

University of Groningen

Serious Gaming For Learning The Intuitive, Non-Natural Control Of Prosthetic Hands

Kristoffersen, Morten

DOI:
[10.33612/diss.168085693](https://doi.org/10.33612/diss.168085693)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2021

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Kristoffersen, M. (2021). *Serious Gaming For Learning The Intuitive, Non-Natural Control Of Prosthetic Hands*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.168085693>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

1. Machine learning myoelectric control is not the same as controlling a machine learning controlled myoelectric prosthesis (this thesis).
2. Able-bodied individuals can learn machine learning myoelectric control with a minimum of external feedback (this thesis).
3. Serious games can train able-bodied individuals to generate more separable myoelectric patterns than conventional training (this thesis).
4. The qualities of myoelectric patterns and the resulting machine learning myoelectric control are less interrelated than previously assumed (this thesis).
5. Serious games offer a unique opportunity to train prosthetic use, but caution should be taken that serious game training transfers to functional prosthesis use (this thesis).
6. The motivational aspects of serious games should be kept second to the training aspect (this thesis).
7. Able-bodied individuals can help guide preliminary research into prosthetics, but strong conclusions cannot be drawn before results have been confirmed with results of individuals with upper limb absence (this thesis).
8. Machine learning myoelectric control works at the level of movements. People work at the level of tasks. Machine learning myoelectric control might benefit from working at this level too (this thesis).
9. The more the appearance of the prosthetic hand began to resemble a natural hand, the less the control of the prosthetic hand began to resemble that of a natural hand. (Inspired by Ludger van Dijk, 2016)
10. Livet forstås baglæns, men må leves forlæns (Søren Kierkegaard, 1843) (Life is understood backwards, but must be lived forwards)