Anton Nijholt Visiting Scholar Human Media Interaction



## Personal profile

Anton Nijholt is interested in non-traditional human-computer interaction issues. These issues include irrational behavior, deception, food, and humor. They are included in research on entertainment computing, augmented reality, brain-computer interfacing, multimodal interaction, affective interaction, and modelling interactions in smart environments, including human-human interaction, human-robot interaction, human-virtual agent interaction, and playable cities.

He has been program chair or general chair of the main international conferences of affective computing (ACII), entertainment computing (ACE, INTETAIN, ICEC), virtual agents (IVA), faces & gestures (FG), and some others. He organised many workshops on related topics, such as multisensorial augmented reality, humor engineering, human-food interaction, playable cities, and brain-computer interfacing. Recent edited books are "Playable Cities: The City as a Digital Playground", "Making Smart Cities more Playable", and "Brain Art: Brain-Computer Interfaces for Artistic Expression".

Nijholt held positions at various universities in Belgium and the Netherlands. He acted as supervisor for about fifty Ph.D. students. During some years Nijholt was scientific advisor of Philips Research, Eindhoven. He has been research-fellow at McMaster University (Canada), the Netherlands Institute for Advanced Study in the Humanities and Social Sciences, the Imagineering Institute in Malaysia, and member of Microsoft's Technical Leadership Advisory Board. Nijholt is Chief Editor of the section Human-Media Interaction of Frontiers in Psychology and Frontiers in Computer Science, Springer Book Series Editor Gaming Media and Social Effects, and many editorial boards.

## **Research Papers**

In preparation are two edited books (on playful augmented reality and a second book on brain art) that are planned to appear late 2022 or early 2023.

## Keynotes/Invited Talks since 2015

2022 - "Exploiting Augmented Reality in Playable Cities." GamiFIN, Tampere, Finland, 27 April 2022. - "Developments in Augmented Reality: Changing the Game?" International Joint Conference on Serious Games (JCSG 2022), Bauhaus-Universität Weimar, Germany, 23 September 2022. - "Towards Ever-present Augmented Reality." International Conference on Machine Intelligence and Emerging Technologies 2022 (MIET 2022), 24 September, 2022. Virtual.

2021 - "Humorous, Playful, and Social Interactions in Augmented Reality." Simposio "50 años del Centro de Lingüística Aplicada. Homenaje a Vitelio Ruiz Hdez." 28-30 April, Santiago de Cuba. - "Social Companions in Augmented Reality: Vision and Challenges." at the Applied Intelligence and Informatics (AII) Conference, Nottingham, UK, Virtual, 30 July 2021. - "Social Augmented Reality: A Multiperspective Survey." 2021 Joint 10th International Conference on Informatics, Electronics & amp; Vision (ICIEV) and 2021 5th International Conference on Imaging, Vision and Pattern Recognition (icIVPR), 16-20 August, 2021, Kitakyushu, Japan, Virtual. - "Capturing Obstructed Nonverbal Cues in Augmented Reality Interactions: A Short Survey." International Conference on Industrial Instrumentation and Control - I2C, 20-22 August, 2021, Kolkata, India, Virtual. - "Alignment in Augmented Reality: Beyond Sight." 28 October 2021 International Conference on Computer-Human Interaction Research and Applications (CHIRA), 28-29 October, 2021, Portugal, Virtual. - "Making Smart Cities More Playable." UCSC Annual Conference, 21st ICT for Emerging Regions, 3 December, 2021, Colombo, Sri Lanka. Virtual.

2020 - "Virtual and Augmented Reality Animals in Smart and Playful Cities." 9th International Conference on Informatics, Electronics & amp; Vision (ICIEV), Kitakyushu, Japan, 26-29 August, 2020. - "Embodied Humor, Comedy, and Social Robots." 12th International Conference on Social Robotics (ICSR 2020), Boulder, Colorado, 14-16 November, 2020. Virtual.

2019 - "Turning Ubiquitous Smartness into Ubiquitous Playability." 16th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2019), 19-23 August 2019, Leicester, UK. - "Taking control of Brain-Computer Interfaces ." Annual Meeting of the French BCI Community, Lille, France, 29 March, 2019. - "Hacia Comedia Stand-Up Por Robots?" 16th International Symposium on Social Communication, Santiago de Cuba, Cuba, January 21-25, 2019.

2018 - "Smart, Affective, and Playable Cities." ArtsIT 2018 - 7th EAI International Conference: ArtsIT, Interactivity & amp; Game Creation, October 24-26, 2018, Braga, Portugal. - "From Word Play to World Play: Introducing Humor in Human-Computer Interaction." ECCE 2018 - European Conference on Cognitive Ergonomics, Utrecht, The Netherlands, 5-7 September. 2018. - "Making Smart Cities Playable." ICDEc (Third annual International Conference on Digital Economy),

3-5 May, 2018, Brest Business School, Brest, France. - "Brain-Computer Interfaces for intelligent Systems." 2nd Edition of Global Predictive Analytics Forum, 8-9 February 2018, Amsterdam, The Netherlands.

2017 - "Digital Humor: Beyond Language." Artificial Intelligence and Comedy conference, St. Peter's College, Oxford, United Kingdom, 25th Nov, 2017. - "Humor in Interaction." HUMIC 2017: Designing Humour in Human-Computer Interaction, September 26th 2017, Mumbai, India. Workshop in conjunction with INTERACT 2017, Mumbai, India, 25-29 September, 2017. - "Introducing Brain-Computer Interfaces." Next Generation Computing and Communication Technologies. Sousse (Tunisia), 25-27 August, 2017. - "Playful Multimedia in Smart and Playable Cities." 3rd Global Summit and Expo on Multimedia and Applications July 20-21, 2017 Lisbon, Portugal. - "Artificial Intelligence and the Future." 7th World Islamic Economic Forum (WIEF) Global Discourse on Artificial Intelligence, 15 May 2017, Kuala Lumpur, Malaysia. - "Observations on Emerging Technologies." Networking Session at 2nd International Conference on Digital Economy (ICDEc) May 4th to 6th , 2017, Sidi Bou Said, Tunisia. - "Playable Cities: A short Survey." 6th International Conference on Informatics, Electronics and Vision & amp; 2017 7th International Symposium in Computational Medical and Health Technology (ICIEV-ISCMHT), 1-3 September, Himeji, Japan. - "Digital Play and Humor in Smart and Playful Cities." International Conference on Electrical, Computer and Communication Engineering (ECCE 2017), 16-18 February, 2017, Cox's Bazar, Bangladesh. - "Smart material interfaces: Playful and artistic applications." 2017 International Conference on Imaging, Vision & amp; Pattern Recognition (icIVPR), 13-14 Feb. 2017. University of Dhaka, Dhaka, Bangladesh. - "Humor in smart and playable cities." Fondazione Bruno Kessler (FBK), Povo, Italy, 2 February 2017. - "El Humor Accidental y Dirigido en el Ambiente Digital Inteligente." 15 International Symposium on Social Communication, Eloina Miyares Bermudez in Memoriam, Santiago de Cuba, Cuba, January 23-27, 2017

2016 - "BCI for Games - Games for BCI." IEEE Computational Intelligence and Games Conference. Sept 20-23, Santorini, Greece. - "Brain-Computer Interaction for Control, Communication and Monitoring." International Conference on Medical Engineering, Health Informatics and Technology (MediTec 2016), IEEE-EMBS Bangladesh Section, Dhaka, 17-18 December, 2016. - "Smart Material Interfaces: From artistic to educational applications." Faculty of Education of Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia, 14th December, 2016. - "Humor in Smart Environments." Entertainment Computing 2016 (EC 2016), Grand Front Osaka and SOAI University, Osaka, Japan, 12-14 November 2016. - "Playful and artistic smart material interfaces." 3rd International Conference on Computer Graphics & amp; Animation, November 07-09, 2016 Las Vegas, USA. - "Brain Computer Interfacing: Applications and Challenges." International Conference on Intelligent Control, Power and Instrumentation (ICICPI-2016), Kolkata, India, 21st-23rd October, 2016. - "Brain-Computer Interfaces for Intelligent Systems." IntelliSys 2016, SAI Intelligent Systems Conference 2016, September 21-22, 2016, London, UK. - "Brain-Computer Interfacing: Towards Embedding in Intelligent and Affective Systems." 4th IIAE International Conference on Intelligent Systems and Image Processing 2016, Kyoto, Japan, September 8-12, 2016. - "Developments in Brain-Computer Interfacing and recent roadmaps." 7th World Scientific Congress Education, Science, Culture and Peace in modern World, United Nations Headquarters, Geneva, Switzerland, 6 September 2016. - Humor in the Interface." eNTERFACE 2016 Summer Workshop, 18 July - 12 August, University of Twente, Netherlands. - "Brain-Computer Interfaces: Introduction and Developments." 5th International Conference on Informatics, Electronics and Vision (ICIEV), 13-14 May, 2016, Dhaka, Bangladesh. - "Humor in the Interface." 4th User Interface Design seminar, Evoluon, Eindhoven, April 6th, 2016.

2015 - "Humor and Mischief in Playful Environments." 12th Advances in Computer Entertainment Technology Conference (ACE), Legoland, Iskandar, Malaysia, 16-19 November, 2015. - "Playful Brain-Computer Interfaces." EBCI Workshop: EEG-based Brain-Computer Interfaces for Healthcare Applications, Hochschule Rhein-Waal, Kleve, Germany, 1 – 2 July 2015. - "The Humor ContinuumFrom Text to Smart Environments." 4th International Conference on Informatics, Electronics and Vision ICIEV 2015, Kitakyushu, Fukuoka, Japan, 15-17 June, 2015. - "You Had to Be There to Know Why It Was Funny." Interdisciplinary Workshop on Laughter and other Non-Verbal Vocalisations in Speech 14 April 2015, Enschede, The Netherlands. - "MultiBrain Computing:Competing and Collaborating Brains: A Survey." BCI Workshop, US Army Research Laboratory in Aberdeen (Maryland, USA), under the Cognition and Neuro-ergonomic Collaborative Technology Alliance, 10-11 March 2015. - "Incongruity Humor in Language and Beyond: From Bergson to Digitally Enhanced Worlds." 14th International Symposium on Social Communication, Santiago de Cuba, Cuba, January 19-23, 2015.