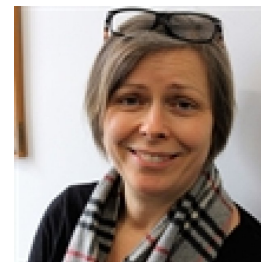


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## Research interests

- Emerging Technologies
- Virtual Reality and Augmented Reality
- Design of digital educational tools
- Participatory Design
- Learning processes
- Didactical design
- Program and Curriculum Development
- E-learning
- Tangibles, robotic systems, smart-phones and tablets
- Physical-digital Interaction
- Design-based Research

## Professional Preparation

University of Southern Denmark, Ph.D. Robotics and Learning (2008 – 2011)  
Aalborg University, Master of ICT and Learning (2005 – 2007)  
Technical University of Denmark, B.Sc. Electrical Engineering (1990 -1994)

## Appointments

Associate Professor, (Research) University of Southern Denmark. (2013 – date)  
Associate Professor, (Teaching) University of Southern Denmark. (2002 – 2013)  
Assistant Professor, University of Southern Denmark. (2001)  
Assistant Professor, Business Academy Copenhagen North. (1997 – 2001)  
Assistant Professor, Business Academy Ballerup (Handelsskolen i Ballerup). (1995-1996)  
Software Engineer, Telecom (TDC). (1994)

## Research Projects

Alcohol and Virtual Reality (2018-2022)  
Robo-learning: Robots and learning design in Youth Education (2018-2021)  
Arducation: Augmented Reality in Vocational schools (2020-2022)  
VR8: Virtual Reality and Social Anxiety (2020-2024)  
CPE: Communication and Public Engagement (SDU2020) (2014 - )  
FREMTEK: Didactical design in e-learning. Research in use of 3D Printers and robot technology in the classroom (2013-2015)  
WTR: Education of teachers in Healthcare Sector in physical-digital design (2010-2013)  
Robodays: Development of educational tools for mathematics using robot technology (2009)

## Selected activities

Social Technology Lab. Development of laboratory for research and development of physical-digital technology for use in social situations such as education and rehabilitation (2013)  
Design of multi-disciplinary courses with students from educational and technological educations (2009-2010)  
Academic Coordinator at the development of the engineering program Learning and experience technology (2009)  
International Coordinator. Development and coordination of courses for international students (2002-2008)

## Publications

**Virtual Reality in der Alkoholprävention: Co-Creation eines Simulationsspiels mit jungen Menschen**  
Stock, C., Dalgaard Guldager, J., Dietrich, T. & Majgaard, G., 9. Aug 2021, In: Das Gesundheitswesen. p. 762

### **Co-creating Virtual Reality Interventions for Alcohol Prevention: Living Lab vs. Co-design**

Dietrich, T., Dalgaard Guldager, J., Lyk, P. B., Vallentin-Holbech, L., Rundle-Thiele, S., Majgaard, G. & Stock, C., 15. Mar 2021, In: *Frontiers in Public Health*. 9, 6 p., 634102.

### **User Experiences with a Virtual Alcohol Prevention Simulation for Danish Adolescents**

Dalgaard Guldager, J., Lavasani Kjær, S., Lyk, P. B., Dietrich, T., Rundle-Thiele, S., Majgaard, G. & Stock, C., 1. Oct 2020, In: *International Journal of Environmental Research and Public Health*. 17, 19, 14 p., 6945.

### **Co-creating a virtual alcohol prevention simulation with young people**

Vallentin-Holbech, L., Guldager, J. D., Dietrich, T., Rundle-Thiele, S., Majgaard, G., Lyk, P. & Stock, C., 9. Feb 2020, In: *International Journal of Environmental Research and Public Health*. 17, 3, 12 p., 1097.

### **Co-Designing and Learning in Virtual Reality: Development of Tool for Alcohol Resistance Training**

Lyk, P. B., Majgaard, G., Vallentin-Holbech, L., Dalgaard Guldager, J., Dietrich, T., Rundle-Thiele, S. & Stock, C., 2020, In: *Electronic Journal of E-Learning*. 18, 3, p. 213-228

### **Creating a more immersive and "VR-like"360-degree video experience: Development of an Immersive and Interactive Alcohol Resistance Training Tool**

Lyk, P. B., Majgaard, G., Vallentin-Holbech, L., Guldager, J. D., Dietrich, T., Rundle-Thiele, S. & Stock, C., 2020, *Proceedings of the 14th European Conference on Game Based Learning, ECGBL 2020: A Virtual Conference hosted by The University of Brighton, UK*. Fotaris, P. (ed.). Academic Conferences and Publishing International, p. 711-720 (Proceedings of the European Conference on Games-based Learning, Vol. 2020September).

### **Developing Digital Literacy Through Design of VR/AR Games for Learning**

Weitze, C. L. & Majgaard, G., 2020, *Proceedings of the 14th European Conference on Game Based Learning, ECGBL 2020*. Fotaris, P. (ed.). Academic Conferences and Publishing International, p. 674-683 (Proceedings of the European Conference on Games-based Learning, Vol. 2020September).

### **Virtual experiential learning, learning design and interaction in extended reality simulations**

Majgaard, G. & Weitze, C., 2020, *Proceedings of the 14th European Conference on Game Based Learning, ECGBL 2020*. Fotaris, P. (ed.). Academic Conferences and Publishing International, p. 372-379 (Proceedings of the European Conference on Games-based Learning, Vol. 2020September).

### **Co-designing a virtual reality game for alcohol prevention**

Stock, C., Vallentin-Holbech, L., Dietrich, T. & Majgaard, G., 13. Nov 2019, In: *European Journal of Public Health*. 29, Suppl. 4, p. 294-295

### **13th International Conference on Game Based Learning, ECGBL 2019**

Elbæk, L. (ed.), Majgaard, G. (ed.), Valente, A. (ed.) & Khalid, M. S. (ed.), Oct 2019, Dechema e.V. 1050 p.

### **Co-Designing an Immersive and Interactive Alcohol Resistance Training Tool Using 360-Degree Video**

Lyk, P. B., Majgaard, G., Dietrich, T. & Stock, C., Oct 2019, *Proceedings of the 13th European Conference on Game Based Learning, ECGBL 2019*. Elbaek, L., Majgaard, G., Valente, A. & Khalid, S. (eds.). Academic Conferences and Publishing International, p. 450-458

### **Development of a Virtual Reality tool for patients with eating disorder**

Matthiesen, A. F., Møllebæk, E. T. & Majgaard, G., Oct 2019, *Proceedings of the 13th International Conference on Game Based Learning, ECGBL 2019*. Elbaek, L., Majgaard, G., Valente, A. & Khalid, S. (eds.). Academic Conferences and Publishing International, p. 970-977 (Proceedings of the European Conference on Games-based Learning, Vol. 2019-October).

### **The Concept of the Magic Circle and the Pokémon GO Phenomenon**

Larsen, L. J. & Majgaard, G., 10. May 2019, *Augmented Reality Games I: Understanding the Pokémon GO Phenomenon*. Geroimenko, V. (ed.). Springer, p. 33-50

**Learning Anatomy with Augmented Reality: – learning design and app design for optimal learning**

Nørsgaard, C., Dyhrberg O'Neill, L., Chemnitz, J. & Majgaard, G., 31. Mar 2019, In: *Læring og Medier (LOM)*. 12, 20, 19 p.

**Digital Literacy and Course Design**

Majgaard, G. & Lamscheck-Nielsen, R., 2019, *Proceedings of the 18th European Conference on e-Learning ECEL 2019*. Orngreen, R., Buhl, M. & Meyer, B. (eds.). Academic Conferences and Publishing International, p. 369-377

**Tilstedeværelse og flere virkeligheder – redaktørernes indledning**

Majgaard, G. & Helms, N. H., 2019, In: *Læring og Medier*. 12, 20

**Undervisning i programmering nu: I uddannelseskæden i Region Syddanmark. Didaktiske betragtninger**

Lamscheck-Nielsen, R. & Majgaard, G., 2019

**Digital dannelse på højskolen: Teknik, praksisfællesskab og transformation**

Majgaard, G., 2018, In: *Læring og Medier (LOM)*. 11, 19, p. 1-23

**Making video tutorials in the classroom - tacit knowledge on display**

Majgaard, G. & Bertel, L. B., 2018, *HCI International 2018 – Posters' Extended Abstracts: Proceedings, Part III*. Stephanidis, C. (ed.). Springer, Vol. 852. p. 73-77 (Communications in Computer and Information Science, Vol. 852).

**Students' Development of Virtual Reality Prototypes for Training in Alcohol-Resistance Skills**

Majgaard, G. & Stock, C., 2018, *Proceeding of the 12th European Conference on Games Based Learning: ECGBL 2018*. Ciussi, M. (ed.). Academic Conferences and Publishing International, p. 362-370

**Video Tutorial Designs for Learning: Facilitating engagement and entrepreneurship in welfare, learning and experience technology engineering students**

Bertel, L. B. & Majgaard, G., 2018, *Proceedings of the 46th SEFI Annual Conference 2018: Creativity, Innovation and Entrepreneurship for Engineering Education Excellence*. Clark, R., Hussmann, P. M., Jarvinen, H-M., Murphy, M. & Vigild, M. E. (eds.). European Society for Engineering Education (SEFI), p. 605-612

**Pokémon GO – A Pervasive Game and Learning Community**

Majgaard, G. & Larsen, L. J., 2017, *Proceedings of the 11th European Conference on Games Based Learning*. Pivec, M. & Grundler, J. (eds.). Academic Conferences and Publishing International, p. 402-409

**Seeing the unseen: Spatial visualization of the Solar System with physical prototypes and Augmented Reality**

Majgaard, G., Larsen, L. J., Lyk, P. B. & Lyk, M., 2017, In: *International Journal of Designs for Learning*. 8, 2, p. 95-109

**Teaching Game Programming using Video Tutorials: Teaching Game Programming using Video Tutorials**

Majgaard, G., 2017.

**Teaching Mixed Reality Using Video Tutorials**

Majgaard, G., 2017, *Proceedings of the 11th European Conference on Games Based Learning*. Pivec, M. & Gründler, J. (eds.). Academic Conferences and Publishing International, p. 410-419

**Expanding the Game Design Space: Teaching Computer Game Design in higher Education**

Larsen, L. J. & Majgaard, G., 29. Jan 2016, In: *Designs for Learning*. 8, 1, p. 13-22

**At se det usete - Rumlig visualisering af solsystemet med fysiske prototyper og Augmented Reality**

Majgaard, G., Larsen, L. J., Lyk, P. B. & Lyk, M., 2016, In: *Mona*. 2016, 3, p. 23-40

**Informal Communities for Hunter-Gatherers of Pokémons**

Majgaard, G., 2016. 6 p.

**8. klasse som kreative producenter af fremtidens velfærdsteknologi: konstruktionisme, problemløsning og dialog**  
Nielsen, J., Pedersen, R. & Majgaard, G., 2015, In: *Læring og Medier*. 8, 14, 24 p.

#### **Humanoid Robots in the Classroom**

Majgaard, G., 2015, In: *IADIS International Journal on WWW/Internet*. 13, 1, p. 72-86

#### **Multimodal Robots As Educational Tools In Primary And Lower Secondary Education**

Majgaard, G., 2015, *The 9th International Conference on Interfaces and Human Computer Interaction 22 – 24 July 2015, IADIS Multi Conference on Computer Science and Information Systems*. International Association for Development, IADIS, p. 27-34

#### **På rejse med Virtual Reality i billedkunst: Erfaringslæring gennem kombineret fysisk og virtuel modelbygning**

Majgaard, G. & Lyk, P. B., 2015, In: *Læring og Medier*. 8, 14, 26 p.

#### **Plants vs Zombies as an Empowering Learning Machine**

Majgaard, G., 2015, *The 8th International Conference on Game and Entertainment Technologies 2015, IADIS Multi Conference on Computer Science and Information Systems*. International Association for Development, IADIS, p. 271-274

#### **Self-Assessment and Reflection in a 1st Semester Course for Software Engineering Students**

Nielsen, J., Majgaard, G. & Sørensen, E., 2015, *E-Learning Systems, Environments and Approaches: Theory and Implementation*. Isaias, P., Spector, J. M., Ifenthaler, D. & Sampson, D. G. (eds.). Springer, Vol. IV. p. 263-275

#### **Tema 1: Robotter i skolen**

Helms, N. H. & Majgaard, G., 2015, In: *Læring og Medier*. 8, 14, 6 p.

#### **Tema 2: Robotter i felten**

Majgaard, G. & Helms, N. H., 2015, In: *Læring og Medier*. 8, 14, 6 p.

#### **Fra digitalt design til fysisk udtryk – anvendelse af 3-d-printere og NAO-robotter i folkeskolen**

Majgaard, G., Hansen, J. J., Bertel, L. B. & Anders, P., Dec 2014, In: *MONA - Matematik- og Naturfagsdidaktik*. 2014, 4, p. 7-26

#### **A model for understanding and learning of the game process of computer games: Design paradigm, design space, problem-based creativity**

Larsen, L. J. & Majgaard, G., 5. May 2014. 6 p.

#### **Constructionist Prototype Programming in a First Semester HCI Course for Engineering Students**

Nielsen, J. & Majgaard, G., 2014, *Human-Computer Interfaces and Interactivity: Emergent Research and Applications*. Isaias, P. & Blashki, K. (eds.). IGI global, p. 50-71

#### **Initial Phases of Design-based Research into the Educational Potentials of NAO-Robots**

Majgaard, G. & Bertel, L. B., 2014, *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction*. Association for Computing Machinery, p. 238-239

#### **Teaching Design of Emerging Embodied Technologies**

Majgaard, G., 2014, *Human-Computer Interfaces and Interactivity: Emergent Research and Applications*. Isaias, P. & Blashki, K. (eds.). IGI global, p. 188-206

#### **The playful and reflective game designer**

Majgaard, G., 2014, In: *Electronic Journal of E-Learning*. 12, 3, p. 271-280

**Creating Games in the Classroom: from native gamers to reflective designers**

Majgaard, G., 2013, *Proceeding of The 7th European Conference on Games Based Learning (ECGBL 2013)*. Porto, Portugal. UK: Academic Conferences and Publishing International, p. 253-258

**Embodied Interaction Design in Engineering Education using Asus Xtion Pro**

Majgaard, G., 2013, *Proceedings of the IADIS International Conferences Interfaces and Human Computer Interaction 2013*. Prague, Czech Republic. International Association for Development, IADIS, p. 245-248

**Matematikundervisning med iPad - erfaringer og muligheder**

Majgaard, G., Rønne, A. & Misfeldt, M., 2013, In: *Matematik*. 41, 3, p. 4-6

**Merging Design and Implementation in a First Semester HCI-Course for Engineering Students**

Nielsen, J. & Majgaard, G., 2013, *Proceedings of the IADIS International Conferences Interfaces and Human Computer Interaction 2013*. Prague, Czech Republic. International Association for Development, IADIS, p. 249-252

**Picking the right interface for engaging physical activity into game based learning**

Karoff, H. S., Majgaard, G., Elbæk, L. & Sørensen, M. H., 2013, *Proceeding of The 7th European Conference on Games Based Learning (ECGBL 2013)*. Porto, Portugal. UK: Academic Conferences and Publishing International, p. 261-267

**Self-Assessment and Reflection in a 1st Semester Course for Software Engineering Students**

Nielsen, J. & Majgaard, G., 2013, *Proceedings of the IADIS International Conference on Cognition and Exploratory Learning in the Digital Age (Celda 2013)*, Fort Worth, Texas, USA, October 22-24, 2013. International Association for Development, IADIS, p. 150-158 8 p.

**Surfplattematte – erfarenheter och möjligheter**

Majgaard, G., Misfeldt, M. & Rønne, A., 2013, In: *Naemnaren*. 3, p. 36-38

**Using Wiki Technology in the Classroom**

Majgaard, G., 2013, *The possibilities of ethical ICT : ETHICOMP 2013 Conference Proceedings*. Print & Sign, Syddansk Universitet, p. 324-330

**Abstract: Learning Processes and Robotic Systems, – design of educational tools and learning processes using robotic media and using children as co-designers**

Majgaard, G., 2012, *Designs for Learning 2012: 3rd International Conference Exploring Learning Environments*. Stockholm university, Department of didactic sciences and early childhood education, DidaktikDesign, Sweden (ISSN 1654-7608), p. 49-51 3 p.

**Brug af interaktive klodser i ingeniørundervisningen**

Majgaard, G., 2012, In: *MONA: Matematik og Naturfagsdidaktik*. 4, p. 24-40

**Design af computerspil i undervisningen: fra indfødt spilverdenen til reflekteret designer**

Majgaard, G., 2012, In: *Læring og Medier*. 5, 9, 24 p.

**Design of Trigonometry Apps for Vocational Education**

Pedersen, J. B., Andersen, S. & Majgaard, G., 2012, In: *IASTED International Conference*. HCI.

**The Learning Potentials of Number Blocks**

Majgaard, G., Nielsen, J. & Misfeldt, M., 2012, *Towards Learning and Instruction in Web 3.0. Advances in Cognitive and Educational Psychology*. Springer, p. 289-302

**Tre modeller om design af robotlæreemidler**

Majgaard, G., 2012, *Teknologi mennesker faglighed: muligheder og udfordringer i løsning af velfærdsteknologiopgaver*. VIA System, p. 79-104

### **Velfærdsteknologi i et samfundsmæssigt perspektiv**

Majgaard, G., Ann Karin, P. & Hanne, K., 2012, *Teknologi mennesker faglighed: muligheder og udfordringer i løsning af velfærdsteknologiopgaver*. Systime, p. 14-52

### **Robotkæledyr, socialpædagogisk arbejde og voksne udviklingshæmmede**

Jørgensen, O., Majgaard, G. & Kalsøe, H., Feb 2011, In: *Pio-nær*. 5, p. 6-7 2 p.

### **How Design-based Research, Action Research and Interaction Design Contributes to the Development of Designs for Learning**

Majgaard, G., Misfeldt, M. & Nielsen, J., 2011, In: *Designs for Learning*. 4, 2, p. 8-21

### **How Design-based Research, Action Research and Interaction Design Contributes to the Development of Designs for Learning**

Majgaard, G., Misfeldt, M. & Nielsen, J., 2011, In: *Designs for Learning*. 4, 2, p. 8-21

### **Læreprocesser og robotsystemer: Design af læremidler og læreprocesser med robotter som medier og børn som med-designere**

Majgaard, G., 2011, 207 p.

### **Robotteknologi og læring - interaktion med kunstig intelligens som partner**

Majgaard, G., 2011, Syddansk Universitet. Det Tekniske Fakultet.

### **Robotteknologi og leg som arena for tværfagligt samarbejde**

Majgaard, G., 1. Jan 2010, In: *MONA: Matematik og Naturfagsdidaktik*. p. 42-58 16 p.

### **Pervasive technology in the classroom**

Larsen, L. J. & Majgaard, G., 2010, *Global Learn Asia Pacific 2010: Global Conference on Learning and Technology*. Association for the Advancement of Computing in Education, 8 p.

### **Design based action research in the world of robot technology and learning**

Majgaard, G., 2010, *The Third IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning: DIGITAL 2010*. IEEE Press, p. 85-92 8 p.

### **Robot technology and numbers in the classroom**

Majgaard, G., Nielsen, J. & Misfeldt, M., 2010, *Cognition and Exploratory Learning CELDA 2010*. International Association for Development, IADIS, p. 231-234 4 p.

### **Legepladsen i klasseværelset: robotten som omdrejningspunkt for læreprocessen**

Majgaard, G., 1. Oct 2009, In: *On Edge*. 1, 2, p. 11-13 3 p.

### **AN OUTLINE OF INTERACTION TYPES IN PHYSICAL SERIOUS GAMES**

Majgaard, G., 2009. 3 p.

### **Playtesting The Digital Playground**

Majgaard, G. & Jessen, C., 2009, *PROCEEDINGS OF THE IADIS INTERNATIONAL CONFERENCE GAME AND ENTERTAINMENT TECHNOLOGIES 2009: part of the IADIS MULTI CONFERENCE ON COMPUTER SCIENCE AND INFORMATION SYSTEMS 2009*. Blashki, K. (ed.). International Association for Development, IADIS, p. 87-92 7 p.

### **Robotteknologi i en undervisningssammenhæng: Kropslig forbundet intelligens, interaktion og læringsniveauer**

Majgaard, G., 2009, Odense: Knowledge Lab, p. 6-28, 22 p.

**Eksempler på robotter i en læringssammenhæng**

Majgaard, G., 2009, In: On Edge. 3, p. 11 16 p.

**Motivation og refleksion i e-learning: En begrebslig ramme**

Majgaard, G. & Thisted, A., 2009, *IKT og læring: reflekteret praksis*. Konnerup, U. & Riis, M. (eds.). AUC: Aalborg Universitetsforlag, p. 81-100 19 p.

**The Playground in the Classroom - Fractions and Robot Technology**

Majgaard, G., 2009, *Cognition and Exploratory Learning in Digital Age*. Ukendt, K. & Sampson, D. G. (eds.). International Association for Development, IADIS, p. 10-17 7 p.