Mikhail Fominykh, PhD

Personal information

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Company: Mikhail Fominykh, org. number: 997 025 849

Date/place of birth: 16.07.1984, Russia Citizen/Resident: Russia/Norway



Selected projects

[2018-**now**] KA2 project: Digital Competences for Language Teachers,

- Beneficiary: Norwegian University of Science and technology
- Funded by: EU under Erasmus+ programme, KA2 Strategic Partnership, http://ec.europa.eu/
- Responsibilities: original idea, co-leadership, technology manager, quality manager

[2017-now] KA2 project: Augmented Reality in Formal University Education, http://codereality.net/

- Beneficiary: Molde University College
- Funded by: EU under Erasmus+ programme, KA2 Strategic Partnership, http://ec.europa.eu/
- Responsibilities: co-leadership, quality control, course design, production of educational materials

[2015-now] R&I project: Wearable Experience for Knowledge Intensive Training, http://wekit.eu/

- Beneficiary: Europlan UK ltd
- Funded by: EU under Horizon 2020 programme, call ICT-20-2015, http://ec.europa.eu/
- Responsibilities: original idea, proposal coordination, leading work package "Roadmap, Exploitation, and Business Impact", research, and dissemination

[2017**-now**] R&D project: "Virtuell praksisplass" Virtual internship: development of research-based innovative solutions based on gaming technology and virtual and augmented reality as tools for supervising about jobs.

- Beneficiary: Norwegian University of Science and Technology
- Funded by: Norwegian Labour and Welfare Administration (NAV)
- Responsibilities: technical coordination and research

[2017–2018] R&D project: "Mental trening for stressmestring" Biofeedback for the 360-video Virtual Reality Interview Experience

- Beneficiary: Mikhail Fominykh one-person company
- Funded by: Coperiosenteret AS
- Responsibilities: tech. design and development, setup of technical infrastructure

[2016–2018] R&D project: "BioWaveVR" CBT with Virtual Reality and Wearable Technology

- Beneficiary: Mikhail Fominykh one-person company
- Funded by: Coperiosenteret AS
- Responsibilities: tech. design and development, organization of training sessions

[2015–2017] R&D project: VirSam – Virtual arenas in medical and health education

- Beneficiary: Mikhail Fominykh one-person company
- Funded by: NTNU «Innovative utdanning» programme
 http://www.ntnu.no/toppundervisning/utviklingsprosjekter-2015-2016
- Responsibilities: design of 3D educational environment, web design, and technical support



R&D Experience outside academia

[2014-now] Project Manager (28%), Europlan UK Ltd, UK http://europlan-uk.eu/

- Initiator and co-leader of Horizon 2020 project WEKIT http://wekit.eu/, funded by EU
- Manager of development project Information sharing portal for the Body of European Regulators for Electronic Communications http://berec.europa.eu/, funded by BEREC Office

[2011–**now**] Self-employed at Mikhail Fominykh one-person company

- Project: Aura app, coordinated by St.Olavs Hospital
- Project: Headache diary 2.0, coordinated by St.Olavs Hospital
- Project: Den Olympiske Løypa, coordinated by Olympiatoppen Midt-Norge
- Project: Sparebank1VR, coordinated by Coperio
- Project: Mental trening for stressmestring, coordinated by Coperio
- Project: Executive functions, coordinated by Coperio
- Project: BioWaveVR, coordinated by Coperio
- Project: VirSam, coordinated by Medical faculty of NTNU
- Project: Virtuell Velferdsteknologi, coordinated by Trondheim Municipality
- Project: Cultural Awareness in Military Operations, with ADL, Norwegian Defence Forces

[2006–2007] Designer, Multimedia System Lab, VSUT, Russia http://www.mmlab.ru/

- Project: "E-learning resources for Chemistry" funded by Russian Ministry of Education http://fcior.edu.ru/about.page (in Russian only)
- Project: "Virtual Collaborative Learning Environments" funded by Russian Ministry of Education http://www.mmlab.ru/projects/collab/collab.shtml
- Project: "Virtual City of Yoshkar-Ola" funded by VSUT http://virtyola.ru/
 Responsibilities: research, project management, 2D and 3D design and animation, programming

[2001–2007] Software developer, Several IT companies, Russia

Academic experience

[2017-**now**] Researcher (40%), Department of Pedagogics and Life-long learning, NTNU, Norway

- Project: DC4LT https://www.dc4lt.eu/
- R&D project: Virtual Internship
- Project: Transformative IMTEL
- Project: VR Lab NTNU
- Project: LLearnTech

[2015-now] Associate Professor (20%), Molde University College, Norway http://www.himolde.no/

- Project: Emergency Management Training with Virtual Reality
- Project: Active Learning Module for Emergency Management Professionals using Virtual Reality
- Project: AR-FOR-EU http://codereality.net/

[2014-now] Adjunct Professor (10%), VSUT, Russia http://volgatech.net/

Course: Virtual and Augmented Reality

[2012–2014] Postdoctoral research fellow, Programme for Learning with ICT, NTNU, Norway

Research project: CoCreate http://www.cocreat.eu/

[2007–2012] PhD Research Fellow at Program for Learning with ICT, NTNU, Norway

- R&D project on serious games: TARGET http://www.reachyourtarget.org/
- R&D project: Virtual City of Yoshkar-Ola, http://virtyola.ru/
- Project: Travel in Europe, funded by EU cultural heritage
- R&D Project: Virtual Campus of NTNU http://slurl.com/secondlife/NTNU/

Teaching Experience

[2013-now] EATEL Summer School on Technology Enhanced Learning

- Workshops and lectures on research design, community building, and industrial training
- As General chair from 2017: course design and program design

[2015-now] VSUT, Russia: Introduction to Virtual Reality course

Responsibilities: lectures, practical exercises, and assessment

[2008-2014] NTNU, Norway: Cooperation Technologies and Social Media course

• Course design, lectures, practical exercises, and assessment

[Spring 2013] Erasmus+ teaching mobility

Series of guest lectures at the University of Oulu, Finland

[2011–2012] EU CoCreat project https://cocreat.wordpress.com/

Design and tutoring in two international distant courses

Education

[2008–2012] Department of Computer and Information Science, NTNU, Norway

PhD Thesis: "Collaborative work on 3D educational content"

[2001–2006] Faculty of Information Technologies and Computer Engineering, VSUT, Russia

- Diploma Thesis: "Designing 3D Virtual Environment for Learning Arts"
- Average grade: 4.75 (min. passing grade 3, max. grade 5)

[1996-2000] Art school, Russia

• Subjects: Graphics, Painting, Composition, Decorative Arts, History of Visual Art

Publications

[2008-2018]

journal articles: 9

book chapters: 11

• full papers in conference proceedings: 34

short papers in conference proceeding: 4

posters in conference proceedings: 3

Selected publications

Bibeg Limbu, **Mikhail Fominykh**, Roland Klemke, and Marcus Specht: "A conceptual framework for supporting expertise development with augmented reality and wearable sensors," in Ilona Buchem, Ralf Klamma and Fridolin Wild Eds., Perspectives on Wearable Enhanced Learning: Current Trends, Research and Practice, 2018, Springer, in press.

Bibeg Limbu, **Mikhail Fominykh**, Roland Klemke, Marcus Specht, and Fridolin Wild: "Supporting Training of Expertise with Wearable Technologies: The WEKIT Reference Framework," in S. Yu, M. Ally and A. Tsinakos Eds., *The International Handbook of Mobile and Ubiquitous Learning*, 2018, Springer, Perspectives on Rethinking and Reforming Education book series (PRRE) ISSN: 2366-1658, eISSN: 2366-1666, ISBN: 978-981-10-6144-8, pp. 157–175. DOI: 10.1007/978-981-10-6144-8 10

Ekaterina Prasolova-Førland, Judith Molka-Danielsen, **Mikhail Fominykh**, and Katherine Lamb: "Active Learning Modules for Multi-Professional Emergency Management Training in Virtual Reality," in *the International Conference on Teaching, Assessment and Learning for Engineering (<u>TALE</u>), Tai Po, Honk Kong, December 12–14, 2017, IEEE, ISBN: 978-1-5386-0900-2/17, pp. 461–468. DOI: 10.1109/TALE.2017.8252380.*

Will Guest, Fridolin Wild, Alla Vovk, **Mikhail Fominykh**, Bibeg Limbu, Roland Klemke, Puneet Sharma, Jaakko Karjalainen, Carl Smith, Jazz Rasool, Soyeb Aswat, Kaj Helin, Daniele Di Mitri and Jan Schneider: "Affordances for Capturing and Re-enacting Expert Performance with Wearables," in É. Lavoué, H. Drachsler, K. Verbert, J. Broisin and M. Pérez-Sanagustín Eds. *The 12th European Conference on Technology Enhanced Learning (ECTEL)*, Tallinn, Estonia, September 12–15, 2017, Springer, Book Series: Lecture Notes in Computer Science LNCS, ISSN 0302-9743, volume 10484, ISBN 978-3-319-66609-9, Online ISBN 978-3-319-66610-5, pp. 403–409. DOI: 10.1007/978-3-319-66610-5 34.

Will Guest, Fridolin Wild, Alla Vovk, Paul Lefrere, Roland Klemke, **Mikhail Fominykh**, and Timo Kuula: "Technology Acceptance Model for Augmented Reality and Wearable Technologies," Journal of Universal Computer Science (JUCS), ISSN: 0948-6968, Volume 24, Issue 2, 2018, Technische Universität Graz, pp. 192–219. http://www.jucs.org/jucs-24-2/a technology-acceptance-model

Ekaterina Prasolova-Førland, Aslak Steinsbekk, **Mikhail Fominykh**, and Frank Lindseth: "Practicing Interprofessional Team Communication and Collaboration in a Smart Virtual University Hospital," in Vladimir Uskov, Jeffrey P. Bakken, Robert J. Howlett, and Lakhmi C. Jain Eds., *Smart Universities: Concepts, Systems, and Technologies*, 2017, Springer, Smart Innovation, Systems and Technologies ISSN: 2190-3018, ISBN: 978-3-319-59453-8, pp. 191–224. DOI: 10.1007/978-3-319-59454-5 7.

Mikhail Fominykh, Ekaterina Prasolova-Førland, Tore C. Stiles, Anne Berit Krogh, and Mattias Linde: "Conceptual Framework for Therapeutic Training with Biofeedback in Virtual Reality: First Evaluation of a Relaxation Simulator," International Journal of Interactive Learning Research (<u>IILR</u>), ISSN: 1093-023X, Volume 29, Issue 1, 2018, AACE, pp. 51–75. https://www.learntechlib.org/p/178528/

Mikhail Fominykh, Peter Leong, and Brenda Cartwright: "Role-playing and Experiential Learning in a Professional Counseling Distance Course," International Journal of Interactive Learning Research (JILR), ISSN: 1093-023X, Volume 29, Issue 2, 2018, AACE, pp. 169–190. Originally presented at EdMedia: World Conference on Educational Media and Technology, Washington DC, USA, June 20–23, 2017. https://www.learntechlib.org/primary/p/178527/

Mikhail Fominykh, Fridolin Wild, Carl Smith, Victor Alvarez and Mikhail Morozov: "An Overview of Capturing Live Experience with Virtual and Augmented Reality," in Davy Preuveneers ed. *the Workshop Proceedings of the 11th International Conference on Intelligent Environments*, IOS Press, Series: Ambient Intelligence and Smart Environments, ISSN: 1875-4163, Volume 19, ISBN: 978-1-61499-529-6, pp. 298–305. DOI: 10.3233/978-1-61499-530-2-298.

Mikhail Fominykh, Ekaterina Prasolova-Førland, Monica Divitini, and Sobah Abbas Petersen: "Boundary Objects in Collaborative Work and Learning," *Information Systems Frontiers*, ISSN: 1387-3326, EISSN: 1572-9419, 2015, Springer, pp. 1–18. doi> 10.1007/s10796-015-9579-9.

Mikhail Fominykh, Andrey Smorkalov, Mikhail Morozov, and Ekaterina Prasolova-Førland: "3D Virtual Worlds as a Fusion of Immersing, Visualizing, Recording, and Replaying Technologies," in D. Sharma et al. eds., *Fusion of Smart, Multimedia and Computer Gaming Technology: Research, Systems and Perspectives*, 2015, Springer, Intelligent Systems Reference Library 84 ISSN: 1868-4394, pp. 137–171. doi>10.1007/978-3-319-14645-47

Andrey Smorkalov, **Mikhail Fominykh**, and Mikhail Morozov: "Collaborative Work and Learning with Large Amount of Graphical Content in a 3D Virtual World Using Texture Generation Model Built on Stream Processors," *International Journal of Multimedia Data Engineering and Management (*IJMDEM), Volume 5, Issue 2, 2014, IGI-Global, ISSN: 1947-8534, EISSN: 1947-8542, pp. 18–40. doi>10.4018/ijmdem.2014040102.

Mikhail Fominykh and Ekaterina Prasolova-Førland: "Educational Visualizations in 3D Collaborative Virtual Environments: a Methodology," *International Journal of Interactive Technology and Smart Education (ITSE)*, Volume 9, issue 1, 2012, Emerald, ISSN: 1741-5659, pp. 33–45. doi>10.1108/17415651211228086

Ekaterina Prasolova-Førland, **Mikhail Fominykh**, Ramin Darisiro, Anders I. Mørch, and David Hansen: "Preparing for International Operations and Developing Scenarios for Inter-cultural Communication in a Cyberworld: A Norwegian Army Example," in Marina Gavrilova et al. eds., *Transactions on Computational Science (TCS)*, 2014, Springer, LNCS 8490 ISSN 0302-9743, Issue XXIII, pp. 118–138. doi>10.1007/978-3-662-43790-2 7