

# Francisco Nunes

Born: December 20, 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, medicine, design, and social sciences. I am an expert in ethnographically informed design, user-centred design, and participatory design approaches.

Broad keywords for my work would be: Human-Computer Interaction, Computer-Supported Cooperative Work, Health Informatics, and Science and Technology Studies.

## Education

- 2012–2017 PhD in Informatics (Human-Computer Interaction), TU Wien  
*Thesis: “The Everyday Life with Parkinson’s and Self-care Technologies”.*
- 2005–2010 MSc & BSc in Informatics and Computing Engineering, University of Porto  
*Thesis: “Healthcare TV Based User Interfaces for Older Adults”.*

## Experience

- 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
- 2010–2012 Researcher, Fraunhofer Portugal AICOS, Porto
- 2008–2010 Research Assistant, Fraunhofer Portugal AICOS, Porto

## Grants, honours & awards

### ACQUIRED PROJECT GRANTS

- 2019 “Demonstration of EyeFundusScope with Non-Expert Ophthalmology users” funded by ANI (Portugal) –€117K  
*Lead proposal writer and co-PI.*
- 2011 “Smartphones for Smart Seniors (S4S)” funded by ANI (Portugal) – €137K

*Lead proposal writer.*

2011 “Personal Health Device for the Remote and Autonomous Management of Parkinson’s Disease (REMPARK)” funded by FP7-ICT (EU) – €411k

*Co-proposal writer.*

2011 “CellPipe UI” funded by Alcatel-Lucent – €49k

*Co-proposal writer.*

#### OTHER GRANTS AND HONOURS

2016 Two special recognitions for an ‘Excellent Review’ at CHI 2016

2016 Grant for attending conference from TU Wien (€1390)

2015 Grant for attending CHI 2015 doctoral consortium (\$1300)

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

2011 Smart Companion was 2nd most creative app, ZON Creativity Award (prize: €6250)

2010 Mover was 5th best Lifestyle app, Android Developer Challenge II (prize: equipment)

## Teaching & supervision experience

#### COURSES

Summer 2015 HCI in Healthcare (MSc) – Co-teaching and supervision of student projects at TU Wien

Winter 2014 User Research Methods (MSc)– Co-teaching and supervision of student proj. at TU Wien

\* Qualitative methods and co-design of self-care technologies – Invited lecture on self-care and self-care technologies at University of Copenhagen in 2016, 2017, and 2018.

#### SUPERVISED STUDENTS

2018 Cristiana Braga (MSc), Study of a self-management system for healthcare shiftworkers

2018 João Almeida (MSc), Restaurant recommendation system for people with food allergies

2015 Martin Herndl (BSc), Developing an Android Self-Management Application for People with Parkinson’s Disease

2012 João Cevada (MSc), User Interface Design Recommendations for Fitting Smartphone Applications to Persons With Parkinson’s

## Projects

#### ONGOING

2019-2021 *EyeFundusScopeNEO* (PT2020) – This project is piloting EyeFundusScope, a solution to screen diabetic retinopathy, in CUF Infante Santo. I am responsible for coordinating different validation studies.

2016-2019 *Physio@Home* (PT2020) – This project is developing a solution to support physical rehabilitation for the home and clinic, using wearables and serious games. I am involved in

the design and evaluation of the system; I also replaced the PI of the project for 14 months.

#### SELECTION OF PREVIOUS PROJECTS

- 2014-2018 *Clockwork* (EU AAL-JP) – This project developed technologies to support the self-care of shift workers. I was in charge of supervising the user research, design, and evaluation of the smartphone app and the smart badge, the tasks of AICOS. I also coordinated the project consortium for 24 months. <http://clockworkproject.eu/>
- 2015-2018 *MASPART* (La Marató de TV3) – This project developed a system to detect and address freezing of gait in patients with Parkinson's. I was PI for 15 months, in charge of supervising the design and evaluation of the system.
- 2010-2012 *Smart Companion* (Internal) – This project created an Android skin specifically designed for older people. I participated in the user research, design, and evaluation of the smartphone applications. Smart Companion is today being sold by GOCIETY under the name GOLIVEPHONE. <http://smartcompanion.projects.fraunhofer.pt>
- 2009-2012 *eCAALYX* (EU AAL-JP) – This project created a telehealth system for older adults with chronic conditions. I participated in the the user research, design, and evaluation of the TV interfaces for older adults. <http://ecaalyx.org>

## Service

#### PROGRAM COMMITTEE MEMBER

- 2018 CHI 2019
- 2018 CSCW 2018
- 2016 Mindcare 2016
- 2016 PervasiveHealth 2016
- 2015 PervasiveHealth 2015
- \* And in workshops at ICEC'18, CHI'16, GROUP '14, Ubicomp '13, and SouthCHI '13

#### WORKSHOP ORGANIZER

- 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 ('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: 11; citations: 392 (source Google Scholar as at 05/2019)

### 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, and 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, and E. Grönvall, eds. (2014) “Designing Self-Care For Everyday Life”, *Interaction Design and Architecture(s) Journal - IxD&A*, 23: 142–190.

### JOURNAL ARTICLES

- 2017 F. Nunes, T. Andersen, and G. Fitzpatrick (2017) “The agency of patients and carers in medical care and self-care technologies for interacting with doctors”, *Health Informatics Journal*, 1–20.
- 2016 F. Güldenpfennig, F. Nunes, and 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, and 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, and 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, and D. Elias (2012) “Leveraging electronic ticketing to provide personalised navigation in a public transport network”, *Intelligent Transportation Systems Transactions and Magazine*, 13(1): 213–220.

### FULL CONFERENCE PAPERS (PEER-REVIEWED)

- 2018 F. Nunes, and 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, and R. Oliveira (2013) “mobileWAY – A System to Reduce the Feeling of Temporary Lonesomeness of Persons with Dementia and to Foster Inter-caregiver Collaboration”, in *Proc. of HICSS 2013*, 2474–2483.

- 2013 P. A. Silva, F. Nunes, A. Vasconcelos, M. Kerwin, R. Moutinho, and 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”, in *Proc. of HCII 2013*, 754–763.
- 2012 F. Nunes, M. Kerwin, and P. A. Silva (2012) “Design Recommendations for TV User Interfaces for Older Adults: Findings From the eCAALYX Project”, in *Proc. of ASSETS 2012*, 41–48.
- 2012 M. Kerwin, F. Nunes, and P. A. Silva (2012) “Dance Don’t Fall – Preventing Falls and Promoting Exercise at Home”, in *Proc. of pHealth 2012*, 254–259.
- 2012 A. Vasconcelos, P. A. Silva, J. Caseiro, F. Nunes, and L. F. Teixeira (2012) “Designing Tablet-based Games for Seniors: the Example of Cogniplay, a Cognitive Gaming Platform”, in *Proc. of Fun & Games 2012*, 1–10.
- 2010 P. A. Silva, and F. Nunes (2010) “3 x 7 Usability Testing Guidelines for Older Adults”, in *Proc. MEXIHC 2010*, 2: 1–8.
- 2010 F. Nunes, P. A. Silva, and F. Abrantes (2010) “Human-Computer Interaction and the Older Adult: an Example Using User Research and Personas”, in *Proc. of PETRA 2010*, 49: 1–8.

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

- 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”, in *Proc. of PervasiveHealth 2018*.
- 2018 A. Pereira, F. Nunes (2018) “Physical Activity Intensity Monitoring of Hospital Workers using a Wearable Sensor”, in *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”, in *Proc. of PervasiveHealth 2018*.
- 2018 F. Aluvathingal, N. Verdezoto, and F. Nunes (2018) “Exploring Challenges and Opportunities to Support People with Food Allergies to Find Safe Places for Eating Out”, in *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, and G. Fitzpatrick (2015) “Proxycare: Integrating informal care into formal settings”, in *Proc. of PervasiveHealth 2015*, 141–144.
- 2011 T. Marques, F. Nunes, P. A. Silva, and R. Rodrigues (2011) “Tangible Interaction on Tabletops for Elderly People”, in *Proc. ICEC 2011*, pp. 440–443.
- 2011 T. Sousa, P. Tenreiro, P. A. Silva, F. Nunes, and E. Rodrigues (2011) “Cross-platform social web application for older adults with html 5”, in *Proc. ICEC 2011*, pp. 375–378.

#### POSITION PAPERS (JURIED)

- 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”, in *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”, in *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”, in *Proc. of Ubicomp Adjunct 2013*.
- 2011 F. Nunes and, P. A. Silva (2011) “The Smartphone – A Mobile Companion for Older Adults”, in *Proc. of Promoting and Supporting Healthy Living by Design Workshop at INTERACT 2011*, 41–43.
- 2011 P. M. Teixeira, P. A. Silva, F. Nunes, and L. F. Teixeira (2011) “Mover – Activity Monitor and Fall Detector for Android”, in *Proc. of Mobile Wellness Workshop at MobileHCI 2011*.
- 2010 F. Nunes, and P. A. Silva (2010) “Fostering Wellness of Older Adults While Performing Usability Testing”, in *Proc. of HCI4WELL Workshop at HCI2010*.
- 2009 A. Aguiar, F. Nunes, M. Silva, and D. Elias (2009) “Personal Navigator for a Public Transport System Using RFID Ticketing”, in *Proc. of inMotion09 Workshop at Pervasive 2009*.

#### INVITED PRESENTATIONS

- 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.
- 27/10/2014 “The Self-care of Parkinson’s” at the Designing Self-care for Everyday Life Workshop at NordiCHI 2014 in Helsinki, Finland.
- 12/07/2012 “Design recommendations for TV user interfaces for older adults” at the Interactive Assistive Technologies for the Elderly Workshop in University of Aveiro, Portugal.
- 06/05/2011 “eCAALYX project” at the course Multimodal Interfaces of University of Porto, Portugal.

#### MEDIA MENTIONS

Mover was mentioned in the [Jornal de Negócios](#) (30/04/2010) and [Diário de Notícias](#) (29/05/2010). Smart Companion was described in [RTP](#) (01/08/2011), [Porto Canal](#), and another time at [Porto Canal](#) (26/07/2012) when I was even interviewed.

## 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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Last updated: May 28, 2019