



The (psycho-socio) determinants of the use of connected objects in the practice of physical activity

John-Elio Nahas, University of Poitiers & University of Turku



A Little Bit About Me

- 2018 : Bachelor in STAPS - Sports training
- 2020 : Master in STAPS - Adapted Physical Activity, Sport Health Society (APA3S)
 - Connected sport for the benefit of performance adoption or rejection?
- Sydney, Australia
- Sport through connected objects : factors favoring the sustainable use of fitness wearable.
- Paris, France
- 2022 : PhD University of Poitiers & University of Turku



Context

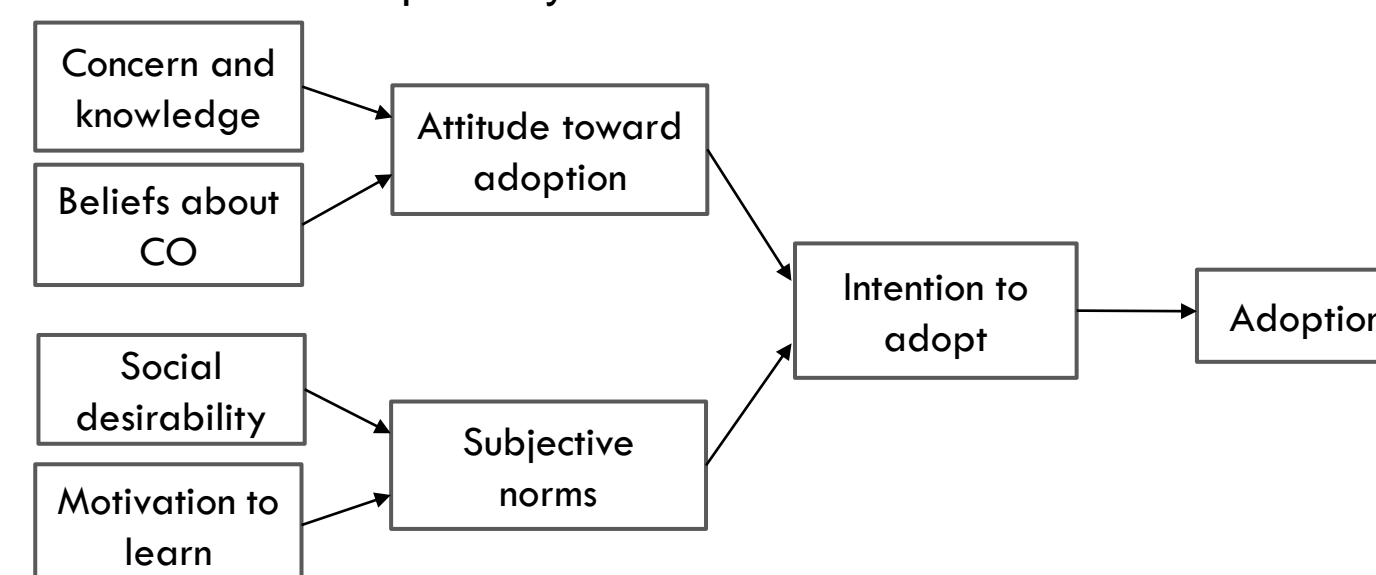
Internet of Things (IoT) : A **network** of intelligent objects that have the capacity to **auto-organize**, **share** information. Madakam, S. , Ramaswamy, R. and Tripathi, S. (2015)



Wearables : An enormous **sub-group** of "Objects" that can be **connected** (or not), endowed with an **intelligence** (or not), **communicating** (or not) through associated (or not) radio connections to networks (the Internet, for example). H. Qiu, X. Wang and F. Xie, (2017)

Previous research

Research questions : To what extent do the different social psychological factors, related to the use of connected devices, influence their adoption by individuals ?



I. Exploratory research

II. Confirmatory research

Results

Independent variable	Dependent variable	Hypothesis
Hypothesis 1	Intention to adopt	Confirmed
Hypothesis 2	Intention to adopt	Rejected
Hypothesis 3	Intention to adopt	Confirmed
Hypothesis 4	Intention to adopt	Confirmed
Hypothesis 5	Intention to adopt	Confirmed

Current research

Objectives

1. To examine the factors associated with the **acceptability of wearables**.
2. To determine how do wearables affect users' **motivation to be physically active**.
3. To investigate whether the use of wearables **improve the relevance of physical activity** among seniors.

Questions

- Are acceptance factors of wearables among seniors different from those in the younger population ?
- Do wearables affect motivation for physical activity differently depending on user profiles ?
- How do information generated by wearables affect seniors' lifestyle and wellbeing ?

Study Population

Young adults, adults & Seniors that adopted a wearable device.

Methods

- Large-scale questionnaire
- Collect data of the wrist-worn wearable
- Participant observation

SCIENTIFIC IMPACT

1. Impact of wearables on sport practice, health and well-being, especially for seniors.
2. Identify how to better target wearables to older adults' needs.
3. Improve physical and mental health in adults and slow the deterioration of physical and mental health in older people.