

The adoption of healthcare wearables for diabetics and heart patients: a cultural comparison

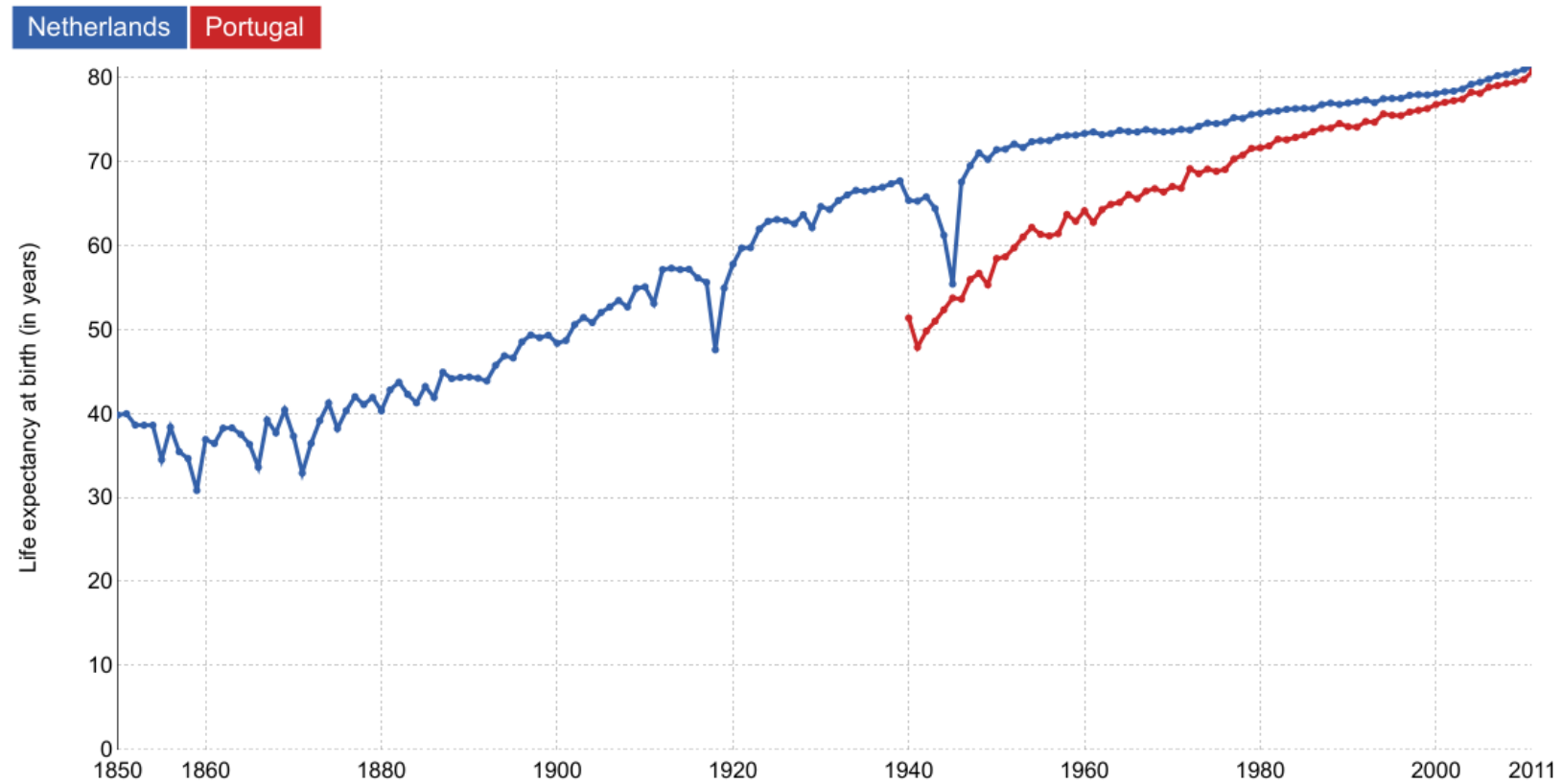
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Societal problem



Healthcare wearables

Present: Implantable and wearable devices for patients.

- E.g: Pacemaker, Insulin pump.

(Near) future:

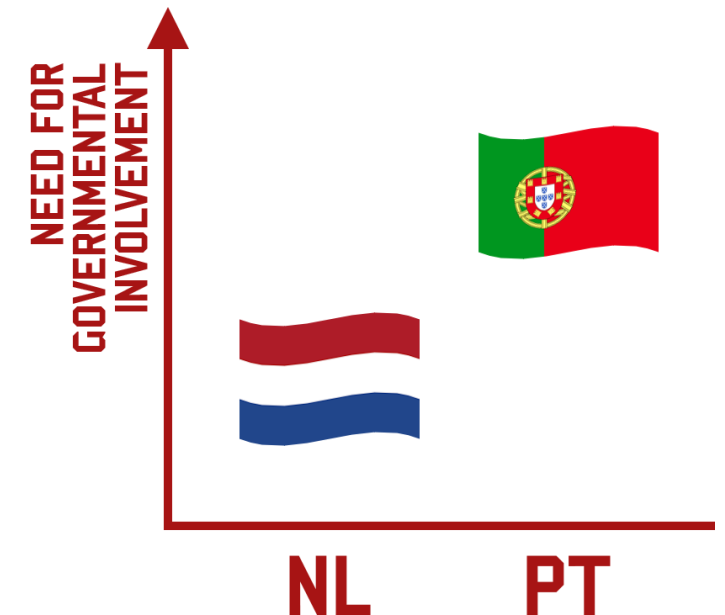
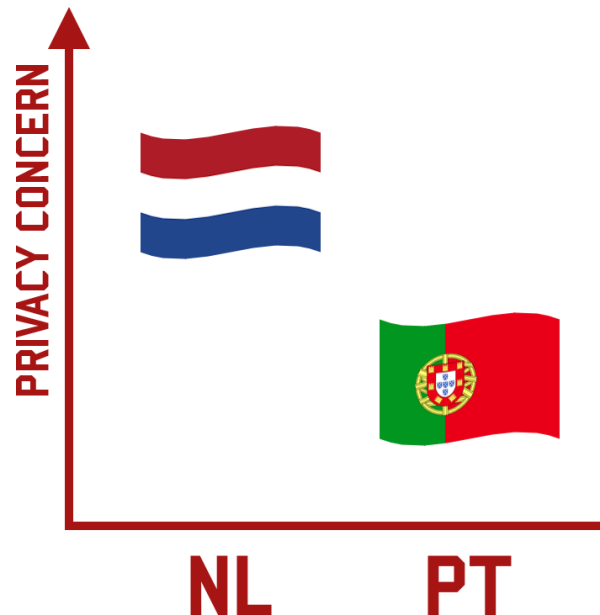
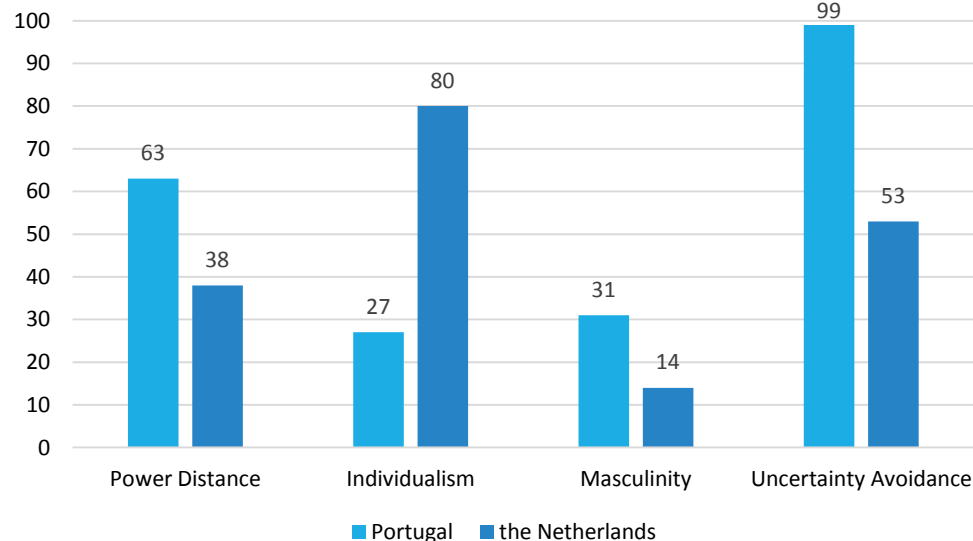
- 24/7 monitoring of health data
- Data sharing over the internet
- (More accurate) intervention
- Personalization of the device
- Big data possibilities



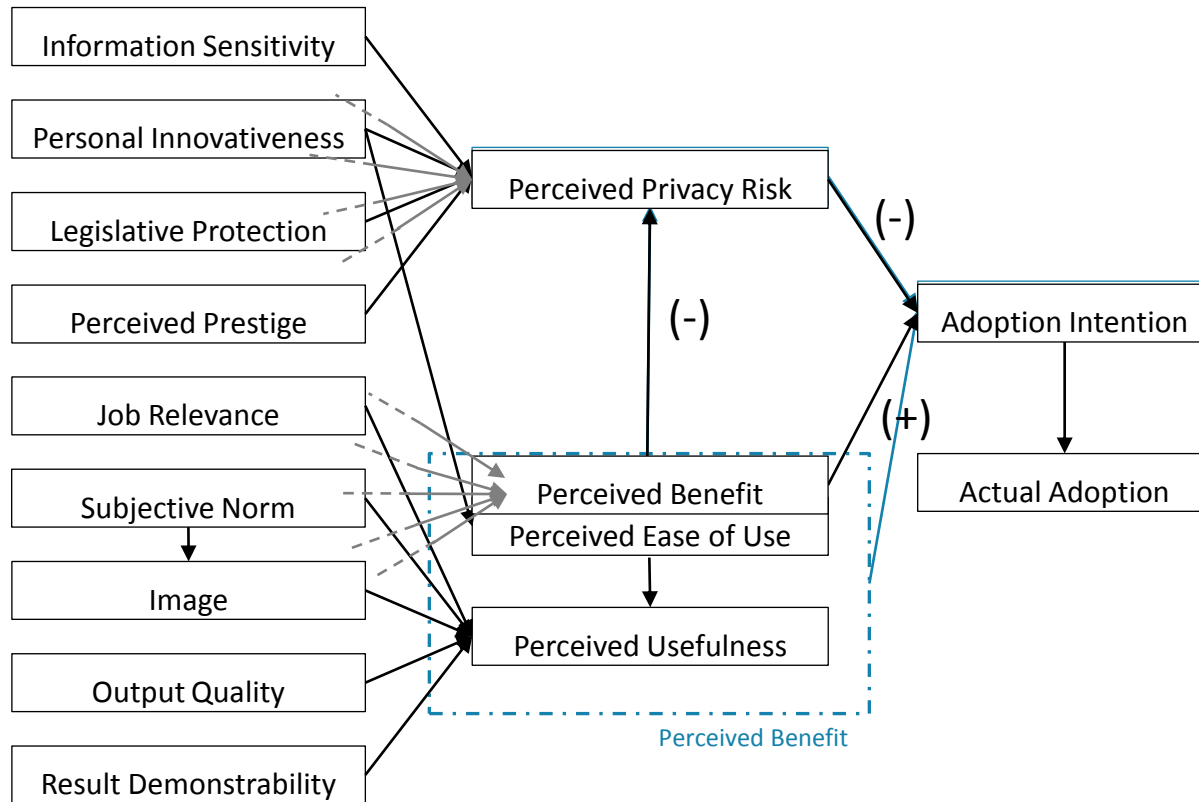
What do patients think about this future technology?

“Do people from Portugal, which are more collectivistic-minded, show more willingness to give up some of their privacy to healthcare-related applications compared to people from The Netherlands, which are more individualistic-minded?”

Hofstede’s cultural dimensions



PCT + TAM2 Mixed model



Privacy Calculus Theory (PCT)

“An individual's intention to disclose personal information is based on risk-benefit analysis. According to the privacy calculus theory, individuals compare perceived risks and anticipated benefits.”

Technology acceptance model (2) (TAM)

“Models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it.”

Method

Survey questionnaire: 22 likert scale (7-point) questions

- Perceived privacy risk (3 questions)
- Perceived usefulness (3 questions)
- Adoption intention (3 questions)

	Diabetes Type 1	Heart Problems
Portugal	13	12
The Netherlands	152	203

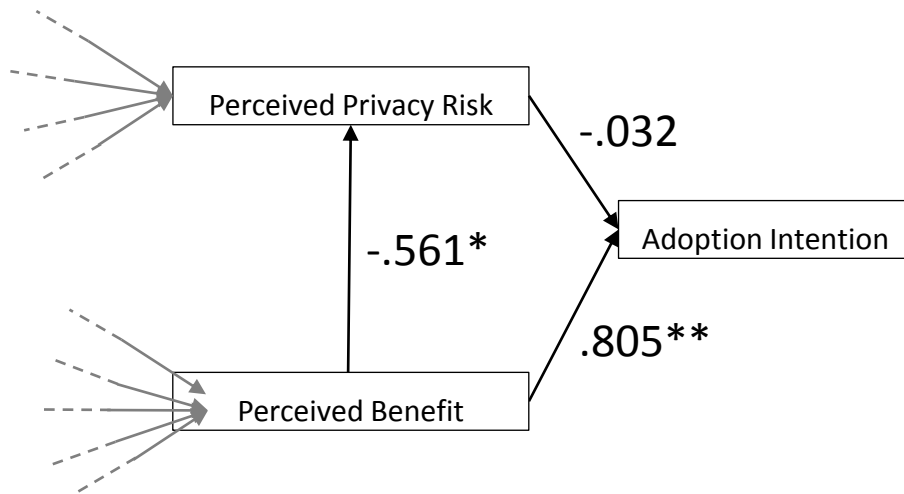
Expert interviews

- E.g: technicians, distributor, researcher/patient, specialists

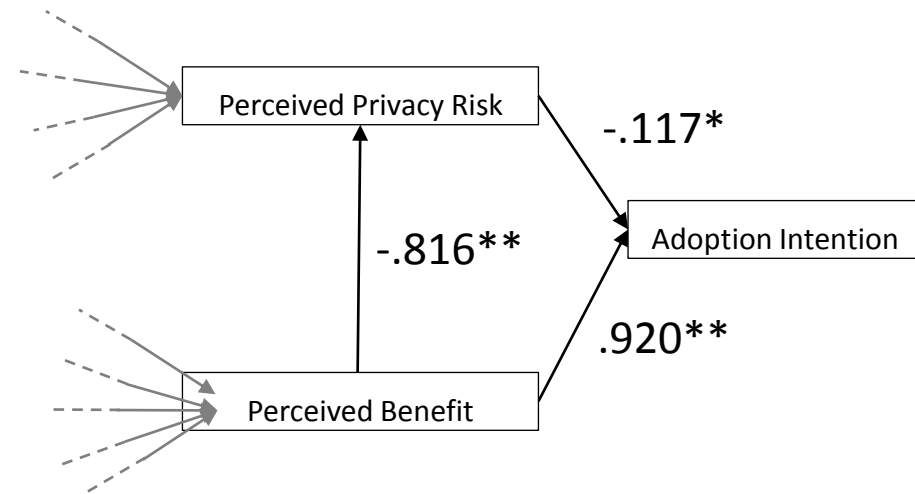
Results

No cultural comparison (not enough data)

Diabetics in the Netherlands



Heart patients in the Netherlands



* $p < 0.05$ ** $p < 0.01$

Summary

1. Cultural comparison not yet possible
2. Heart patients think similarly about wearable technology compared to diabetics, specifically concerning privacy risks.
3. The effect seems to be stronger in the group of heart patients.
 - All of them are already experienced with an implantable device (ICD, pacemaker)