

MARKUS WAIBEL

[HTTP://MWAIBEL.INFO](http://MWAIBEL.INFO)

Education

PhD, Robotics, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland (2007)
MSc, Technical Physics, University of Vienna, Austria (2003)

Positions held

2014 - Present	Co-Founder and CEO, Verity Studios AG
2011 - Present	Co-Founder, Robohub - News, Views & Everything Robotic
2010 - 2014	Deputy Director of the Institute for Dynamic Systems and Control, and Program Manager of RoboEarth, ETH Zurich
2010 - 2013	Treasurer, the ROBOTS Association
2008 - 2010	Co-Founder, President, and Director, the ROBOTS Association
2006 - 2008	Project Co-Founder, Business Developer, routeRANK Ltd.
2005 - 2007	Co-Founder, Producer, and Host, Talking Robots
2003 - 2007	Researcher, Swiss Federal Institute of Technology Lausanne
2003	Project Assistant, Philips Audio Video Innovation Center Vienna, Austria
2001 - 2002	Research Assistant, Institut de Recherche en Ophtalmologie Sion, Switzerland

Invited talks and keynotes

Island Forum (Singapore, Singapore, 2014)
Studerus Technology Forum (Zurich, Switzerland, 2012)
Adept Technology (San Francisco, USA, 2012)
Tokyo University (Tokyo, Japan, 2011)
SONY Research (Tokyo, Japan, 2011)
Technorama Winterthur (Winterthur, Switzerland, 2011)
European Robotics Forum (Vaesteras, Sweden, 2011)
SCHUNK Expert Days (Hausen, Germany, 2011)
Willow Garage (Menlo Park, USA, 2010)
KUKA Roboter (Augsburg, Germany, 2010)

LAST UPDATE: SEPTEMBER 2017

Awards and prizes (without Verity Studios)

Gebert R uf Stiftung Grant for Public Science Communication 2014 (with the ROBOTS Association, CHF 130,000)

Amazon Web Services in Education Research Grant Award, 2013 (with the RoboEarth Cloud Engine, USD 5,000)

Awarded Swiss National Science Foundation Grant ‘‘Agora’’ 2013 (with the ROBOTS Association, CHF 198,000)

Winner 2013 European Podcast Award, Swiss Non Profit (with the ROBOTS Association)

Awarded Swiss National Science Foundation Grant ‘‘Agora’’ 2012 (with the ROBOTS Association, CHF 63,000)

KPMG Tomorrow’s Market Award 2008 (with routeRANK, CHF 50,000)

Finalist PICNIC Green Challenge 2008 (with routeRANK)

Winner Venture Kick Switzerland 2008 (with routeRANK, CHF 130,000)

Winner of IMD Business School Start-up competition 2007 (with routeRANK)

Awarded CTI Swiss Confederation Innovation Promotion 2006 (with routeRANK, CHF 180,000)

Awarded ERASMUS Scholarship - Austrian Agency for International Cooperation (2002)

Awarded Bourse Mobilite Socrates - Confederation Helvetique (2002)

Graduation with distinction BG/BRG Wels, Austria (1996)

‘‘Highest Standing’’ Alberta High School Mathematics Competition - Cochrane High, Canada (1995)

Patents (without Verity Studios)

- (1) D’Andrea, R., Lupashin, S., Mueller, M. W., Waibel, M. *Volitant Vehicle Rotating About an Axis and Method for Controlling the Same*, US20160152321, 2014.
- (2) Lupashin, S., Hehn, M., D’Andrea, R., Waibel, M. *Flying camera with string assembly for localization and interaction*, US61684292, 2012.
- (3) Waibel, M and Paschoud, L. *Drawing Method and Computer Program*, US20110261060, 2010.
- (4) Waibel, M. and Duerr, P. *Robotic Locomotion Method and Mobile Robot*, US Patent 7,934,575, 2007. Issued 2011.
- (5) Mundinger, J. and Waibel, M. *Optimized Route Planning*, EP2217880, WO2009065637, 2007.
- (6) Mundinger, J. and Waibel, M. *Personalized Real-Time Location-Based Travel Management*, EP2218061, US2010228574, WO2009065638, 2007.
- (7) Mundinger, J. and Waibel, M. *Optimized Route Planning and Personalized Real-Time Location-Based Travel Management*, US2010280748, 2007.

Academic publications (journals and book chapters)

- (1) Waibel, M. et al. RoboEarth: A World Wide Web for robots, *Robotics and Automation Magazine*, 2011.

- (2) Roggen, D., Magnenat, M., Waibel, M., Troester, G. Designing and sharing activity recognition systems across platforms: methods from wearable computing. *Robotics and Automation Magazine*, 2011.
- (3) Waibel, M., Floreano, D., Keller, L. A Quantitative Test of Hamiltons Rule for the Evolution of Altruism, *PLoS Biology*, 2011.
- (4) Waibel, M., Keller, L., Floreano, D. Genetic Team Composition and Level of Selection in the Evolution of Multi-Agent Systems. *IEEE Transactions on Evolutionary Computation*, 2009.
- (5) Mitri, S., Hubert, J., Waibel, M. Evolution of Social Behavior: From Cooperation to Language. *Biological Theory*, 2008.
- (6) Waibel, M. Evolution of cooperation in artificial ants. *Ph.D. Thesis*, 2007.
- (7) Waibel, M., Floreano, D., Magnenat, S., Keller, L. Division of labour and colony efficiency in social insects: effects of interactions between genetic architecture, colony kin structure and rate of perturbations. *Proceedings of the Royal Society B*, 2007.
- (8) Mattiussi, C., Waibel, M., Floreano, D. Measures of Diversity for Populations and Distances Between Individuals with Highly Reorganizable Genomes. *Evolutionary Computation*, 2004.

Academic publications (refereed proceedings)

- (9) Usenko, V., Singh, M., Waibel, M., Mohanarajah, G. Cloud-based Collaborative 3D Mapping in Real-Time with Low-Cost Robots, *ICRA*, 2014.
- (10) Hunziker, D., Gajamohan, M., Waibel, M., D'Andrea, R. Rapyuta: The RoboEarth Cloud Engine, *ICRA*, 2013.
- (11) Hamer, M., Waibel, M., D'Andrea, R. Knowledge Transfer for High-Performance Quadcopter Maneuvers, *IROS*, 2013.
- (12) Mueller, M., Huebel, N., Waibel, M., D'Andrea, R. Robotic Calligraphy - Learning How to Write Single Strokes of Chinese and Japanese Characters. *IROS*, 2013.
- (13) Michahelles, F., Kranenburg, R., Waibel, M. Enlisting Robots for the Internet of Things, *RFID Journal*, 2012.
- (14) Huebel, N., Mueggler, E., Waibel, M., D'Andrea, R. Towards Robotic Calligraphy. *IROS*, 2012.
- (15) Marco, D., Waibel, M., et al. Creating and using RoboEarth object models, *ICRA*, 2012.

Select publications for the general public (text, total >170)

- (1) Waibel, M. Mapping in the Cloud, *Robohub*, 2013.
- (2) Waibel, M. Cubli - A cube that can jump up, balance, and - soon- walk across your desk, *Robohub*, 2013.
- (3) Waibel, M. Analysis: Robot learning in the cloud, *Robohub*, 2013.

Select publications for the general public (audio, total >180)

- (4) Robots: Grishin Robotics, Dmitry Grishin (Grishin Robotics), 2012.
- (5) Robots: Robotics Roadmaps - USA, Henrik I. Christensen (Georgia Tech), 2011.

(6) Talking Robots: Behavior Based Robotics, Rodney Brooks (MIT), 2007.

Manuscripts and books reviewed (> 100) for

Artificial Life (MIT Press)
 Biological Theory (MIT Press)
 European Conference on Artificial Life
 Evolutionary Computation (MIT Press)
 Evolutionary Ecology
 IEEE International Conference on Robotics and Automation
 IEEE Robotics and Automation Magazine
 IEEE/RSJ International Conference on Intelligent Robots and Systems
 IEEE Transactions on Evolutionary Computation
 Journal of Swarm Intelligence

PhD students supervised

Nico Huebel (April 2010 - April 2014)
 Gajamohan Mohanarajah (April 2010 - March 2014)

Students and interns supervised

Samuel Zhao (Master's Thesis, April 2013 - December 2013)
 Vladyslav Usenko (Master's Thesis, completed September 2013)
 Tony S. Zhang (Internship, completed August 2013)
 Morgan Hooper (Bachelor Thesis, completed August 2013)
 Dominique Hunziker (Master's Thesis, completed August 2013)
 Mayank Singh (Internship, completed July 2013)
 Dhananjay Sathe (Internship, completed June 2013)
 Michael Hamer (Master's Thesis, completed June 2013)
 Okan Koc (Master's Thesis, completed April 2013)
 Flavio Petrini (Semester Thesis, completed December 2012)
 Stefan Koenig (Master's Thesis, completed October 2012)
 Okan Koc (Semester Thesis, completed July 2012)
 Dominique Hunziker (Semester Thesis, completed April 2012)
 Jennica Mortstedt (Internship, completed September 2008)
 Lilly Siebenmann (Internship, completed September 2008)
 Nicholas Gillen (Master's Thesis, completed July 2008)
 Gintautas Narvydas (Doctoral Thesis, completed December 2007)
 Yannick Weibel (Semester Thesis, completed July 2007)
 Martijn Bosch (Master's Thesis, completed June 2007)
 Thomas Lochmatter (Doctoral School Thesis, completed June 2007)
 Gunnar Schaefer (Doctoral School Thesis, completed June 2007)
 Sylvain Cardin (Doctoral School Thesis, completed June 2007)
 Sarah Marthe (Master's Thesis, completed January 2007)

Dominique Zosso (Semester Thesis, completed December 2005)

Frederic Magnard (Semester Thesis, completed June 2005)

Alexis Reust (Semester Thesis, completed June 2005)

Vasco Medici (Master's Thesis, completed February 2005)

Julien Chassot (Semester Thesis, completed June 2004)

Vasco Medici (Semester Thesis, completed June 2004)

Pierre-Yves Schuetz (Semester Thesis, completed June 2004)

Nadir Hadbi (Semester Thesis, completed June 2004)