

Exploring 'Entertainment Medicine' and Professionalization of Self-Care:

Interview Study among Doctors on the Potential Effects of Digital Self-Tracking

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■ Original Paper

Exploring Entertainment Medicine and Professionalization of Self-Care: Interview Study Among Doctors on the Potential Effects of Digital Self-Tracking

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<http://www.jmir.org/2018/1/e10/>

Outline

- i. internet and self-tracking technologies
- ii. design of our study
- iii. study findings
- iv. concluding thoughts

i. internet and self-tracking technologies

World Wide Web (1990s)

· Web 1.0 (1990s)

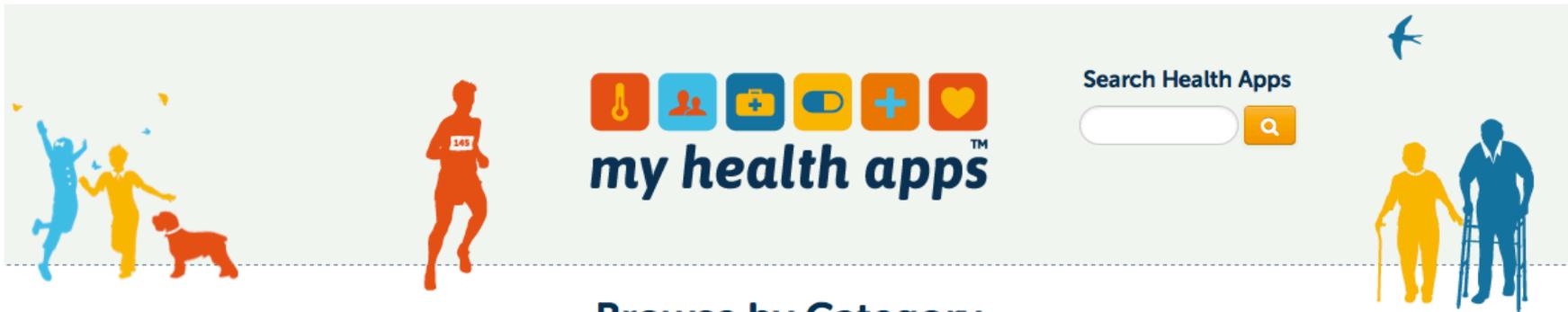
· Web 2.0 (end 1990s, beginning 2000s)

Mobile Internet (2000s)

· *'Onlife'*

Web 3.0 (2010s)

· Internet of Things (IoT)



Browse by Category



Bones and Muscles



Breathing and Lungs



Heart, Circulation and Blood



Me and My Doctor



Mental Health



Nervous System and Brain



Sexual Health



Staying Healthy



Stomach, Bowel and Continenence



Support for Senses, Mobility and Learning



Other Long-term Conditions

myhealthapps.net

Evaluatie zorgapps: Patiënten voelen zich beter gemotiveerd, artsen krijgen minder ongeplande consultaties

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Patiënten die een app gebruiken, zijn meer betrokken bij hun zorgbehandeling. Dat leert minister van Volksgezondheid Maggie De Block (Open Vld) uit een eindevaluatie van 24 pilootprojecten rond mobile health. Bij de helft van de projecten bleek sprake van belangrijke gezondheidseconomische voordelen.



Welke apps komen straks mogelijk in aanmerking?

Interpret-Dia - Monitoring van patiënten met diabetes type 1.

Een onderhuidse sensor stuurt rechtstreeks en voortdurend bloedsuikerwaarden door naar het elektronisch dossier van de patiënt. De dokter belt om de twee weken in plaats van consultatie om de drie maanden. Winst? Minder consultaties, minder kans op "hypo's" (te lage bloedsuikerspiegel)

FibriCheck- Een app om hartritmestoornissen op te sporen.

Je legt je vinger op de camera van je smartphone en zo wordt je hartslag gemeten en doorgestuurd naar de arts. Winst? Bij vroege opsporing minder kans op hartfalen, minder complicaties

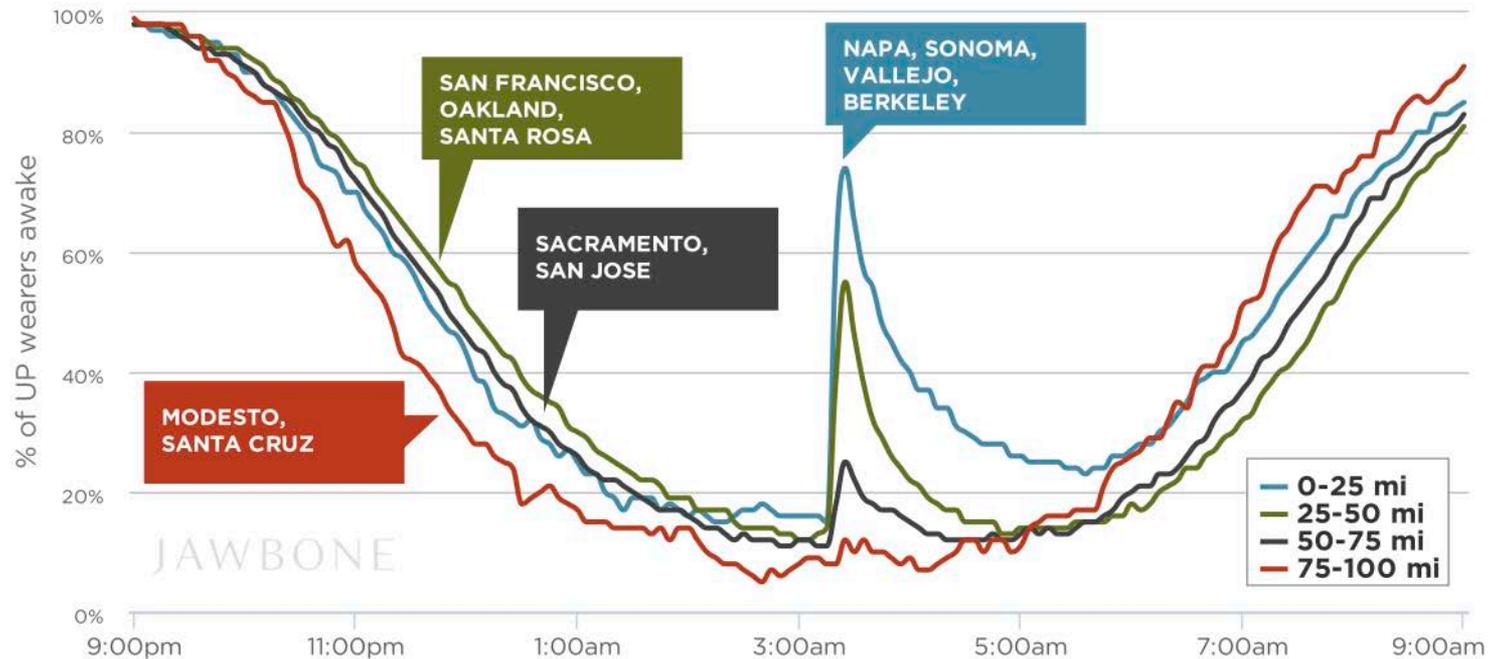
MoveUP - Een app voor patiënten die revalideren na een knieoperatie of kunstheup

Een armband trilt als het tijd is voor revalidatie-oefeningen. Winst? Betere training, niet te veel en niet te weinig. Minder consultaties bij de kinesist. Minder heropnames in het ziekenhuis.



Self-tracking - Other-tracking
Quantified self - Quantified other

Seeing the self through technology
Seeing the other through technology



<https://jawbone.com/blog/napa-earthquake-effect-on-sleep/>



Melanie Swan, 2014: “The ensemble of these gadgets creates a fourth-person perspective, an objective means of seeing the self (...) that can trigger a developmental moment”

<https://ieet.org/index.php/IEET2/more/swan20140520>

ii. design of our study

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- Shifts in professional healthcare
 - Preventive use versus treatment setting
 - Classic self-tracking – digital self-tracking

Classic versus digital self-tracking (1)

Main differences:

data sharing

who takes the initiative to track

1. **Classic ST:** data are usually collected for private use only while sharing is generally limited to care providers and mostly paper-based. The care provider typically initiates the request to self-track and, at least in some cases, provides the device or gives recommendations on which device to use and how to track (*cf.* 'pushed' self-tracking, i.e., the incentive to self-track comes from an external actor)

Classic versus digital self-tracking (2)

2. **Digital ST** is most often Internet-connected, smartphone-based, and designed from the start for data sharing. Members of the QS-movement share their data with each other through social media (*cf.* ‘communal’ self-tracking, i.e., the practice of sharing data with a community of trackers). It is usually the patient or healthy user who initiates the tracking. In some cases, the app takes over the care provider’s role. Coaching apps are designed to motivate behavioral change. Collected data can easily be shared with care providers and become part of patients’ electronic health record (EHR)

The distinction is not clear-cut: situated on a continuum, which facilitates comparison

See also Lupton D. Quantifying the Body: Monitoring and Measuring Health in the Age of mHealth Technologies. *Critical Public Health* 2013; 23 (4): 393-403. DOI: 10.1080/09581596.2013.794931.

Sample overview

Characteristics of the sample.

Number	Occupation	Gender	Age range (years) ^a	Years of experience	Type of practice
1	General practitioner	Female	26-30	2	Duo
2	General practitioner	Female	31-35	4	Group
3	General practitioner	Female	36-40	9	Solo
4	General practitioner	Male	51-55	7	Solo
5	General practitioner	Female	56-60	30	Solo for 26 years, now group
6	General practitioner	Female	41-45	15	Health community center
7	General practitioner	Male	66-70	40	Duo
8	Cardiologist	Female	46-50	15	Hospital
9	Cardiologist	Male	56-60	25	Hospital
10	Cardiologist	Male	36-40	4	Hospital
11	Cardiologist	Female	26-30	2 (assistant)	Hospital and research
12	Cardiologist	Male	56-60	20+	Hospital and research

^a For the sake of confidentiality, we opted for providing the age range instead of the year of birth.

Interview guide

1. Frequency of use
2. Initiative to self-track
3. Choice and quality of device
4. Data interpretation
5. Positive and negative results or effects of self-tracking

6. Differences between classic and digital self-tracking
7. Data sharing
8. Inclusion (health disparities)

iii. study findings

4 major themes

1. The patient as health manager
2. Health obsession
3. Information management
4. Shifting role of the doctor and impact on healthcare organization

1. The patient as health manager

The patient as health manager: patients are offered numerous possibilities to control and self-manage their health, leading to both opportunities and difficulties. Subthemes are patient autonomy, dropout rates, and the gap between measuring and attaining actual behavioral changes.

BRUSSEL, 01/07/2016.- Maggie De Block, minister van Sociale Zaken en Volksgezondheid, lanceert een oproep voor pilootprojecten met gezondheidsapps en mobiele toestellen. Iedereen die in de zorgsector werkt, kan een voorstel indienen. Samen met de oproep wordt ook een gloednieuwe website voorgesteld rond alles wat met e-gezondheid te maken heeft.

Maggie De Block: "Digitale toepassingen zoals gezondheidsapps kunnen patiënten mee aan het stuur plaatsen van hun eigen gezondheid, als copiloot. Via deze pilootprojecten zullen we nagaan hoe we hun veiligheid en privacy daarbij optimaal kunnen garanderen."

2. Health obsession

Health obsession: the interviewees express concern about a focused use of self-tracking by healthy people, thus creating a “worried well” cohort and widening health disparities. They are critical of the broader medicalization trend in society. Another subtheme is “entertainment medicine,” which refers to questioning the usefulness of digital self-tracking in terms of medical necessity.

3. Information management

Information management: data production, analysis, and interpretation methods change with intensified self-tracking. In this context, providers describe opportunities but also new pitfalls. Subthemes are quality and reliability (of devices and data), importance of context, and data sharing.



“At one point, a Saturday evening at 11pm, I received an e-mail that contained a deviated heart rate measurement. I think ‘hmm this is strange’. So I send him an e-mail and he lets me know that he was at a reception, where he met someone who said that he suffered from a heart rhythm disorder and he subsequently gave him his smartphone to try the technology”
(12, cardiologist)



4. The shifting role of the doctor and impact on healthcare organization

Shifts in the roles of the doctor and impact on the health care organization: the impact of digital self-care data on the clinical practice, leading to shifts in terms of data interpretation and the role of the physician. Subthemes are data overload, responsibility, and the importance of in-person contact.



“If I receive all this [these data], I am responsible. It is the same with a blood test: if I have not looked at the data, it is my fault. While if I never received the data, I cannot be held responsible” (2, GP)

“These patients lead to an overload of medical consumption that is completely unnecessary. For me, the more health information, the better. However, the more crappy data you can leave out, the better” (9, cardiologist)



“Especially with chronic patients: that if I make home visits to them, I already have an overview of their self-measurements from the past two weeks, or the last month before I leave. So I can check or look for the best next step, instead of waiting at their home until they have found their written notes or the notes that the nurse wrote down, often in a rush” (1, GP)

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- The context-dependency of healthcare

- 
- The professionalization of self-care

iv. concluding thoughts

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Concluding remarks

- Active *versus* passive (self-)tracking
- Wellness *versus* medical necessity
- Expectations *versus* reality
 - Entertainment medicine
 - Not embedded in the daily medical practice (yet)
 - Policy vacuum

Concluding remarks

- Social isolation
- Insurance companies
- Privacy: EU *versus* US
- Digitization of healthcare: quality