

# Francisco Nunes

Born: 1987—Porto, Portugal  
Nationality: Portuguese & Brazilian

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## Research interests

I am interested in learning about people and how they use technology. My projects are usually at the intersection of computer science, health sciences, design, and social sciences. Broad keywords for my work would be: Human-Computer Interaction, Computer-Supported Cooperative Work, Health Informatics, and Science and Technology Studies.

## Education

2020-now	Master in Academic and Clinical Education, University of Porto
2012-2017	PhD in Informatics (Human-Computer Interaction), TU Wien <i>Thesis: "The Everyday Life with Parkinson's and Self-care Technologies"</i>
2005-2010	Master in Informatics and Computing Engineering, University of Porto <i>Thesis: "Healthcare TV Based User Interfaces for Older Adults"</i>

## Experience

2019-now	Invited Assistant Professor, University of Porto, Porto
2017-now	Senior researcher, Fraunhofer Portugal AICOS, Porto
2016-2017	Researcher, NOVA-LINCS, Universidade Nova de Lisboa, Lisboa
2012-2017	PhD Student, Institute for Design and Assessment of Technology, TU Wien, Vienna
2008-2012	Researcher, Fraunhofer Portugal AICOS, Porto

## Grants, honours & awards

### ACQUIRED PROJECT GRANTS (€VALUES FOR MY INSTITUTION)

2021	€106K - "Adaptation, development, and deployment of a chatbot to improve health literacy and care of first-time parents" funded by Aga Khan Development Network & FCT (PT) – <i>Project Coordinator and PI</i> .
2020	€190K - "Mobile Patient-centred System to Improve Drug Trials and Care of Older-adults with Rheumatic Diseases" funded by H2020 AAL & FCT (PT) – <i>Project Coordinator and PI</i> .
2019	€117K - "Demonstration of EyeFundusScope with Non-Expert Ophthalmology users" funded

by ANI (PT) – *Lead proposal writer and Co-PI*.  
 2011 €137K - “Smartphones for Smart Seniors (S4S)” funded by ANI (PT) – *Lead proposal writer*.  
 \* €96K - Industry contracted research e.g., Alcatel-Lucent, ALMASCIENCE, Doist.

#### OTHER GRANTS AND HONOURS

2016 Two special recognitions for an ‘Excellent Review’ at CHI 2016  
 2012 Vienna PhD School of Informatics scholarship (3 years of funding)  
 2012 Dance! Don’t Fall was on the Top-25 Apps, CES Mobile Apps Showdown

### Teaching & supervision experience

#### COURSES

2021-now Media Laboratory (PhD @U. Porto)  
 2019-2021 Learning from Users: User Research Methods for Technology Design (MSc/PhD @AICOS)  
 2019-2021 Design Project Management and Methodology (Post-graduation @U. Porto)  
 2016-2018 Qualitative methods and co-design of self-care technologies (MSc @U. of Copenhagen) –  
*Invited lecture on self-care and self-care technologies*  
 2015 HCI in Healthcare (MSc @TU Wien) – *Co-teaching and project supervision*  
 2014 User Research Methods (MSc @TU Wien)– *Co-teaching and project supervision*

#### SUPERVISED STUDENTS

current Petra Grego, MSc Multimedia Design @U. Coimbra  
 current Rui Fernandes, MSc Informatics Engineering @NOVA  
 2020 Niloufar Chakmaghi, MSc Media Informatics @TU Wien  
 2019 João Simões, MSc Biomedical Engineering @NOVA (co-supervisor)  
 2018 Cristiana Braga, MSc Service Design @FEUP  
 2018 João Almeida, MSc Informatics Engineering @FEUP  
 2015 Martin Herndl, BSc Medical Informatics @TU Wien  
 2012 João Cevada, MSc Informatics Engineering @FEUP  
 \* Other 8 students as unofficial MSc co-supervisor

#### SUPERVISED PHD INTERNSHIPS

2019-2021 Cristina Mendes Santos, PhD Internet Interventions @Linköping University  
 2018 Martina Čaić, PhD Service Design @Maastricht University

### Projects

#### SELECTION OF ONGOING PROJECTS

2022-2024 *ParentCoach* (FCT) – will adapt and improve a chatbot for first-time parents in Portugal and South Africa. I am project coordinator and PI at AICOS.  
 2021-2023 *COTIDIANA* (AAL) – is creating a mobile solution to enable holistic and efficient patient

- monitoring for clinical care, clinical research, and drug trials, drawing on PROMS and passive smartphone sensing. I am project coordinator and PI at AICOS. <https://cotidiana.eu/ConnectedHealth> (ANI) – is creating advanced information systems that support chronic patients, pharmacists, and hospital clinicians, in dealing with COPD, Diabetes, and Heart failure. I am leading the user research team at AICOS.
- 2021-2023 *HomeSenseALS* (FCT) – is creating a mobile solution to track the condition state of patients with Amyotrophic Lateral Sclerosis in clinical research field trials. I am leading the user research team at AICOS.
- 2019-2021 *EyeFundusScopeNEO* (PT2020) – This project is piloting EyeFundusScope, a solution to screen diabetic retinopathy, in CUF Infante Santo. I am currently the PI at AICOS.

## Service

### PROGRAM COMMITTEE MEMBER

CHI 2021, 2020, 2019

CSCW 2018

PervasiveHealth 2015, 2016

Mindcare 2016

And in workshops at CHI '20, ICEC'18, CHI'16, GROUP '14, Ubicomp '13, SouthCHI '13

### WORKSHOP ORGANIZER

- 2021 Realizing AI in Healthcare: Challenges Appearing in the Wild at CHI '21 ([link](#))
- 2020 Dis-entangling later life: ageing processes, innovative practices & critical reflections? at STS Italia '20
- 2019 Who Cares? Exploring the Concept of Care Networks for Designing Healthcare Technologies at ECSCW '19 ([link](#))
- 2014 Designing Self-care for Everyday Life at NordiCHI '14 ([link](#))
- 2014 Designing Systems for Health and Entertainment: what are we missing? at ACE '14 ([link](#))

### REVIEWER

ENTCOM, Health Informatics Journal, IJCCI, IJHCS, IxD&A, JAMIA, JCSCW, JMIR, TOCHI. CHI ('19, '18, '17, '16, '15, '14), CSCW ('20, '19, '18, '17, '16, '15), DIS '18, Group '16, Healthcom '13, Interact '19, MobileHCI '17, NordiCHI ('16, '14), PervasiveHealth ('17, '16, '15).

### STUDENT VOLUNTEER

CHI ('16, '13), CSCW '15 PC meeting, NordiCHI '10

## Publications & talks

h-index: 14; citations: 718 (source Google Scholar as of 08/2021)

### PROCEEDINGS AND SPECIAL ISSUES EDITED

- 2016 P. A. Silva, F. Nunes, eds. (2016) “Special issue on fun and engaging computing technologies for health”, *Entertainment Computing*, 15: 41–70.
- 2015 N. Verdezoto, F. Nunes, E. Grönvall, G. Fitzpatrick, C. Storni, M. Kyng, eds. (2015) “Proceedings of Designing Self-care for Everyday Life. Workshop in conjunction with NordiCHI 2014, 27th October 2014, Helsinki, Finland”, *DAIMI Report Series*, 41(597).
- 2014 N. Verdezoto, F. Nunes, G. Fitzpatrick, E. Grönvall, eds. (2014) “Designing Self-Care For Everyday Life”, *Interaction Design and Architecture(s) Journal - IxD&A*, 23: 142–190.

### JOURNAL ARTICLES

- 2021 F. Nunes, P. Madureira, S. Rêgo, C. Braga, R. Moutinho, T. Oliveira, F. Soares (2021) “Mobile Tele-Ophthalmology System for Planned and Opportunistic Screening of Diabetic Retinopathy in Primary Care” *IEEE Access*, 9: 83740–83750.
- 2020 J. Almeida, F. Nunes (2020) “The Practical Work of Ensuring Effective Use of Serious Games in a Rehabilitation Clinic: A Qualitative Study”, *JMIR Rehabilitation and Assisted Technologies - JIRAT*, 7(1).
- 2017 F. Nunes, T. Andersen, G. Fitzpatrick (2017) “The agency of patients and carers in medical care and self-care technologies for interacting with doctors”, *Health Informatics Journal*, 25(2): 330–349.
- 2016 F. Güldenpfennig, F. Nunes, G. Fitzpatrick (2016) “Making Space to Engage: An Open-ended Exploration of Technology Design with Older Adults”, *International Journal of Mobile Human Computer Interaction*, 8(2): 1–19.
- 2016 F. Nunes, P. A. Silva, J. Cevada, A. C. Barros, L. Teixeira (2015) “User Interface Design Guidelines for Smartphone Applications for People With Parkinson’s Disease”, *Universal Access in the Information Society*, 15(4): 659–679.
- 2015 F. Nunes, N. Verdezoto, G. Fitzpatrick, M. Kyng, E. Grönvall, C. Storni (2015) “Self-care Technologies in HCI: Trends, Tensions, and Opportunities”, *ACM Transactions on Computer Human Interaction*, 22(6), article 33: 1–45.
- 2015 F. Nunes, G. Fitzpatrick (2015) “Self-care Technologies and Collaboration”, *International Journal of Human Computer Interaction*, 31(12): 869–881.
- 2012 A. Aguiar, F. Nunes, M. Silva, P. A. Silva, D. Elias (2012) “Leveraging electronic ticketing to provide personalised navigation in a public transport network”, *IEEE Transactions on Intelligent Transportation Systems*, 13(1): 213–220.

### LONG CONFERENCE PAPERS (PEER-REVIEWED)

- 2021 F. Nunes, J. Almeida, C. Chung, N. Verdezoto (2021) “Avoiding Reactions Outside the Home: Challenges, Strategies, and Opportunities to Enhance Dining Out Experiences of People with Food Hypersensitivities”, *Proc. of CHI 2021*, 208:1–208:16.
- 2019 A. Pereira, D. Folgado, F. Nunes, J. Almeida, I. Sousa (2019) “Using Inertial Sensors to

- Evaluate Exercise Correctness in Electromyography-based Home Rehabilitation Systems”, *Proc. of MEMEA 2019*.
- 2019 J. Silva, D. Gomes, F. Nunes, D. Moreira, J. Alves, A. Pereira, I. Sousa (2019) “Position-independent Physical Activity Monitoring: Development and Comparison with Market Devices”, *Proc. of MEMEA 2019*.
- 2018 F. Nunes, G. Fitzpatrick (2018) “Understanding the mundane nature of self-care: Ethnographic accounts of people living with Parkinson’s”, *Proc. of CHI 2018*, 402:1–402:15.
- 2018 F. Nunes, J. Ribeiro, C. Braga, P. Lopes “Supporting the Self-care Practices of Shift Workers”, *Proc. of MUM 2018*, 71–81.
- 2018 J. Silva, E. Oliveira, D. Moreira, F. Nunes, M. Caic, J. Madureira, Eduardo Pereira (2018) “Design and evaluation of a fall prevention multiplayer game for senior care centres”, *Proc. of ICEC 2018*, 103–114.
- 2013 P. Jordan, P. A. Silva, F. Nunes, R. Oliveira (2013) “mobileWAY - A System to Reduce the Feeling of Temporary Lonesomeness of Persons with Dementia and to Foster Inter-caregiver Collaboration”, *Proc. of HICSS 2013*, 2474–2483.
- 2013 P. A. Silva, F. Nunes, A. Vasconcelos, M. Kerwin, R. Moutinho, P. Teixeira (2013) “Using the Smartphone Accelerometer to Monitor Fall Risk While Playing a Game: The Design and Usability Evaluation of Dance! Don’t Fall”, *Proc. of HCII 2013*, 754–763.
- 2012 F. Nunes, M. Kerwin, P. A. Silva (2012) “Design Recommendations for TV User Interfaces for Older Adults: Findings From the eCAALYX Project”, *Proc. of ASSETS 2012*, 41–48.
- 2012 M. Kerwin, F. Nunes, P. A. Silva (2012) “Dance Don’t Fall – Preventing Falls and Promoting Exercise at Home”, *Proc. of pHealth 2012*, 254–259.
- 2012 A. Vasconcelos, P. A. Silva, J. Caseiro, F. Nunes, L. F. Teixeira (2012) “Designing Tablet-based Games for Seniors: the Example of Cogniplay, a Cognitive Gaming Platform”, *Proc. of Fun & Games 2012*, 1–10.
- 2010 P. A. Silva, F. Nunes (2010) “3 x 7 Usability Testing Guidelines for Older Adults”, *Proc. MEXIHC 2010*, 2: 1–8.
- 2010 F. Nunes, P. A. Silva, F. Abrantes (2010) “Human-Computer Interaction and the Older Adult: an Example Using User Research and Personas”, *Proc. of PETRA 2010*, 49: 1–8.

#### SHORT CONFERENCE PAPERS (PEER-REVIEWED)

- 2020 C. Braga, S. Rego, F. Nunes “Clinicians’ Perspectives on Using Mobile Eye Fundus Cameras to Screen Diabetic Retinopathy in Primary Care”, *Proc. of ICHI 2020*.
- 2018 A. Vasconcelos, F. Nunes, A. Carvalho, C. Correia (2018) “Mobile, Exercise-agnostic, Sensor-based Serious Games for Physical Rehabilitation at Home”, *Proc. of TEI 2018*, 271–278.
- 2018 V. Guimarães, F. Nunes (2018) “A Wearable, Customizable, and Automated Auditory Cueing System to Stimulate Gait in Parkinson’s”, *Proc. of PervasiveHealth 2018*.
- 2018 A. Pereira, F. Nunes (2018) “Physical Activity Intensity Monitoring of Hospital Workers using a Wearable Sensor”, *Proc. of PervasiveHealth 2018*.
- 2018 R. Peixoto, J. Ribeiro, E. Pereira, F. Nunes, A. Pereira (2018) “Designing the Smart Badge: A Wearable Device for Hospital Workers”, *Proc. of PervasiveHealth 2018*.
- 2018 F. Aluvathingal, N. Verdezoto, F. Nunes (2018) “Exploring Challenges and Opportunities to Support People with Food Allergies to Find Safe Places for Eating Out”, *Proc. of 32nd British HCI Conference*.

- 2017 F. Güldenpfennig, Ö.Subasi, F. Nunes, M. Urbanek (2017) “UbiKit: Learning to Prototype for Tangible and Ubiquitous Computing”, *31st British HCI Conference*.
- 2015 F. Güldenpfennig, F. Nunes, G. Fitzpatrick (2015) “Proxycare: Integrating informal care into formal settings”, *Proc. of PervasiveHealth 2015*, 141–144.
- 2011 T. Marques, F. Nunes, P. A. Silva, R. Rodrigues (2011) “Tangible Interaction on Tabletops for Elderly People”, *Proc. ICEC 2011*, pp. 440–443.
- 2011 T. Sousa, P. Tenreiro, P. A. Silva, F. Nunes, E. Rodrigues (2011) “Cross-platform social web application for older adults with html 5”, *Proc. ICEC 2011*, pp. 375–378.

#### POSITION PAPERS (JURIED)

- 2021 T. O. Andersen, F. Nunes, L. Wilcox, E. Kaziunas, S. Matthiesen, F. Magrabi (2021) “Realizing AI in Healthcare: Challenges Appearing in the Wild”, *Proc. of CHI EA 2021*.
- 2020 C. Correia, E. Oliveira, F. Nunes (2020) “Using Illustration to Create More Inclusive User Interfaces for Older Adults”, in *Interactions*, 27(2), 79–81.
- 2019 F. Nunes (2019) “From medicalized to mundane self-care technologies”, in *Interactions*, 26(3), 67–69.
- 2019 S. Y. Park, F. Nunes, A. Berry, A. Büyüktür, L. de Russis, M. Czerwinski, W. Seo (2019) “Who Cares? Exploring the Concept of Care Networks for Designing Healthcare Technologies”, *Proc. of ECSCW 2019*.
- 2016 P. A. Silva, F. Nunes (2016) “Preface for the special issue on fun and engaging computing technologies for health”, in *Entertainment Computing*, 15: 41–42.
- 2016 F. Nunes (2016) “The medication reminder as enforcing a medicalised perspective on daily life”, in *Book of abstracts of the 6th STS Italia Conference*, 58.
- 2015 F. Nunes (2015) “Designing Self-care Technologies for Everyday Life: A Practice Approach”, *Proc. of CHI EA 2015*, 215–218.
- 2014 N. Verdezoto, F. Nunes, G. Fitzpatrick, E. Grönvall (2014) “Preface to the Focus Section”, in *Interaction Design and Architecture(s) Journal - IxD&A*, 23.
- 2013 F. Nunes (2013) “Improving the Self-care of Parkinson’s Through Ubiquitous Computing”, *Proc. of Ubicomp Adjunct 2013*.
- 2011 F. Nunes and, P. A. Silva (2011) “The Smartphone – A Mobile Companion for Older Adults”, *Proc. of Promoting and Supporting Healthy Living by Design WS at INTERACT 2011*, 41–43.
- 2011 P. M. Teixeira, P. A. Silva, F. Nunes, L. F. Teixeira (2011) “Mover - Activity Monitor and Fall Detector for Android”, *Proc. of Mobile Wellness Workshop at MobileHCI 2011*.
- 2010 F. Nunes, P. A. Silva (2010) “Fostering Wellness of Older Adults While Performing Usability Testing”, *Proc. of HCI4WELL Workshop at HCI2010*.
- 2009 A. Aguiar, F. Nunes, M. Silva, D. Elias (2009) “Personal Navigator for a Public Transport System Using RFID Ticketing”, *Proc. of inMotion09 Workshop at Pervasive 2009*.

#### INVITED PRESENTATIONS

- 09/09/2019 “Towards Mundane Personal Assistants” Keynote at Ubicomp Workshop on Ubiquitous Personal Assistance, London, UK.
- 03/05/2019 “Technology Assessment in Real Life” at Escola Superior de Saúde, Porto, Portugal.
- 14/09/2015 “Understanding and Promoting the Creation of Patient Knowledge Online” at University of Trento & FBK, Italy.

- 17/08/2015 “How can technology help people improve their self-care? Supporting engagement in their clinical consultations” at IT University of Copenhagen, Denmark.
- 17/08/2015 “Designing Self-care Technology for People with Parkinson’s: A Focus on Everyday Life” at University of Copenhagen, Denmark.
- 06/05/2011 “eCAALYX project” at the course Multimodal Interfaces of University of Porto, Portugal.

## Languages

Portuguese – native

English – proficient

Spanish – fluent

French – intermediate (DELF A4 certificate)

German – intermediate (B1.1 certificate)

## References

Geraldine Fitzpatrick, TU Wien ([geraldine.fitzpatrick@tuwien.ac.at](mailto:geraldine.fitzpatrick@tuwien.ac.at))

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