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A NEW PROFESSION — WELFARE AMBASSADOR

The overall long-term welfare of the society will be driven by technologies that have been ethically created and well-intended

In the future social engineering is expected to become just as natural in our everyday lives as internet is. Internet was unknown, unfamiliar and scary to us in the early days, as it is the human nature to be alarmed about everything that is new. That is why people often take a very cautious view on many modern technologies. Indeed, there is a possibility that they have been developed by people with bad intentions. Nevertheless, Agnis Stibe, professor of ESLSCA Business School Paris and social engineer, believes that this fear will gradually disappear and there will be ever more examples of ethically developed and properly used technologies creating significant innovations that contribute to growth. «Any state and local government body that looks after people and their welfare at any level, needs at least one social engineer or welfare ambassador whose daily task would be solely reviewing and developing society welfare processes, and connecting them to technological solutions which essentially are being purposefully developed in order to move into the direction of welfare,» he maintains.

You will be participating at the World Congress of Latvian Scientists with a lecture. What are you going to talk about?

My lecture is on the subject of *Transforming sociotech design — help for people to change successfully*. Breaking it down into terms: design means creating and everyone is fairly familiar with this word. We can split the term «sociotech» into two parts — social and technical, which are also fairly self-explanatory terms — technologies and their interaction with people, social environment, society. As for the term «transforming» it needs to be said that when we talk about change in behaviour, the result often fluctuates backwards and forwards. For example, if a person follows a specific diet, at first they may lose weight, but after a while they will put it back on, because the human nature dictates that we need to eat to be able to survive. This example demonstrates that there is no permanent and purposeful movement in the set direction. The goal of transforming technologies is to help support individual goals for them to move in the desired direction without much fluctuation.

What does social engineering actually mean?

I have recently been wondering whether I want to continue calling myself social engineer. It is still a very fitting description, as well as welfare ambassador. If we stick to the term *social engineer*, I like this title as it brings out the engineering competency, which is important in developing socially influencing technologies. Nevertheless, the social component and understanding of people, their nature, behaviour, relationship and interaction with technologies is equally important in order for technologies to help people change in the direction of welfare, whatever that means for different people. If we asked anybody what welfare means, we would always get an answer. We would also always get an answer to the question — is there anything that could contribute to welfare. If there is a social engineer present when asking these questions, by listening carefully their task becomes clear.

How old is this scientific discipline?

A book titled *Persuasive Technology* was published in 2003. Based on this

book and on the interest in this field by many researchers, the Persuasive Technology Conference was founded in 2006. I have been attending this conference since 2010. Interest in persuasive technologies first started at the Department of Psychology at Stanford University where two elderly social psychology professors came face to face with a technological innovation — a computer. Their department started using computers and they were posed with a question — if they are researching people and how individuals can influence and persuade one another, then the question of how to build a persuasive computer arises. I would not say it is a big conference, around a hundred people attend it every year, but this area of research is also represented in other computer related conferences on interaction between a person and computer. For many years I have been involved in business as well as in academic sector and I can see that these nuances and characteristics overlap at conferences of both areas. One might think that forms of behaviour differ in business and the academic field — it is profit in one case and creating knowledge in the other, but the basic instincts that drive interaction, rivalry, cooperation, competition and similar, exist in both sectors, because people work in both sectors.

How many social engineers are there in the world?

I think few people have this title. In essence, they are people who have skills and understand both social psychology and technologies. Most of the participants at the conference could in some way belong to the group of specialists who could be called social engineers. Counting all the conference participants from previous years, around a thousand people are probably involved in this area in depth.

The first book on the subject was published 15 years ago. How has this subject evolved in this time?

We had discussions about this at the last conference. Thanks to my initiative a seniors' meeting was convened and we discussed the fact that, unfortunately, the characteristic figures of the conference are stagnating. Even though in the last few years the environment where persuasive technologies first appeared was promising, and we should be seeing increase in the numbers of participants at the conference, in more scientific research, in reality it is not so. I believe that the conference next year will be much better.

There need to be ethical and highly moral standards adopted in developing technologies that aim at improving people's wellbeing, says Agnis Stibe, professor of ESLSCA Business School Paris and social engineer.

Where do you see this field in the future?

I think that in the future persuasive technologies will flow into our everyday life as naturally as internet has; it was unknown, unfamiliar and scary to us in the early days. It is the human nature — everything that is new is frightening, as our instincts react to everything unfamiliar with fear and initial anxiousness. Many see technologies as possible manipulation, because people are scared of being influenced. Indeed, people with bad intentions can use technologies to manipulate but, at the same time, I think this fear will disappear in the future as there will be ever more examples of technologies helping the society when used properly and if innovations are developed by people with high ethical standards. They can help in many areas, for instance, health. There are smart tooth brushes that assist in brushing teeth and, if you are not doing it right, suggesting you to hold the brush differently. The more people will be pleased and will find the inner balance due to technologies, the more people will become ambassadors. Another controversial example is a smart fridge that can evaluate the contents of the fridge and, for example, compare it to the contents of other fridges in the same block of flats, based on the collective information. As a result, the person knows what they are eating themselves and what their neighbours are eating and how healthy it is. If you are doing worse than your neighbours, the fridge will constantly inconspicuously show you that.

I believe that those technologies that come into our everyday life properly, ethically and morally, will be the ones that contribute to our common welfare. Of course, I have to be honest and admit that there will always be the other spectrum as well where somebody will always want to make more profit, have more power, influence and in principle nothing will stop them from using these same technologies to implement their dark patterns.

How do we fight that?

There need to be ethical and highly moral standards adopted in developing technologies that aim at improving people's wellbeing. Technologies have to be transparent. When people who aim for positive environment start building transparent persuasive technologies, any other technologies appearing on the market that are not transparent, will expose and disqualify themselves. The main thing is to give everybody an opportunity to quickly determine what is the developer's intention for the technology that the person has acquired. If the intention

CV

Agnis Stibe

__Work Experience: Professor at ESLSCA Business School Paris. Previously Scientific Fellow at Massachusetts Institute of Technologies Lab, Persuasion Engineer at University of Oulu in Finland, Business Development Manager for First Data International, Graduate Association President at RTU Riga Business School, Technology Sales Manager for Oracle, Customer Relationship Manager and Consultant for Hewlett-Packard, Customer Relationship Manager for MicroLink, Interactive Department Manager for Bates ADM, Director for ADM Interactive, Deputy Director and Senior Rapporteur of the IT Department of the Latvian Ministry of Foreign Affairs

__Education: Bachelour's and Master's degree in Computer Science (University of Latvia), Master's degree in Business Management (RTU Riga Business School), PhD in Philosophy (University of Oulu in Finland)

__Hobbies: self-knowledge, transforming, hockey, poetry

is to help and they are not afraid of the transparency of technology, the users will be able to see how it is built, why, what the intention is etc. Every time a person sees a transparent technology, they will know that the developers are aiming for welfare. As soon as they see a technology that cannot provide this transparency, it will be clear that the intention here is different. By giving everybody an opportunity to easily determine transparency of any technology, in the long-term we can arrive at the transforming vector that helps everybody recognise all the persuasive technologies that increase welfare.

You have previously worked as a scientific fellow at Massachusetts Institute of Technology Media Lab, now you are a professor at ESLSCA Business School Paris. What are the similarities and differences in the understanding of social engineering on both sides of the ocean?

I have been in Paris since July last year and my scientific activity is still global; more often than not I talk to people who are not in France. I am developing my collaborative network throughout the world; therefore, I often do not feel a direct bond with the place I am based at. My French at the moment is not at such level that I would be able to follow the local news, but there are some certain nuances that I have noticed. France, with their president at the forefront, emphasises its commitment to sustainable science and ecology. I see urban innovations every day. Right now, sharing economy is very popular in Paris, for example with bicycles and cars. At first, I did not pay much attention to sharing schemes, but when I started finding out about ice-hockey halls and how to get to them, the local hockey players suggested using a car sharing scheme. Practically every four blocks have a parking lot with electric cars for sharing. I am getting an impression that somebody is very strategically looking after and thinking about a sustainable urban environment, especially when it comes to transport.

What is your social engineer's vision on sustainable urban environment?

In my view the very basis of a sustainable urban environment is people who think sustainably. It is an unconventional answer as a common answer would be clever equipment, reactive systems, accountability and feedback. Indeed, all that forms part of sustainable urban environment, but unfortunately, or should I say fortunately, the central element will always be people. Our behaviour dictates how we behave within these smart urban environments, how we use the technologies available to us. Therefore, in my view, at the basis of a sustainable urban environment is a sustainably minded inhabitant, guest and society in whole. Certainly, the urban environment itself can be purposefully built, using all kinds of technologies, in order to help these people become sustainably minded people.

And what is a sustainably minded society and individual? How would you measure whether what a person does is or is not sustainable?

Here we come to essential core values. In my view long-term is paramount to being sustainably minded. We all make decisions — individually, in our families, businesses, society, organisations, regions, countries. Each of these decisions has an impact date. Decision makers, when choosing one or another option, determine what the effect and timeline of this decision will be. Every decision and action taken impacts on welfare and it has a predictable timeline. Sometimes a decision you make will have an impact for a day, while another decision will have an impact lasting for years. Therefore, I would say that a measure for being sustainably mindful is decisions made by any member of public, their actions long-term.

What is your view, as a social engineer, on what is happening with social

media, Cambridge Analytica and Facebook scandal, Brexit, Trump winning the election?

It is all to do with ethics and morals. We try to convert as many people as possible to our own set of values, values that we form, we invest time in promoting our own view of these values individually, in our families, at school and work. The same thing happens at the other end of the spectrum, where there are other ethical and moral values and those people believe that that is the norm; they use all technological tools to achieve and promote their values. Everybody thinks that their set of values is the best; similarly, there is also different views on ethics and morals. But people who do these things most probably believe that that is the norm and everybody else who do not do it are stupid. Psychologically they have a need to support their conviction and views and they will use all technological tools possible to achieve it.

What are your own values?

As I said before, everybody thinks that their own values are the best. As a person who has studied social psychology, technologies, management, forms of persuasion and gained other knowledge, I can see several sides to myself. Our brain is the central control centre, but at the same time there are some basic instincts within us — if we had not eaten for three days, our values would somewhat change.

When people reach my age they often have to think about the meaning of life, and values are at the basis of the meaning of life. My values are selfcare, caring for my welfare in the way that would enable me to be a productive and mindful member of my family, organisation and society, so that I could add value to global developments and value scales. My core value is welfare and that includes feeling well, being in good spirits and being satisfied with what is happening around me and with myself. If a person is looking after their inner balance and welfare, straight away it naturally reflects on all their interactions on the outside.

Therefore, the more stable a person's inner balance is, the more everybody else, who may have not achieved such balance, will feel it. Those who are not balanced, when interacting will naturally transfer their anxiety onto the balanced person. The same goes for the balanced person — the more balanced a person is, the more they will permit and encourage the unbalanced person to seek their own balance.

What subjects do you teach your students in Paris?

I teach subjects that are directly linked to my work — Transforming Sociotech Design, Socially Influencing Systems and Dark Patterns and Persuasive Backfiring. Dark patterns are deliberate, they run according to a plan, for instance, an airline wants to fool their ticket buyers and they do so. Unconscious influencing, on the other hand, means that sometimes a person may have good intentions, but they are misunderstood and something goes wrong. Considering that there are going to be more and more technologies developed in order to influence the public, both situations when the developers have dark intentions and when bad things happen unintentionally will arise. Therefore, it is especially important to educate on these subjects.

The very basis of a sustainable urban environment is people who think sustainably. It is an unconventional answer as a common answer would be clever equipment, reactive systems, accountability and feedback. Indeed, all that forms part of sustainable urban environment, but unfortunately, or should I say fortunately, the central element will always be people. Our behaviour dictates how we behave within these smart urban environments, how we use the technologies available to us.

AGNIS STIBE

PROFESSOR OF ESLSCA BUSINESS SCHOOL PARIS AND SOCIAL ENGINEER

How interested are your students in this new scientific discipline?

My teaching style includes students working on projects. Each student picks a topic and I give them a sample with which they can define the main issue of the project. It is usually something to do with a change in people's behaviour that they would like to achieve. They work with their project, they understand which people they would like to help change, we look at the methodology, seven forms of social influence, transforming models — and they use it all for their projects, thinking about innovations, technological solutions that would help this target audience achieve change.

There are many innovations that have been specifically built to change people's behaviour and, unfortunately, often they can be targeted at a group of people who are not ready to change and do not want to. There are many people who want to change therefore we need to work with those people first. As soon as we help them, they will be the ones showing the example and inspiring to see that many have managed to change. For instance, if you would like to become sustainably minded, to start recycling, then seeing an example that somebody has managed to do that and how they have achieved that can be very inspirational. One of the main things that I encounter working with students is that they, just like all of us do, look at and see what is around them. I am trying to widen this line of vision. Of course, I have to battle stereotypes that have been put in place by consumer society. I am particularly pleased to see students changing during the course.

Zero-waste living and other green initiatives are very topical at the moment. How do they resonate with thinking long-term?

I have not looked into these activities in depth, but I do understand that there are many people who care about ecology and sustainability. I believe that as much as they can, they make decisions and take actions taking into account the long-term measure. But at the same time, I assume that also these organisations might need a more organised and better managed view on what long-term actually means. An organisation may be focusing on waste recycling, carrying out various activities in order to implement processes and systems, to help people adapt, but maybe at some point, when you are so focused, you do not look at the whole picture, what is the common measure, why is it done and what will be the long-term impact.

USA comes to mind here. They are being blamed for promoting the consumerism cult. Is the consumer culture really that much more significant there or are we just trying to flatter ourselves thinking that we are not so consumer minded?

Since the beginning of the age of internet all the tendencies have globalised. Consumer culture was created very purposefully and, unfortunately, it is being actively maintained and promoted in many ways, because the supporters of this culture are gaining from this way of thinking and promotion of it. I have lived in Latvia, USA and Finland, now I am living in France, I have also travelled and seen many countries. I have to say that consumer culture is spreading very quickly. I think that it is driven by the human nature, basic instincts and necessity. Fear factor is also very important — people are afraid of not being accepted, not being a part of the society.

You started your career working for technology companies. Which technologies do you see as having the most potential to transform the world in a positive way?

At the moment the world is full of all sorts of technologies and tendencies. The most recent examples are blockchain, artificial intelligence and machine learning. These are techniques and technological processes that have a potential of becoming better and more productive. Sometimes I ask myself — ok, we will develop a solution that will imitate human thinking. How is that going to contribute to the society? That is the most fundamental question. Engineers are doing everything right, but social engineers or welfare ambassadors are needed to look at the role of technologies linked to welfare.

My first degree in computer science and also my workplaces have been closely linked to this area. I am certain that technologies will become even better and more effective. We need to focus more on having people who position these technologies within the bigger picture of welfare, this is an area that in many countries is not organized even at government level. Of course, there are people who are responsible for related areas, but people who are sustainably minded, with technological education and social psychology in order to effectively achieve a great change, that is the most important issues that all of us on this planet need to immediately take care of. ●

ANDRIS JANKEVICS

EXPERIMENTAL OFFICER AT PHENOME CENTRE BIRMINGHAM, UNIVERSITY OF BIRMINGHAM

One of the greatest challenges in many areas of natural sciences is the ever increasing volume of information available, both in the form of scientific publications, as well as through various data banks. Using effective, user-friendly information technology tools to separate «grains» from «chaff» is one of the main conditions for future development of natural sciences.

INA DRUVIETE

PROFESSOR OF THE UNIVERSITY OF LATVIA,

VICE-RECTOR FOR HUMANITIES AND EDUCATION SCIENCES

Nowadays, besides solving problems that are common for the whole of mankind, the preservation of the identity of each country and every ethnic identity is becoming increasingly more important, so that the world would not move towards homogeneity, but towards enrichment of each other. Topics of public interest, such as ethical and legal issues, cultural identity, religious thought, changes in culture, language, understanding of due to technologies and social mobility, distribution of resources and wealth cannot be addressed without the participation of humanities experts and direct communication between researchers and social partners. The scientific capacity of the individuals employed in the field of humanities makes it possible to grasp the various areas of the science of humanities interdisciplinary linked, by identifying the most recent theories and using the opportunities presented by new technologies. It strengthens the identity of our country and cultural and historical knowledge, as well as increases understanding of the processes in the society, because Latvia is the only place in the world where full research of the Latvian language, literature and culture can take place.

TĀLIS JUHNA

PROFESSOR AND VICE-RECTOR OF SCIENCES, RIGA TECHNICAL UNIVERSITY

With the development of competitive technologies, data will be increasingly used in the future and new sensors will be developed to obtain it. Developing data processing techniques, such as machine learning, will boost robotics and automation, making equipment smarter. That will in turn increase the need for ensuring data safety. Climate technologies will become economically more viable and will compete against the more traditional energy producing technologies. Smart technologies will be used even more in medicine and agriculture, thus strengthening the health and welfare of the society. Is the society ready for such rapid onset of technologies in our lives - a question that is becoming even more topical.

PREPARED: GUNDEGA PREISS