zh aw **School of Health Professions**

M-HEALTH APPS AND SELF-QUANTIFICATION TECHNOLOGIES ON THE RISE.

OPPORTUNITIES AND RISKS FOR USE IN PRACTICE

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Research Questions

- What is the current state and what are future trends in self-quantification technologies?

- What are opportunities and risks for practice?

- What recommendations can be made?

Methods

- Extensive Literature review

- 19 expert interviews from the fields of health care, economy, society, technology, law and ethics

- 3 focus groups with healthy and chronically ill users and health professionals

- Online survey with >1000 participants
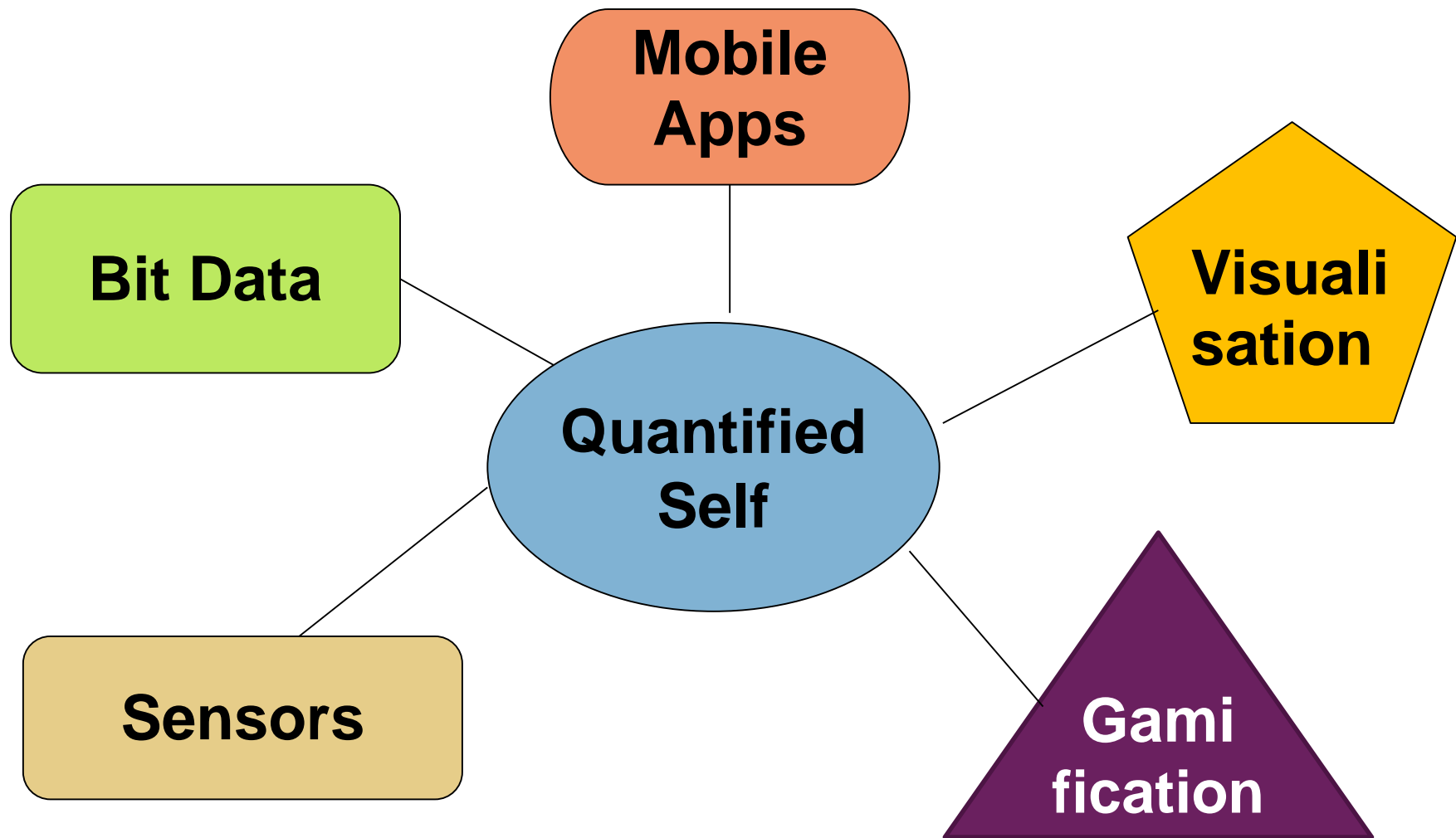
- Workshop to assess risks and opportunities

Results: Self-Quantification with Wearables

… and Apps

How Self-Quantification Applications Work

Mobile Apps

Bit Data

Quantified Self

Visuali sation

Sensors

Gami fication

What is Measured?

- Consumption

- Body functions

- Activities

- Symptoms

- Mobility

- Psychological parameters

- Physiological parameters

Source: *spektrum.de*

Future Trends

- Increasing dissemination of products

- Improved quality of content and data

- Development of ancillary equipment (home lab)

- Certification of products for the health sector

- Improved data protection

- Facilitated integration of client data in e-records

- Increased use in research and practice

Opportunities (1/2)

Diagnostics and therapy:

- Continuous measurement and automatic alerting systems
- Improved disease- and health-management
- Interventions and evaluation

Body awareness:

- Reflection of own behaviour and support of behaviour change

Administration and documentation:

- Data can be transferred into electronic patient files

Opportunities (2/2)

Prevention:

- Health literacy and information about health & healthy lifestyle
- Early detection of problematic behaviour or measures

Motivation:

- Easy-to-understand visualisation of own data
- Active participation of patient in diagnostics and therapy
- Support of self-efficacy
- Gamification elements are motivating and support compliance

Risks

Data protection:
- Data is often not protected (cloud-storage, unencrypted transfer), used for other purposes or sold to third parties

Quality:
- Apps often have poor content quality
- Tracker and apps often provide unreliable data

Discrimination tendencies:
- Risk of discrimination through increased transparency (health- or life-insurances, employers)

Loss of skills and perception:
- *„De-skilling" :* loss of skills through use of technology
- Perception of the body can change

Recommendation for Practice

- Data can be used in practice for educational purposes, evaluation and motivation

- Person-technology-match is important

- Seek out recommendations from consumer-, patient- or professional organisations

- Read terms and conditions, check data protection policy

- If possible use apps from reliable sources (health care sector) or which are approved as medical devices

AOTA Database of Apps for Practice

Apps for Occupational Therapy: Find Apps for Your Practice area

By Stephanie Yamkovenko

Apps Update on August 11: AOTA updated our database with dozens of news apps. Find new apps in every practice area below.

If you feel like everyone has been talking about apps lately, it could be partly due to smartphone ownership in the U.S. reaching 61% of mobile phone users in 2013.**1** Although many people use apps for entertainment or personal use, it is becoming more common for health care professionals to use apps in the clinic. AOTA found in a recent poll that more than half of occupational therapy practitioners are using apps in the clinic.

We put together this comprehensive list of apps for occupational therapy practitioners, separated by practice area. Click on your practice area and find apps that you can use in the clinic with your clients *(login required)*. We provide a description, price, and link to get the app on your device.

- Children & Youth Apps **M**
- Health & Wellness Apps **M**
- Mental Health Apps **M**
- Productive Aging Apps **M**
- Rehabilitation, Disability, and Participation Apps **M**
- Work & Industry Apps **M**

Source: https://www.aota.org/

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