Frank Sonder

The Future is Ours – Robots Take Over

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I had the pleasure to be invited by W.I.R.E., the Swiss-based think tank, to participate in a "Battle of Scenarios" about the future of work. More precisely about the notion that robots will take over much of the work we are doing today. Presumably not only the physically exhausting work or the work nobody wants to do, but also highly qualified jobs, threatening even us creative snowflakes.

Beyond doubt, work itself is meaningful. But in what way? It is obviously desirable that robots will release us from physically exhausting or dangerous work or from what the sociologist David Graeber calls "bullshit jobs". Secondly it also means that robots take away our ability to make a living, which nails down the whole topic to a very up-to-date discussion about the concept of unconditional basic income.

Finally work is identity, it gives meaning to our lives. No matter what perspective we take, different discussions revolve around them with a multitude of opinions. History shows that all industrial revolutions so far had positive effects, even with certain groups initially losing their jobs to machines. Overall these industrial revolutions, ultimately led to the increase of wealth in transformed societies.

"The Economist" predicts that within the next 20 years half of all jobs will be taken over by machines. In some highly automated industries, like the automobile industry, it might be even up to 90%. The Jeopardy winning supercomputer Watson from IBM is already giving medical advice for cancer treatment. On average his human counterparts are familiar with approximately 8 to 10 different cancer treatments. But today there are approximately 70 others practiced with another 200 in the research, clinical trial stages or just published in a scientific journal. For you as cancer patient this could make a significant difference in the battle between life and death. IBM Watson can deal with all this. Your doctor possibly can't.

In the 18th century the Luddites tried hard to reverse the wheel of history in the English textile industry, the inherent logic of our economic system's ongoing search for improvements in productivity kept them from succeeding.1)

Also today we struggle with the pace that tech corporations are dictating. They are not to blame, as they exist to provide with whatever technology we want from them. It is our and our societies' responsibility to deal with the social aftermath of industrial revolutions triggered by new technologies to help losers in this transition to find new jobs and

prepare future generations to find or create useful and fulfilling jobs.

There is not much choice for us: Starting a discussion, which job should be replaced by robots and which one shouldn't, simply makes no sense as we are already in the middle of this transition, driven by technological change. There is no panic button. Especially in our current position, lagging behind the tech breakaway group, we are not in the driver's seat and thus are not able to controlling the direction of this transition.

The current debates about autonomously driving vehicles illustrate political and especially ethical implications of new technology adoption far beyond mere technological or engineering issues:

If your self driving car is facing a collision, it may have two choices: give way to the cyclist without a helmet on the right and crash into the cyclist with a helmet on the left. A self sensing vehicle may use a clear algorithm that calculates survival rates of both cyclists to conclude that the helmeted cyclist may have a better chance of survival, thus turning left privileging the cyclist who didn't protect himself. You could easily imaging similar scenarios with compact cars vs. SUVs, cars with or without insurances and so on. Surely the autonomous logic might choose to hit a car it considers more secure and with better insurance coverage.

Assuming you don't like the preconfigured logic, would you want to adjust the preferences of your car or even hack them? I think you get the idea of ethical and political dimensions beyond social considerations in technology transitions.2)

While you may consider this all too much science fiction, have a look at the facts: the computing and storage capacity is continuously growing, software gets more powerful every day and there is exponential progress in artificial intelligence. Big data, business intelligence, advanced analytics and cloud computing are on every CEOs agenda. Not surprisingly these are the ingredients of the upcoming change, or at least the more obvious ones.

So let's face the truth: It is hard or even impossible to predict anything seriously.

But this doesn't release us from dealing with the unclear change in the first place.

There might be some things we know about the future of work. And some topics we know that we don't have any specific knowledge about it right now might be manageable too. Unfortunately the biggest hint about our future are things that we even don't know that we don't know them. The so called notion of the "unknown unknown" by Donald Rumsfeld is probably the only meaningful and acknowledgeable impact he accomplished in his career. 3)

You might even go further as futurists like Ray Kurzweil do, predicting a state of human existence they call singularity. A future where computer controlled and knowledge based systems might achieve a status in which we as humans don't even comprehend anymore what the reason for this superiority actually is.4)

There is an incredible scene from the post humanistic movie "Her", a must-see for everyone who followed this blog entry so far: Its protagonist Theodore is engaged in a romantic relationship with his operating system named Samantha and his relationship gets even accepted by his friends. One day a question pops to his mind and he ask Samantha how many humans she is talking to at this very moment. Her answer: 8.316. He probably already is afraid of the answer to his next question but cannot hold it back: How many relationships like ours do you have at this moment: 641. That might have been obvious but struck him to the bones. Consequently later on Samantha leaves him as she wants to join other AIs to enter a level of self-awareness not accessible for humans like him.

Talking about science fiction here is another scenario about the future. It comes from the book "Lord of all Things" from Andreas Eschbach. The books protagonist Hiroshi Kato wants everybody to be rich with no need to worry about the future. In a way that everybody has everything at all times he or she ever wants or needs. He attempts to achieve that by developing self reproducing robots who actually create everything anybody ever wants. First mechanically than with nano technology. But again he ends up with elementary questions about moral and ethics (and love).

The "Battle of Scenarios" in Switzerland ended like all other related debates -with more questions than answers. But we should rely on the fact that asking the right questions is our most important task anyway. We still live with an optimistic perspective on progress and technology. With this in mind we need to start and continue a political and even more important social interdisciplinary debate how to keep pace with technology and to put us back in the position of active players.

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1) Will Oremus, future tense: The New Luddites. What if technological innovation is a job-killer after all? 2014 (http://www.slate.com/articles/techn ology/future_tense/2014/08/the_ne w_luddites_what_if_automation_is_ a_job_killer_after_all.html)

2) Patrick Lin, WIRED: Here's a Terrible Idea: Robot Cars With Adjustable Ethics Settings, 2014 (http://www.wired.com/2014/08/her es-a-terrible-idea-robot-cars-with-adjustable-ethics-settings/)

3) "There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – there are things we do not know we don't know". Donald Rumsfeld at a press conference 12.02 2002

4) Janet Maslin, New York Times: Will the Future Be a Trillion Times Better? NY 2005 (http://www.nytimes.com/2005/10/0 3/books/03masl.html?_r=0)

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About the Author

Frank is entrepreneur, speaker and business consultant. He deals with human computer interaction and the broader impact of digitalisation to our society. As the founder, CEO and creative mind of foresee, he develops interactive solutions at the intersection of humans, design and technology.

Foresee supports global companies with interactive meeting rooms to manage distributed teams or banks to find a digital answer, focusing on usability and user experience. Frank is partner at the Navigationlab, consulting international clients to meet the challenges of our time.

Partnering at different research projects, he supports among others the Swiss think tank W.I.R.E. as member of the board and the Convention Camp Conference as Creative Director. In his talks as well as publications and articles in well-known magazines he outlines future visions, learnings from the past and a realistic picture of the present state of human computer interaction.

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