



Opening speech
Conference Small devices – big potential
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Aalborg University, Cph

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past Danish Minister of education, MP and the president of the committee on research and education in the Danish parliament.

Ladies and gentlemen,

Thank you very much for the invitation to give this opening address at this interesting and international conference on small devices with big potentials. Let me take this opportunity to thank the organizers for making this important conference possible. It is extremely important that we have an opportunity to have this discussion on the automatic assessment and collection of dietary data through ICT. This technology has the potential of benefiting thousands of patients and others all over the world.

Having seen the list of the distinguished speakers today and of course all of you in the audience I am sure that we will have a fruitful and beneficial debate including interesting and insightful demonstrations. Many of you have travelled far to come here today.

I have been looking forward to coming here today because the topic of this conference is of great interest to me. As some of you know I am the former Minister of Education. An office I held for the past four years having just ended my term this past June. I am sure you are all aware of the potential consequences general elections have for politicians ☺

However I'm very pleased with my new post as Chair of the Education and Research Committee in the Danish Parliament because it allows me to give more attention to today's important topic.

Because today's topic *is* important – and for many reasons:

First of all because it has the potential to help ordinary people. On average 40 % of Danish patients experience malnutrition when they are hospitalized. 1 out of 5 patients risk malnutrition from the very moment they are hospitalized. And up to 30 pct of the food in hospitals is wasted. These statistics show us that there is absolutely room for improvement and we need to act in at least three areas:

- We need more knowledge on why patients risk malnutrition so quickly,
- We need better and more effective assessment and collection of dietary data, and
- We need to cut down on the enormous amount of food waste that we see today – which I might add is also unacceptable from a societal perspective.

The topic and focus of this conference and the international research work that you are part of is a better and much more effective way to measure food intake and reduce food waste.

Allow me to share with you a personal story about malnutrition which illustrates why so many patients risk malnutrition while hospitalized.

I have an adult son, Thor. He is 27 years old, strong and healthy and he works in a Danish public school. When he was 3 years old he was diagnosed with leukemia. While he received chemotherapy he lost his appetite. It was a side effect from the medicine but his loss of appetite was also due to something else which later became the main focus of a large research project at Rigshospitalet in Copenhagen.

Like all patients hospitalized children in the cancer ward received their food from the main kitchen at the hospital. It was of course healthy and nutritious food. The only problem was that the children in the cancer ward did not eat the food because they suffered from nausea. Consequently these children did not get the food they needed.

One of the results of the research project was to design a kitchen at the hospital where the parents of the afflicted children could cook their own food – for their children and themselves and enjoy the food together – as families. The purpose was to develop an environment as close to a normal family dinner as possible. And when it came to the food, it was more important that the children actually ate than the nutritional value of the food. The point was that food like fat yogurt, potato chips, sausages, white bread etc. is better than no food at all.

The good news is that it worked. Considering eating as a social family event and allowing for unhealthy food meant that the hospitalized children began to eat. After all that was the whole purpose. Along the way parents were able to include healthier food on the children's plate as well.

Eating too little or too much is one of the big challenges for a lot of people today. As a layman and politician that is why I find your approach extremely interesting. You work together across borders, barriers and fields of expertise with the same aim: to find solutions when it comes to choice of food, food intake and food waste.

What you will see and debate today is developed across fields as different as nutrition and food research, ICT, electrical engineering, health and design. Your work is also impressive in another way as it has been developed in close cooperation between researchers, students, practitioners, innovation environments and enterprises. We are seeing research with a strong focus on how it can be applied to everyday life – developed in interaction between theory and practice.

Today we see more and more user-friendly devices, for instance sleeping apps, activity trackers and smart watches, which in different ways - and using the latest available technology - solve different everyday life problems regarding exercise, diet and health.

Today's focus is on diet. We can see what we put on our plate but what do we eat and how much should we eat? For instance hospitals spend a lot of time and effort on the healthy diets but still malnutrition and food waste is a huge problem. By using camera

technology and sensors we can collect and access dietary data much more precisely and efficiently – for better treatment outcomes of the patients and reduction of food waste.

If the technology called DIMS (Dietary Intake Monitoring System) developed by Aalborg University and others can reduce food waste by about 20 % though better monitoring we can save 200 million Danish kroner (apx. 300.000 US dollars) in the health sector in Denmark alone. The potential is huge!

This technology also has the potential to help patients. The right diet will help patients recover better and faster and will help hospital canteens to optimize their operation. Lessons learned from hospitals can later be used by schools, day care centers, nursing homes and even for elderly people living at home.

In other word this technology can be summed up as “smart devices with big potentials”. It is an example of how new technology can increase welfare and at the same time have a substantial economic growth potential benefiting both citizens and enterprises and thereby creating more jobs.

The DIMS technology is also an example of a fruitful and important corporation between research, enterprise and education – three important components of the knowledge triangle. Seen from my chair I think we need increased cooperation between universities and enterprises – between researchers, students, practitioners and companies. All parties will gain from this as it allows for different kinds of expertise and experiences to interact and hopefully - as we see with DIMS - end up with “products” that can help ordinary people and also represent a huge economic growth potential.

I look forward to today’s conference and learning more about the latest technology which was also demonstrated to the public last Tuesday at Herlev Hospital.

Once again welcome to all of you and thank you for attending this conference.