

Abdallah El Ali

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Google Scholar, GitHub, LinkedIn, Twitter, SlideShare

RESEARCH INTERESTS

Human-computer interaction (HCI), social computing, CSCW, ubiquitous computing, pervasive sensing

EDUCATION

PhD., Computer Science

Amsterdam, NL

University of Amsterdam

Apr, 2009 - Nov, 2013

Information and Language Processing Systems group

- My research (supervised by Dr. Frank Nack and Prof. Lynda Hardman) focused on context-awareness techniques and 3D gestural interaction input as means to minimize interaction with mobile devices.
- Thesis: Minimal Mobile Human Computer Interaction

M.Sc., Cognitive Science

Amsterdam, NL

University of Amsterdam

Sept, 2006 - Aug, 2008

- Two-year program, Total ECTS: 124, Total Grade (Dutch Grading System): 8.4/10 (GPA: 3.71 or A)
- Thesis: Reproducing the Passage of Time: Effects of Stimulus Complexity, Quantity, and Cognitive Interference (Thesis Grade: 9.5/10)

B.A., Linguistics (English Language)

Beirut, LB

American University of Beirut

Sept, 2002 - Jun, 2006

- Four-year program (incl. Freshman year), Total Grade: 85/100 (GPA conversion = 3.63 or A); Graduated with distinction
- Minor in Cognitive Science, minor in Philosophy

EXPERIENCE

Tenure-track Researcher

Amsterdam, NL

Centrum Wiskunde & Informatica (CWI)

Distributed & Interactive Systems group

Feb, 2018 - Present

- I am involved in (a) coordinating and helping write national and European ICT research proposals (b) co-supervising doctoral, master's, and bachelor's students.
- I carry out independent HCI research (supervised by Dr. Pablo Cesar), where my focus is on designing, building, and evaluating technology in urban sensing and mobility for collective behavior understanding. I will be combining methods from human-computer interaction and machine learning to make sense of and predict user behavior from wearable sensor data.

Postdoctoral Researcher

Oldenburg, DE

University of Oldenburg / OFFIS

Media Informatics and Multimedia Systems group

Feb, 2015 - Jan, 2018

- I am involved in (a) coordinating and helping write national and European ICT research proposals (b) co-supervising doctoral, master's, and bachelor's students (c) co-teaching bachelor and master's HCI courses.
- I carry out independent HCI research (supervised by Prof. Susanne Boll), of which projects include: (a) designing and evaluating sensor-based behavior tracking technology (b) running studies to understand mobile users in developing countries (c) large-scale mining of social media data and crowdsourcing to understand global crises (d) smartphone emoji keyboard layout reorganization using facial expression emotion recognition and crowdsourcing.

User Experience Designer

Amsterdam, NL

Osudio

Jan, 2014 - Nov, 2014

- I helped win pitches, ran UX strategy sessions with clients, and designed e-commerce focused (responsive) digital experiences across web and other devices. This included market research, carrying out persona and Customer Experience Map sessions, conducting expert reviews, making concept designs, wireframing, and analyzing web analytics. Worked with agile, pure scrum, and waterfall processes.

Research Intern

Berlin, DE

Telekom Innovation Laboratories

Quality & Usability Lab

Apr, 2012 - Jun, 2012

- Designed and executed (with Dr. Hamed Ketabdar) (a) a usability study (part of the MagiThings Project) on magnet-based gesture interaction for music composition (El Ali et al., 2013) (b) a usability and security study on the use of magnet-based air signatures for user authentication (El Ali & Ketabdar, 2015).

Research Intern

Tampere, FI

Nokia Research Center (NRC)

Organic User Interfaces team

Apr, 2011 - Jul, 2011

- Helped in setting up, data analysis, and writing up of a large-scale in-the-wild qualitative user study on mobile interaction with public interfaces (Holopainen et al., 2011).
- Designed and executed (with NRC Helsinki) a usability study that investigated effects of error on device-based gesture interaction (El Ali et al., 2012; best student paper award).

Research Assistant

Amsterdam, NL

Leibniz Center for Law (Research Institute)

Sep 4, 2007 - Dec 31, 2008

- Modeled Dutch legislation in the Web Ontology Language (OWL-DL), with the aim of providing Semantic Web compliant automated normative assessment services as part of the ESTRELLA EU project.

PROJECTS

1. **SmartINSIDE:** The SmartINSIDE project aims at developing a complete integrated solution for indoor navigation services within large sites. Thanks to a unique technological hardware and software infrastructure, indoor navigation will be cheaper, more efficient, and accessible to any user with a standard mobile phone. **Date:** 2010-2012. **Budget:** €1,590,000. **Role:** Researcher.
2. **MOCATOUR:** The aim of the "Mobile Cultural Access for Tourists" (MOCATOUR) project is to provide personalized cultural information access to tourists. An overarching goal is to establish a network of culture servers in the centre of Amsterdam (around the Dam and Museumsplein), where tourists can access personalised cultural and historic information. **Date:** 2009-2011. **Budget:** €968,280. **Role:** Researcher.

3. **ESTRELLA:** The European project for Standardized Transparent Representations in order to Extend Legal Accessibility (Estrella, IST-2004-027655) aims to develop and validate an open, standards-based platform allowing public administrations to develop and deploy comprehensive legal knowledge management solutions, without becoming dependent on proprietary products of particular vendors. **Date:** 2006-2008. **Budget:** €3,811,943. **Role:** Researcher.

PROPOSAL WRITING

1. Edited and contributed to DFG Priority Programme proposal on "Scalable Pervasive Interactions".
2. Edited and proofread DFG proposal on "Take Over Requests in Automated Driving".
3. Contributed to an ERC consolidator grant proposal on guiding human attention with digital technology for interacting with cyber-physical system (ATTENTION).
4. Successfully coordinated and contributed to H2020 grant proposal on "Monitoring and Early Diagnosis of frailty in the Elderly" (MEDLEY).

AWARDS

- Best paper honorable mention at SUI 2017
- CHI 2016 excellent reviewer
- Won the FNWI (Faculty of Science) 2nd Science Slam (2013) for most exciting research. Certificate available
- Best student paper award at ICMI 2012
- Best workshop paper at Please Enjoy workshop at MobileHCI 2011
- Awarded National Science Foundation (NSF) travel grant for ICMI-MLMI 2010 (Beijing, China)
- Dean's Honor List (American University of Beirut): Spring (2003, 2004, 2005), Fall (2005, 2006)

PRESS

- VapeTracker in the VapingPost. *New Technology: A cessation tool for vapers*

INVITED TALKS

- 2016: Challenges in measuring and understanding cross-cultural crisis news media bias on Twitter. 3rd GESIS Computational Social Science Winter Symposium 2016 (Cologne, DE).
- 2015: Urban data and wayfinding in developing countries (2015). Centrum Wiskunde & Informatica (CWI) - Information Access (Amsterdam, NL).
- 2015: Leveraging Flickr photos to build exploration-based route planners. Pervasive Interaction Technology (PIT) Laboratory (Copenhagen, DK)
- 2011, 2012: Introduction to multimodal interaction (slides here.) University of Amsterdam (NL)

PUBLICATIONS

Journal

1. **El Ali, A.** & Ketabdar, H. (2013). Magnet-based Around Device Interaction for Playful Music Composition and Gaming. In the International Journal of Mobile Human Computer Interaction (IJMHCI), 5, 4, p.56-80.
2. **El Ali, A.**, Nack, F. & Hardman, L. (2011). Good Times?! 3 Problems and Design Considerations for Playful HCI. In the International Journal of Mobile Human-Computer Interaction (IJMHCI), 3, 3, p.50-65.

Conference

1. Grünefeld, U., **El Ali, A.**, Heuten, W., & Boll, S. (2018). Beyond Halo and Wedge: Visualizing Out-of-View Objects on Head-mounted Virtual and Augmented Reality Devices. To be published in Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '18). Barcelona, Spain.
2. Grünefeld, U., Stratmann, T., **El Ali, A.**, Heuten, W., & Boll, S. (2018). RadialLight: Exploring Radial Peripheral LEDs for Direction Cues in Head-Mounted Displays. To be published in Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '18). Barcelona, Spain.
3. **El Ali, A.**, Stratmann, T., Park, S., Heuten, W. & Boll, S. (2018). Measuring, Understanding, and Classifying News Media Sympathy on Twitter after Crisis Events. To be published in Proc. Human Factors in Computing Systems (CHI '18). Montréal, Canada.
4. Grünefeld, U., Ennenga, D., **El Ali, A.**, Heuten, W., & Boll, S. (2017). EyeSee360: Designing a Visualization Technique for Out-of-view Objects in Head-mounted Augmented Reality. In Proc. Spatial User Interaction (SUI '17). Brighton, UK. **[Best paper honorable mention]**
5. Grünefeld, U., **El Ali, A.**, Heuten, W., & Boll, S. (2017). Visualizing Out-of-view Objects in Head-mounted Augmented Reality. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '17 EA). Vienna, Austria.
6. **El Ali, A.**, Wallbaum, T., Wasmann, M., Heuten, W. & Boll, S. (2017). Face2Emoji: Using Facial Emotional Expressions to Filter Emojis. In Proc. Human Factors in Computing Systems (CHI '17 EA). Denver, Colorado, USA.
7. Koelle, M., **El Ali, A.**, Heuten, W., Cobus, V., & Boll, S. (2017). All about Acceptability? - Identifying Factors for the Adoption of Data Glasses. In Proc. Human Factors in Computing Systems (CHI '17). Denver, CO, USA.
8. Meyer, J., Wasmann, M., Heuten, W., **El Ali, A.**, & Boll, S. (2017). Identification and Classification of Usage Patterns in Long-Term Activity Tracking. In Proc. Human Factors in Computing Systems (CHI '17). Denver, CO, USA.
9. Cobus, V., Bräuer, N., Pistor, A., Precht, H., **El Ali, A.**, & Boll, S. (2016). Badum Tss! - A Paper-based Interaction to Augment Everyday Situations with Sound Effects. In Adj. Proc. Nordic Conference on Human-Computer Interaction (NordCHI '16). Gothenburg, Sweden.
10. Sadeghian, S., **El Ali, A.**, Heuten, W., & Boll, S. (2016). Peripheral Light Cues for In-Vehicle Task Resumption. In Proc. Nordic Conference on Human-Computer Interaction (NordCHI '16). Gothenburg, Sweden.
11. **El Ali, A.**, Bachour, K., Heuten, W. & Boll, S. (2016). Technology Literacy in Poor Infrastructure Environments: Characterizing Wayfinding Strategies in Lebanon. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '16). Florence, Italy.
12. Matviienko, A., Loecken, A., **El Ali, A.**, Heuten, W. & Boll, S. (2016). NaviLight: Investigating Ambient Light Displays for Turn-by-Turn Navigation in Cars. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '16). Florence, Italy.
13. **El Ali, A.**, Matviienko, A., Feld, Y., Heuten, W. & Boll, S. (2016). VapeTracker: Tracking Vapor Consumption to Help E-cigarette Users Quit. In Proc. Human Factors in Computing Systems (CHI '16 EA). San Jose, CA, USA.
14. **El Ali, A.**, & Ketabdar, H. (2015). Investigating Handedness in Air Signatures for Magnetic 3D Gestural User Authentication. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '15 EA). Copenhagen, Denmark.
15. Wolbert, M. & **El Ali, A.** & Nack, F. (2014). CountMeIn: Evaluating Social Presence in a Collaborative Pervasive Mobile Game Using NFC and Touchscreen Interaction. In Proc. Advances in Computer Entertainment Technology (ACE '14). Madeira, Portugal.

16. Wolbert, M. & **El Ali, A.** (2013). Evaluating NFC and Touchscreen Interactions in Collaborative Mobile Pervasive Games. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '13 EA). Munich, Germany.
17. **El Ali, A.**, van Sas, S. & Nack, F. (2013). Photographer Paths: Sequence Alignment of Geotagged Photos for Exploration-based Route Planning. In Proc. Computer-Supported Cooperative Work and Social Computing (CSCW '13). San Antonio, Texas.
18. **El Ali, A.**, Kildal, J. & Lantz, V. (2012). Fishing or a Z?: Investigating the Effects of Error on Mimetic and Alphabet Device-based Gesture Interaction. In Proc. International Conference on Multimodal Interaction (ICMI '12). Santa Monica, California, USA. **[Best student paper award]**
19. Bouwer, A., Nack, F. & **El Ali, A.** (2012). Lost in Navigation: Evaluating a Mobile Map App for a Fair. In Proc. International Conference on Multimodal Interaction (ICMI '12). Santa Monica, California, USA.
20. Holopainen, J., Lucero, A., Saarenpää, H., Nummenmaa, **El Ali, A.**, & Jokela, T. (2011). Social and Privacy Aspects of a System for Collaborative Public Expression. In Proc. Advances in Computer Entertainment Technology (ACE '11). Lisbon, Portugal.
21. **El Ali, A.**, Nack, F. & Hardman, L. (2010). Understanding contextual factors in location-aware multimedia messaging. In Proc. International Conference on Multimodal Interaction (ICMI '10). Beijing, China.
22. Nack, F., **El Ali, A.**, van Kemenade, P., Overgoor, J. and van der Weij., B. (2010). A story to go, please. In Proc. International Conference on Interactive Digital Storytelling (ICIDS '10). Edinburgh, Scotland.
23. van de Ven, S., Hoekstra, R., Breuker, J., Wortel, L., & **El Ali, A.** (2008) Judging Amy: Automated legal assessment using OWL 2. In Proc. OWL: Experiences and Directions (OWLED 2008). Karlsruhe, Germany.

Other

1. **El Ali, A.** (2013). Minimal Mobile Human Computer Interaction. Ph.D. Thesis, University of Amsterdam.
2. **El Ali, A.** (2011). Studying and Designing for Mobile Social Awareness Cues in Urban Interactions. In Proc. Human-Computer Interaction with Mobile Devices and Services (MobileHCI '11 EA). Doctoral Consortium, Stockholm, Sweden.
3. **El Ali, A.**, Lucero, A. & Aaltonen, V. (2011). Multimodal Interaction Design in Collocated Mobile Phone Use. In Proc. MobileGestures 2011 workshop at Human-Computer Interaction with Mobile Devices and Services (MobileHCI '11). Stockholm, Sweden.
4. **El Ali, A.**, Nack, F. & Hardman, L. (2010). Good Times?! Playful Aspects of Location-based Experience Capture. In Proc. Please Enjoy 10 workshop at Human-Computer Interaction with Mobile Devices and Services (MobileHCI '10). Lisbon, Portugal. **[Best workshop paper award]**
5. **El Ali, A.** & Nack, F. (2009). Touring in a Living Lab: some methodological considerations. In Proc. Mobile Living Labs 09 workshop at Human-Computer Interaction with Mobile Devices and Services (MobileHCI '09). Bonn, Germany.

TEACHING

Courses Co-taught

- 2015, 2016: Bsc course 'Interaktive Systeme'; Msc course 'Human Computer Interaction'; Msc course 'Wearable Computing'
- 2010, 2011, 2012: Msc Information Science course 'Intelligent Interactive Systems'. Designed and executed entire practical course syllabus from scratch.
- 2009, 2010: Bsc course 'Human-Centered Multimedia'
- 2009, 2010: Bsc course 'Knowledge-based Media Systems'

Students Supervised

- 2016: Rieke Von Bargaen (Bsc Informatics) || *Wearable Vibro-tactile Pedestrian Navigation*
- 2013: Michael Wolbert (Msc Information Science) || *Improving the Waiting Time Experience Through a Pervasive Collaborative NFC-enabled Mobile Game*
- 2013: Patrick Mast (Msc Artificial Intelligence) || *Applying Sequence Alignment Techniques to Give Personalized Travel Suggestions*
- 2013: Bardia Khalesi (Msc Artificial Intelligence) || *Using Social Network Analysis Techniques on Foursquare data for Location-Based Recommendations*
- 2011: Theresa Kriese (Msc Information Science) || *Measuring User Experience of User-defined Cross-domain Motion Gestures*
- 2011: Haska Steltenpohl (Bsc Information Science) || *Visualizing Route Information on Mobile Devices*
- 2010: Sicco van Sas (Bsc Artificial Intelligence) || *Generating route recommendations using geotagged Flickr photos and sequence alignment*
- 2009: Jan Overgoor, Philo van Kemenade, Bastiaan van der Weij (Bsc Artificial Intelligence) || *Narranotation: Mobile storytelling using a context-free grammar*

SKILLS

User Research

User-centered design, usability testing (controlled, field), remote testing (A/B, MVT), contextual inquiry, heuristic evaluation, card sorting, Wizard-of-Oz, interviews (+ open coding), surveys, affinity diagramming

Data Science

Social media data (Twitter, Flickr) crawling, cleaning and analysis; facial emotion recognition using deep convolutional neural networks (TFlearn, TensorFlow); crowdsourcing; descriptive and inferential statistics (incl. correlation, regression, ANOVA, t-test, chi-square, factor analysis); applied machine learning (supervised, unsupervised); R (incl. ggplot2), Python (incl. Pandas, NumPy, SciPy, OpenCV, ScikitLearn), iPython, SQL

Soft Skills

Mentoring colleagues / students, coordinating and writing grant proposals, scientific and non-scientific presentations

Languages

Arabic (native), English (fluent), Dutch (intermediate), German (basic)

COURSES & WORKSHOPS

- 2nd Summer School on Computational Interaction. Certificate available.
- R Programming. Johns Hopkins University (Coursera). Grade: 97%. Certificate available
- Google Analytics - Digital Analytics Fundamentals - Score: 94%
- Information Visualization (Master's AI course)
- Teaching Skills for Science Teaching Assistants. Certificate available
- Machine Learning: Pattern Recognition (Master's AI course)
- SIKS Summer School on Data Mining
- UBI Summer School 2010 on Ubiquitous Computing. Grade: 5/5. Workshop 'Urban Social Network Analysis'
- 2nd NIRICT-SIKS Spring School - Social Interaction Computing
- Cognitive Modeling. CSCA summer school

SERVICE

- **ACM MobileHCI 2018** - Associate Chair
- **ACM Multimedia Systems 2018** - Local Chair
- **HCI Oldenburg Website** - Web Developer

- **ACM AutomotiveUI 2017** - Local Chair
- **Inventors Workshop (2016)** - Co-organizer, Web Developer
- **Google NL Startup Week (2015)** - UX Mentor
- **CareerFoundry UX Hackathon (2015)** - UX Mentor
- **AWESOME IT (2011)** - Program Chair
- **Conference & Journal reviewer:** CHI (2018, 2017, 2016, 2013, 2012); CSCW (2018, 2017, 2016, 2015, 2013); MobileHCI (2017, 2016, 2015, 2013); DIS (2018, 2017, 2012); AutoUI (2017, 2015); TVX (2018); CHI Play (2015); UIST (2013); ICMI (2011); CIE