Augusto Esteves
Curriculum Vitae

PERSONAL INFORMATION

Date of birth	July 2, 1985	augusto.esteves@tecnico.pt
Nationality	Portuguese	http://web.tecnico.ulisboa.pt/augusto.esteves

EDUCATION

Ph.D. Informatics Engineering (Human-Computer Interaction) January 2015
M.Sc. Informatics Engineering July 2010
B.Sc. Informatics Engineering July 2008
University of Madeira, Portugal

WORK EXPERIENCE

Assistant Professor at Instituto Superior Técnico (IST), University of Lisbon January 2020 – current
Department of Computer Science and Engineering (Portugal)

Assistant Professor at Edinburgh Napier University November 2015 – Dec. 2019
School of Computing (United Kingdom)

Visiting Professor at the Ludwig Maximilian University of Munich (LMU) August 2018
Funded by the Scottish Informatics and Computer Science Alliance

Visiting Professor at the Ulsan National Institute of Science and Technology May – June 2018
Funded by Samsung Electronics (Republic of Korea)

Founding Partner at Prsma September 2015 – Dec. 2017

Visiting Professor at Lancaster University February – December 2016
InfoLab21, School of Computing and Communications (United Kingdom)

Research Fellow at Siemens Corporation May – October 2015
Healthcare Technology Centre (United States of America)

Research Associate, Postdoctoral Fellow at Lancaster University September 2014 – May 2015
InfoLab21, School of Computing and Communications (United Kingdom)

Visiting Researcher at the Ulsan National Institute of Science and Technology Feb. 2013 – Feb. 2014
Interactions Lab, School of Design & Human Engineering (Republic of Korea)

Visiting Researcher at the Eindhoven University of Technology February – June 2012
User Centered Engineering, Department of Industrial Design (Netherlands)

Research Intern at the Korea Advanced Institute of Science and Technology June – September 2011
Telerobotics and Control Lab, Department of Mechanical Engineering (Republic of Korea)

Research Assistant at the SINAIS Project – Carnegie Mellon | Portugal
Madeira Interactive Technologies Institute (Portugal) April 2010 – May 2011
Carnegie Mellon University (United States of America) July – September 2009

Organizing Committee

ACM International Conference on Tangible, Embedded and Embodied Interaction (TEI '22)

International Conference on Mobile and Ubiquitous Multimedia (MUM '22)

ACM/IEEE International Conference on Human-Robot Interaction (HRI '20)

ACM SIGCHI Symposium on Spatial User Interaction (SUI '17)

ACM SIGCHI Conference on Designing Interactive Systems (DIS '17)

ACM International Conference on Tangible, Embedded and Embodied Interaction (TEI '16)

Select Program Committee

ACM International Conference on Tangible, Embedded and Embodied Interaction (TEI '14-15, '19, '21)

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '20) – *Interactivity*

ACM International Conference on Multimodal Interaction (ICMI '20)

IEEE Artificial Intelligence & Virtual Reality (AIVR '20)

ACM Conference on Designing Interactive Systems (DIS '20) – *Provocations and Works-in-Progress*

ACM International Conference on Creativity & Cognition (CC '19, '21) – *Papers and Best Paper*

ACM SIGGRAPH Int. Conference on Virtual-Reality Continuum and its Applications in Industry (VRCAI '19)

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '19) – *Demonstrations*

ACM International Conference on Interactive Surfaces and Spaces (ISS '16, '18-19)

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '17) – *Video Showcase*

British Human Computer Interaction Conference (BHCI '17) – *Work in Progress*

IFIP Conference on Sustainable Internet and ICT for Sustainability (SustainIT '17)

ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '15) – *Workshop*

Select Workshops and Demos

SICSA DEMOfest
Our Dynamic Earth, Edinburgh (2017-18); Technology & Innovation Centre, University of Strathclyde (2016)

Gaze Interaction for the Internet-of-Everything (nine participants)
School of Computing, Edinburgh Napier University (2016)

IT4U: Eye-tracking (60 participants, three sessions)
School of Computing, Edinburgh Napier University (2016)

Service and Membership

Associate Editor for the International Journal of Human-Computer Studies (IJHCS)
EUREKA's Eurostars Programme Technical Expert
Member of the Interactive Technologies Institute (ITI) Scientific Committee
ACM's Special Interest Group on Computer Human Interaction (SIGCHI)

Select Invited Talks, Seminars and Guest Lectures

2019   *Five Years of Motion Matching Interfaces and Their Impact in Ubiquitous Computing*
        Department of Computer Science and Engineering, Instituto Superior Técnico, University of Lisbon

        Motion Matching: A New Interaction Paradigm for the IoT
        IXDS, Berlin

2018   *Motion Matching: A New Interaction Paradigm for the IoT*
        Centre for Design Informatics, University of Edinburgh
        4th Aslla Symposium, Korea Institute of Science and Technology
        Department of Computer and Information Sciences, Northumbria University
        Department of Computer Science and Engineering, Instituto Superior Técnico, University of Lisbon
        Glasgow Interactive SysTems (GIST), University of Glasgow

2017   *Motion Matching: A New Interaction Paradigm for the IoT*
        Human-Computer Interaction research group, University of Bath
        Computer Science Department, Nova University of Lisbon (NOVA)
        Department of Industrial Design, Eindhoven University of Technology (TU/e)
        School of Design & Human Engineering, Ulsan National Institute of Science and Technology (UNIST)

2016   *Orbits: Gaze Interaction for Smart Watches Using Smooth-Pursuit Eye Movements*
        UIST Reprise, ACM SIGGRAPH 2016

2015   *Internal Seminar*
        Healthcare Technology Center, Siemens Corporation

2013   *Creating Physical Interfaces to Digital Problems*
        School of Design & Human Engineering, Ulsan National Institute of Science and Technology (UNIST)

2011   *Internal seminar*
        Telerobotics and Control Laboratory, Korean Advanced Institute of Science and Technology (KAIST)

PhD Examinations

2019   Llogari Casas – Internal Examiner
        Supervisors: Dr G. Leplâtre, Prof. Kenneth Mitchell (Disney Research), Edinburgh Napier University

        Mwrwan Abubakar – Independent Panel Chair
        Supervisors: Dr Zakwan Jaroucheh, Profs. Xiaodong Liu and A. Al-Dubai, Edinburgh Napier University

Current Supervision

Xi Wang – PhD co-supervisor
Co-supervisors: Professor Xiaodong Liu, Dr Tom Flint, Edinburgh Napier University

Francesco Boschi and Gianni Tumedei – Research Assistants (RAs)
ITI / LARSyS, Instituto Superior Técnico, University of Lisbon

A. Oliveira, P. Revés, M. Custódio, F. Catarrinho, M. Mendes, A. Abreu, and F. Rocha – MSc supervisor
Instituto Superior Técnico, University of Lisbon

G. Louro[1], A. Valente[1], R. Sousa[2], J. Gomes[3], and R. Bernardino[4] – MSc co-supervisor
Instituto Superior Técnico, University of Lisbon

Past Supervision

Select BSc	Eva Babette Mackamul[5]; Carl Bishop[3]; *Jessica Bissett* (with Prof. Kenneth Mitchell, Disney Research); *Robin Piening, Philippe Schroeder,* and *Elizabeth Bouquet* (with Dr Ken Pfeuffer, LMU)
MSc	Andrew McKelvey, *Stefanie Meitner* (with Dr Ken Pfeuffer, LMU), *David Verweij* (with Dr Saskia Bakker and Dr VJ Khan, Eindhoven University of Technology), and *Paulo Baula* (with Dr I. Oakley[4], University of Madeira)
PhD	*Gopal Jamnal* (with Prof. Xiaodong Liu, Edinburgh Napier University), *Christopher Clarke* (with Prof. Hans Gellersen[4], Lancaster University)
RAs and Interns	Federica Vinella, Szymon Klinkoz, Hector Macleod, Pierre Ruiz, Frida Lindblad, Colin Thomson, and Nicholas Sawford; *Fábio Pacheco, Luís Brito,* and *Joaquim Perez* (co-supervised with Dr Filipe Quintal, University of Madeira); *Martin Hering* and *Markus Wirth* (with Prof. Hans Gellersen[6], Lancaster University); *Pedro Mendes, Fábio Luis,* and *Vitor Baptista* (with Dr Filipe Quintal and Dr Marry Barreto, Prsma); *Rasel Islam* (with Dr Ian Oakley[4], Ulsan National Institute of Science and Technology)

TEACHING

Program Leadership

2019	BSc (Hons) Computing and User Experience (*from 2016*) Edinburgh Napier University

Lectures

2020	Human-Computer Interaction – Undergraduate program (*ongoing*) Instituto Superior Técnico, University of Lisbon
2019	Virtual-Reality – Graduate program (*ongoing*) Instituto Superior Técnico, University of Lisbon
	Mobile Applications Development – Undergraduate program Edinburgh Napier University
	Playful Interaction – Undergraduate program (*from 2016*) Edinburgh Napier University

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[1] Co-supervised with Dr Daniel Lopes (INESC-ID)
[2] Co-supervised with Dr Rui Prada (INESC-ID)
[3] Co-supervised with Dr Adalberto Simeone (KU Leuven)
[4] Co-supervised with Dr Ian Oakley (UNIST)
[5] See publications below.
[6] Temporary supervision on my part.

Ubiquitous Computing – Undergraduate program (*from 2016*)
Edinburgh Napier University

2016   Divergent Interaction –Graduate program
Edinburgh Napier University

Responsive Environments – Undergraduate program
Edinburgh Napier University

2014   Vector Graphics – Undergraduate program
Teaching Assistant for Dr Yoram Chisik, University of Madeira

IxD – Graduate program
Teaching Assistant for Dr Monchu Chen, University of Madeira

HONORS

2019   Best paper award, ACM Transactions on Computer-Human Interaction (TOCHI)
2017   Excellent Reviewer Recognition, ACM Conference on Human Factors in Computing Systems (CHI '17)
2016   Computing Reviews: Notable Computing Books and Articles of 2015
2015   Best paper award, ACM Symposium on User Interface Software and Technology (UIST '15)
2014   Marie Curie Early Stage Researcher (Scholarship, Computing and Communications)
2011   PhD studentship, Portuguese Foundation of Science and Technology (FCT)
2010   First place in the Fraunhofer Portugal Challenge 2010 (for MSc thesis)
2009   Semi-finalist in the Mobile Design category of the Adobe Design Achievement Awards 2009

MEDIA

2017   Esteves, A. (2017, October 18). When VR meets reality – how live concerts could be enhanced by 21st-century opera glasses. Retrieved from http://www.independent.co.uk/life-style/gadgets-and-tech/how-live-concerts-could-be-enhanced-by-21st-century-opera-glasses-a8002606.html

Esteves, A. (2017, October 10). When VR meets reality – how live concerts could be enhanced by 21st-century opera glasses. Retrieved from http://theconversation.com/when-vr-meets-reality-how-live-concerts-could-be-enhanced-by-21st-century-opera-glasses-85409

Esteves, A. (2017, October 10). When VR meets reality – how live concerts could be enhanced by 21st-century opera glasses. Retrieved from http://www.econotimes.com/When-VR-meets-reality--how-live-concerts-could-be-enhanced-by-21st-century-opera-glasses-942132

2016   BBC (2016, March 2). Controlling a smartwatch with your eyes. Retrieved from http://www.bbc.co.uk/news/technology-35578976

Boxall, A. (2016, January 25). See how eye-tracking may make your smartwatch easier to use in the future. Retr. from http://finance.yahoo.com/news/see-eye-tracking-may-smartwatch-131903743.html

Burgess, M. (2016, January 22). Scientists create eye tracking software for smart watches (Wired UK). Retrieved from http://www.wired.co.uk/news/archive/2016-01-22/eye-tracking-smartwatch

Esteves, A., Velloso, E., Bulling, A. and Gellersen, H., 2016. 2. Orbits: Gaze Interaction for Smart Watches. *interactions, 23*(1), 9.

PIÑATA: Pinpoint Insertion of Intravenous Needles via Augmented Reality Training Assistance
ITI / LARSyS, Instituto Superior Técnico, University of Lisbon

The purpose of this work is to explore the benefits of optical see-through augmented-reality (OST-AR) in needle insertion training and to verify if the proposed OST-AR tool complements conventional training practices. A comparison study was conducted between our tool and the conventional method to train central venous catheter (CVC) insertion using a dummy of the upper torso and neck. A total of 18 potential users – attending specialists and medical residents – performed needle insertion tasks for CVC with our system and with the conventional training system. The overall results show that the OST-AR tool proposed can complement conventional training.

Comparing Selection Mechanisms for Gaze Input Techniques in Head-mounted Displays
ITI / LARSyS, Instituto Superior Técnico, University of Lisbon

Head movements are a common input modality on VR/AR headsets. However, although they enable users to control a cursor, they lack an integrated method to trigger actions. Many approaches exist to fill this gap: dedicated "clickers", on-device buttons, mid-air gestures, dwell, speech and new input techniques based on motion matching. These proposals are diverse and there is a current lack of empirical data on the performance of, experience of, and preference for these different techniques. This hampers the ability of designers to select appropriate input techniques to deploy. We conduct two studies that address this problem.

Designing Motion Matching for Real-World Applications
Centre for Interaction Design, Edinburgh Napier University
https://youtu.be/7KIW18pbyng

This work explores the product possibilities and implications of motion matching, a novel interaction technique where users interact by rhythmically moving their bodies to track the continuous movements of different interface targets. Through the development and qualitative study of four novel and different real-world motion matching applications, we elaborated on the suitability of motion matching in different multi-user scenarios and further developed three interactive lamps with motion matching controls: wall- (A), standing- (B) and ceiling-lamp (C).
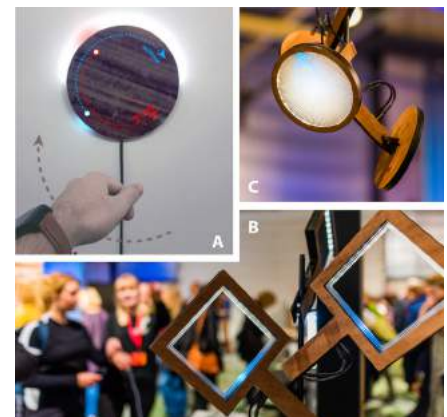
Wattom: a Consumption and Grid Aware Smart Plug with Mid-Air Controls
Centre for Interaction Design, Edinburgh Napier University
https://youtu.be/LtYrlFp91fY

Wattom is a highly interactive ambient eco-feedback smart plug that aims to support a more sustainable use of electricity by being tightly coupled to users' energy-related activities. We describe three use cases of the system: using Wattom to power connected appliances and understand the environmental impact of their use in real time; scheduling these power events; and presenting users with personal consumption data desegregated by device.

SmoothMoves: Smooth Pursuits Head Movements for Augmented Reality
Centre for Interaction Design, Edinburgh Napier University
https://youtu.be/vd4tXIetAz4

SmoothMoves is an interaction technique for augmented reality (AR) based on smooth pursuits head movements. It works by computing correlations between the movements of on-screen targets and the user's head while tracking those targets. We report error rates and acquisition times on different types of AR devices: head-mounted (2.6%, 1965ms) and hand-held (4.9%, 2089ms). We also present an interactive lighting system prototype that demonstrates the benefits of using smooth pursuits head movements in interaction with AR interfaces.
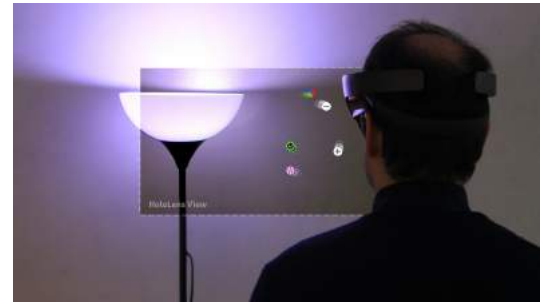

Remote Control by Body Movement in Synchrony with Orbiting Widgets
Centre for Interaction Design, Edinburgh Napier University
https://youtu.be/ffRmXRGcC5M

We consider how users can use body movement for remote control with minimal effort and maximum flexibility. TraceMatch is a novel technique where the interface displays available controls as circular widgets with orbiting targets, and where users can trigger a control by mimicking the displayed motion. The technique uses computer vision to detect circular motion as a uniform type of input, but is highly appropriable as users can produce matching motion with any body part.
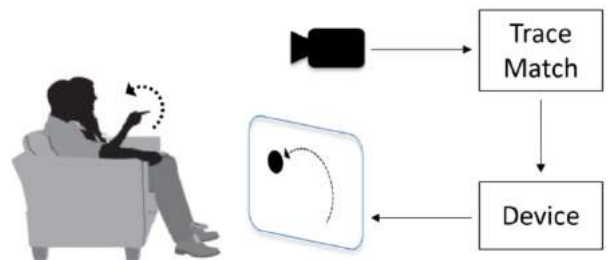

AmbiGaze: Direct Control of Ambient Devices by Gaze
Centre for Interaction Design, Edinburgh Napier University
https://youtu.be/CoIR6FFEGS4

AmbiGaze is a smart environment that employs the animation of targets to provide users with direct control of devices by gaze only through smooth pursuit tracking. AmbiGaze enables robust gaze-only interaction with many devices, from multiple positions in the environment, in a spontaneous and comfortable manner.
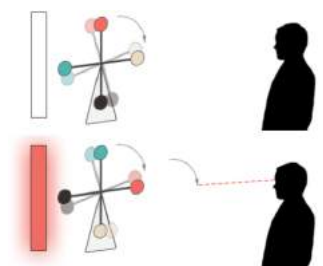
Head-Mounted Displays as Opera Glasses
Centre for Interaction Design, Edinburgh Napier University

This work explores the use of head-mounted displays (HMDs) to deliver a front row experience to any audience member during a live event. To do so, it presents a two-part user study that compares participants reported sense of presence across three experimental conditions: front row, back row, and back row with HMD (displaying 360° video captured live from the front row). Data was collected using the Temple Presence Inventory (TPI), which measures presence across eight factors. The reported sense of presence in the HMD condition was significantly higher in five of these measures, including spatial presence, social presence (SP), passive SP, active SP, and social richness.

A Look at the Effects of Handheld and Projected Augmented-reality on a Collaborative Task
Centre for Interaction Design, Edinburgh Napier University

We designed a comparative study between handheld and projected augmented-reality (AR) systems during a collocated, collaborative game-inspired task. The goal of the work is to start a body of knowledge that describes the effects of different AR approaches in users' experience and performance; i.e., to look at AR not as a single entity with uniform characteristics. This includes engagement, collaboration strategies, and performance.

Orbits: Gaze Interaction for Smart Watches
InfoLab21, Lancaster University
https://youtu.be/x6hbicxEFbg

Orbits is a novel technique that enables gaze-only input in a design that accounts for both the limited display space of smart watches and the spontaneous nature of glancing at a watch. Orbits relies on interface controls that contain targets that move continuously in circular trajectories. Each target performs a distinct function and can be activated by following it with the eyes for a certain amount of time. They can be used for both discrete control (by treating each Orbits activation as a command) and continuous control (by using the time following the target to modify the value of the controlled parameter). Each Orbits widget comprises a trajectory, one or multiple targets, and feedback elements.

The ATB Framework
Interactions Lab, Ulsan National Institute of Science and Technology

The ATB (Artifact, Tool and Body) framework contributes to our understanding of how epistemic actions are used in human problem-solving tasks, providing researchers with a video-coding tool to more systematically assess this complex type of behavior in tangible interaction. In terms of HCI, this tool has two objectives. Firstly, it is intended as a mechanism to evaluate tangible systems in terms of the type, diversity and appropriateness of the epistemic actions they support, and in terms of the impact these actions can have on more traditional metrics such as performance time or errors. Secondly, we argue that a series of such evaluations will result in a corpus of knowledge describing the use of epistemic actions in real tasks.


Beats: Tapping Gestures for Smart Watches
Interactions Lab, Ulsan National Institute of Science and Technology
https://youtu.be/7Dkbfv_JQD0

Beats is a new type of multi-finger input that is specifically designed for the very small touch screens of smartwatches. It is based on what we term beating gestures, pairs of simultaneous or rapidly sequential touches (and optionally one or more releases) made by the index and middle finger of one hand. Essentially, instead of tapping a single finger to a screen, a beating gesture involves adjacent screen contact (and optionally release) with two fingers and in three closely controlled intervals: either simultaneously or with one event immediately preceding the other as part of a single coordinated movement.
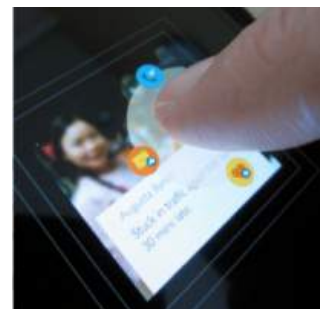
Touchcloud
Interactions Lab, Ulsan National Institute of Science and Technology
https://youtu.be/9HkVjlG10eE

Touchcloud is novel service that enables users to tag their physical environment with their Dropbox files. This is achieved through a set of bespoke NFC stickers and an application running on NFC-enabled Android mobile phones. The system is simple. Firstly, users attach the stickers to, on or in objects in their environment. Secondly, they choose specific Dropbox files or folders to physically tag and select the Touchcloud command from a context menu (available via the *Share* Dropbox menu on Android devices).

Physical Games or Digital Games?
User Centred Engineering, Eindhoven University of Technology

This work explored how different interfaces to a problem-solving task affect how users perform it. Specifically, it focused on a customised version of the game of Four-in-a-row and compared play on a physical, tangible game board with that conducted in mouse and touch-screen driven virtual versions. This was achieved through a repeated measures study involving a total of 36 participants and which explicitly assessed aspects of cognitive work through measures of time task, subjective workload, the projection of mental constructs onto external structures and the occurrence of explanatory epistemic actions. The results highlight the relevance of projection and epistemic action to this problem-solving task and suggest that the different interface forms afford instantiation of these activities in different ways.
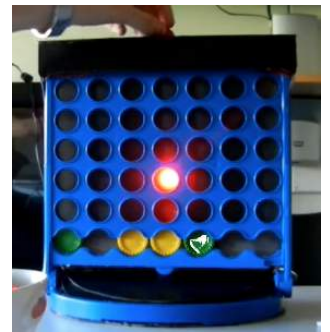
PUBLICATIONS

Esteves, A., Shin, Y. and Oakley, I. 2020. Comparing Selection Mechanisms for Gaze Input Techniques in Head-mounted Displays. *International Journal of Human-Computer Studies* 139: 102414.

Mendes, H., Costa, C., Silva, N., Leite, F., Esteves, A. and Lopes, D. 2020. PIÑATA: Pinpoint Insertion of Intravenous Needles via Augmented Reality Training Assistance. *Comp. Medical Imaging and Graphics* 82: 101731.

Rivu, R., Abdrabou, Y., Pfeuffer, K., Esteves, A., Meitner, S. and Alt, F. 2020. StARe: Gaze-Assisted Face-to-Face Communication in Augmented Reality. In *ACM Symposium on Eye Tracking Research and Applications* (ETRA '20 Adjunct), 1–5.

Verweij, D., Esteves, A., Bakker, S., and Khan, V.J. 2019. Designing Motion Matching for Real-World Applications: Lessons from Realistic Deployments. In *Proceedings of the 13th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '19). ACM, New York, NY, USA, 645-656.

Quintal, F., Esteves, A., Caires, F., Baptista, V., and Mendes, P. 2019. Wattom: A Consumption and Grid Aware Smart Plug with Mid-air Controls. In *Proceedings of the 13th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '19). ACM, New York, NY, USA, 307-313.

Esteves, A., Quintal, F., Caires, F., Baptista, V., and Mendes, P. 2019. Wattom: Ambient Eco-feedback with Mid-air Input. In *Proceedings of the IEEE 5th Experiment@ International Conference* (exp.at '19). IEEE, 12-15.

Mackamul, E. and Esteves, A. 2018. A Look at the Effects of Handheld and Projected Augmented-reality on a Collaborative Task. In *Proceedings of the Symposium on Spatial User Interaction* (SUI '18). ACM, NY, USA, 74-78.

Clarke, C., Bellino, A., Esteves, A., and Gellersen, H. 2017. Remote Control by Body Movement in Synchrony with Orbiting Widgets: an Evaluation of TraceMatch. In *Proceedings of the ACM Conference on Interactive, Mobile, Wearable and Ubiquitous Technologies* (IMWUT '17). 1, 3: 45:1–45:22.

Esteves, A., Verweij, D., Suraiya, L., Islam, R., Lee, Y., and Oakley, I. 2017. SmoothMoves: Smooth Pursuits Head Movements for Augmented Reality. In *Proceedings of the 30th Annual ACM Symposium on User Interface Software and Technology* (UIST '17). ACM, New York, NY, USA, 167-178.

Bishop, C., Esteves, A., and McGregor, I. 2017. Head-Mounted Displays as Opera Glasses: Using Mixed-Reality to Deliver an Egalitarian User Experience During Live Events**.** In *Proceedings of 19th ACM International Conference on Multimodal Interaction* (ICMI'17). ACM, New York, NY, USA, 360-364.

Velloso, E., Carter, M., Newn, J., Esteves, A., Clarke, C. and Gellersen, H. 2017. Motion Correlation: Selecting Objects by Matching Their Movement. *ACM Transactions on Computer-Human Interaction* (TOCHI), 24(3), 22. [**Featured in TOCHI's The Editor's Spotlight**] [**Best paper award**]

Verweij, D., Esteves, A., Khan, V.J., and Bakker, S. 2017. WaveTrace: Motion Matching Input using Wrist-Worn Motion Sensors. In *Extended Abstracts of 35th Annual ACM Conference on Human Factors in Computing Systems* (CHI '17). ACM, New York, NY, USA, 2180-2186. [**Research award by Design United**] [**Selected for exhibition at the Dutch Design Week 2017**].

Quintal, F., Barreto, M., Luis, F., Baptista, V., and Esteves, A. 2017. Studying the Immediacy of the Eco-Feedback Through Plug Level Consumption Information. In *the Fifth IFIP Conference on Sustainable Internet and ICT for Sustainability* (SustainIT '17). [**Best Work-in-Progress award – Audience vote**]

Verweij, D., Esteves, A., Khan, V.J., and Bakker, S. 2017. Smart Home Control using Motion Matching and Smart Watches. In *Proceedings of the 2017 ACM International Conference on Interactive Surfaces and Spaces* (ISS '17). ACM, New York, NY, USA, 466-468.

Verweij, A., Khan, V.J., Esteves, A., and Bakker, S. 2017. Multi-User Motion Matching Interaction for Interactive Television using Smartwatches. In *Adjunct Proceedings of the ACM Interactive Experiences for Television and Online Video* (TVX '17). ACM, New York, NY, USA, 67-68.

Clarke, C., Bellino, A., Gellersen, H., Esteves, A., Velloso, E. 2016. TraceMatch: a Computer Vision Technique for User Input by Tracing of Animated Controls. In *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing* (UbiComp '16). ACM, New York, NY, USA, 298-303.

Velloso, E., Wirth, M., Weichel, C., Esteves, A. and Gellersen, H. 2016. AmbiGaze: Direct Control of Ambient Devices by Gaze. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems* (DIS '16). ACM, New York, NY, USA, 812-817.

Esteves, A., Velloso, E., Bulling, A., and Gellersen, H. 2015. Orbits: Gaze Interaction for Smart Watches using Smooth Pursuit Eye Movements. In *Proceedings of the 28th Annual ACM Symposium on User Interface Software and Technology* (UIST '15). ACM, New York, NY, USA, 457-466. [**Best paper award**] [**Computing Reviews: Notable Computing Books and Articles of 2015**]

Dionisio, M., Gujaran, A., Pinto, M., & Esteves, A. 2015. Fall of Humans: Interactive Tabletop Games and Transmedia Storytelling. In *Proceedings of the 2015 International Conference on Interactive Tabletops & Surfaces* (ITS '15). ACM, New York, NY, USA, 401-404.

Oakley, I., Lee, D., Islam, R., and Esteves, A. 2015. Beats: Tapping Gestures for Smart Watches. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (CHI '15). ACM, NY, USA, 1237-1246.

Esteves, A., Bakker, S., Antle, A., May, A., Warren, J. and Oakley, I. 2015. The ATB Framework: Quantifying and Classifying Epistemic Strategies in Tangible Problem-Solving Tasks. In *Proceedings of the 9th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '15). ACM, New York, NY, USA, 13-20.

Esteves, A., Velloso, E., Bulling, A., and Gellersen, H. 2015. Orbits: Enabling Gaze Interaction in Smart Watches using Moving Targets. In the *Adjunct Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2015 ACM International Symposium on Wearable Computers* (UbiComp/ISWC'15 Adjunct). ACM, New York, NY, USA, 419-422.

Esteves, A., Bakker, S., Antle, A., May, A., Warren, J. and Oakley, I. 2014. Classifying Physical Strategies in Tangible Tasks: A Video-Coding Framework for Epistemic Actions. In *Extended Abstracts of the 32nd ACM Conference on Human Factors in Computing Systems* (CHI '14), ACM, 1843-1848.

Esteves, A., Quintal, F. and Oakley, I. 2014. TouchCloud: An Exploratory Study in Physically Tagging the Cloud. In *Extended Abstracts of the 8th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '14). [**Winner of the Devpost Internet of Things Hackathon 2015**]

Esteves, A., Quintal, F. and Oakley, I. 2014. TouchCloud: Enabling People to Augment Real-world Objects with Cloud-stored Data. In *Proceedings of The HCI Society of Korea 한국HCI학회 학술대회* (HCI 2014), 777-779.

Esteves, A., Quintal, F. and Oakley, I. 2013. jamTable: Can Physical Interfaces Support the Collaboration between Novice and Experienced Musicians? In *I. Oakley and S. Brewster (eds) Haptic and Audio IxD*, 7989, 99-108.

Esteves, A., Hoven, E. van den and Oakley I. 2013. Physical Games or Digital Games? Comparing Support for Mental Projection in Tangible and Virtual Representations of a Problem Solving Task. In *Proceedings of the 7th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '13). ACM, NY, USA, 167-174.

Esteves, A., Scott, M. and Oakley I. 2013. Supporting Offline Activities on Interactive Surfaces. In *Proceedings of the 7th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '13). ACM, NY, USA, 147-154.

Oakley, I. & Esteves, A. 2013. On and Offline Tangible Interaction: Studying the Secret Lives of Augmented Objects. In *IEEE International Symposium on Ubiquitous Virtual Reality* (ISUVR '13), 5-6.

Augusto Esteves. 2012. Designing tangible interaction for embodied facilitation. In *Proceedings of the 6th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '12). ACM, NY, USA, 395-396.

Esteves, A. & Oakley I. 2011. Informing Design by Recording Tangible Interaction. In *Extended Abstracts of the of the 29th Annual ACM Conference on Human Factors in Computing Systems* (CHI '11), ACM, NY, USA, 2077-2082.

Esteves, A. & Oakley I. 2011. Design for interface consistency or embodied facilitation? In *Adjunct Proceedings of the 29th Annual ACM Conference on Human Factors in Computing Systems* (CHI '11), Workshop on Embodied Interaction: Theory and Practice in HCI, 37-40.

Esteves, A. & Oakley I. 2011. Eco Planner: A Tabletop System for Scheduling Sustainable Routines. In *Extended Abstracts of the 5th International Conference on Tangible, Embedded and Embodied Interaction* (TEI '11).

Esteves, A. & Oakley I. 2010. Mementos: A Tangible Interface Supporting Travel. In *Proceedings of the 6th Nordic Conference on Human-Computer interaction* (NordiCHI '10). ACM, New York, NY, USA, 643-646.

PATENTS

2018   Consultant for InterDigital on three Invention Disclosures

2015   Oakley, I, Lee, D.Y., MD Rasel, I., and Esteves, A. Method for providing user interface according to beats touch based on mobile terminal, 10-1695940-0000, 2017.01.13, **Issued**, Korean Patent Office.

GRANTS

2020   H2020-WIDESPREAD-2018-2020-6:
Blockchain Technologies and Design Innovation for Social Good (*international*), Co-I

FCT RESEARCH 4 COVID-19 2nd Edition (*national*), Co-I

FCT SR&TD (*national, in submission*), Principal Investigator (PI)

FWO Research Project – Junior (*national, in submission*), Co-I

2019   Carnegie Research Incentive Grant (*national*), PI

Pedagogic Innovation Projects (*internally funded*), Co-I

2018   SICSA: Postdoctoral and Early Career Researcher Exchanges (*national*), PI

Research Funding Competition (*internally funded*), PI

2017   H2020-LCE-02-2016: Secure, Clean and Efficient Energy (*international*), Co-I

Research Funding Competition (*internally funded*), PI

2016   Carnegie Research Incentive Grant (*national*), PI

Santander Mobility Grant (*national*), PI

Summer Internship Scheme (*internally funded*), PI

H2020-SMEINST-1-2015: SME Instrument Award (*international*), Co-I