horizon
CENTRE FOR DOCTORAL TRAINING

Creating Our Lives in Data

Horizon Centre for Doctoral Training

Introduction

The EPSRC Horizon Centre for Doctoral Training (CDT) brings together leading figures from computing, engineering, social sciences, business and humanities from the University of Nottingham, plus researchers from the Centre for Computing and Social Responsibility at De Montfort University.

The Horizon CDT was initially established at the University of Nottingham in Autumn 2009 as a Doctoral Training Centre, funded by the Engineering and Physical Sciences Research Council (EPSRC) to train cohorts of research students within the digital economy ubiquitous computing arena.

As of summer 2022, we have recruited over **160 CDT students**; grown a **network of 100 supervisors** across various disciplines and universities; collaborated with more than **50 industry partners** who have contributed over £1.6M cash funding; and have had 83 students successfully pass their vivas to date.

The CDT has published over 300 academic research papers and received multiple awards, including best/excellent paper at the Information and Communication Technology Convergence (ICTC) 2020 conference for Jimiama Mafeni Mase, the Emerald Literati Award 2020 for Lachlan Urquhart (alumnus), Dominic Reedman Flint and Natalie Leesakul, best presentation award at Midlands Doctoral Consortium 2021 for Symeon Dionysis, Honourable Mention Paper Award at the ACM CHI Conference 2021 for Christine Li and Feng Zhou as well as a number of academic honours.

Our graduates have secured employment in business and academia across Europe, the Middle East, and the United States. Employers of CDT alumni include Sony, United Nations, World Bank, Microsoft Research, BBC R&D, Thales, Capital One, Airbus and Jaguar Land Rover, as well as many remaining in academia in world-class Universities, or choosing to start-up their own businesses or consultancies.

The multidisciplinary environment, the breadth of training, the extent of opportunities available to students, and the wide range of impacts including media coverage, prizes, awards and case studies are noted as key successes.

This brochure has been produced to:

- highlight the breadth of innovative multidisciplinary digital economy research that is undertaken in the CDT, with the support of industry partners and world-class supervisors

- showcase the career paths of Horizon CDT alumni and describe how a Horizon PhD has equipped them to progress to professional positions in the thriving digital economy, and contribute to real-world impact

- demonstrate the various opportunities that are available for students within the Creating Our Lives in Data CDT, and the plethora of skills, expertise and knowledge they can expect to gain as a Horizon CDT student

We have included case studies on projects from existing students and alumni that we hope you find interesting and inspiring.

Professor Steve Benford
CDT Director

Dr Nicholas Watson
CDT Deputy Director

CDT Partners

Over 50 partners from business, government, innovation centres, creative agencies, and not-for-profit organisations engage with and support the Horizon CDT. BBC, Campden BRI, Dstl (Defence Science and Technology Laboratory), GSK (GlaxoSmithKline), Kooth, Ordnance Survey, RSSB (Rail Safety and Standards Board), and Unilever are some of the current partners.

CDT students collaborate with a wide range of partner organisations to develop technologies, applications, and policy across the global digital economy. These collaborations enable producers and consumers to co-create smarter products in smarter ways. They are also empowering consumers to be more creative with their own data, and are re-establishing trust in the use of personal data.

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

Each recruited CDT student is carefully matched with an industry partner based on their skills, qualifications and experience, with the aim of establishing and delivering strong mutual benefit for both the organisation and the student. The CDT student carries out a three-month PhD placement with their partner organisation - an essential element in building that successful relationship.

Why collaborate?

Industry partners are involved at all stages of the PhD programme including the recruitment of the student, co-creating the research projects and hosting student placements. In addition, collaborators can contribute and help shape the wider CDT strategy through participation in events such as the annual Industry Day.

Specific benefits of partnering with the Horizon CDT:

- It is a cost-effective way for organisations to be involved in relevant leading-edge research in digital identity where you may not have the resource or expertise to undertake this alone

- The research project is co-created with the partner, so the research is of commercial significance to their organisation

- Our students are graduates who have excellent academic track records and are highly committed to solving real world research problems. They experience broad training in transdisciplinary research and professional skills ready for careers in industry as well as delivering a relevant and innovative PhD thesis

- By hosting the student for placements, partners are helping shape the employees of the future who can make a significant impact in the global digital economy

- Through the CDT, partners have access to a network of expert supervisors across a range of disciplines and opportunities to work with other industry partners

"CDT students provide a fresh perspective for us at RSSB. They have the research time and skills to help us build our knowledge and to bridge the gap between research and rail industry needs"

Huw Gibson, Head of Human Factors, RSSB

"We want students who come from the perspective of balancing technology development with the trusted use of personal health data."

Lindsay Edwards, Head of Data & Analytics, GSK

"We have been very impressed with the CDT students; in terms of their work ethic, background knowledge, ability to quickly assimilate new project ideas and develop them to make a real difference. They have integrated well with the team it has been a pleasure to host them."

Brian Newby, Scientist, Unilever

"Within the Horizon CDT there is a whole host of disciplines that we value, from Human Factors through to English Studies, and the opportunity to bring those together in a multidisciplinary environment is extremely valuable to us."

Jeremy Morley, Chief Geospatial Scientist, Ordnance Survey

"I can say it's a real pleasure work with PhD students from the CDT, and immerse them in BBC research and partnerships, via the projects that play to the focus of the PhD and the overlap between research directions."

Phil Stenton, Research Scientist, BBC

CDT Sprint Project with Unilever

Horizon CDT students collaborate with partners to ground their research in real-world context. Some of our partners set sprint projects that groups of students can undertake for them.

The 2020 Horizon CDT cohort undertook a Sprint project based on the 5-day Sprint method designed by Jake Knapp.

- **Day 1** - the design challenge is set and the group map out all its elements and concerns
- **Day 2** - sketching out as many possible solutions to the challenge without critique
- **Day 3** - one solution is chosen to take forward and its requirements fully fleshed out
- **Day 4** - creating a lo-fi prototype of the technological solution
- **Day 5** - prototype is then evaluated with users

This year's Sprint design challenge was set by Unilever, a multinational consumer goods company. Second-year CDT students tackled the challenge of how people's future interactions with everyday consumer goods might support their mental and physical wellbeing. The aim was to draw on our students' diverse knowledge in areas such as augmented packaging, mental health technologies, and the ethical use of personal data to inform new approaches.

Working in four groups, the students ideated and presented design concepts, discussing them with representatives from key Unilever brands. This provided a valuable opportunity to learn about communicating research ideas to industry partners.

We would like to express our gratitude to Unilever for their support and the opportunities they provided throughout the CDT Sprint project.
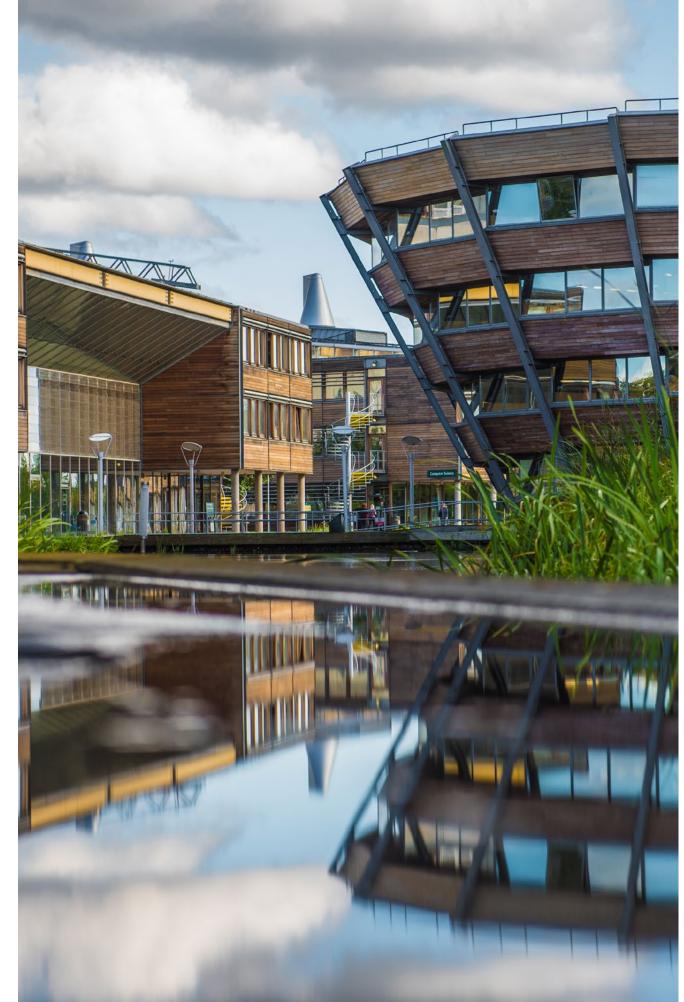
Studentships

The technologies of digital identity and personal data pose some of the most profound technical and social challenges facing our digital society today. Our digital identities will define the interfaces to future services we will use for entertainment, wellbeing, government, transport, energy, retail and finance. They are constructed from our personal data, digital records that capture who we are, and the histories of our digital, physical and social interactions.

We are at a pivotal moment in time where there is a vast range of opportunities for research in personal data. The Horizon CDT offers the opportunity to shape the future by recognising a growing public awareness of the value of personal data, presenting exciting opportunities to address concerns over how data is being created, analysed and used.

Our vision is to create digital identity technologies that operate in a fair and transparent manner to empower their users. This is a transdisciplinary challenge, one that needs to bring together expertise in digital technologies, perspectives on digital identity from the social sciences and humanities, and a deep understanding of real-world applications.

The Horizon CDT provides a community of PhD students with the interdisciplinary skills to drive the digital identity and personal data agenda for the twenty-first century. While we do not expect every student to be an expert in all the areas mentioned above, our aim is to train people to work in multidisciplinary teams, and be ready to become future leaders in industry, the third sector and academia.

Horizon CDT Programme

The Horizon CDT approach to training combines taught elements with industry engagement and practice-led research in a highly flexible manner.

The Horizon CDT PhD training programme comprises skills training activities and other events and opportunities running through all four years of the PhD. The programme is designed to prepare and support students at each stage of the journey of undertaking and completing a PhD submission, whist also equipping them for a career within industry or academia.

Taught Modules: Many of the CDT training activities are module based and students are awarded credits for completion of assessed coursework. Training takes place across all four years of the programme to provide the key skills required to undertake the PhD (e.g. Advanced Research Practice, Responsible Research and Innovation, Literature Review and Thesis Planning modules), plus the skills needed to meet the challenges of interdisciplinary research (e.g. Enabling Technologies, Future Products and Sprint Project modules).

Supervision/Mentoring: In Year 1, students build the interdisciplinary research skills they will need to deliver the highest quality PhD proposal. Each student is allocated an appropriate academic "Year 1" supervisor/mentor to support them in developing their PhD proposal and bringing together a suitable multidisciplinary supervision team.

Placement: All students carry out a placement with their external partner (or another relevant organisation) with costs covered by the CDT.

Interwoven through the programme are cross-cohort activities such as the Annual Retreat, Industry Day, Writing Retreats and Summer Schools. Each student has a Research Training and Support Grant for travel, consumables etc. They can also apply to the CDT for additional funding for international travel (conferences, summer schools etc) and for extended international exchanges of up to 3 months. If they wish to implement their impact plans developed in Year 3, students can apply for a post-submission Impact Grant.

Placement

All students carry out a 3-month placement with their external partner or another relevant organisation. The project carried out in the placement is mutually agreed by the student, supervisor and partner. It may feed directly into the partner's business, and/or it may relate directly to the PhD project. The placement should build useful skills for the student and provide an understanding of the partner/sector.

CDT Alumni

The Horizon CDT is extremely proud of the talents and achievements of over 150 PhD students that include 83 alumni and around 70 students studying or in the process of submitting their theses. Our graduates have left the CDT with high-level doctoral skills, expertise, experience and knowledge to progress to professional careers around the world in a variety of sectors.

Horizon CDT alumni destinations:

- Airbus
- The Alan Turing Institute
- Amazon Web Services
- BlueSkeye AI
- Capital One
- Deloitte Digital
- Goldsmith, University of London
- Horizon Digital Economy Research Institute
- Jaguar Land Rover UK
- Methods
- Microsoft Research
- New York University
- Royal College of Art
- Sony Interactive Entertainment Europe
- Tampere University, Finland
- Thales
- IFC, The World Bank Group
- United Nations
- University of Cambridge
- University of Edinburgh
- University of Manchester
- University of Nottingham

Organisation types employing Horizon CDT graduates

Policy/Government	1
Start Up	6
Consultancy	3
Industry	8
University	25
Freelance	2
International Development	3

Sectors employing Horizon CDT graduates

Online Retail	1
Media/entertainment	2
Finance	2
The Arts	1
IT/Systems Design	8
Transport	3
Academia	28

Student case studies

Showcasing some of our high-achieving doctoral students who are pioneers in multidisciplinary research on personal data, digital identity, and global computing for the digital economy.

Exploring the hypothetical world of mind uploading

Angela Thornton
(2019 cohort)

Angela entered the Horizon CDT programme after gaining a Distinction in her MSc in Psychological Research Methods as a mature student at the University of Nottingham. Angela's commercial background is in market research.

"My industry experience and my academic qualifications mean I am an experienced qualitative researcher. These skills are important since my PhD topic looks at a hypothetical futuristic world where we can create an artificial brain (whole brain emulation) and potentially augment or even upload our brains and minds to a different platform. While mind uploading is currently still science fiction, scientific and technological innovation means that it may be possible in the far future, and I am interested in the attitudes and awareness of the public towards such technologies.

Since hypothetical future worlds are challenging to research, I have recruited a Longitudinal Qualitative Public Panel which enables me to co-create individual narratives over time using innovative tools and techniques."

Angela's industry partner is The Carboncopies Foundation, and she is on the Board of Directors and co-lead the Ethics department. Both her own research and her industry collaboration will inform on-going discussion on Responsible Research and Innovation (RRI) and how best to safeguard personal, neural data.

Combining linguistic approaches to analyse public discourses

Dan Heaton
(2020 cohort)

Dan joined Horizon CDT in October 2020 after a career in primary school education and leadership. Dan has a BA in English, a primary PGCE and MA in Education, all from the University of Nottingham. His current research centres on solidifying complementary connections between computational and discursive linguistic methods to investigate public discourses associated with decision-making algorithms.

Computational linguistic methods – such as topic modelling and sentiment analysis – have been used to investigate social media discourses due to their ease of application for large datasets. However, with some limitations, such as difficulty in accuracy and interpretation, there is scope to combine these methods with discursive linguistic methods, such as Critical Discourse Analysis, to collate a new set of working practices.

Dan is currently formalising an iterative template that combines data science principles with critical reflective processes.

Partnering with the Trustworthy Autonomous Systems Hub and Ipsos, this PhD project combines Dan's love of differing types of language and linguistics with the potential for educational change in the social computing sphere.

Curating the audience

Harriet 'Alfie' Cameron
(2018 cohort)

Harriet 'Alfie' Cameron came to the Horizon CDT in 2018 from an academic background in Human Geography at the University of Birmingham. Alfie's prior research focussed on internet culture and digital identities including their Master's thesis that looked at the impact of GamerGate both online and in the physical world. Their PhD brings them into the world of Human Computer Interaction (HCI) where they look at data ethics and power as part of the Mixed Reality Lab.

"When I first came to the CDT I had no idea what I wanted to study, except that I knew I wanted to help people. Through the connections I have made with colleagues, industry, and beyond I found a deep seated passion for understanding how personal data is collected, used, and understood. The more I learned about personal data, the more I realised there is a huge disconnect between what people understand about their personal data, and what the reality of its collection and use is.

Working with my industry partner Nottingham Contemporary, other museums and galleries, and members of the public, I have been designing ways to bridge the gap between perception and reality to re-empower people and organisations to better control their data. Through collaborative and transparent research, I have meaningfully engaged in understanding what personal data means to different stakeholders, and how data collection processes can be made more transparent, ethical, and mutually beneficial.

During my time with the CDT, I have also been deeply involved with the EU Horizon 2020 GIFT project, working as part of an international team of academics and creatives to find different ways to make museums more engaging and personalisable through gifting. This has not only deeply shaped my PhD, but also provided me opportunities to understand the ways museums and HCI are growing together to create a brighter future for cultural organisations."

Reactive Mise-en-scène

Luke Skarth-Hayley
(2018 cohort)

Luke joined the Horizon CDT in 2018 after obtaining an MSc Computer Science with distinction at the University of Nottingham. He also holds a BA Hons in Philosophy from University of East Anglia and has a background in technology and writing.

During the MSc programme Luke found a strong interest in HCI that aligned with his previous interests. He found a great opportunity to work with BBC R&D through the Horizon CDT PhD programme, and to research new approaches in digital storytelling.

As game engines expand beyond their original purpose into wider media usage, such as for virtual production (e.g., The Mandalorian), Luke is investigating how new roles of interaction might arise for audiences between the binaries of viewer and player, and the opportunities this offers in interactive narrative media. Rather than the active, explicit, and interventionist interactions offered by the likes of Netflix's Black Mirror: Bandersnatch, Luke's research looks at how user attention in virtual spaces, proxied through their control of camera position and direction, can be used to influence the mise-en-scène of the narrative environments they encounter, giving them a bespoke experience that appears linear and seamless.

Diagnosing disease with shopping data

Elizabeth Dolan
(2019 cohort)

Elizabeth Dolan joined the Horizon CDT after completing a Master's degree in Computing at the Staffordshire University. Elizabeth previously had a career in events management and retrained in computer science after a career break to start a family.

Elizabeth's PhD investigates whether shopping transactions could be used to make predictions in healthcare. Her aim is to create a framework for using shopping data in medical research, investigating how this data can be collected and analysed in a way that is acceptable to the public, and can work for both chronic and infectious disease.

Elizabeth is focusing on the health conditions of ovarian cancer, and respiratory disease including COVID-19.

Using mixed methods for integrated interpretation, she is working with her PhD partner Avon Longitudinal Study of Parents and Children (ALSPAC) at the University of Bristol to explore the concept of data donation, and whether the public are willing to share their shopping data for health research.

In parallel, Elizabeth is also analysing these transactional datasets to investigate their potential to make predictions when linked with health data. During her PhD Elizabeth has completed a placement with the NHS Analytics Unit.

New insights from Elizabeth's research into the value and potential of shopping data in healthcare predictions could directly impact future medical research and technologies.

Testing for transparency: designing privacy-informing systems for young people

Ephraim Luwemba
(2019 cohort)

Ephraim entered the Horizon CDT programme after studying at the University of East Anglia and working as a developer in the Digital Marketing industry. Ephraim's background is in Politics and Philosophy, with a focus on theories about the public realm.

"I applied to Horizon CDT when I was working in the Digital Marketing industry. Initially, my job gave me an insight into platforms such as Google AdWords and Facebook for Business. I was surprised by the personal data that the platforms gave us access to as marketers and began to explore and read more about the subject, eventually applying to the Horizon CDT.

My PhD explores the topic of online consent, examining some of the challenges to transparent personal data use online.

Specifically, my research investigates how privacy information is presented to young people on the platforms that they use, working with them to develop more transparent notice mechanisms. I am also discussing these issues with industry stakeholders, to understand the practical and legal challenges they face when creating their notices or thinking about transparency.

The overall objective of my PhD is to offer research-informed guidance to industry for effectively creating age-appropriate notice mechanisms for young people, by engaging all the stakeholders in the process of design."

A digital duty of care for young people - Balancing policy and users' interests

Ellie Colegate
(2020 cohort)

Ellie joined the Horizon CDT programme after obtaining both a first-class law degree and Master's degree by research from Canterbury Christ Church University. Her academic background is in Information Technology Law, with her previous work and projects looking at the relationship between surveillance practices and human rights in various contexts. Ellie's PhD research centres around the regulation of social media platforms to reduce the harmful content young people are exposed to.

As the internet as a network to connect and share has evolved, so too has the content that people are sharing, with more and more potentially harmful types of content being shared on commonly used social media platforms. Young people have been identified as a particular group of users that are impacted by these 'online harms', with internet stakeholders and governments seeking to address this reported issue by introducing regulations to reduce the presence of harmful content online.

Ellie's project is looking at how regulatory interventions and mechanisms could alter the interactions of young people online, and their exposure to harmful content on social media platforms. Focusing specifically on the UK's Online Safey Bill, her work seeks to investigate:

- how these new regulations will impact the everyday interactions of young people online with social media

- whether such will reduce the presence of harmful content this group is exposed to investigate how the new Bill will operate as a regulatory mechanism.

The overall objective of Ellie's PhD is to inform regulatory guidance on how services can effectively identify, regulate, and reduce the presence of harmful content on services in order to reduce the potentially harmful interactions young people will have in their day-to-day interactions with platforms.

Predicting and modelling internalised oral gestures from external signals

Muhammad Suhaib Shahid
(2020 cohort)

Suhaib began the Horizon CDT programme after completing his Bachelor's degree in Software Engineering at the University of Bradford. During that time, he developed an interest in the applications of machine leaning technologies within healthcare. Now, working in the field of Computer Vision, his research explores technologies that can be applied in visualising and modelling the movements of vocal organs, for applications in personalised dental care.

The use of dental devices and prosthetics currently requires individuals to adjust their oral behaviour so that activities such as speech and eating feel as natural as possible.

However, such adjustments often end up producing unnatural speech patterns and/or unusual oral movements and can eventually lead to complications such as an irregular bite. To better understand these effects, approaches are needed to model the various vocal organs of the mouth and observe how they behave pre and post treatment. However, technologies capable of creating 3-Dimensional facial models are often limited to the external view and seldom provide manipulable cross sectional diagrams with observable internal structures.

The primary aim of this research is to develop machine learning technologies and approaches that use internal-external correlation modelling algorithms to form resource and cost-effective 3D models of the mouth. These advances will pave a way in spearheading new approaches and methodologies within oral modelling.

Alumni case studies

Horizon CDT PhD graduates leave the CDT with unique, high-level skills and training to enable them to pursue a wide range of careers including academic and industrial research, launching startups, and employment in a variety of sectors around the world.

International Finance Corporation, World Bank Group

Roza Vasileva
(2016 cohort)

Roza worked as a Digital Innovations Consultant at the World Bank for four years before joining Horizon CDT. She designed and implemented open data and digital development projects in over a dozen countries within the Africa, South Asia, Europe, and Central Asia regions.

Roza conducted field work in two cities in Africa – Dar es Salaam (Tanzania) and Nairobi (Kenya) – looking at four data-driven community initiatives, specifically at how city governments and other stakeholders engage communities dealing with sustainability challenges, and how data support this.

Her research drew on studies in sustainable cities, social sciences, and computer science, employing an inductive exploratory approach using qualitative research methods to examine case studies.

Overall, the nature of data-driven community initiatives in these cities was found to be different to the cities in the 'Global North'. They were shaped by the way people traditionally participated in decision making and how these initiatives were introduced and resourced. Roza is currently working as a Senior Digital Innovations and Engagement Specialist at the International Finance Corporation, World Bank Group, and has an opportunity to incorporate her academic insights into practice.

Horizon DER and AlbinoMosquito Productions

Richard Ramchurn
(2015 cohort)

In 2020, Richard received his PhD from the Horizon CDT for his thesis Brain-Controlled Cinematic Interactions.

Richard is the founder of AlbinoMosquito Productions Limited, a creative agency that has produced and shown work on the BBC, TATE Modern, The National Gallery, The Lowry, CONTACT, RNCM, The Royal Exchange, The Roundhouse, Grand Theatre Groningen, BRIC Brooklyn, and in Sulaimani, Iraq, Amsterdam, Copenhagen, and Hong Kong. He is a practicing artist-researcher working across the mediums of theatre, film and digital technologies.

Richard's second brain-controlled film The MOMENT has been shown at festivals around the UK including Sheffield Doc Fest, BlueDot, Kendal Calling, and Leeds International Film Festival, as well as touring to Madrid, Barcelona, Geneva, Austria, Iceland and Hong Kong.

The film and research have also been presented at international academic conferences including CHI16 in San Jose, California, where his research work on Brain Controlled Movies was awarded Best Art Paper.

Richard is also the primary investigator on research project Adaptive Interactive Movies, a research co-production with Horizon DER and AlbinoMosquito using AI to allow audiences to interact with cinema without narrative disruption. He is managing a research team in data privacy, machine learning, audience studies, and psychology to build a machine learning algorithm into viewing habits and personality types of a representative sample of the UK population. This will be used to build computer vision software to allow movies to adapt to an audience's emotional reactions and tested in a new movie called Before We Disappear written and directed by Richard.

Placement case studies

Students in the Horizon CDT benefit from a three-month placement with their CDT industry partner or relevant organisation.

Emotion classification and sentiment analysis for sustainable agricultural development - CIMMYT

Eliot Jones
(2019 cohort)

Eliot Jones has a BSc in International Agriculture and an MSc in Rural Development. Having spent several years working in the agrarian development sector, his PhD in partnership with both his previous employer, CIMMYT, and the University of Nottingham Future Food Beacon examines technologies for agricultural knowledge production and sharing.

Where research institutions have traditionally held a monopoly on agricultural knowledge, significantly deciding how to develop and implement sustainable farming, digitalisation represents a profound disruption, making space for farmers to voice their concerns and leading toward farmer-centred design perspective.

Eliot undertook a placement with CIMMYT (International Maize and Wheat Improvement Center) in Mexico prior to the onset of the COVID-19 pandemic but was, fortunately, able to maintain the work remotely from the UK.

The focus of his placement project was to explore ways for CIMMYT to mitigate the effects of conducting research remotely during the COVID-19 pandemic through digital tools, whilst considering novel forms of farmer data and their potential ethical implications. In collaboration with CIMMYT supervisors, he trailed emotion classification and sentiment analysis of text and audio data of farmers in eastern and southern Africa and their evaluation of conservation agriculture technologies.

Findings indicated additional insight to be gained to enrich qualitative study, in several cases demonstrating a convergence between traditional human researcher farmer typology assignment and expected emotional reaction. There were also unexpected responses and unforeseen critiques in the process of data collection and processing. This research is expected to have significant impact for implementing and targeting future agricultural interventions, ensuring equitable and sustainable food production.

Manufacturing Made Smarter (MMS) Challenge, UK Research & Innovation (UKRI)

Natalie Leesakul
(2018 cohort)

Natalie's PhD research explores the legal, ethical, and organisational challenges and implications of human-robot collaboration in the context of digital manufacturing. She aims to create guidelines to help organisations uptake industrial collaborative embodied autonomous systems in a responsible manner.

Natalie secured her placement for a period of six months working part-time with Made Smarter Innovation (MSI) Challenge, Innovate UK. The MSI Challenge manages over £140M of investment, matched by a minimum of £147M from industry, to transform the UK's manufacturing capabilities through the development and adoption of industrial digital technologies (IDT).

The team supports manufacturers and technology developers through various programmes such as technology accelerators, research centres, collaborative research & development projects and innovative hubs.
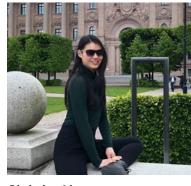
From the start of the placement, Natalie was introduced to all the MSI programmes and activities, allowing her to connect and network with different stakeholders and industry. During her time with MSI, as much as learning about new sectors, Natalie supported the team by applying her expertise in business and law to facilitate and steer the contracting process for 2 major projects. Given this opportunity, Natalie has gained insights into the public body's funding process and strategy to drive innovation and technology adoption in manufacturing sector which is highly valuable and relevant to her PhD research.

Horizon CDT International Exchange Scheme case studies

CDT students are eligible to visit an international partner for up to 3 months and work on projects relevant to their PhD.

KTH Royal Institute of Technology, Stockholm

Through the Horizon CDT International Exchange Visit Scheme, Christine visited KTH Royal Institute of Technology in Stockholm as a visiting member of the Media Technology and Interaction Design (MID) department for three months.

She worked under the supervision of Professor Kristina Höök, who has been influential in defining Christine's methodology, Soma Design, a design stance grounded in pragmatism philosophy, in particular somaesthetics theories.

This internship provided invaluable guidance for the application and modification of Soma Design tools for Christine's PhD.

This will also directly feed into an ongoing research collaboration between KTH and the Mixed Reality Lab/Horizon, University of Nottingham.

Christine Li
(2019 cohort)

Faculty of Policies Studies, Chuo University, Tokyo

"I was invited to work as Visiting Researcher (April-June 2022) at the Faculty of Policies Studies at Chuo University in Tokyo through the Horizon CDT International Exchange Visit Scheme.

I compared the approach to data protection law issues between the EU and Japan, especially in the context of artificial intelligence.

Artificial intelligence is quickly evolving in both places and new data protection-related issues are regularly appearing or remain unanswered.

It is essential to expand international discussions on the relevance of existing data privacy solutions to address data protection questions brought by AI technologies."

Stanislaw Piasecki
(2018 cohort)

Dedication to Dominic Reedman-Flint

Dominic Reedman-Flint was a PhD candidate in the 2017 cohort of Horizon CDT. His thesis focused on 'the use of digital data to help identify and support people experiencing social isolation and loneliness' and was conducted in partnership with his industrial partner Ordnance Survey.

Dominic Reedman-Flint
(2017 cohort)

In the past few years, as we have all learned to cope with social distancing and remote working, the pandemic showed us how vulnerable we all are to the potential threat of loneliness.

Looking back, Dominic's interest in this subject now seems increasingly prescient as more and more of our lives migrate to online-only settings and we lose opportunities for meaningful interaction.

Dominic had a long-standing interest in helping people and particularly those that found it hard to interact socially due to circumstances beyond their control. This interest was not simply academic either, he had a strong sense of civic duty and participated widely in practical initiatives, engaging with loneliness charities and volunteering to help those who might need assistance.

Though he made great progress and prepared some of his work for publication Dominic sadly passed away before being able to submit his thesis. The university has since decided to award a posthumous PhD in recognition of the great things that he accomplished during his time at the CDT. Ordnance Survey has similarly celebrated his memory by creating a presentation prize named in his honour and dedicated to encouraging talented PhD students. We will continue to celebrate his legacy.