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The non-existent average individual

Blaauw, Frank Johan

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Stellingen

behorende bij het proefschrift

The non-existent average individual

Automated personalization in psychopathology research by leveraging the capabilities of data science

van

Frank Johan Blaauw

1. Modern psychopathology research and the future thereof is intrinsically linked to computer science.
2. Computer science and related techniques such as machine learning can help create tools and platforms for a more personalized medicine.
3. Psychopathology is a complex system of interactions between the individual, the environment, the context, and many other features. Our statistical toolbox should encompass this complexity.
4. Hypothetical interventions give more insight into the effect of an intervention than a regression coefficient in a simple and often misspecified regression model.
5. Psychopathology is a dynamic phenomenon; one almost never always feels happy or depressed. Techniques to measure psychopathology should resemble this, like ecological momentary assessments do.
6. The use of ecological momentary assessments in psychiatry research is a huge step forward, but unnecessarily burdensome when not taking advantage of data sources readily available.
7. The assumptions in traditional, parametric statistical models will never resemble the truth and more elaborate methods like machine learning and semi-parametric statistics could help improve this.
8. *“Personalized medicine will finally become reality when medicine no longer needs to be called personalized medicine.”*

— Lawrence J. Lesko
9. *“The question of whether a computer can think is no more interesting than the question of whether a submarine can swim.”*

— Edsger W. Dijkstra