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veranderi
informati
de v
techno
science

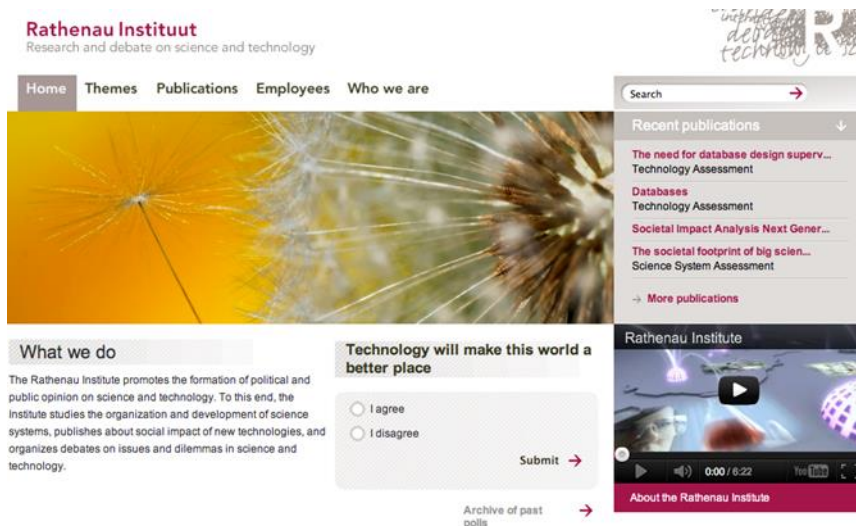
Rathenau Instituut

Quantified Health: lifelong measuring

PACITA March 14th 2013 - Stans van Egmond PhD (Rathenau Instituut)



- Independent research organisation that investigates societal issues concerning upcoming technologies and the science system
- Facilitate and stimulate public and political debate and opinion forming
- European and Dutch Parliament as primary focus



Sickness and health

Looking at human enhancement and the human body as a commodity.

→ See projects



The value of science

How does society benefit from scientific research?

→ See projects



Sustainability

How are we to control our thirst for energy?

→ See projects



The infrastructure of knowledge

How is the Dutch science system organized?

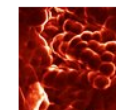
→ See projects



The Information Society

Technology is all around us: our smartphone, our OV-chipcard and soon... our very own healthcare robots.

→ See projects



Innovation

On innovation and how to stimulate it.

→ See projects



Cities, Nature and Agriculture

On animal welfare in farming, the



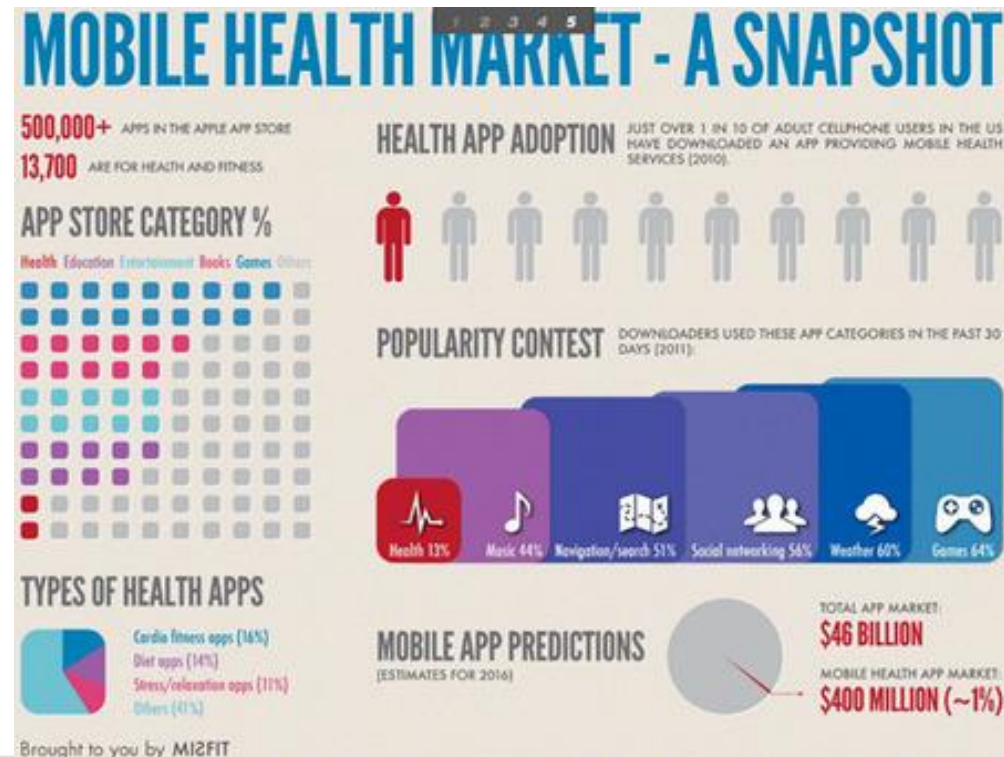
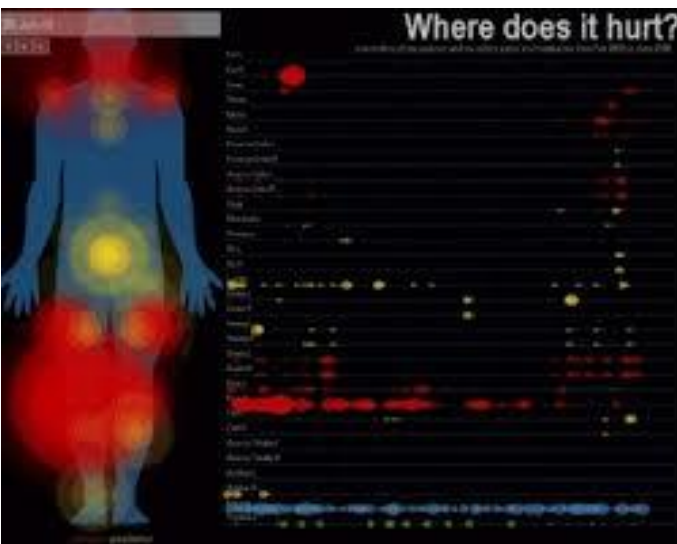
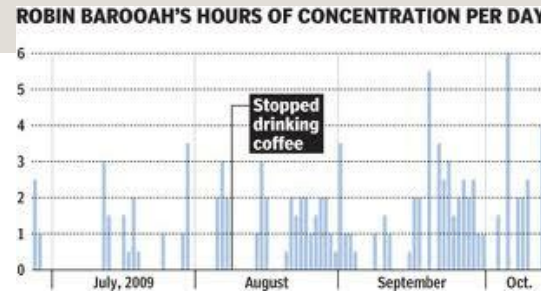
International

The Rathenau Institute conducts various international projects and research.

Quantified Health

dynameisch
veranderend
technisch
kennis
wetenschappelijk
onderzoek
wetenschap
techniek
wetenschap

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Socio-technical trends of quantified health



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- Appification and gamification of health and wellbeing;
- Portable devices: small, quick, cheap, fast, exchangeable, invisible, popular!
- Big data possible by increased computational power;
- Rise of the -omic sciences and biostatistics towards algorithm medicine; Science of big numbers, medicine of small numbers;
- Industry of figures and patterns, in a culture of accountancy;
- The idea of a responsible and active patient / human being;
- Citizen science and participatory medicine;
- Trend towards open source, wisdom of crowds, biocitizenship, 'biosociality'.

New groups

dynameer
veranderend
informatie
de data
technology
kennis
wetenschap
onderzoek
schiek
science

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About the Quantified Self

A place for people interested in self-tracking to gather, share knowledge and experiences, and discover resources. [Learn more](#)

QS Europe 2013
Conference
Register Now!

[Get Started Here...](#)

[QS Show & Tell Videos](#)

[QS Forums](#)

Global QS Event Calendar*

woensdag, 27. februari

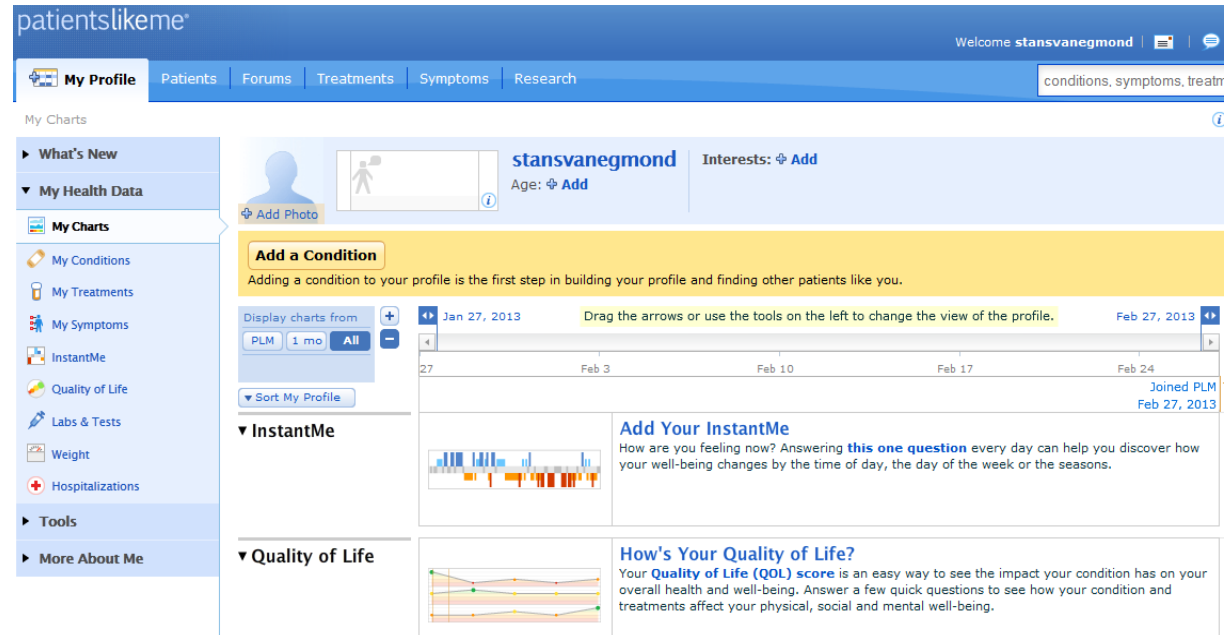
16:00 Chicago QS meetup

donderdag, 28. februari

15:00 Lansing, MI QS mee

maandag, 4. maart

10:00 Amsterdam QS mee



Quantified Self
self knowledge through numbers

Politics of numbers

- The human body as quantifiable unit which can be measured, monitored, moulded, manipulated, managed
- Towards 4P medicine: predictive, preventive, participative and personalised
- Quantification of bodily functions changes public health policy and individual responsibility
- Policy context of financial cuts and restraints, silver tsunami, expensive technologies, risky behaviour and lifestyle disease (binge drinking, IVF)
- The human body as locus for micro risk management or public control? **Responsibilisation** and **lifestylisation**

Socio-political issues

- Possible shifts in definition of illness, from 'illness as the deviation of the normal' to 'potentially ill'
- Shifts in treatment of illness and health: merging of the clinic and epidemiology, of care and research
- New groups of knowledge producers, e.g. self-measuring patients
- Shifts in institutional arrangements and governance structures: new roles for clinic, health professional, lab, health insurance companies, patients, pharmaceutical industry, government?
- Tension between individual freedom and autonomy vis-a-vis collective choice and responsibility (cure, care, security, solidarity, public health policy)

Research questions and aims

Gain insight in manifestations of the new quantification of the body:

1. What is being quantified? And how was it measured before?
2. How does it change our perception of illness, health and wellbeing? And what are the implications for intervention?
3. How does it change institutional arrangements?
4. What are the political issues emerging from this trend?

Discuss and deliberate these issues, and make them relevant for political debate and policy making

Output: book, debate, art

The Book:

Popular scientific book, commercial publisher, with empirical cases

- Introduction essay by Rathenau Instituut on trends and issues
- Case studies by invited authors on current practices in lab, clinic, industry, home, insurance, public (health) policy
- Concluding part on implications for politics and policy, publics and parliaments, 'personal health governance

Public Debate:

- Seeking a broader audience to discuss the issues of quantification
- In connection with art manifestations

The Book: nine cases



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- Antropometrics: 3D scanning of children for medical goals
- Selftracking en the cure of diabetes type 2
- Diagnosis of Heart Disease by means of DNA profiling
- The Healthcare Insurance Company and the use of healthapps for disease management
- Measurement of the Psyche with databases and biodata
- The measurement of Rheumatic disease
- Forecasting Frailty in the Eldest Elderly
- Measuring Death
- Diabetes: a biographical account of measuring disease

Aim: gain insight in the extent of quantification and address political and social issues in health and wellbeing

Me Machine Project

ORNAKENNIS
verandering
in het
denken
de
techniek
in het
onderzoek
van de
mens
en de
wetenschap

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Planning of the project



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- Publication of the book in March 2014
- Policy brief for Parliament
- Symposium
- Me machine project and Lowlands festival 2014
- Media coverage

Contact:



Rathenau Instituut

Dr. Stans van Egmond

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Stans studied political sciences and genderstudies at the University of Amsterdam, where she graduated in 2000, and holds a certificate in Dutch law. After her graduation she worked for a Dutch political party, as a policy maker in Government, and in the field of democratisation. From 2003 onwards she worked as a PhD student and post doc at the Institute of Health Policy and Management (iBMG) where she researched interactions in science, policy and practice in health care, and as lecturer at Organisation Sciences of the VU University Amsterdam. In 2010 she defended her thesis 'science and policy in interaction'.

Marjolijn Heerings MSc

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In May 2012, Marjolijn Heerings joined the Technology Assessment department as a junior researcher. She works on the projects: 'Patients know better' and 'Quantified self'.

Dr. Ingrid Geesink

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Dr Ingrid Geesink is senior researcher with the Rathenau Institute's Technology Assessment division, specializing in innovative biomedical technology and public health issues.