Summary 4th SafeAge Conference, 20-21 April 2017, Vlissingen

Themes

- Social and technological innovation
- Participation and volunteering
- How to anticipate (education)

Social and technological innovation

Ap Dijksterhuis spoke about our journey of understanding happiness. Ap Dijksterhuis (1968) is one of the most influential psychologists in the Netherlands. He is a professor psychology of the unconscious at the Radboud University Nijmegen. He is also one of the editors of the internationally acclaimed Science Magazine.

We control a great deal of our own happiness. Even for 50 percent, contemporary science tells us. Can you think of a higher goal in life than happiness? Looking back in time, many philosophers from all eras have thought this through from different angles. From Socrates and Epicurus to Siddhartha and Confucius, they all concluded that happiness is a state of consciousness and something you can influence with a certain life style.

Dijksterhuis is keen on involving his audience into small tests like asking: How happy are you on a scale from 1 to 10? Making up your own mind, supported with scientific proof, leads to a thesis that happiness is more stable than we might think. It's our consciousness which can't be fully trusted when we analyze what makes us happy and what doesn't make us happy.

The explanation of flow is one of the strongest models in the pursuit of happiness. Flow is the fantastic state of optimal experience. A model from Mihaly Csikszentmihalyi. Flow can be achieved by aligning skill and challenge in the most optical way, leading you to a state of happiness. It's about a perfect balance between your comfort and learning zone, being creative and enjoy happiness in a wonderful pure form.

The way we motivate ourselves for our actions is important for our happiness. There is intrinsic motivation, which comes from the action itself. Like playing the piano because you love it. Extrinsic motivation comes from external factors. Like playing the piano because your parents told you so.

What makes this so interesting is the fact that we think we have a clear distinction between intrinsic and extrinsic motivation, but research tells us otherwise. Increased focus on what's intrinsic leads to more happiness. A good example is the importance of learning versus the opportunity to earn money. Research clearly indicates that people who have a challenge and learn are much happier than people who choose extrinsic rewards, like money and status, in pursuit of a management position. Choose a job you love, and you will never have to work a day in your life.

Another important aspect of happiness is our need for autonomy, where Dijksterhuis pulled in the famous Maslow hierarchy of needs and comes to a powerful conclusion that any manager can use: intrinsic motivation declines with threads and external rewards. They subdue the feeling of autonomy and impact the chance on happiness.

We don't have to be shy from using the word happiness more often in schools, business, and also health care. Ever seen happiness of caretakers as a goal? Happiness is clearly the higher goal in life. If not the highest goal. It wouldn't harm to incorporate it in our policy.

Gandhi's once said "Happiness depends on what you can give, not what you can get".

The second key note speaker, **Lucien Engelen**, had a lecture on technological innovation. Lucien Engelen (1962) has worked since 2007 at the Radboud University Nijmegen Medical Centre. He advises the Board in terms of changes in healthcare enhancing the participation of the patients and their informal care in their own disease, working towards raising the level of participation in Health(care), research and education. He is founding Director of the Radboud REshape Center, that acts on the convergence of technology and patient empowerment. Creating breakthrough programs, creates alliances (i.e. Philips, Salesforce, Apple, Google and MaRS Canada) compiles foresights and products (if industry lacks progression) itself.

Lucien Engelen talked about making healthcare exponentially more patient centered. The healthcare industry faces more challenges than ever before: shortage of skilled personnel, a rising demand for healthcare services, and healthcare budgets that are under significant pressure. At the same time, the influence of exponential growth in technology and the changing attitude of patients result in changing patient care models. We have entered an era of exponential growing technology that in some parts seems almost abundant. It is great to see the possible change that can come out of that, creating the opportunity to create a sustainable health(care).

Patient-facing technology is already showing promise that it can improve care for patients and reduce strain on the stretched health service – particularly for people with long-term conditions such as diabetes or COPD. However, this rapidly evolving market comes with risks. Many apps, tools and devices have not been officially evaluated, meaning that their effectiveness is unknown. In some cases, technology can increase demand for services, disengage staff and have the potential to disrupt the way that patients access care. Policy-makers and politicians should avoid assuming that self-care-enabling technology will produce significant savings, at least in the short term. Without regulation and a careful look at the evidence – not all of which is compelling – these digital tools could compromise the quality of care and disrupt the way care is provided

Lucien Engelen also made a comparison with the Bermuda Triangle. A lot of ships are lost and sunk in the Bermuda Triangle. If we don't take good care, a lot of wonderful applications in healthcare technology also get lost in the triangle between technology, ethics and philosophy. To avoid that, we have to give attention to the ethical and philosophical aspects.

"It is 2026. A medical specialist today receives two patients at his office. A man of 79 years who has a great chance to become 100 on the basis of his DNA profile, provided he now gets a €300,000 anti-cancer treatment. And a young man of 21 who would like to have the same treatment, but who has a life expectancy of 33 years based on his DNA profile. The insurer provides the doctor only budget for one of the two patients. Whom will he choose?"

The doctor of the future is not only a physician, but more than now he should also be an ethicist and philosopher. We will be seeing more and more of these issues because thanks to the evolving technology the possibilities will expand in the near future. The questions that are going to come at us are of an ethical and philosophical level as well, and both in intensity and in number they will be so incredibly abundant that we will never be able to answer them all.

He gave some examples that prove the importance. Researchers at Berkeley have developed wireless sensors that may be implanted in the brains. This 'Neural dust' can be implanted in various parts of the brains for different purposes. Think of fighting epilepsy or controlling prosthetics or exoskeletons. But implanted in other parts of the brains, they can also affect behaviour. Of course this is great news for people with mental illnesses who are dependent on their life-long medication. But when do you have a medical condition and when are you just more susceptible to positive or negative moods? Or: what kind of behaviour do we – as a society – tolerate (or not) and as a consequence, which people do we want to be treated with this neural dust? Will patients still have a choice of their own?

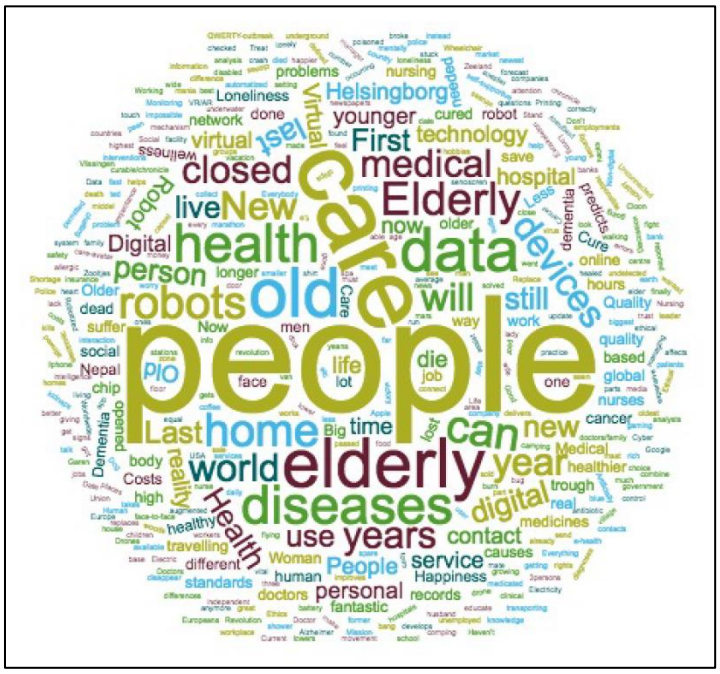
Another example. CRISPR Cas 9 is a kind word processor for DNA with which you can restore errors in the DNA by just using a cut and paste functionality. A development with enormous potential, of course, but also with a shadow side. The inventors of this technology have, for now, put a brake on the further development because they recognise that their finding is wonderful to cure diseases, but it also enables the production of 'designer babies'. They feel that it is time to first conduct a major public debate on the question: how far do we want to go in this development? Scientists in China show, however, don't feel a similar urge, and are already experimenting with embryos.

Completely new scenarios are coming at us. And all of this will happen more quickly than many people think. We humans tend to think linear, but these developments are exponential. At this point in time we are still at the stage where we experiment, when things can go wrong. That does not matter, you simply have to make mistakes in order to move forward. It's like kids who learn to walk: first they are very unstable and fal l with every step. But once they realise how they can maintain their balance, it all goes very fast.

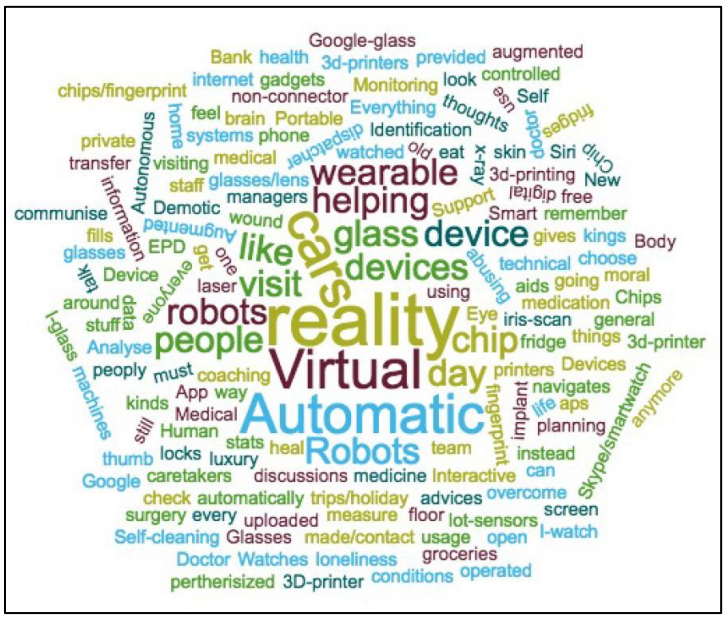
In short, we must find a (new) balance between technology, ethics and philosophy. It will always be a balancing act between these three forces. And that's good, because only if the balance sometimes moves a little more towards the technology corner, you arrive at new, innovative ideas. The creators of these ideas should then get healthy opposition from the ethical and philosophical side. It is very good to now and then put a brake on technological innovation in order to conduct a moral discussion.

In workgroups some questions have been discussed:

- In 2030 what will be the major changes in health care?



- In 2030 what will be the innovations on frontline of the newspaper (related to healthcare)?



Participation and volunteering

Third key note speaker was Prof. Dr. Lucas Meijs. Lucas Meijs is professor of Strategic Philanthropy and Volunteering at Rotterdam School of Management, Erasmus University (RSM). His current research focuses on issues related to volunteer/non-profit management, corporate community involvement and civil society. Professor Meijs teaches courses on nonprofit management and social entrepreneurship.

The Dutch Welfare Policy defines volunteering as "work done in any organized context that is carried out without obligation and without pay for other people or the community whereby the person doing the work is not dependent on it for his or her livelihood". According to the Dutch Ministry of Health, Welfare and Sport, volunteering in the Netherlands has played an important role in health care, welfare work, nature conservation and the environment, culture, education and recreation. The volunteers' contribution to the society is enormous as they not only take their social responsibilities seriously and by doing so represent a counterbalance to professionalized institutions, but their work also contributes to the social quality of the community. Voluntary work offers individuals the opportunity to reduce social isolation and in doing so provides avenues for self-fulfillment and development.

Volunteering per sector, population 15-74 year old, 1985-2005 (in percentage)

Volunteering in organizations dealing with:	**1985**	**1990**	**1995**	**2000**	**2005**
Culture, sport, hobby's	24	20	26	15	15
Children and youth	19	17	20	13	13
Religious	9	8	9	7	7
Politics and idealistic aims	5	5	6	4	4
Trade unions	4	3	4	2	2
Women's organizations	3	3	2	2	1
Various aid organizations	4	4	4	3	4
At least one of items below (as volunteering)	45	40	46	35	33
handicapped persons elderly etc)	(14)	(12)	(12)	(8)	(8)

Source: SCP (TBO research)

The Netherlands has been known for its generous welfare system. Three decades ago, when the U.S. was spending about 22% of its GDP on entitlement programs, the Dutch were spending more than 40%. That lineup, though, is headed for change: the Dutch are wisely dismantling the system that they can no longer sustain. The Netherlands are dismantling the classical welfare state, a system that they can no longer sustain. The welfare state is slowly but surely evolving into a 'participation society' – asking people to do more to help each other before turning to the government for aid. The public systems should start encouraging self-reliance over government dependency.

The social security system of the Netherlands is based on social insurances and supplementary income support provisions. The main principle of the system of the Netherlands is that all members of society must be able to play an equally active role in society.

But everything is about to change. The "classic welfare state of the second half of the 20th century" is over. It will be replaced by a "participation society" because the "arrangements" the nation was operating under "are unsustainable in their current form." The local authorities are mainly responsible for social welfare, and they are increasingly opting for strategies at neighbourhood level, with integrated solutions to social and economic problems. The aim is to create flourishing communities, in which every resident feels involved.

The demand for volunteering is increasing. This is due in part to the disintegration of informal networks surrounding the elderly, as well as to the ambition of national and local governments to decrease citizen dependence on public services. Another reason, albeit less frequently mentioned, involves the recent economic crisis and cutbacks in

social services, including elderly care. Professionals and managers are thus facing many complex questions. Which tasks should be performed by professionals, and which could be entrusted to volunteers? How can professionals and volunteers work together productively? How can institutions be re-organized in order to incorporate volunteers?

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The Netherlands has a thriving civil society in which volunteering has always been considered a foundation stone. Volunteering however is also subject to the influence of broader social changes, that might have influence on volunteering in the future. The growing number of higheducated elderly people brings potential volunteers on one hand; on the other hand however, the expectations are subdued to the possible extended age of retirement. Furthermore, the profile of volunteers will also change; ageing population means there will be more elderly volunteers. Older people volunteer more frequently and spend more time doing so. This would obviously have a positive impact on volunteering because it means it will compensate for the reducing participation of young people. The higher education level will have positive influence on volunteering, there will be more interest in voluntary work, but it might also have unfavorable impact since highly educated people might have more sophisticated ways of spending their free time and, in general, are busier. Increased multiculturalism of society in the upcoming years means that immigrants will enter the volunteering sector, this will concern both, their own ethnic group organizations and national organizations. This gives the volunteering sector an opportunity to facilitate an intercultural dialogue and diminish ethnic barriers. The new governmental policy, Social Support Act, will give more recognition and support to volunteering. In conclusion the Dutch society will be acquainted with new kinds of volunteering; like the Internet volunteering. This means the voluntary activities and organisations will not always be as visible to society as it is now. On the other hand it's a medium which can increase the voluntary participation of young people.

How to anticipate (education)

The congress was closed by **Henk Rosendal**, professor Neighbourhood Care at Health Innovation Research Centre of Rotterdam University. In his lecture he told how to antcipate on the future, including a workshop in mixed groups on a business case on the theme.

The healthcare industry faces more challenges than ever before: shortage of skilled personnel, a rising demand for healthcare services, and healthcare budgets that are under significant pressure. At the same time, the influence of exponential growth in technology and the changing attitude of patients result in changing patient care models.

The costs of health care in the Netherlands are soaring. So rapidly in fact that if we do nothing to curb them then by 2040 we will be uitilizing roughly one quarter of our GDP

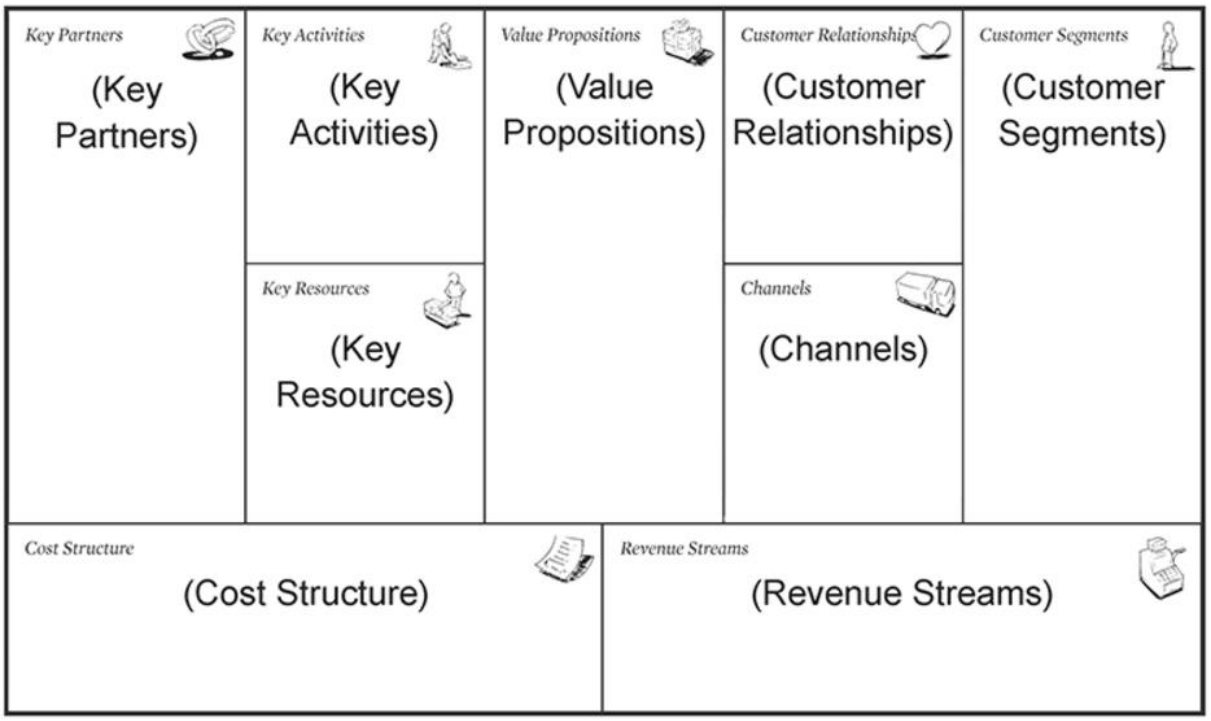
and one quarter of our working population to ensure provision of curatieve health care and long term health care. The primary causes of this scenario are:

- On the demand side: an increase in chronic diseases and those related to Western lifestyles, (supposed) right to the best health care, mobilization of latent demand through the introduction of individual budgets and an ageing population.
- On the supply side: expensive new technologies and treatment methods, volume incentives for health care providers and sluggish growth in productivity.

Consequently Dutch health care will have to become more sustainable. Although health care is one of the reasons behind our improving health, unchecked increases in health care expenditure will not only strain the budget, but will also harm solidarity and social cohesion. Important questions are: will we remain capable of innovation, will we be able to generate criteria and data in order to manage quality, will we manage to engender sufficient solidarity, will new technologies lead to lower expenditure, and, will our political leadership be strong enough?

Many innovations are being developed in health care, such as new care methodologies, guidelines or new technologies. There is often a gap between 'knowledge' and 'action' where innovations are concerned. Usually examples of best practice are already known, for instance for the tackling of waiting lists or medication faults, but it takes years to spread these best practices. The causes of this are complex and diverse. The problem could be that too little time, knowledge, expertise or financial means are available to tackle the problem, but another possible hindrance could be an aversion to change and the disruption of routine. How can we achieve the most effective strategies for a more successful and particularly a more lasting implementation of innovations.

Implementation of innovations can be supported by the business model CANVAS. The Business Model Canvas (BMC) gives you the structure of a business plan. The Canvas has nine elements:



1. **Customer Segments**: Who are the customers? What do they think? See? Feel? Do?
2. **Value Propositions**: What's compelling about the proposition? Why do customers buy, use?
3. **Channels**: How are these propositions promoted, sold and delivered? Why? Is it working?
4. **Customer Relationships**: How do you interact with the customer through their 'journey'?
5. **Revenue Streams**: How does the business earn revenue from the value propositions?
6. **Key Activities**: What *uniquely* strategic things does the business do to deliver its proposition?
7. **Key Resources**: What unique strategic assets must the business have to compete?
8. **Key Partnerships**: What can the company *not* do so it can focus on its Key Activities?
9. **Cost Structure**: What are the business' major cost drivers? How are they linked to revenue?

The Canvas is popular with entrepreneurs and intrapreneurs for business model innovation because of focus, flexibility and transparency.

In a workshop with mixed groups BMC has been practised.

Best practises

During the congress there were also presentations form some best practises.

- **"Using robots in care, a presentation of the Accra Project"** by Mrs. Isabelle Fabricotti, associate professor at the Institute for Health Care Policy and Management EUR. ACCRA means **A**gile **C**o-**C**reation of **R**obots for **A**geing. Goal is to enable the development of advanced ICT Robotics based solutions for extending active and healthy ageing in daily life by defining, developing and demonstrating an agile co-creation development process. Participating partners are from Netherlands (WVO Zorg, Erasmus University, University of Apllied Sciences Vlissingen), France, Italy and Japan. Elements in the project:
    a. Design a robotics solution that meets the needs and expectations of elderly, informal and formal caregivers.
    b. Evaluate the value of the robotics solutions.
    c. Sustainability analysis. Defining the potential market for the robotics solutions, and assessing the large scale impact of up scaling robotics solutions on the health system by a cross-border comparison, market analysis, scalibility scenarios.

  There are also some other challenges in the project: ethical, resistance to robotics, technical boundaries and insurance.
- **"Music therapy"** by Joop Roovers, music therapist at WVO Zorg. Most people enjoy music, but can it actually make the mind "move"? Absolutely, said Joop Roovers. Music therapy is a target-oriented and purposeful activity in which therapists work with individuals or groups, using musical expression and the memories, feelings, and sensations it evokes. It has been found to be particularly beneficial for older adults with various types of dementia. Music has a close relationship with unconscious emotions, which are activated by musical movement. Meeting individually and within a group, elder clients express

themselves and recall the memories that music sparks and stimulates. By listening to live music and being involved in live music-making experiences, a greater quality of life is possible. This empowers clients to emerge from the isolation imposed by Alzheimer's disease and dementia. Music therapy improves the overall physical and mental wellbeing of dementia patients including memory recall, positive changes in moods and emotional states, a sense of control over life, non-pharmacological management of pain and discomfort, structure that promotes rhythmic and continuous movement or vocal fluency as an adjunct to physical rehabilitation; and opportunities to interact socially with others.

- **"Day light simulation in the nursing home (dementia)"** by Gerda Andringa, assistant professor in Cognitive Science at the University College Roosevelt. Mid 2015, WVO Zorg and UCR started research on the response to daylight simulation of clients with dementia. The research took place in the nursing home Ter Reede Vondellaan. The first research results indicate that daylight simulation has a positive contribution to the wellbeing of the clients.
  People with dementia show behavioral and sleep problems which influence the wellbeing of the person, and those who care for them. The behavioral and sleep problems can be (partly) influenced by disturbances of the day-night rhythm of the clients. The research investigated the increase in light intensity on the behavior, sleep and day-night rhythm of the clients. In order to do this, the living rooms in the nursing home were equipped with daylight lamps.
  The results show that the clients become more active in the morning and afternoon, and less active at night. There is a higher sleep efficiency (92%) during the night after the introduction of daylight lamps. The daylight also positively influences the behavior of clients.
  The collaboration with UCR and WVO care employees improves the care. It also allows students to experience care for the elderly and employees to be involved in research.
- **"A project on coordination between education and practice"** by Nathalie van de Zande, researcher at the University College Roosevelt. In this project university students are linked to people with dementia living at home. Students are currently insufficiently interested in and familiar with the challenges and issues within the elderly care / well-being. While the number of elderly people increases and the careers' knowledge and skills are changing. Goal is to improve knowledge and attitude of students for elderly care in general and dementia care in particular. The acquisition of knowledge and the personal experience of the students will have a positive effect on the attitude of the new generation of doctors and nursing staff. Making a connection between generations is an innovative approach. Students act as a buddy of home-living people with dementia. After training, they are linked to a person with early dementia. Matching is based on the possibilities, talents and interests of the person with dementia and the skills / interests of the student. Students spend individual time with a person with dementia. The demented and the informal caregiver are in charge. The method is included in the curriculum of the university.