# 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". Supervised by

Geraldine Fitzpatrick.

2005-2010 MSc & BSc in Informatics and Computing Engineering, University of Porto

Thesis: "Healthcare TV Based User Interfaces for Older Adults". Supervised by Teresa Galvão

and Paula Alexandra Silva.

# 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

"Demonstration of EyeFundusScope with Non-Expert Ophthalmology users" funded by ANI (Portugal) −€117K

| 2011   | Lead proposal writer and co-PI. "Smartphones for Smart Seniors (S <sub>4</sub> S)" funded by ANI (Portugal) $- \in 137$ K Lead proposal writer.  |
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| 2011   | "Personal Health Device for the Remote and Autonomous Management of Parkinson's Disease (REMPARK)" funded by FP7-ICT (EU) – €411k  |
| 2011   | Co-proposal writer.  "CellPipe UI" funded by Alcatel-Lucent − €49k  Co-proposal writer.  |
|  | Other grants and honours   |
| 2016<br>2016<br>2015<br>2012<br>2012<br>2011<br>2010 | Two special recognitions for an 'Excellent Review' at CHI 2016<br>Grant for attending conference from TU Wien (€1390)<br>Grant for attending CHI 2015 doctoral consortium (\$1300)<br>Vienna PhD School of Informatics scholarship (3 years of funding)<br>Dance! Don't Fall was on the Top-25 Apps, CES Mobile Apps Showdown<br>Smart Companion was 2nd most creative app, ZON Creativity Award (prize: €6250)<br>Mover was 5th best Lifestyle app, Android Developer Challenge II (prize: equipment) |
|  | Teaching $\mathring{\sigma}$ supervision experience  |
|  | Courses  |
| Summer 2015<br>Winter 2014                           | HCI in Healthcare (MSc) – Co-teaching and supervision of student projects at TU Wien User Research Methods (MSc)– Co-teaching and supervision of student proj. at TU Wien  |
|  | Supervised students  |
| 2018<br>2018<br>2015<br>2012                         | Cristiana Braga (MSc), Study of a self-management system for healthcare shiftworkers João Almeida (MSc), Restaurant recommendation system for people with food allergies Martin Herndl (BSc), Developing an Android Self-Management Application for People with Parkinson's Disease João Cevada (MSc), User Interface Design Recommendations for Fitting Smartphone Applications to Persons With Parkinson's   |
|  | Projects   |
|  | Ongoing  |
| 2014-2018  | <i>Clockwork</i> (EU AAL-JP) – This project is developing technologies to support the self-care of shift workers. Since April 2017, I am the PI at AICOS, in charge of supervising the user research, design, and evaluation of the smartphone app and the smart badge. I also coor-   |

Physio@Home (PT2020) - This project is developing a solution for physical rehabilitation,

at home and at clinic, using wearable sensors and serious games. Since June 2017, I am

dinate the project consortium. http://clockworkproject.eu/

2016-2019

the PI at AICOS, in charge of supervising the design and evaluation of the serious games.

### SELECTION OF PREVIOUS PROJECTS

REMPARK (EU ICT-FP7) – This project developed a wearable system to monitor symptoms 2011-2015 of people with Parkinson's, intervene in the gait, and collect data to improve the therapy. I participated in the first year of the project and was involved in user research and early

design phases of the smartphone apps for patients. http://www.rempark.eu/

Smart Companion (Internal) - This project created an Android skin specifically designed 2010-2012 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

eCAALYX (EU AAL-JP) - This project created a telehealth system for older adults with 2009-2012 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

CHI 2019

CSCW 2018 2018

2018

2014

Mindcare 2016 2016

PervasiveHealth 2016 2016

PervasiveHealth 2015 2015

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

### WORKSHOP ORGANIZER

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

 $ENTCOM, Health Informatics Journal, IJCCI, IJHCS, IxD \\ \dot{\varpi}A, JAMIA, JCSCW, JMIR, TOCHI.$ 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: 353 (source Google Scholar as at 02/2019)

### PROCEEDINGS AND SPECIAL ISSUES EDITED

- P. A. Silva, F. Nunes, eds. (2016) "Special issue on fun and engaging computing technologies for health", *Entertainment Computing*, 15: 41–70
- 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).
- 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**

- 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.
- F. Güldenpfennig, F. Nunes, and G. Fitzpatrick (2016) "Making Space to Engage: An Openended Exploration of Technology Design with Older Adults", *International Journal of Mobile Human Computer Interaction*, 8(2): 1–19.
- 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.
- 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.
- F. Nunes, and G. Fitzpatrick (2015) "Self-care Technologies and Collaboration", *International Journal of Human Computer Interaction*, 31(12): 869–881.
- 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)

- 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
- F. Nunes, J. Ribeiro, C. Braga, P. Lopes"Supporting the Self-care Practices of Shift Workers", *Proc. of MUM 2018*, 71–81.
- 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.
- 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 Intercaregiver Collaboration", in *Proc. of HICSS* 2013, 2474–2483.

- 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.
- 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.
- 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.
- 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.
- P. A. Silva, and F. Nunes (2010) "3 x 7 Usability Testing Guidelines for Older Adults", in *Proc. MEXIHC* 2010, 2: 1–8.
- 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)

- 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.
- V. Guimarães, F. Nunes (2018) "A Wearable, Customizable, and Automated Auditory Cueing System to Stimulate Gait in Parkinson's", in *Proc. of PervasiveHealth 2018*.
- A. Pereira, F. Nunes (2018) "Physical Activity Intensity Monitoring of Hospital Workers using a Wearable Sensor", in *Proc. of PervasiveHealth 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*.
- 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*.
- F. Güldenpfennig, Ö.Subasi, F. Nunes, M. Urbanek (2017) "UbiKit: Learning to Prototype for Tangible and Ubiquitous Computing", 31st British HCI Conference
- F. Güldenpfennig, F. Nunes, and G. Fitzpatrick (2015) "Proxycare: Integrating informal care into formal settings", in *Proc. of PervasiveHealth* 2015, 141–144.
- 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.
- 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)

- 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.
- 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.
- F. Nunes (2015) "Designing Self-care Technologies for Everyday Life: A Practice Approach", in *Proc. of CHI EA 2015*, 215–218.

- N. Verdezoto, F. Nunes, G. Fitzpatrick, E. Grönvall (2014) "Preface to the Focus Section", in *Interaction Design and Architecture(s) Journal IxD&A*, 23.
- F. Nunes (2013) "Improving the Self-care of Parkinson's Through Ubiquitous Computing", in *Proc. of Ubicomp Adjunct 2013*.
- 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.
- 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*.
- F. Nunes, and P. A. Silva (2010) "Fostering Wellness of Older Adults While Performing Usability Testing", in *Proc. of HCI4WELL Workshop at HCI2010*.
- A. Aguiar, F. Nunes, M. Silva, and D. Elias (2009) "Personal Navigator for a Public Transport System Using RFID Ticketing", in *Proc. of inMotionog Workshop at Pervasive 2009*.

#### INVITED PRESENTATIONS

- "Self-care technologies" at the course Qualitative methods and co-design of self-care technologies of University of Copenhagen, Denmark.
- "Self-care technologies" at the course Qualitative methods and co-design of self-care technologies of University of Copenhagen, Denmark.
- "Understanding and Promoting the Creation of Patient Knowledge Online" at University of Trento  $\mathring{\sigma}$  FBK, Italy.
- "How can technology help people improve their self-care? Supporting engagement in their clinical consultations" at IT University of Copenhagen, Denmark.
- "Designing Self-care Technology for People with Parkinson's: A Focus on Everyday Life" at University of Copenhagen, Denmark.
- <sup>27/10/2014</sup> "The Self-care of Parkinson's" at the Designing Self-care for Everyday Life Workshop at NordiCHI 2014 in Helsinki, Finland.
- "Design recommendations for TV user interfaces for older adults" at the Interactive Assistive Technologies for the Elderly Workshop in University of Aveiro, Portugal.
- <sup>06/05/2011</sup> "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)
Ana Correia de Barros, Fraunhofer Portugal AICOS (ana.barros@fraunhofer.pt)
Paula Alexandra Silva, University of Aveiro (palexa@gmail.com)
Nuno Correia, Universidade NOVA de Lisboa (nmc@fct.unl.pt)

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