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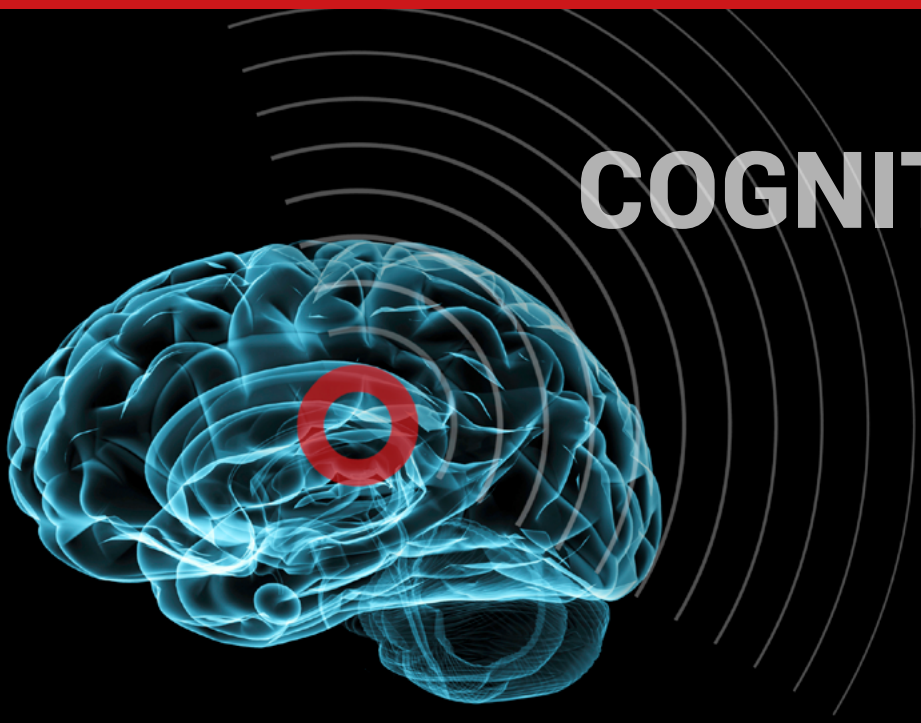

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AI Dreams to Reality write up

Companies, governments, educational institutions and citizens can jointly create AI outcomes for human wellbeing.

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CEO and Co-founder SixSq

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Recently, the event AI: From dreams to reality was organized jointly by ELFI and HEPIA and held at the University of Applied Sciences, Western Switzerland campus in Geneva. Regional policymakers, thought-leaders, academic experts, and business leaders came together in a panel to discuss three hot-button topics around Artificial Intelligence (AI): the current state of AI & real-world applications, the impact of AI on business and society, and, the future. My colleagues, Dr. Nabil Abdennadher, Marc-Elian Begin, and I triangulated on the key elements of an ethical, pragmatic, and sustainable worldview around AI; which is summarized following-

1) Human capabilities, augmented by powerful applications of machine learning and AI, will continue to dominate business models.

2) Several emerging companies are reducing costs, saving energy, customizing choices and treatments and optimizing productivity in nearly every industry and every geographical location by applying advanced technologies like machine learning and AI.

3) Massive data sets gathered from what is soon going to be an edge ecosystem of 50 Billion connected devices are powering these advanced technologies. Hence, we, as business leaders, entrepreneurs, and scientists have the unique opportunity to future-proof the technologies and their applications by considering issues of data privacy, data ownership, technological sovereignty and the will of the user. Further, we have to start working deeply and broadly with the intersectionalities that populate the hyper-connected world of the future. As an example, Marc-Elian shared

how SixSq›s offerings originally developed for smart lighting and humanitarian fieldwork have now expanded into three other sectors: Retail, Factory, and Mobility. The basic offering, an open-source edge platform solution, allows for the processing of data outside the data center and closest to the origin and thereby enables both, data privacy (drop data after insights are generated) as well as artificial intelligence (run data models at edge / send data to cloud for further and future enablement) and reduces the cost of data transmission and collection in the cloud.

4) The other key is enablement. Thinking about artificial intelligence from the perspective of service, of reducing human suffering and increasing human prosperity and wellbeing, will keep us focused on a steady course of progress and at the same time always temper excitement with a reality check of whether the larger goals above are being met.

5) Hand in hand with enablement, Prof. Nabil Abdennadher delved into the social impact and consequences of the application of future technologies, arguing that social acceptability is a key barrier to full AI adoption in society. Alongside the new opportunities in jobs, markets and the improvement of quality of life benefits of AI, there are the fears around losses; of jobs, individual freedoms, and control over AI machines, all of which are detrimental to the aims of democracy. To mitigate this risk, we must, as scientists, engineers and early adopters, work with social sciences researchers to accurately portray what AI is, and isn't. Society needs to engage seriously in the endeavor to avoid and control the unintended consequences of AI.

Let's examine an example of a smart grid which departs from the current, centralized electric distribution infrastructure and where each consumer is now connected directly to the power grid. So, instead of the single provider with total control of the infrastructure and rates, as well as the responsibility to guarantee the stability of the grid, imagine new forms of electricity production that are disrupting the market (e.g. solar and wind energy). These renewable energy sources are by definition intermittent, decentralized, and distributed across vast numbers of small-scale producers, transforming both grid management and the business model behind.

Let's bring this concept closer to home. Now, imagine you have such a "box" in your household connected to the electricity grid and the internet. It is also connected to your home appliances. The box is smart enough to:

- Predict your local production and consumption for the next hours, days and even months.
- Negotiate with your neighbor to exchange energy and fix the price.
- Credits / Debits your credit card or online account according to the transactions you have made.

The questions we encourage all the players in such a scenario to ask would be,

1. Are you excited or frightened by such a prospect?
2. Would you install this box at home and let it have agency over your energy activity?
3. Under what conditions would you deploy such a box in your home?

In closure, having a well-educated public with agency, and by consciously future proofing technology to serve and by being smart about intersectionality and uncommon connections and finally, being very pragmatic, fact-based and yet open to exploring opportunities, emerging companies, governments, educational institutions and citizens can jointly create AI outcomes for human wellbeing.

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