rounds of recruitment following.

We advertise the themes that have been co-created with our partners and the applicants choose which ones they are the most interested in. After initial filtering by an academic panel, the applicants are matched with potential partners who then interview the candidates themselves to check fit to company.

During the first year, the themes are developed into projects through discussion with the student, and the academic and partner supervisors.

Previous themes and research highlights

Examples of previous themes and partners can be found at <https://cdt.horizon.ac.uk/research/themes/> and range from questions about privacy of personal data and social perspectives of digital identity products, through to social care, media experiences, intelligent mobility, FMCG, healthcare and energy.

To get a flavour of how these themes have transitioned through into research highlights, take a look at: highlights.cdt.horizon.ac.uk/

Examples of impact created by Horizon CDT alumni

Since the CDT began in 2009, there have been many examples of real impact arising out of our research:

Economic impact

- **Dr John Harvey** and **Tim Pearce** (2010 cohort, both pictured right talking to the Rt Hon Sir Vince Cable MP) formed Neeho Limited as part of the 2012 **Digital Economy Young Entrepreneurs Scheme (YES) Competition**, and went on to win both the competition and the Ecoskill Green Business Award in the same year. They collaborated with the Nottingham Energy Partnership to develop sustainable technological solutions for businesses and public-sector organisations, with an emphasis on recycling technology. John is now an Assistant Professor in Marketing at the University of Nottingham and Tim is a Developer at BBC Research and Development.
- **Dr Sam Howard** (2012 cohort) was the first of the 2012 intake to graduate and in Spring 2017, co-founded East Midlands-based specialist user-research agency **Userfy**, with a remit to work with companies to help them understand their users better through conducting in-depth user experience tests from their offices in Nottingham. Userfy has been successful in scaling up and now also serves many national clients. Sam was recently invited to speak at a Start-up to Scale-Up event at Google's StartUp Campus in London to share his experiences with fellow existing and potential entrepreneurs.



Societal impact

- **Dr Mark Iliffe** (2010 cohort) founded **Taarifa**, an open source application and community-providing mapping software used in public service provision, now deployed in several third world countries. Mark has won various innovation challenges and other awards for Taarifa from organisations such as the World Bank. Since November 2017, Mark has been employed as a Global Geospatial Information Management Geographer at United Nations in New York, in the United States of America.
- **Dr Mercedes Torres** (2010 cohort), is now a Transitional Assistant Professor in Computer Science at the University of Nottingham. As part of her first post-doctoral researcher role after graduating from the CDT in 2015, Mercedes was a key member of the research team in the Computer Vision Lab that developed the **Babyface** smart-phone based app to help doctors determine the gestational age of premature babies.
- In September 2017, **Kate Green** (2016 cohort) was one of 25 young people honoured by the **Internet Society** for using the internet to make a positive impact in their communities and the world, as part of their 25th Anniversary **25 under 25 programme**. Kate was specifically recognised for her commitment and research in protecting the personal data of online health communities.

Influence on Policy

- During post-doctoral employment at Microsoft Research Cambridge, **Dr Ewa Luger** and **Dr Michael Golembewski** (2009 cohort), worked in collaboration with **Dr Lachlan Urquhart** (2012 cohort) to develop a set of **Privacy Ideation Cards**, as a tool to facilitate privacy by design and to sensitise the design community to legal issues. The cards were also used to explore in practice, impacts of the **EU General Data Protection Regulation (GDPR) 2018**, the most important change in data privacy regulation in 20 years. Information on the cards is available at horizon.ac.uk/project/privacy-by-design-cards/. Ewa is now a Chancellor's Fellow in Digital Arts and Humanities at The University of Edinburgh and Michael is a Tutor in Design Products (Object Mediated Interactions) at the Royal College of Art in London. In August 2018, Lachlan also moved from the University of Nottingham to become a Lecturer in Technology Law at The University of Edinburgh.
- **Dr Gilad Rosner** (2009 cohort) founded the **Internet of Things Privacy Forum** to act as an effective interface between industry, regulators, academics, government and privacy advocates, to collectively discuss IoT privacy challenges. Gilad is also a member of the UK Cabinet Office Privacy and Consumer Advisory Group, the .uk Stakeholder Committee, and the British Computer Society Identity Assurance Working Group. Now based in Barcelona, Gilad has been interviewed on BBC News on a number of occasions as an expert advisor in online privacy and related global policies.

Innovation and Technology

- **George Filip** (2013 cohort) carried out his PhD research around **Trust in Connected and Autonomous Vehicles (CAVs)**. In 2017, George completed an internship at the Transport Systems Catapult in Milton Keynes, and was awarded an internal Horizon CDT Research Impact Award to carry out further research in the area of cybersecurity, transparency and trust for autonomous vehicles. Since October 2017, George has been the Knowledge Transfer Manager for CAVs at Innovate UK's Knowledge Transfer Network, and is responsible for delivering national CAV competitions, consortium building events and for promoting Innovate UK funding opportunities. George is often approached and cited by both national and international press as an expert in the CAV innovation field.

Interested in partnering with us?

Please contact Andrea Haworth andrea.haworth@nottingham.ac.uk in the first instance.