

Snorre Hjelseth

SIMULATION AND DESIGN

In the maritime sector, users are involved in complex safety critical operations carried out in very difficult and shifting conditions. Working in such setting is a major challenge for mariners and currently human failure is the main cause of maritime accidents.

In this thesis I investigate how we may use real-time interaction in simulation and game engines to support user-centred design within the maritime sector. I raise two major challenges for applying user-centred design in the maritime domain. First, it is very difficult to account for the complexity of maritime context in on-shore design situations. Second, it is difficult for designers to gain access to user context as part of the design process. Due to these challenges, I argue there is need for new approaches to handle the holistic design process necessary to understand relations between existing events and future scenarios in terms of context, operation, tasks, technology, systems and users. I propose that applying computer-simulated scenarios in user-centred design can help relieve the aforementioned problems and so position user-centred design in a more central role in maritime innovation.

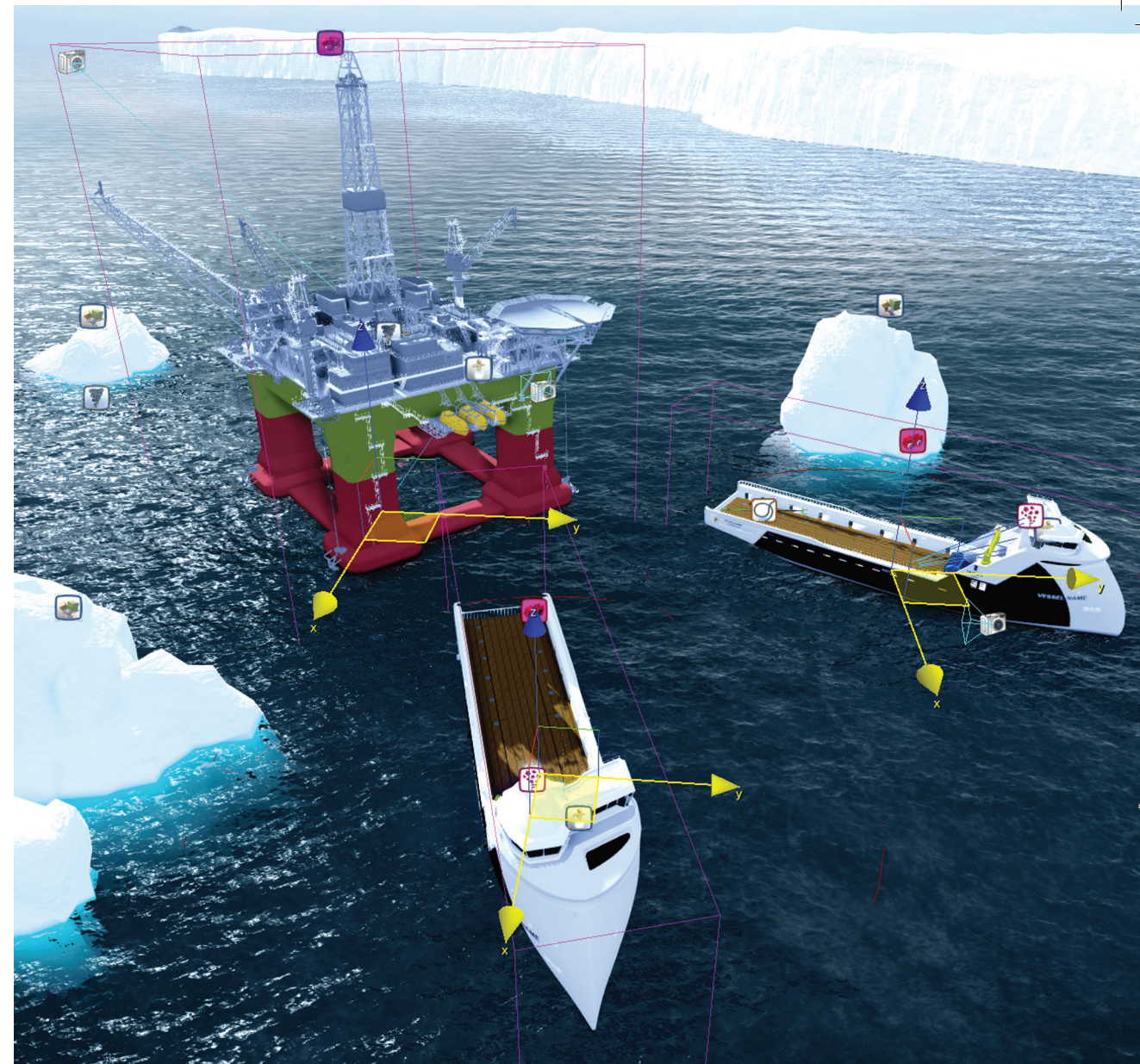
Snorre Hjelseth is an industrial designer with special interest for design thinking in maritime and offshore innovation. His PhD research is focusing on visualization and simulation as a means in interdisciplinary design processes. Snorre received his Master's degree in industrial design from the Oslo School of Architecture and Design (AHO), and the Indian Institute of Technology Bombay (IIT). He is now working as a design researcher at AHO in the ONSITE research project.

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