UCL INTERACTION CENTRE DIVISION OF PSYCHOLOGY AND LANGUAGE SCIENCES AND DEPARTMENT OF COMPUTER SCIENCE

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# UCLIC **News** 2016

# UCLICNews 2016

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### Editorial

Welcome to our new UCLIC newsletter for 2016!



A lot has happened since the last newsletter, as UCLIC has moved into new premises and expanded with new faculty, researchers and students joining us. Nadia Berthouze was promoted to professor in 2015 – joining Ann Blandford and myself as a trio of female HCI professors. UCLIC has also played a central role in setting up a new interdisciplinary Institute in Digital Health of which Ann is the Director. Several of our PhD students have graduated and it is good to see them starting to move on in their careers – both at UCL and worldwide.

We have also been awarded a number of new grants, from RCUK, EU and industry – bringing in a new batch of researchers. These include the GetAMoveON NetworkPlus, FIT2PERFORM (Professionals Fit to Perform), which has been extended for another year as part of funding from EIT Digital, also the ECLIPSE project (Exploring the Current Landscape of Intravenous Infusion Practices and Errors) and a collaborative project with the English National Opera and Holition on 'Stepping into Character: Creating and Evaluating Immersive User Experience'. See below for more information about these new research projects.

Our new abode has been done to a high spec with frosted glass walls, social hubs and a new physical computing and prototyping lab in the basement that is home to a mix of post docs, visiting researchers, graduate research and Masters' students. There is a real buzz and vibe in the place – with different spaces for studying, meeting, making, show and tell, demonstrating new prototypes and just being. Weekly TIPSS meetings (standing for Thursday's Interactive Pizza Skill Series) provide a relaxed and fun way to share knowledge and learn and practice new skills – these are organized by the students and researchers on diverse topics including lasercutting, advanced 3D printing, LaTex and wearable electronics.

> Yvonne Rogers UCLIC Director

### www.ucl.ac.uk/uclic

### **New Arrivals in UCLIC!**



We are delighted to welcome Dr Catherine Holloway and her team to UCLIC. At the beginning of 2016 she transferred from UCL's Civil, Engineering and Geomatic Engineering department. Catherine has a background in industrial engineering and her research is in the development of sensor systems and the characterisation of movement.

She previously directed the Accessibility Research Group (www.cege.ucl.ac.uk/arg/ Pages/ARGHome.aspx). She is working on a number of collaborative projects with researchers in UCLIC and Computer Science that are concerned with developing Internet of Things technologies and novel feedback modalities to aid disabled people. Catherine also works closely with colleagues at the Royal National Orthopedic Hospital and the Institute of Neurology through the Biomedical Instrumentation Group. Catherine is joined by Tsu-Jui Cheng, Sarah Nicholson, Andrew Symonds, Giulia Barbareschi, Rhys Williams, Roxana Ramirez-Herrera, Dave Wain and Chinemelu Ezeh.

For more information on projects that Catherine and her team are working on, please see the following links:

Accessible Routes from Crowdsourced Cloud Services (ARCCS) www.arccs.org

Dementia Vision: Seeing What They See www.ucl.ac.uk/dementia-vision

Adaptive Assistive Rehabilitative Technology – Beyond the Clinic (AART-BC) www.aartbc.org



### UCLIC and the UCL Institute of Digital Health



Infusion device

UCLIC has had a long-standing interest in the design and use of interactive medical devices, and in design for wellbeing. This has included the recently-completed CHI+MED (**www.chi-med.ac.uk**) programme grant on making interactive medical devices safer and the ongoing NIHR-funded project ECLIPSE (**www. eclipse.ac.uk**) studying how the design, deployment and use of infusion devices affects how safely they are used. In this project, we are working with 15 hospitals across England, reviewing current practices in the use of infusion devices and identifying best practices for the future.

UCLIC is also a key partner in two recentlyannounced EPSRC Network+ projects: Get A Move On (led by Anna Cox – see more information below) will be building national capacity to encourage communities of people to develop technology-supported strategies for moving more, while Fast ASsessment and Treatment in healthcare (led by Andrew Flewitt, Cambridge) will be building capacity in optimizing patient care through advanced technologies.

Last year, UCL announced the establishment of a new Institute of Digital Health (IDH – www.ucl.ac.uk/digital-health) to facilitate networking and collaborations across the College – particularly between Computer Science and the medical and population health faculties. Professor Ann Blandford was appointed as Director of IDH. She is working with colleagues across all faculties in UCL to create new opportunities in Digital Health as well as developing collaborations with external organisations: academic, industry, care delivery and policy. UCLIC plays a central role in this as our expertise in Human Factors makes us uniquely well placed to engage with both technologists and the users of health technologies (clinicians and citizens). As new personal health and wellbeing technologies, such as activity trackers, emerge, the balance of responsibility for managing health is shifting from professionals to citizens. People want to live their lives well, supported by professionals and by appropriate health and wellness technologies. We have opportunities, and a responsibility, to help make these technologies as usable, safe and effective as possible. This presents huge and exciting research challenges for the future.



### Intel Collaborative Research Institute (ICRI) – Urban IoT

Intel awarded the ICRI (www.cities.io) a further two years of Capstone funding after a successful three-year exploratory phase of research. The grant is for 8 post docs from UCL and Imperial to work together on an integrated large scale project. The plan is to continue to build on ICRI's successful Living Lab and base our research in London's Queen Elizabeth Olympic Park (QEOP). The core team of Intel, UCL, Imperial and Future Cities Catapult will work closely with **QEOP London Legacy Development** Corporation to address a number of user, technical and community challenges through the deployment of novel connected sensors and devices in installations across London. The centre has been renamed as 'The Urban IoT' (Internet of Things).

A focus from UCL's perspective is designing and evaluating IoT technology for participation and reflection with citizens. We are using a combination of data sensing, novel physical computing and insitu visualisations so as to provide different stakeholders with ways of collecting and reflecting about citizens' experiences in the urban environment. A number of prototypes are being developed that will be deployed in the Queen Elizabeth Olympic Park in London, intended to be used by a diversity of users (e.g., local residents, visitors) to share their experiences. The new projects build upon our pioneering work in prototyping physical computing systems and in-situ visualisations for citizen sensing (e.g., VoxBox, SmallTalk installations). The wider goal is to develop IoT technology that can be used by city councils and local municipalities worldwide who need to understand more how their citizens respond to big changes caused by urbanization, immigration, gentrification, and the like.

UCL researchers working on the Capstone project are Dr Steven Houben, Dr Ben Bengler and Dr Can Lui so far. Principal Investigators are Prof. Yvonne Rogers and Prof. Licia Capra (UCL Computer Science).



### Inaugural of Professor Nadia Berthouze



Congratulations to Nadia Berthouze who was recently promoted to Professor of Affective Interaction and Computing. In February this year she gave her inaugural lecture to a packed audience. Her talk was on 'Bringing affect into technology: the case of physical rehabilitation.' Her talk focused on her programme of work to design technology to help people with chronic pain (e.g. back ache) self manage their condition with a more positive perception of their body and capabilities. She also spoke about her group's new conceptual framework for designing physical rehabilitation in chronic pain that takes into account psychological progress as well as helping with physical improvement. This has led to the implementation of a novel wearable device that has received various awards. Nadia also talked about her earlier pioneering research into body movement and touch behaviour as modalities for affective automatic recognition and modulation in technology-mediated interactions.

### GetAMoveOn Network Plus

We are excited to announce a recent grant success to fund an EPSRC NetworkPlus that aims to get the UK moving again!

We have designed ourselves into our sedentarism: sitting during our commute, at desks while we work, and at home on the sofa. There is a critical need to design ourselves back into the natural effects of health accrued simply by moving more. We need solutions that will help build both the evidence and the experience that movement can enhance and benefit people's lives.

New technologies are transforming our ability to capture lifestyle data on individuals in real time. Consumer technologies such as step counters and wifi scales are the tip of an iceberg research programmes worldwide are proposing lifestyle data capture from devices ranging from video cameras to electricity meters to wearables. Meanwhile pervasive connectivity allows that data to be transmitted, processed through powerful machine learning tools and provided back to people in a heartbeat. While we understand the potential technologies, we do not yet know how to leverage the technology effectively to support transformative health.

Current approaches in ehealth generally only reach a small part of the population that is already interested in fitness, personal data capture, or both. Their uptake is, furthermore, of dubious effect as two recent medical reviews have shown. To have a national impact on health and wellbeing, to reduce the crippling burden of long term health conditions and to move healthcare from the clinic to the community, we need to reach everyone, across a range of abilities and aspirations. We need to connect the potential of the technology with the potential of people and realise the benefits of a healthy, brilliant, population.

Realising this potential requires research on novel technical solutions, supported by theories from sports and health sciences on blending appropriate movement strategies for particular performance aspirations to behavioural and cognitive sciences on ways to engage people to make effective and meaningful progress. We need to understand what measures are appropriate not just to evaluate progress, but to guide it and adapt to it. To have meaningful impact across these dimensions we will combine a range of expertise including sensor networks, data analytics, interactive visualisation, human computer interaction, online citizen engagement, behaviour change, sports, exercise.

The network is led by: Anna Cox (UCL), Ann Blandford (UCL), mc schraefel (Southampton), Lucy Yardley (Southampton) and lan Craddock (Bristol).



## Fit to Perform: Improving the Health and Wellbeing of Professional Drivers

Driving is an everyday activity for millions of people around the world, and integral to many peoples' jobs. A pressing concern for many professional and commercial drivers is poor health. Many drivers suffer from back pain, obesity, cardiovascular disease, sleep deprivation, and stress. These health issues impact driver behaviour and increase the risk of accidents. The poor health of drivers is also bad for business, leading to inefficient driving behaviour, higher rates of absenteeism from work, and early retirement. Improving the health and wellbeing of professional drivers on increasingly crowded roads and in ever more complex operating environments is an important and pressing problem.

UCLIC researchers, Harry Griffin and Duncan Brumby, are working as part of a consortium of European partners on the Fit to Perform project (www.eitdigital.eu/innovationentrepreneurship/health-and-wellbeing/ fit-to-perform) to tackle the problems of driver ill-health and underperformance through the application of wearable technology for monitoring driver health and wellbeing. Data will be shared securely and voluntarily with drivers' employers to allow business fleet managers to optimally assign drivers to specific



itineraries according to their current wellbeing and to provide personalised coaching for improving health and reducing stress.

Fit to Perform is a 2-year High Impact Initiative of the Health and Wellbeing Action Line of EIT Digital – a leading European open innovation organisation. The project brings together a consortium of university partners (UCL, Imperial College London, TU/e), innovation partners (TNO, DFKI), and industry partners (truck manufacturers MAN, fleet management and telematics providers Astrata, and electronics and wearable device manufacturers Philips and Bittium). UCLIC researchers have contributed their expertise in automotive UI and the assessment of driver performance. Working closely with the project partners, we provide the scientific support to the product development and business launch. Now in its second year, Fit to Perform is moving into a phase of on-road testing to assess the benefits of deploying the prototype system to professional drivers. Acting on feedback from these end-users will be vital in helping us achieve our goal of making driving a safer and healthier profession.

### Interaction Design: Beyond Human-Computer Interaction now in its 4th edition

The fourth edition of Yvonne Rogers's co-authored textbook with Jenny Preece and Helen Sharp came out in 2015 (www. researchandmarkets.com/reports/3048916/ interaction-design-beyond-humancomputer). This time we chose a bright orange cover (previous covers have been turquoise, white and purple). Also for the first time an ePub version came out that includes a number of new interactive features, including embedded videos, quizzes, annotating and note taking tools. We are currently evaluating how students are using it to study and compare the pros and cons of digital versus physical. While some students still prefer paper it appears that increasingly others are now seeing the benefits of going digital.



### **UCLIC** joins forces with English National Opera and Holition

This is a collaborative project between UCLIC, the English National Opera and Holition (a UX agency) investigating how state of the art face-tracking technology combined with a novel user experience can benefit make-up artists, costume designers, performers and young audiences to the ENO. Delia Gander, a 3rd year BSc Computer science student, has been helping the team to create a virtual make up app to explore how people can engage and interact with new technology in order to 'step into character'. The MagicFace app that was developed applies virtual theatrical make-up onto the reflection of a user to make it appear as if it really is on their face. When they move their face when looking in the mirror app the virtual make-up also moves in real time.

The aim of the project is to measure how singers, make-up artists and visitors to the ENO approach and interact with technology. Do they suspend disbelief and think the virtual make-up is real? The team are studying how immersive experiences, that use this kind of Augmented Reality, can enable people to feel like an opera singer



and learn more about what it is like 'behind the scenes' for a production at the ENO. The ENO has given access to its production of Akhnaten to enable this research to be conducted. Holition created two virtual Egyptian looks from the production, using their proprietary face-tracking technology which 'sees' and locates features on a face and is intuitive enough to discern between the skin of the lips, eyes, and other facial contours. The digital skill used to create the Egyptian visualisation mimics the way a make-up artist applies make-up to a face – the styling, shading and final effect.

The project was funded by UCL's EPSRC Impact Acceleration Account, and matched by in-kind support from Holition.

### **Rachel Benedyk retires**

After almost 40 years in UCL, Rachel Benedyk is retiring from her pivotal role as Lecturer and Programme Director on the MSc course in HCI with Ergonomics. Rachel was a student of the course in the days of the Ergonomics Unit in the seventies, and taught on the course over the following four decades, while the Ergonomics Unit evolved into its current incarnation as the UCL Interaction Centre. Her retirement party took place on 12 April this year and colleagues from across Rachel's career recounted many amusing memories at a 'This is Your Life' style event; we even had a very late presentation from a 'student group' on the Design Experience module demonstrating a mock 'teaching device' to help her teach Master's students! Rachel then gave a whistlestop tour in verse of her colourful career, which included visiting Botany, Zoology and Psychology before she eventually came to be the Ergo-nome who many alumni on the course will remember as the caring face of Ergonomics. The success of the MSc programme is a longstanding testament to Rachel's passion and dedication to her subject and her students and colleagues.



### **UBIHealth update**

The Ubihealth Network (**www.ubihealth-project.eu**) is reaching its end this summer. Having started in 2012, it brought us around the world to investigate how ubiquitous technology can help deliver a better healthcare to everybody when and wherever needed, and in the form that is needed. 20 researchers from the University of Chile, INAOE and CICESE (Mexico) and Tsinghua University (China) have visited UCLIC and 30 UCLICkers have visited our overseas partners including those research centres as well as Georgia Tech and University of California Irvine. A wide variety of topics have been covered: from studying how technology can become aware of the emotional needs of patients to investigating how people with chronic conditions hack their wearable devices to better suit their needs. We have also investigated how health technology can reach people who do not have easy access to medical care.

#### HIGHLIGHT

#### Kiosk provides healthcare technology for all

Researchers from Tsinghua University in China collaborated with UCLIC to publish details of a self-service healthcare kiosk. The kiosk has been designed to collect and monitor physiological signals, such as blood pressure measurements, amongst rural populations in China. "It was great fun contributing to a creative and innovative solution being prototyped and tested in the lab, and before being trialled in the community" (Chris Vincent). For more details about the project see:

Lyu, Y., Vincent, C., Chen, Y., Shi, Y., Tang, Y., Wang, W., Liu, W., Zhang, S., Fang, K., Ding, J., 2015. *Designing and optimizing a healthcare kiosk for the community.* Applied Ergonomics 47, 157-169.

See also the blog written by Rosa Lau on her secondment to Tsinghua University at http://tinyurl.com/jzmb9bj.



#### HIGHLIGHT

#### Improving medication adherence

We conducted a questionnaire study with older adults to investigate how they remember their medications. We compared their remembering strategies with those developed by women taking contraceptive pills and parents who have to remember their children's antibiotics. We're currently working on a paper that describes effective memory cues and discusses how each type of cue could be supported by technology in order to improve medication adherence.

CICESE : Monica Tentori, Marcela Rodriguez, UABC, Mexicali UCLIC : Katarzyna Stawarz, Anna Cox, Ann Blandford

#### HIGHLIGHT

#### And a study run while at CICESE received honourable mention at CSCW16

This paper presents the Jokebox, an interactive installation designed to be placed in public spaces with the aim to explore how urban HCl can enable eye contact and foster social interactions between strangers. Engaging in social interactions, and in particular having conversations with strangers has been associated to wellbeing. The paper was awarded a honourable mention at CSCW, and more information can be found at www.ucl.ac.uk/uclic/JokeBox

M.E., Balestrini, P.E. Marshall, R., Cornejo, J. Bird, M. Tentori, Y. Rogers, (2016). Jokebox: Coordinating Shared Encounters in Public Spaces. CSCW16 San Francisco

A few more secondments and events are already planned before August. Another summer school will take place in Mexico (INAOE) in conjunction with a keynote delivered by Nadia Berthouze at AFI360 summit (Applications for Future Internet). Other events at CHI16 have emerged from this network collaboration. Just to mention a couple:

**CHI16 SIG**: *Mind the Gap: A SIG on bridging the gap in research on body sensing, body perception and multisensory (A. Singh, A. Tajadura-Jimenez, M. Tentori, N. Bianchi-Berthouze, N. Marquardt, R. Bresin, D. Kulic)* 

CHI16 Workshop: Advances in DIY Health and Wellbeing (A.A. O'Kane, A. Hurst, G. Niezen, N. Marquardt, G. Abowd)

More exciting things are still about to happen this summer with many of us travelling and enjoying working together on how ubihealth technology should be designed to be effective... Stay tuned! Thanks also to Louise Gaynor who has helped to co-ordinate the network within UCLIC and keep us on the move.

### Changes to our postgraduate taught courses

From September 2016 we shall welcome students to the newly structured Master's in Human-Computer Interaction. For over thirty years, the UCL Interaction Centre, and before it the UCL Ergonomics Unit, has been training HCI and human factors professionals. In revamping the MSc HCI programme, we have preserved the core strengths of our programme while incorporating the new skills and knowledge needed by the HCI professionals of tomorrow.

The MSc HCl programme runs over a full calendar year, starting in September. Students can also study on a part-time, modular-flexible basis over two or three years. Please contact us to discuss patterns of part-time study.

Term 1 focuses on core HCI content and skills, delivered over two double modules. Interaction Design, the first core module, equips students with the skills and understanding necessary to design and evaluate interactive systems. Interaction Science, the second core module, equips students with the knowledge and skills to understand how people interact with interactive systems.

Term 2 offers students a range of specialist modules. These modules are convened by UCLIC academic staff, each reflecting their area of research expertise. Students choose four modules from the following:

- · Accessibility and Assistive Technologies, convened by Catherine Holloway.
- · Affective Interaction, convened by Nadia Berthouze.
- Designing Persuasive Games, convened by Anna Cox.
- · Future Interfaces, convened by Paul Marshall and Yvonne Rogers.
- · Human Factors for Digital Health, convened by Ann Blandford.
- · Physical Computing and Prototyping, convened by Nicolai Marquardt.
- · Sociotechnical Systems, convened by Malcolm Ballantine.



Across all our taught modules we use a combination of lectures and practical project work. Activities are often structured around design and research challenges. For example, we have students work in the CHI Student Design Competition. This year two groups of students will be traveling to CHI 2016 (https://chi2016.acm. org/wp/) to present their work (see: www.ucl.ac.uk/uclic/uclicnews-publication/CHI2016 for more details on UCLIC CHI 2016 contributions).

In the Summer Term students work on the MSc Project. This offers an opportunity to conduct research under the supervision of a member of UCLIC staff or with an external partner. Project partners have previously included BBC R&D, Intel, Microsoft Research, Orange Labs, Philips Research, Samsung Design, Sony Computer Entertainment Europe, to name but a few.

Many former MSc projects have contributed towards publications at leading international conferences and journals – for example, two former MSc students presented Papers at CHI 2015 (see https://www.ucl.ac.uk/uclic/uclic-news-publication/CHI2015 for more details on UCLIC CHI 2015 contributions). We also publish all MSc Projects that receive a Distinction at: www.ucl.ac.uk/uclic/studying/taught-courses/distinction-projects

We have excellent links with industry partners. We have a weekly seminar series in which external speakers from industry present their work, discuss current issues in HCI, and give careers advice.

The skills and knowledge students gain on the MSc HCl are highly valued by employers. Our MSc HCl graduates have gone on to work for companies such as the BBC, Foolproof, Google, Microsoft, Orange Labs, Samsung, Thomson Reuters, to name but a few. Others have gone on to PhDs and academic careers.

For more details about the MSc HCl please contact:

- Duncan Brumby
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  Admissions Tutor
- Jo Pearson jo.pearson@ucl.ac.uk Teaching and Learning Administrator

### Successful outcome for the UCLIC Campaign for Real People regarding User-centred design in the Design and Technology core A-level syllabus!

Design and Technology (DT) is the third most popular school subject in the UK, and all school students study it for several years, with a good number going on to A-level. However, the syllabi are set by the Exam Boards, and the syllabi show almost no consideration for technology users at present; there is only a small mention of individual differences, some hand anthropometry, a bit on focus groups, and certainly no comprehensive Ergonomics or HCI.

The Campaign for Real People, set up in 2010 by UCLIC, supported by the Chartered Institute for Ergonomics and Human Factors, and led by Rachel Benedyk, aims to increase awareness of ergonomic design in school teaching and the need to place the user at the centre of design thinking. Ultimately, the Campaign set its aim to get user-centred design principles into the GCSE syllabus. This aim has now been realised!

In January 2016 the Department for Education and Schools published its new Subject Content requirements for Design and Technology and for the first time ever it has included...

#### KS1

When designing and making, pupils should be taught to:...design purposeful, functional, appealing products for themselves and other users based on design criteria

#### KS2

When designing and making, pupils should be taught to...use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

#### KS3

When designing and making, pupils should be taught to:...

- use research and exploration, such as the study of different cultures, to identify and understand user needs...
- use a variety of approaches [for example,...user-centred design] to generate creative ideas and avoid stereotypical responses

#### A-Level

All AS and A level specifications must require school students to develop knowledge and understanding of:

 user-centred design (UCD): the investigation and analysis of a problem within a context, and the needs, wants and values of users, to define a design opportunity or problem leading to the production of a design brief and specification to direct, inform and evaluate their design practice The specific inclusion of User-Centred Design in the syllabus, especially at A-Level, is a big success for the Campaign, which has been working to increase awareness among DT teachers and examiners and to create school teaching materials that are rooted in ergonomics. In part it has also benefited from a general upsurge of interest in the human factors of design products, stemming from the approach of some of the major design consultancies like IDEO (who have long included Human Factors and UCD in their design process) and the indirect knowledge dissemination they carry out by putting many of their materials on-line.

So the Campaign now continues, aiming to ensure that Design and Technology teachers have support from the design ergonomics community for the training and materials needed to put the new UCD-based syllabus into action in schools. Thanks are due to all the professionals and volunteers from UCLIC and the CIEHF and the DT teaching communities, who have put so much effort into the Campaign for Real People over the past few years.



### **UCLIC's got Green Impact**

UCLIC has become more involved with the UCL Green Impact initiative over the past few years, with its contribution to the Psychology Division's (PALS Division) entry helping the Division to win the competition as UCL's greenest department for the last two years running. Last year we ran a Student Green Technology competition over the summer, as one of the Division's Excellence projects (www.ucl.ac.uk/greenucl/getinvolved/green-impact-ucl/excellenceprojects), challenging UCL students to use or develop technology in an innovative way to encourage more engagement across UCL with sustainability and environmental issues. Entries showed considerable imagination and technological innovation, and ranged from server temperature monitors to resource sharing systems to gardening apps. The winners were Moira Nicolson and Manu Savani for their entry 'Livestock's Long Shadow: helping UCL staff and students choose low carbon food options'.

They proposed to nudge people to choose low carbon food items by stacking such items together on shelves in randomly selected UCL cafes and use transaction data from cash registers to test if the intervention worked against control cafes using just information displays or no signage at all. They won a prize of £500 and were presented with a Green UCL plaque by Prof. Yvonne Rogers back in October.

This year, we are launching an interactive installation called 'Squeeze My Green Balls' at the entrances of various PALS depts. to attract attention and use persuasive messages to encourage discussion and nudge people towards making more proenvironmental choices. The installation consists of an array of green squeezy balls that vary in shade from light to dark. Staff and students will be invited to rate themselves each day on how green they have been that day or to "squeeze" their response in relation to an environmental topic or question posted beside the display – responses are then logged and combined with follow up surveys and interviews to evaluate the project in terms of its impact and success in encouraging behaviour change.





## Three books published on fieldwork in healthcare and qualitative methods

In the past couple of years, a team from UCLIC has published three 'lectures' with Morgan & Claypool. The first two focus on how to do fieldwork in healthcare, with a focus on interactive medical devices, and are products of a workshop originally held at CHI 2013:

Furniss, D., O'Kane, A., Randell, R., Taneva, S., Mentis, H. & Blandford, A. (Eds.) (2014) *Fieldwork for Healthcare: Case Studies Investigating Human Factors in Computing Systems.* Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies. Morgan & Claypool, San Rafael, CA, USA

Furniss, D., Randell, R., O'Kane, A., Taneva, S., Mentis, H. & Blandford, A. (Eds.) (2015) *Fieldwork for Healthcare: A graduate handbook.* Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies. Morgan & Claypool, San Rafael, CA, USA

'Snakes and ladders' seemed like a suitable metaphor for the experience of gaining ethical clearance for conducting studies of technology used by clinicians and patients.

The third lecture is on qualitative research in HCI. This is intended as a guide for graduate students who are new to qualitative research. There are dozens of guides on doing qualitative research in the social sciences, but none that focus specifically on the needs and practices of HCI researchers; we hope that this lecture fills a gap and will be a useful guide for students.

Blandford, A., Furniss, D. & Makri, S. (in press) Qualitative HCI Research: Going behind the scenes. Synthesis Lectures on Human-centered Informatics. Morgan & Claypool, San Rafael, CA, USA Reviewers of the draft text commented:

"The book is as close to complete on methods and techniques in qualitative HCI research as anything I have seen. I [...] really liked reading about arguments for quality in qualitative research, and think that this will be particularly helpful for students, and even experienced qualitative researchers [...] It fills a gap in the literature"

"It is relatively easy to digest, quick to read, and tightly focused towards HCI." "a worthwhile read"

"the lecture explicitly takes a pluralistic approach, that is, there is no one correct or even definitive QR method but rather that there are different methods that do different things but that there are common things that need to be considered when doing QR. [...] The work itself is scholarly and carefully structured."

"I look forward to its publication so I can give it to my students".



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### **New UCLIC Profiles**

#### **Chris Evans**

Chris joined UCLIC in December 2015 as a Teaching Fellow in Interaction Design. He is known for use of innovative learning technologies. He was nominated for a National Teaching Fellowship Award and received a commendation from the Higher Education Academy in e-Tutor of the Year. Before joining UCL, he worked at Brunel University London,



the Open University and London University. He obtained his PhD in the Department of Computing at Imperial College. Chris has previously received an award for Innovative Teaching (Student Led Teaching) and the Vice-Chancellor's Award for Teaching Excellence. He is Chair of the annual international conference eLearning 2.0 concerning technology-enhanced learning and social media. His current pedagogical research is in technology-enhanced learning including elearning, interface design, interactivity, podcasting, social media, the flipped classroom and innovative technology adoption.

#### Youngjun Cho

Youngjun is currently pursuing his PhD in UCLIC, working with Nadia Berthouze and Nicolai Marquardt. He received an MSc in Robotics from KAIST (Korea Advanced Institute of Science and Technology) in 2011. Before joining UCLIC in 2015, he worked as a HCI researcher in the LG Electronics Research Center (Seoul) for five years (2011-2015) and



was a principal investigator of the 4D Touch Project, which has been successfully commercialising a 3D input technology in collaboration with major automobile manufacturers around the world. His previous works on human-computer interaction, haptics, sensor & actuator and algorithm produced over 50 patents. His research interests include designing the principles, techniques, and technologies for the next generation of sensing devices and tactile displays that extend the interactive space and enhance human perception, and understand human psychophysics. For his PhD research, he is exploring thermography-based affective computing to understand human affects and support psychological needs.

#### **Imogen Lyons**

Imogen joined UCLIC as a research associate in January 2015. In the same year she completed her PhD at the UCL School of Pharmacy working on a patientcentred intervention to improve medication adherence among mail order pharmacy users with long-term conditions. Her research interests include the safe and



effective use of medicines in hospital and community settings, behaviour change, patients' experiences of care, and the role of technology in healthcare. Imogen is currently working on the NIHR-funded ECLIPSE (Exploring the Current Landscape of Intravenous Infusion Practices & Errors) study, which seeks to understand practices and errors in intravenous medication administration, exploring how people and technology interact to enhance patient safety.

#### **Aisling O'Kane**

Aisling, a human factors engineer originally from Toronto, joined UCLIC in 2012 after completing her HCI Masters in Sweden and the Netherlands. She successfully defended her PhD in January as part of the EPSRC CHI+MED project, supervised by Ann Blandford and Yvonne Rogers. Through examining the contextual and



personal factors that influence adults' choices to adopt and use Type 1 Diabetes technologies, she has been able to engage with researchers, patient groups, and manufacturers worldwide. She started an EPSRC Doctoral Prize Postdoctoral fellowship in late 2015 examining the emerging Do-It-Yourself (DIY) Diabetes technology community with Nicolai Marquardt as her mentor. This includes examining the advances made towards a closed-loop artificial pancreas that has eluded researchers and manufacturers for decades: this open-source DIY technology has already been adopted by over 30 "hackers". Aisling is interested in studying how health and wellbeing technologies are actually used and adopted (and sometimes thrown against a wall) in everyday life. Yvonne Rogers y.rogers@ucl.ac.uk

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