



## I. A brief CV and list of publications for Professor Andrew Perkis

Name: Andrew Perkis (Male)  
Nationality: British  
Born: Oslo, 09.06.1961  
Present position: Professor  
Info: ORCID: [orcid.org/0000-0003-1414-2870](http://orcid.org/0000-0003-1414-2870), URL: <http://www.iet-multimedialabs.org/senseit/>, <http://www.iet.ntnu.no/~andrew/>

### Google scholar

Citations: 2507, h-index:21, i10 index: 44 (February 7, 2019)

### ROLE IN PROJECT

Project manager  Collaborator

### Academic degrees:

2009 Master of Technology Management (MTM), The Norwegian University of Science and Technology (NTNU)/Norwegian school of economics and business administration (NHH)

1994: Doctor Technicae (Dr. Techn), The Norwegian Institute of Technology, Department of Telecommunications, Trondheim, Norway

1985: M.E. (Siv.Ing.) The Norwegian Institute of Technology, Department of Telecommunications, Trondheim, Norway

### Work experience:

| Period      | Employment  | Title of Position   |
|-------------|---|---------------------|
| 2017 -      | Director NTNU ARTEC   |                     |
| 1993 -      | NTNU  | Professor           |
| 2008 - 2008 | The National University of Singapore (NUS)  | Visiting professor  |
| 1999 - 2000 | School of Electrical, Computer and Telecommunications Engineering, University of Wollongong, Wollongong, New South Wales, Australia | Visiting Professor  |
| 1996 – 2003 | The Norwegian Telecommunications Authority Technical and Standardisation Department Oslo, Norway                                    | Special adviser     |
| 1992 - 1993 | NTH, Student and Academic section, International office   | COMETT UETP manager |
| 1991 - 1993 | NTH,  | Teaching assistant  |



|             |   |                    |
|-------------|---|--------------------|
|             | Department of Telecommunications,   |                    |
| 1989 - 1991 | Department of Electrical and Computer Engineering, The University of Wollongong. Wollongong, New South Wales, Australia | Lecturer           |
| 1986 - 1989 | ELAB  | Research Scientist |

### **Supervision of graduate students and research fellows**

PhDs: 17, Master: 240

### **Fields of interest and present research activities**

His current research interest are within the synergies of art and technology, methods and functionality of content representation, quality assessment and its use within the media value chain. His application focus is on art in public spaces, place by design, sensor based digital storytelling and business modelling for the creative and media industry. He was one of the founding authors of the concept of Universal Multimedia Access (UMA) and Quality of Experience (QoE). He is coordinating ARTEC at NTNU, a task force for setting up directions and visions for new research within art and technology as well as directions for innovations in Immersive Media Technology Experiences. He has been involved in the start-up company Adactus and commercial aspects of Digital Cinema role out through running the Norwegian trial project NORDIC. He was the initiator and lead designer in setting up the interactive installation park – Adressaparken.

His present research activities are

- Art and technology as a vehicle to tackle complex issues
- IoT driven digital storytelling
- Immersion and presence
- Place by design and citizen engagement.
- Media technology and entertainment as well as directions for innovations in Immersive Media Technology Experiences.
- Transmedia storytelling and multi-platform publishing, especially to handheld devices.
- Quality modelling and assessment and its use within the media value chain in a variety of applications, change management and business modelling for the media sector and Digital Storytelling and the associate tools for this.

He has actively been supervising PhD students since 1993 and strongly believes in building research teams based on Masters students, PhD student, Post docs and academics in order to create stimulating interdisciplinary research arenas. He has published more than 300 papers in international journals and conferences in addition to more than 60 contributions to standardisation. He was the winner of the Place by design competition at SxSW 2018 and the NM art and design prize in 2016.

### **Indicate portion of time dedicated to research: X%**

### **Membership in academic and professional committees, scientific review work including peer-review, outreach activities, and other professional merits:**

Member of the Norwegian Academy of Technological Sciences – NTVA,  
Senior member, The Institute of Electrical and Electronic Engineers (IEEE)  
Member of the Norwegian Society of Chartered Engineers (TEKNA)  
Member of SMPTE - Society of Motion and Picture Television Engineers

### **Research management**

From the beginning, I have been involved in research management in order to build and fund research groups (PhDs and potdocs) within the field of media technology and immersive media. The most important are:

- Director NTNU ARTEC
- Initiator and member of steering committee of NextMedia (a Norwegian industry cluster)
- Vice Chair Qualinet
- Board member of WAN-IFRAS Global Alliance for Media Innovation (GAMI)
- Executive committee member, New European Media (NEM).

Previous:

- Partner in Horizon2020 projects QoE-Net (ITN) and VisualMedia (ICT-19)
- Vice Chair of COST Action IC1003 Qualinet
- Member of the management team of the National Centre of Excellence -Q2S - Quantifiable Quality of Service in Communication Systems. Responsible for "Networked Media Handling" (2003-2012) (NFR/NTNU/UNINETT/Telenor)
- Director Midgard Media Lab – a joint research lab funded by industry (2000-2010)
- NFR projects: UMA (2002-2004) (NFR - IKT2010) – Universal Multimedia Access from Fixed and Wireless systems – project manager and main contributor, WIRAC (1997-2000) (NFR – Grunnleggende teleforskning) - Wideband radio access – Project manager
- Universal Access to the Multimedia Portal (2000-2002) NORDUnet2 – project manager
- Actively participated in the development developments of the Multimedia framework – MPEG-21 – ISO/IEC/JTC1/SC29/WG11. Actively participating in the standardization of the next generation still image compression scheme - JPEG2000 (ISO/IEC/JTC1/SC29/WG1)
- Actively contributing and participating in the European research frameworks since framework 3 (ESPRIT)

## Selected academic and professional publications 2014-2019:

### *Peer-reviewed books journal papers*

W. A. Mansilla and A. Perkis, "Multiuse Playspaces: Mediating Expressive Community Places," in *IEEE MultiMedia*, vol. 24, no. 1, pp. 12-16, Jan.-Mar. 2017. doi: 10.1109/MMUL.2017.6

Wendy Ann Mansilla, Andrew Perkis and Tourad Ebrahimi, Exploring the Impact of Food Craving and Pleasure Technologies on Aesthetic Experiences in Digital Media, *International Journal of Human-Computer Interaction*, October, 2013, 10.1080/10447318.2013.846791

Junyong You, Touradj Ebrahimi, Andrew Perkis, "Attention Driven Foveated Video Quality Assessment," *IEEE Trans. Image Processing*, vol. 23, no. 1, pp. 200-213, Jan. 2014.

(<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6648696>)

Andrew Perkis, Peter Reichl and Sergio Beker, Business Perspectives on QoE, Part of the edited book "Quality of Experience: Advanced Concepts, Applications and Methods" Springer 2014.

### *International conference proceedings*

A. Perkis and A. Hameed, "Immersive media experiences - what do we need to move forward?," *SMPTE 2018*, Westin Bonaventure Hotel & Suites, Los Angeles, California, 2018, pp. 1-12. doi: 10.5594/M001846

Hameed A., Perkis A. (2018) Spatial Storytelling: Finding Interdisciplinary Immersion. In: Rouse R., Koenitz H., Haahr M. (eds) *Interactive Storytelling. ICIDS 2018. Lecture Notes in Computer Science*, vol 11318. Springer, Cham

Zhang, Chenyan; Hoel, Aud Sissel; Perkis, Andrew; Zadtootaghaj, Saman.

How long is long enough to induce immersion? Comparing the immersiveness of three variations of spatial immersion. 2018 the 10th International Conference on Quality of Multimedia Experience (QoMEX); 2018-05-29 - 2018-06-01

Sebastian Arndt, Andrew Perkis, and Jan-Niklas Voigt-Antons. 2018. Using Virtual Reality and Head-Mounted Displays to Increase Performance in Rowing Workouts. In *Proceedings of the 1st International Workshop on Multimedia Content Analysis in Sports (MMSports'18)*. ACM, New York, NY, USA, 45-50. DOI: <https://doi.org/10.1145/3265845.3265848>, ISBN: 978-1-4503-5981-8

Arndt, Sebastian; Rätty, Veli-Pekka; Perkis, Andrew. Opportunities of Social Media in TV Broadcasting. NordiCHI 2016

Zhang, Chenyan; Hoel, Aud Sissel; Perkis, Andrew. Experiential Qualities and Quality of Experience in Storytelling, and Their Measurability. 5th ISCA/DEGA Workshop on Perceptual Quality of Systems;

Zhang, Chenyan; Hoel, Aud Sissel; Perkis, Andrew. Quality of Immersive Experience in Storytelling: A Framework. 8th International Conference on Quality of Multimedia Experience (QoMEX 2016)

### *Exhibitions, shows and Art:*

Andrew Perkis, Wendy Ann Mansilla, First prize - Place by Design - (SxSW) 2018

Andrew Perkis, Wendy Ann Mansilla, Adressaparken - <http://www.ntnu.no/parken>

Puig, Jordi; Perkis, Andrew; Hoel, Aud Sissel; Ebrahimi, Touradj. A-me: Augmented Memories. [Artistic or museum-related presentation] STRP 2013. STRP; Eindhoven.

Matter of Feeling. TEKS Publishing, 2012.