

Wafa JOHAL

Research Scientist, EPFL

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EPFL IC IINFCOM CHILI, RLC D1 740 (Rolex Learning Center), Station 20, CH-1015 Lausanne, Suisse

EDUCATION

- September 2012 - 30 October 2015 **Ph.D in Applied Mathematics and Computer Sciences**
University of Grenoble Alps, Laboratory of Informatics of Grenoble - MAGMA Team France
> Thesis Topic : *Behavioral Styles for Human-Robot Interaction : Towards Plasticity in HRI*
> Advisers : Prof. Sylvie Pesty & Prof. Gaëlle Calvary
- June 2012 **M.S., Computer Sciences : Graphics, Vision & Robotics**
University Joseph Fourier, Grenoble, France
> Thesis Topic : *Multi-modal detection of intention of interaction by a companion robot*
> Adviser : Dr. Dominique Vaufreydaz
- June 2010 **B.S. B.A. Mathematics and Informatics applied to Cognitive Sciences** Pierre-Mendès France University, Grenoble, France Exchange Student for one year in Washington College, MA (U.S.A.), August 2009 - May 2010
- Other Trainings**
October 2017 Applied Machine Learning Days, EPFL, Lausanne, Switzerland.
August 2013 Social Human-Robot Interaction Summer School, Cambridge, UK.

ACADEMIC EMPLOYMENT

- August 2019 **Senior Lecturer in Intelligent and Autonomous Systems with Tenure Track, UNIVERSITY OF NEW SOUTH WALES, Sydney, Australia**
... Department of Computer Sciences and Computer Engineering
- August 2019 **Postdoctoral Scientist for NCCR Robotics, EPFL, Switzerland**
October 2015 **Computer Human Interaction for Learning and Instruction Lab** (Pr. Pierre Dillenbourg),
Mobile Robots Group - LSRO (Pr. Francesco Mondada)
> In charge of the robotics research projects at the CHILI Lab : Cellulo, CoWriter and Animatas
> Currently co-supervising 6 PhD students.
- Human-Robot Interaction Robots in Education Tangible Robots Cognitive Models for HRI Multi-Modal Interaction

TEACHING ACTIVITIES

- École Polytechnique Fédérale de Lausanne, Switzerland **October 2015 - Now**
> Visual Computing : Vision & Graphics, AR-game project using processing and various computer vision techniques.
> Practical on Tangible Swarm Interaction, Master in Robotics
- Grenoble Institute of Technology, France **October 2012 - July 2014**
> Instructor for ACVL : Software's Analysis, Conception and Validation.
> Instructor for Introduction to Programming
- Pierre Mendès-France University, Grenoble, France **October 2013- January 2014**
> Instructor for INF f-1 : Undergraduate Beginner Programming, Lectures & Practical Sessions

RESEARCH PROJECTS

COWRITING KAZAKH OCT. 2018 - SEPT. 2020
Principal Coordinator, Proposal co-author 

The Cowriter Kazakh project, is a SNSF project that seeds for collaboration between Kazakhs and Swiss researchers. In this project we will deploy the Cowriter robotic system to help the transition from Cyrillic to Roman alphabet in Kazakhstan.

CHILI EPFL 10k CHF 2 Years Project
Nazarbayev University

FIND YOUR VOICE! SEPT. 2018 - DEC. 2019
Local Coordinator, Proposal co-author

The project aims to help children who struggle to find their voice in social situations, by training them on joke telling using platform such as Alexa or Google Home. It is a project funded by the SRCD that seeds for cross-country and cross discipline collaboration between researchers.

CHILI EPFL 15k CHF Partners: UCLIC
University of Sussex UC Irvine

CELLULO 2015 - TODAY
Project manager, Proposal co-author 

The Cellulo project, funded by the NCCR Robotics (Swiss NSF), aims to design and propose new use of tangible swarm robots in education.

CHILI/MOBOTS EPFL 1Mo CHF 4 Years 2 PhD + 1 Postdoc

ROBOTS FOR LEARNING 2015 - TODAY
Project manager, Proposal co-author 

I launched in Fall 2015 the Robots for Learning initiative that aims to create a research community on interactions aspect of using robots for learners. We organized several workshop and training events funded by the NCCR Robotics

CHILI/MOBOTS EPFL 18.5k CHF

ANIMATAS FEB. 2018 - TODAY
Local Coordinator, Proposal co-author 

The Animatas project, is a EU MSCA ITN ETN that aims to explore the use of virtual agents in educational context.

CHILI EPFL 759k CHF 3 Years Project 3 PhD Students

SUPERVISION OF JUNIOR RESEARCHERS

Pawel Golinski	Master Thesis, IC EPFL, <i>CoPainter - detect and remediate for dysgraphia through drawings</i> Jan. 2019 - June 2019 (expected)
Laila El Hammasy	Master Thesis, STI EPFL, <i>Social and Task Engagement in a Multi-party Collaborative Learning Task</i> Oct. 2018 - February 2019)
Sina Shahmoradi	EDRS PhD Student EPFL, <i>ANIMATAS - Orchestration of Robot Populated Classrooms.</i> Sep. 2018 - now
Utku Norman	EDIC PhD Student EPFL, <i>ANIMATAS - Mutual Modelling for Mutual Understanding.</i> Sep. 2018 - now
Jauwairia Nasir	EDRS PhD Student EPFL, <i>ANIMATAS - Assessment of Multiparty engagement in Learning task.</i> Sep. 2018 - now
Florian Zimmerman	Master Thesis, IC EPFL, <i>Multi-modal Data Capture and Annotation</i> Feb. 2018 - Jul. 2018
Arzu Guneyus	EDRS PhD Student EPFL, <i>Cellulo - Upper-arm Gamified Rehabilitation with Tangible Robots.</i> Mar. 2017 - now
Sonia Anderson Barbeau	Bachelor Thesis in Swiss Pedagogical University (HEP) Vaud, <i>Le robot Cellulo comme instrument de régulation des conceptions erronées en lien avec l'apprentissage de la symétrie axiale au primaire.</i> Nov. 2016 - June 2017
Thibault Asselborn	EDRS PhD Student EPFL, <i>CoWriter - Adaptive Learning in Child-Robot Interaction.</i> Jun. 2016 - now
Elmira Yadollahi	EDRS PhD Student EPFL, <i>CoReader - CRI for Reading.</i> Nov. 2016 - now
Dr. Ayberk Ozgur	EDIC PhD Student EPFL, <i>Cellulo - Haptic Swarm Robots for Education.</i> October 2015 - December 2017.
Alexis Jacq	EDRS PhD Student EPFL, <i>CoWRiter Mutual-Modeling for Child-Robot Interaction.</i> October 2015 - now

ACADEMIC DUTIES

Conferences & Events

- ◇ Guest Editor Special Issue for the International Journal of Social Robotics - Springer, on "Robots for Learning", June 2018.
- ◇ Session Chair on Implicit Human-Robot Communication, RO-MAN 2016. New York, USA - August, 2016.
- ◇ **Program and Steering Committee**
 - > IEEE International Conference on Robot and Human Interactive Communication, Ro-Man 2018, Ro-Man 2019.
 - > ACM Interaction Design and Children (IDC) Conference, IDC 2018.
 - > International Conference on Human Robot Interaction, HRI 2018, HRI 2019.
 - > International Conference on Social Robotics, ICSR 2016.
 - > Workshop on Behavior, Emotion and Representation :Building Blocks of Interaction at International Conference on Human-Agent Interaction, October 2017.

Reviewer for :

Funding Agencies or Other Institutions

- TA-Swiss, Social and Empathetic Robots Expert Panelist at Bern, September 2018
- ERA.Net RUS PLUS - FP7, Robotics Expert Panelist at the S&T Council, October 2017

Journals

- ◊ *International Journal of Human-Robot Interaction*, 2016, 2017, 2018
- ◊ *International Journal of Social Robotics*, 2016, 2017, 2018
- ◊ *IEEE Robotics and Automation Magazine (IEEE-RAM)*, 2016
- ◊ *Journal of Cognitive Systems Research*, 2016
- ◊ *Journal on Interaction Studies*, 2016
- ◊ *Transaction on Learning Technologies*, 2017
- ◊ *International Journal of Child-Computer Interaction*, 2017

Conferences

- > *ACM SIG Interaction Design and Children Conference (IDC)*, 2018
- > *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, 2017, 2018
- > *Springer International Conference on Social Robotics (ICSR)*, 2015, 2016, 2018
- > *ACM-SIGInternational Conference on Human Robot Interaction (HRI)*, 2015, 2016, 2017, 2018, 2019
- > *IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, 2014, 2015, 2016, 2018



ACTIVE MEMBERSHIPS IN SCIENTIFIC SOCIETIES, FELLOWSHIPS IN RENOWNED ACADEMIES

Professional Associations

- > LEARN – EPFL Center for Learning Sciences [↗](#)
- > NCCR Robotics, SNSF, Switzerland [↗](#)

Invited Speaker

- > Assistive Human-Robot Interaction : From Education to Re-Education. ETH Zurich, Switzerland Dec. 2018.
- > Teacher symposium on Computational Thinking, Entre-Deux-Lacs, HEPL, Yverdon-les-bains. Switzerland, Nov. 2018.
- > HRI 2019 Mini symposium, Stanford University, Palo Alto, CA, USA. Nov. 2018.
- > Tangible Human-Robot Interaction : From Learning to Re-Learning, BioX Lab - Stanford, Palo Alto, CA, USA. Nov. 2018.
- > Enabling smooth and personalized user-robot interaction to enhance learning, University of New South Wales, Sydney, Australia. Nov. 2018.
- > Swarm Robotics - Pushing the state of the art, Rome, Italy, Oct. 2018.
- > HRI 2018 Mini symposium, Cornell University, Ithaca, NY, USA. Nov. 2017.
- > The Classroom of Tomorrow – Swarm Robots in Education, Swissnex Boston, USA, April 2016.
- > Non-verbal Communication in Human Robot Interaction, MIT Media Lab, Personal Robotics Group, April 2016.
- > Engagement & adaptation : How human-robot interaction can help in everyday life, Naver Labs Europe, December 2016.



ORGANIZATIONAL DUTIES

- > “Workshop on Robots for Learning - Adaptive Learning” @HRI 2019, R4L@HRI2019. Daegu, South Korea - March 11, 2019.
- > “Developing Technologies in Educational Settings” @EPFL, [↗](#). EPFL, Switzerland - Feb 4-8, 2019.
- > “Workshop on the Near Future of Child Robot Interaction” @IDC 2018, CRI@IDC. Trondheim, Norway - June 20, 2018.
- > “Workshop on Robots for Learning - Inclusive Learning” @HRI 2018, R4L@HRI2018. Chicago, IL USA - March 5, 2018.
- > “Workshop on Robots for Learning” @HRI 2017, R4L@HRI. Vienna, Austria - March 6, 2017.
- > “Workshop on Robots for Learning” @RoMan 2016, R4L. New York, USA - August 27, 2016.
- > “Workshop on Social Robots in Education” , @NewFriends 2016. Barcelona, Spain - November 2, 2016.
- > “Workshop Affect, Compagnon Artificiel, Interaction” , WACAI 2012. Grenoble, France - 15 & 16 November 2012.
- > PersyCup Robotic Challenge. Grenoble, France - 21 Mai 2015.



AWARDS

- 2018 Best Paper Award : *When Deictic Gestures in a Robot Can Harm Child-Robot Collaboration*. ACM Interaction Design and Children Conference (IDC 2018), Trondheim, Norway.
- 2018 Best Student CCI Award : *When Deictic Gestures in a Robot Can Harm Child-Robot Collaboration*. ACM Interaction Design and Children Conference (IDC 2018), Trondheim, Norway.
- 2017 Best Paper Award : ACM Human-robot Interaction Conference (HRI), Vienna, Austria.
- 2016 Qualification for a position as an assistant professor in Computer Sciences, by the French Ministry of Research and Education (Ref: 16227283862), From 29/01/2016.
- 2015 Winner of the Social Touch Challenge at International Conference on Multimodal Interaction (ICMI). Nov. 2015.
- 2015 Best Paper Award : Honorable Mention, ACM Human-robot Interaction Conference 2015 (HRI), Portland, USA.
- 2015 HRI Pioneers : International Conference on Human Robot Interaction 2015 (HRI), Portland, USA.

LANGUAGES

French ● ● ● ● ●
English ● ● ● ● ○
Italian ● ● ○ ○ ○

CAREER BREAKS

Feb. 2017 - May 2017. Maternity leave after the birth of my son, Liam Johal on 05.02.2017, Lausanne, Switzerland.

OTHERS

1996-2010 Scout at Eclaireurs Eclaireuses de France (EEDF)
2004 Youth Worker Diploma (BAFA - Brevet d'Aptitude aux Fonctions d'Animateur)