

Hanna Schraffenberger | Curriculum Vitæ

Ravenhorst 21 • 2317 AE Leiden • The Netherlands

☎ +31 (0)616311392 • ✉ hanna@creativecode.org

🌐 www.creativecode.org • 🌐 schraffenberger

Personal Information

Date of birth 31st October 1983
Nationality German

Education

Media Technology MSc programme 2008–2011
Leiden University, The Netherlands
Master of Science, cum laude

Audiovisual Media BEng programme 2005–2008
Stuttgart Media University, Germany
Bachelor of Engineering

High School 1994–2003
Theodor-Heuss-Gymnasium, Esslingen, Germany 2001–2003
Wirtemberg-Gymnasium, Stuttgart, Germany 1994–2001
German high-school diploma (Abitur)

Employment & Positions

Current Position

PhD student Since 2011
Media Technology MSc programme, Leiden University
Supervised by Edwin van der Heide and Bas Haring.
Expected end date: 30th August 2015.

My PhD research investigates the fundamental characteristics and possible manifestations of augmented reality (AR). More specifically, it explores those unique AR scenarios and experiences that have no equivalent in a purely physical world. In my thesis, three defining aspects of augmented reality are discussed: the virtual, the real and their relationships.

For more information about my research and thesis please visit www.creativecode.org.

Past Positions

Researcher in residence 2011–2014
Augmented Reality Lab, Royal Academy of Art, The Hague, The Netherlands

Editor/editor-in-chief 2011–2014
AR[t] magazine, Leiden University & Augmented Reality Lab, The Netherlands

Student assistant 2009–2011
Media Technology MSc programme, Leiden University, The Netherlands

Programmer and educator March–June 2011
Open_Music e.V., Stuttgart, Germany

Technical instructor December 2010–January 2011
Communication & Multimedia Design BIT programme, The Hague University of Applied Sciences, The Netherlands

Intern

March-October 2007

Institute for Music and Acoustics, ZKM | Center for Art and Media Karlsruhe, Karlsruhe, Germany

University Activities

Lecturer

Introduction to Programming: Pure Data 2014–2015

Media Technology MSc programme, Leiden University, The Netherlands

Audience: 1st year Media Technology MSc students.

Introduction to Programming: Max 2011–2014

Media Technology MSc programme, Leiden University, The Netherlands

Audience: 1st year Media Technology MSc students.

Coach

Semester Project 2011–2015

Media Technology MSc programme, Leiden University, The Netherlands

Audience: 2nd year Media Technology MSc students.

Assistant

Human Computer Interaction 2009–2015

Media Technology MSc programme, Leiden University, The Netherlands

Audience: 3rd year Computer Science BSc students, Computer Science Minor students, Computer Science and Economics BSc students and 1st year Media Technology MSc students.

Sound, Space & Interaction 2010

Media Technology MSc programme, Leiden University, The Netherlands

Audience: 1st year Media Technology MSc students.

Professional Activities

Selected Talks & Presentations

The Virtual in Augmented Reality 12th March 2015

University of Technology Delft, The Netherlands

Invited talk at an event about virtual material by the 'MaterialDesign' foundation.

Introducing Sonically Tangible Objects 21st February 2015

TENT Gallery, Rotterdam, The Netherlands

Invited talk at the Media Technology MSc (Leiden University) exhibition.

Introducing Sonically Tangible Objects 17th October 2014

University of Technology Delft, The Netherlands

Invited talk at the mini-symposium "Enabling Interaction of Augmented Design".

On the Real in Augmented Reality 27th June 2014

Porto, Portugal

Paper presentation at the Second Conference on Computation, Communication, Aesthetics and X, xCoAx 2014.

Relationships Between the Virtual and the Real in Augmented Reality 25th September 2013

Amsterdam, The Netherlands

Short presentation at Ignite Amsterdam 30 (organized by Mediamatic Foundation).

Modeling the Dialogue Between Artwork and Audience 17th June 2013

Sydney, Australia

Presentation at the Graduate Student Symposium of the 9th ACM Conference on Creativity & Cognition 2013.

Interrelating the Virtual and the Real in Augmented Reality 11th June 2013
Sydney, Australia

Paper presentation at the 19th International Symposium on Electronic Art, ISEA2013.

Towards Novel Relationships Between the Virtual and the Real in Augmented Reality 22nd March 2013

Milano, Italy

Paper presentation at the 3rd International Conference on Arts and Technology, ArtsIT 2013.

Audience-Artwork Interaction 21st December 2012

Royal Academy of Art, The Hague, The Netherlands

Invited talk at the ArtScience programme of the Royal Academy of Art, The Hague.

Whether You Like Art or Not 17th September 2012

Amsterdam, The Netherlands

Short presentation at PICNIC festival as part of the 'Virtueel Platform HOT100 2012'.

Interaction Models for Audience-Artwork Interaction 10th December 2011

Esbjerg, Denmark

Paper presentation at the 2nd International Conference on Arts and Technology, ArtsIT 2011.

Whether You Like Art or Not 18th February 2011

Leiden, The Netherlands

Invited talk at the 'This week's discoveries' lunch lecture series of Leiden University.

On the Liking of Modern Art 28th January 2011

Leiden, The Netherlands

Invited talk at the Media Technology MSc (Leiden University) exhibition.

[Editorial Work](#)

Editor-in-chief/editor/editorial board member of AR[t] magazine 2011–2014

Augmented Reality Lab & Leiden University, The Netherlands

During my time as a PhD student I acted as the member of the editorial board, editor and editor-in-chief of a semi-annual magazine about augmented reality, art and technology called AR[t]. The magazine was created as part of a collaboration between the former Augmented Reality Lab (Royal Academy of Art, The Hague), University of Technology Delft and Leiden University and quickly became one of the leading magazines about augmented reality.

[Conference Programme Committee Member](#)

Persuasive 2015 Conference 2015

Persuasive 2014 Conference 2014

[Refereeing Experience](#)

Persuasive 2015 Conference 2015

Persuasive 2014 Conference 2014

AR[t] magazine 2011-2014

International Symposium on Electronic Art, ISEA 2013 2013

[Selected Courses & Workshops](#)

Effective Communication 26th January 2015

Leiden University, The Netherlands

Generic skills course for PhD students.

Communication in Science September/October 2013

Leiden University, The Netherlands

Generic skills course for PhD students.

Time Management, Self-Management

13th March and 10th April 2012

Leiden University, The Netherlands

Generic skills course for PhD students.

Multimodal Interaction in Virtual Environments

May/June 2011

Aalborg University Copenhagen, Denmark

PhD course about multimodal interaction techniques for virtual environments.

STEIM Orientation Workshop #106

24th October–2nd November 2010

Amsterdam, The Netherlands

Workshop at the Studio for Electro-Instrumental Music (STEIM) in Amsterdam.

'Future Media Vision' Workshop

November 2010

Pforzheim, Germany

Young European Talents Summit 2010 — Workshop around the question: "How should the city of tomorrow look like?"

Contests

One-Press Control @ UIST Student Innovation Contest

October 2009

Leiden University, The Netherlands & Victoria, Canada

One-Press Control is a tactile input method for pressure-sensitive keyboards that I developed together with Staas de Jong, Jeroen Jillissen, D nya Kirkali, Alwin de Rooij and Arnout Terpstra.

The poster and prototype were presented by Jeroen Jillissen at the ACM Symposium on User Interface Software and Technology (UIST 2009) Student Innovation Contest, 5-6th October 2009 in Victoria, Canada.

Research Projects

AR VIP Raak-Pro Research programme

July 2011–June 2014

Leiden University & Augmented Reality Lab, The Netherlands

I have been researching augmented reality as part of the Raak-Pro Research programme 'AR-VIP: Augmented Reality-Visualisation, Interaction and Perception'. The Raak-Pro research programme was a collaboration between the former Augmented Reality Lab (Royal Academy of Art, The Hague), University of Technology Delft, Leiden University and several small companies.

Publications

Conference Proceedings

- ▶ Schraffenberger, H. & van der Heide, E. (forthcoming). On Sonically Tangible Objects. Accepted for publication at *xCoAx 2015: Third Conference on Computation, Communication, Aesthetics and X*, 25-26 June 2015, Glasgow, UK.
- ▶ Schraffenberger, H. & van der Heide, E. (2014). The Real in Augmented Reality. In M. Carvalhais & M. Verdicchio (Eds.), *xCoAx 2014: Proceedings of the Second Conference on Computation, Communication, Aesthetics and X* (pp. 64–74). Porto, Portugal.
- ▶ G mez-Maureira, M. A., Teunisse, C., Schraffenberger, H., & Verbeek, F. (2014). Illuminating Shadows: Introducing Shadow Interaction in Spatial Augmented Reality. In J. P. van Leeuwen, P. J. Stappers, M. H. Lamers, M. J. M. R. Thissen (Eds.), *Creating the Difference, Proceedings of the Chi Sparks 2014 Conference* (pp. 11-18).
- ▶ Schraffenberger, H. & van der Heide, E. (2013b). Towards Novel Relationships Between the Virtual and the Real in Augmented Reality. In G. De Michelis, F. Tisato, A. Bene, & D. Bernini (Eds.), *Arts and Technology* (LNICST 116, pp. 73–80). Springer Berlin Heidelberg.
- ▶ Schraffenberger, H. & van der Heide, E. (2013a). From Coexistence to Interaction: Influences Between the Virtual and the Real in Augmented Reality. In K. Cleland, L. Fisher, & R. Harley (Eds.), *Proceedings of the 19th International Symposium on Electronic Art, ISEA2013* (pp. 1–3). Sydney.

- ▶ Schraffenberger, H. & van der Heide, E. (2012) Interaction Models for Audience-Artwork Interaction: Current State and Future Directions. In A. L. Brooks (Ed.), *Arts and Technology* (LNICST 101, pp. 127-135). Springer Berlin Heidelberg.
- ▶ de Jong, S., Kirkali, D., Schraffenberger, H., Jillissen, J., de Rooij, A., & Terpstra, A. (2010, April). One-Press Control: A Tactile Input Method for Pressure-Sensitive Computer Keyboards. In *CHI'10 Extended Abstracts on Human Factors in Computing Systems* (pp. 4261-4266). ACM.

Journals

- ▶ Schraffenberger, H., & van der Heide, E. (2014). Everything Augmented: On the Real in Augmented Reality. *Journal of Science and Technology of the Arts (CITARJournal)*, 6(1), 17-29.
- ▶ Schraffenberger, H. & van der Heide, E. (forthcoming). Audience-Artwork Interaction. *International Journal of Arts and Technology*.

Editorial Work

- ▶ Schraffenberger, H., Kniveton, M., Kolstee, L., Kolstee, Y., Verlinden, J., & Wesdorp, R. (Eds.) (2014, May). *AR[t], Augmented Reality, Art and Technology*, issue 5.
- ▶ Schraffenberger, H., Kniveton, M., Kolstee, Y., Verlinden, J., & Wesdorp, R. (Eds.) (2013, November). *AR[t], Augmented Reality, Art and Technology*, issue 4.
- ▶ Schraffenberger, H., Kniveton, M., Kolstee, Y., & Verlinden, J. (Eds.) (2013, May). *AR[t], Augmented Reality, Art and Technology*, issue 3.
- ▶ Kolstee, Y., Schraffenberger, H., Vahrmeijer E., & Verlinden, J. (Eds.) (2012, November). *AR[t], Augmented Reality, Art and Technology*, issue 2.
- ▶ Kolstee, Y., Schraffenberger, H., Vahrmeijer E., & Verlinden, J. (Eds.) (2012, April). *AR[t], Augmented Reality, Art and Technology*, issue 1.

AR[t] Magazine Articles

- ▶ Schraffenberger, H. (2014, May). Hitting imaginary walls, pulling virtual strings. In *AR[t], Augmented Reality, Art and Technology*, 5, 66–71.
- ▶ Schraffenberger, H. & Verlinden, J. (2014, May). The great pig in the sky. In *AR[t], Augmented Reality, Art and Technology*, 5, 12–19.
- ▶ Schraffenberger, H. (2013, November). Geegee! Or why I prefer rubbing glass over wearing it. In *AR[t], Augmented Reality, Art and Technology*, 4, 44–47.
- ▶ Schraffenberger, H. (2013, November). Talescape – Interview with Michiel Helvensteij In *AR[t], Augmented Reality, Art and Technology*, 4, 62–67.
- ▶ Schraffenberger, H. (2013, May). Subject: Interview | From: Hanna Schraffenberger | To: Lev Manovich. In *AR[t], Augmented Reality, Art and Technology*, 3, 18–23.
- ▶ Schraffenberger, H. (2012, November). Chasing virtual spooks, losing real weight. In *AR[t], Augmented Reality, Art and Technology*, 2, 48–51.
- ▶ Schraffenberger, H. (2012, November). Unspecialize! The more you know the less you see. A portrait of Daniel Disselkoe. In *AR[t], Augmented Reality, Art and Technology*, 2, 54–61.
- ▶ Schraffenberger, H. (2012, April). Interview with Helen Papagiannis. In *AR[t], Augmented Reality, Art and Technology*, 1, 12–19.
- ▶ Schraffenberger, H. (2012, April). Lieven van Velthoven — the racing star. In *AR[t], Augmented Reality, Art and Technology*, 1, 30–35.
- ▶ Schraffenberger, H. (2012, April). Like riding a bike. Like partiking a car. Portrait of the artist in residence: Marina de Haas. In *AR[t], Augmented Reality, Art and Technology*, 1, 60–65.

Books

- ▶ Schraffenberger, H. (2011). *Whether you like art or not. Short essays on the liking of modern art.* Supervised by Edwin van der Heide. Self-published.

Posters

- ▶ Kripe, Z., Schraffenberger H., & Terpstra, A. (2010). Interactive Art and Persuasive Technology: The Case Study of the Formamat, Poster presented at the *5th International Conference on Persuasive Technology (Persuasive 2010)*, June 2010, Copenhagen.

Video Publications

- ▶ Kripe, Z., Schraffenberger H., & Terpstra, A. (2010). The Formamat: Investigating the Dispensability of Pervasive Data. Video presented at the *8th International Conference on Pervasive Computing (Pervasive 2010)*, May 2010, Helsinki. Video published on the USB-proceedings.

Newspaper Articles

- ▶ Schraffenberger, H. (21 April 2011). Kunst? Welke kunst? In *Mare – Leids Universitair Weekblad*, no. 27.

Online Columns

- ▶ Schraffenberger, H. (17th May 2012). What matter does! Blog of the DEAF festival 2012, see <http://v2.nl/archive/articles/what-matter-does>.
- ▶ Schraffenberger, H. (18th May 2012). The beauty of a flower. Blog of the DEAF festival 2012, see <http://v2.nl/archive/articles/the-beauty-of-a-flower>.

Skills & Expertise

Languages: German (mother tongue), English (fluent), Dutch (fluent), Latin (reading)

Professional: research skills, educational, organizational and editorial skills

Fields of expertise: Media Technology, Human-Computer Interaction, Augmented Reality, Media Art, Programming (Max, Pure Data, Java, Processing)

Personal: curious, creative, motivated, focused, enthusiastic, open minded but critical, perfectionistic but pragmatic, communicative, team player, able to pick up new skills quickly

Hobbies: creative coding, writing columns, running fast & slow, making sound, music & noise

Miscellaneous Activities & Personal Projects

The Hot Stream Machine

September–October 2013

Desktop application

'The Hot Stream Machine' is an application and interactive installation that allows users to compose with and listen to mathematical streams. The project was part of an exhibition that explained streams to children at the open day of CWI (National Research Institute for Mathematics and Computer Science, The Netherlands) and was realized in collaboration with Joost Winter and Jurriaan Rot.

Concerts & Performances

2004–2012

Saxophone & laptop music

Concerts and performances in the field of contemporary music and free improvised music. Among others, with the ensemble 'Open_Sounds' at the Klangraum festival at Kunstraum34 (Stuttgart, Germany, 2012), as part of 'Jetzt!' (Theaterhaus Stuttgart, Germany, 2011), with Structet2 at Today's Art (The Hague, The Netherlands, 2010) and with RecPlay at Epicentrum (The Hague, The Netherlands, 2010). Founding member of the 'Ensemble for experimental chamber music' (2003–2007).

The Formamat

2010

Interactive installation

The Formamat is an interactive installation about the value and (in)dispensability of digital data.

The project was realized together with Zane Kripe and Arnout Terpstra in the context of the Media Technology MSc programme. The Formamat was exhibited, among other, at the V2_Institute for the Unstable Media (Rotterdam, The Netherlands) and in the Van Gogh Museum (Amsterdam, The Netherlands).

P!NK SCIENCE

2009

Communicating science through T-Shirts

The P!NK SCIENCE project comprises a series of T-shirts that explain scientific topics such as evolution, emergence and chaos to a broad audience. They and were created in collaboration with Alwin de Rooij and Arnout Terpstra in the 'Cool Science' course of the Media Technology MSc programme. The T-shirts were exhibited, among other, at the Key of Life Festival (Leiden, The Netherlands) and at the Discovery festival 2009 in the Science Center NEMO (Amsterdam, The Netherlands). They are still being sold on www.pinkscience.nl.

Further information and additional projects can be found at www.creativecode.org.

Selected Honors & Awards

HOT100 2012

September 2012

Virtueel Platform

Selected as one of the 'Virtueel Platform HOT100 2012' — a selection of the best graduates of Dutch art academies, universities and universities of applied sciences in the fields of art, design, theory, communication and e-culture.

Creative Class 2012

September 2012

Bright.nl

Selected by bright.nl as part of the Creative Class — a series that portraits the 'brightest' graduates from technical and creative educational programmes in The Netherlands.

Vers 1.6

April 2010

Popbüro Region Stuttgart

Subsidy award for electronic music in churches.

Karl-Steinbuch-Stipendium

November 2007–August 2008

MFG Stiftung Baden-Württemberg

Karl-Steinbuch-Stipendium (scholarship) for my project 'Interactive real-time applications for free improvised music'.

References

References upon request, please contact me at hanna@creativecode.org.

Further Information

If you have further questions, please do not hesitate to contact me. Visit www.creativecode.org for additional information and updates.