Teaching Portfolio

Marco Scirea
SDU Game Development and Learning Technology
The Maersk Mc-Kinney Moller Institute
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Employment

Associate Professor
SDU Game Development and Learning Technology
University of Southern Denmark
1. Jan 2020 → present

Associate Professor
The Maersk Mc-Kinney Moller Institute
University of Southern Denmark
Odense M
1. Apr 2021 → present

Associate Professor
The Maersk Mc-Kinney Moller Institute
University of Southern Denmark
Odense M
1. Jan 1998 → present

Research outputs

Boardgames and Computational Thinking: How to identify games with potential to support CT in the classroom
Scirea, M. & Valente, A., 15. Sep 2020, *Proceedings of the 15th International Conference on the Foundations of Digital Games, FDG 2020.* Yannakakis, G. N., Liapis, A., Penny, K., Volz, V., Khosmood, F. & Lopes, P. (eds.). Association for Computing Machinery, 8 p. 114

Adaptive puzzle generation for computational thinking
Scirea, M., 2020, *HCI in Games - 2nd International Conference, HCI-Games 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Proceedings.* Fang, X. (ed.). Springer, p. 471-485 (Lecture Notes in Computer Science, Vol. 12211).

Balanced Map Generation Using Genetic Algorithms in the Siphon Board-Game
Nielsen, J. J. & Scirea, M., 2020, *Proceedings of 6th International Conference in Software Engineering for Defence Applications: SEDA 2018.* Ciancarini, P., Mazzara, M., Messina, A., Sillitti, A. & Succi, G. (eds.). Springer, p. 221-231 (Advances in Intelligent Systems and Computing, Vol. 925).

Procedural Generation for Tabletop Games: User Driven Approaches with Restrictions on Computational Resources
Brown, J. A. & Scirea, M., 2020, *Proceedings of 6th International Conference in Software Engineering for Defence Applications - SEDA 2018: SEDA 2018.* Ciancarini, P., Mazzara, M., Messina, A., Sillitti, A. & Succi, G. (eds.). Springer VS , p. 44-54 (Advances in Intelligent Systems and Computing, Vol. 925).

Evolving in-game mood-expressive music with MetaCompose
Scirea, M., Togelius, J., Eklund, P. & Risi, S., 12. Sep 2018, *Proceedings of the Audio Mostly 2018 on Sound in Immersion and Emotion.* Association for Computing Machinery, 8 p. 8

Towards an experiment on perception of affective music generation using MetaCompose
Scirea, M., Eklund, P., Togelius, J. & Risi, S., 6. Jul 2018, *GECCO 2018 Companion - Proceedings of the 2018 Genetic and Evolutionary Computation Conference Companion.* Association for Computing Machinery, p. 131-132

Teaching and supervision

3D Modellering til computerspil og -simulationer (3D modelling for computer-games and simulations)

Marco Scirea
01/09/2017 → …

Balanced Map Generation using Genetic Algorithms in the Siphon Board-game

Marco Scirea
01/02/2018 → 01/07/2018

Spilprogrammering (Game Programming)

Marco Scirea
01/09/2017 → …

Videregående udvikling af 3D applikationer (C# programming and more advanced game programming)

Marco Scirea
01/01/2018 → …

Teacher development courses

2018 - Questioning – how it can support learning, teaching and assessment

2018 - Helping students understand assessment - using rubrics, peer review and exemplars

2018 - Interactive Lecturing

2016 - Use your voice, Diploma

2015 - Supporting Qualitative Writing

2015 - Research-led teaching

2015 - Constructive alignment seminar

2015 - Pedagogical teaching development course for PhDs at ITU, as part of my PhD education

Teaching Philosophy

I believe that education is central to creating critical, creative people. In fact I believe that there is a strong connection between being critical and creativity: a person that just accepts information without question will not see the nuances and possibilities allowed by an imperfect theory. University education's objective is to create skilled experts and scientists, these figures are required to be able to independently analyze problems and formulate solutions and abstractions of the knowledge acquired.
It is becoming increasingly easy in the current age of "post-truth", which shuns expertise, to fall in the trap of discarding doubt and accept only the information that confirms our prior beliefs. I believe that this makes our role as teachers critical to our society, as we are the ones that have to show students how important it is to exercise critical thinking.
In this sense the teacher shouldn't be an unresponsive wall that spouts information at the students, expecting them to parrot him. The teacher should be a guide in the student's journey of learning: he shows the way and helps in moments of difficulty, but expects the student to show creativity, personality and independent thought in order for them to master the topic. I believe that only when a student shows a modicum of these qualities, he or she can be said to really understand the topic.
In my teaching experience I find that research-based teaching produces good results: by allowing the students to work on innovative and personal ideas, they have the chance of really becoming experts in their field. I often used supervision to introduce students to my work and make them collaborate in cutting edge research, this can sometimes lead to publications which are a great way for students to feel like their work has an impact. In fact, I think one of the reasons I decided to pursue an academic career is because I published while I was a Master student. In class I like to introduce real-word and research based examples, so students can better understand how the theories they are studying can be applied

to very different problems. Maybe more importantly, this allows them to be able to imagine new domains and applications. My main objective when I teach is to have students surprise me. When a student presents an idea that I wouldn't have though of, it means that the student has a strong grasp on the field and was able to critically look at the current state of the art to see flaws or lacunae. As such, I believe the role of the teacher is to arm the student with the skills and tools necessary to really create new knowledge and exceed the limits of the teacher.
I feel like I'm still a student in regard to teaching, so in the courses I previously held I always tried to encourage students' feedback to better understand what teaching style better adapts to the class. For example during a Modern AI course the students felt that the part of the lecture that better helped them understand the concepts was practical examples. In response to this I reduced the amount of explanation of the topic and changed the class to a symposium form where students could discuss and exchange ideas on how to approach different real-life problems.