AI Ascending
Status: draft
--

The purpose of this article is to highlight the opportunities and the risks of the ascending Artificial Intelligence era.

First we have to assume that several (not only one) Self Conscious AI will reach human level intelligence by the end of this century. But despite what most of the sci-fi movies has shown of what may a human level artificial intelligence looks like, there won't be anything like omniscient, omnipotent superintelligence. Just like us, the new kind of conscious entities will be specialized. In its most extended form it may behave Like a net of single or limited multipurpose self-conscious autonomous systems taking advantage of the latest progress in area like chips making, memory, Microsystems with machine to machine capabilities allowing it to collaborate and coordinate any others software and computing system.

« In the nature, Self Conscious Autonomous Systems are nothing like data preprocessing powered artificial intelligence. They are not systems. They are responsive ecosystems, interoperable systems of systems."

What is an artificial cognitive systems?
Searching for the definition of artificial cognitive systems on internet we get the following definition:

"Cognition, both natural and artificial, is about anticipating the need for action and developing the capacity to predict the outcome of those actions. Drawing on artificial intelligence, developmental psychology, and cognitive neuroscience, the field of artificial cognitive systems has as its ultimate goal the creation of computer-based systems that can interact with humans and serve society in a variety of ways."

What may an Artificial Intelligence that would pass the Turing test looks like?

Pinochio. Humankind will accomplished one of its main goal when we will be able to create self conscious artificial beings, exploring and polliniser other planets in others solar system is the second.

Even for the most agnostic of us. One part of all of us may admit that life as we know it might be the result of the creation of one or several superintelligent beings. After all dna is also a programmation language. If we have been made at the same image than our creator(s), as it is suggested in most of the holy books, then we have the demiurgic capability encoded in us.

Let's assume that we are already able to clone a human body. What would be the hardest part? Insufler the living souffle, activate cognition, enable self conscious capabilities…

When will it happen?

With no deep understanding of the principles underlying cognition, we won't be able to create the methods and technology needed to build the software that will enabled AI with human level cognitive capacity. Complexity and our inability to read the causality may threatens our ability to ever create the said self conscious autonomous system.
. *Rather than the ever-accelerating advancement predicted by Kurzweil, we believe that progress toward this understanding is fundamentally slowed by the complexity brake.*

Big Data, Deep learning and Machine learning concepts reached the ears of the mainstream. It is part of the AI marketing that is bridging the gap between applied and experimental research, academics, startups and industrials vision of AI.

The Bots, drones, chatbots, self driving cars, VR, AR that are currently using this technologies, two years ago was looking like sci-fi based prototypes. Today this futuristic tech products embodied what the future may look like. A future where every machine might be powered by quantum computers reduced to the size of a watch and enhanced by chips made by data oriented companies like google, Microsoft, Facebook and visionaries startups like Groq And soon enough BRAINCITIES.

Still, the AI Armageddon is not for tomorrow. But driven by fear and short term visions or leads by profitability ambition, we may prepare the bed for it.

What mistake could we avoid?

1/ not supporting diversity

3 years ago People started talking about Regulation and inevitably standardisation of AI eluding that molding /designing every artificial Intelligence with the same pattern would expose humankind to the raise of an unique self Conscious autonomous system that could takes contrôle over all others.

Let's put it that way: from software engineering perspective, a said superintelligence would behave like a virus as its main goals would be to expend, alter, adapt to expend.

Then relying to an unique pattern for the design of superintelligence represent a major risk with as a result in the short term, people absolute dependency to said AI and in the long term, a predictable human enslavement (Will talk in a future article about the effects of economy autonomisation and the raises of transhumanism).

DESIGNING THE FUTURE
How to avoid this threat? If diversity is good for biological life, it might be good for artificial life. Before regulating we should decide what future we want to create with the support of AIs and Robots. During a meeting with students in Yaroslavl, Russia, Sept. 1, 2017 Vladimir Putin invited other countries to collide for the development of artificial intelligence. Explaining that “the one who becomes the leader in this sphere will be the ruler of the world,” adding that “it would be strongly undesirable if someone wins a monopolist position”.

Very few head of state are discussing these topics, which is as much critical for humankind as climate deregulation. Knowing the Russian efforts in both cyberspace and computational intelligence area the message addressed by Mister President Putin proof that he is foreseeing what a future lead by AI may looks like (rf. 1)

Answering this question should help us decide what would be the purpose and the characteristics of Super Intelligent systems.

2/ Applying to AI the rules applied on others industries

Capitalism helped us to reach the level of modernization and comfort we stand now. The progress accomplished were made by putting in competition workforces, creativity and ability to evangelize masses to create large, sustainable and profitable Markets and societies. but would this principle be relevant in a workless, disease less, powerlessness world(1)?

AI is not an asset like others and a self conscious autonomous system would not be an individual like others.

We have to choose between two paths and believe me or not this choice will embed humankind destiny. Regulating won't change anything. We have to define what should be AI's attributes just like there are humans attributes. We are not talking about human physiology.

3/ not tackling the problem at the right scale

we have the opportunity to build a secured society of justice using Data and Artificial Intelligence. AI such as BRAINCITIES would be context-aware requiring systems using their predictive data analytics capacities to recommend preventive and corrective strategies to help people avoid abnormal behaviors that would be risky for themselves and others.

It is not a tales about humankind annihilation by robots: this will happen if we keep neglecting the potential risk represented by a self-conscious autonomous system or if one decide to transform such a system into weapon.

{*It is obvious that War should never be automated. Still countries like the United State and Russia are actively preparing to use autonomous lethal weapons in the futures conflict repeating at a larger scale the mistake made with the A BOMB.*

Humans understand what is a frontier and our long practice of war helps us understand who are our enemies and who are our allies, who are the soldiers and who are the people. In the case of autonomous weapons how to be sure that civilians won't be killed by it. Mechanized war has seen an increase of civilians death. Autonomous war may see the extinction of our species.

I say we because we are all responsible. Being ignorant of a threat that can eradicate an entire species makes you "responsible " for the potential massive extinction. Keeping silence makes you a "complice".

At the golden age of information and disinformation not being informed is a crime.

Thanks to Social medias We are all potential opinions leaders. so how could be something like a simple observer. }

Let's see the situation from a superintelligence perspective
I guess the main responsibility of the xYZ generations is to develop a thin understanding of the bonds that connect us to Earth and Earth to the entire universe. A conscious visitor from a lointaine galaxie would concluded that
1/ from a cosmological viewpoint earth is a living entity. A conscious ecosystem. And we are part of it.

2/ this celest creature is sick full of parasites that unbalance its fragile equilibrium: humans.

3/ there are a lot of planets hosting life, but very few has as much diversity as the Earth does.

4/ How to save this ecosystem that could sustains your species and others creature life? Curing, purging.

I am not sure there is something like this visitor but,The reasons that motivate the development of transhumanism are justified. There is this future where we succeeded at creating an autonomous Supra intelligence. Soon we competed with robots controlled by it for the natural resources, for Energy, for space. Remember that we teached it how to make war. We failed at constraining it. The singularity finally decided to park some of us in a reserve for life historization purpose. In this potential realities all humans live miserably. A Supra intelligence don't care about money it seeks for contrôle, more space, more energy.

What should be the attributes of a human supportive and subjective autonomous system.

War has to stay an attribute of biological creatures because this behavior is one of the key of our own evolution.
In Darwin world the one with best surviving capacity survives....

Procreation should stay a biological being attribute.

He I am sharing the vision of a supportive and subjective autonomous system.

where the production capacities (today worker, yesterday's slaves) would be accessible to anyone.

1/ we will see the raise of auto learning systems

2/ adaptive and multipurpose programs will run this machines

3/ advanced generation of this adaptive and multipurpose autonomous system will face a situation that will threatened their existence. to survive, machine will have to adapt and then evolve (this is the context that will lead to the singularity)

////////////////The Singularity is the hypothetical future creation of superintelligent machines. Superintelligence is defined as a technologically-created cognitive capacity far beyond that possible for humans. Should the Singularity occur, technology will advance beyond our ability to foresee or control its outcomes and the world will be transformed beyond recognition by the application of superintelligence to humans and/or human problems, including poverty, disease and mortality.Current state of art.

Revolutions in genetics, nanotechnology and robotics (GNR) in the first half of the 21st century are expected to lay the foundation for the Singularity. According to Singularity theory, superintelligence will be developed by self-directed computers and will increase exponentially rather than incrementally.

Lev Grossman explains the prospective exponential gains in capacity enabled by superintelligent machines in an article in Time:

“Their rate of development would also continue to increase, because they would take over their own development from their slower-thinking human creators. Imagine a computer scientist that was itself a super-intelligent computer. It would work incredibly quickly. It could draw on huge amounts of data effortlessly. It wouldn't even take breaks...”

Proposed mechanisms for adding superintelligence to humans include brain-computer interfaces, biological alteration of the brain, artificial intelligence (AI) brain implants and genetic engineering. Post-singularity, humanity and the world would be quite different. A human could potentially scan his consciousness into a computer and live eternally in virtual reality or as a sentient robot. Futurists such as Ray Kurzweil (author of The Singularity is Near) have predicted that in a post-Singularity world, humans would typically live much of the time in virtual reality -- which would be virtually indistinguishable from normal reality. Kurzweil predicts, based on mathematical calculations of exponential technological development, that the Singularity will come to pass by 2045.

Most arguments against the possibility of the Singularity involve doubts that computers can ever become intelligent in the human sense. The human brain and cognitive processes may simply be more complex than a computer could be. Furthermore, because the human brain is analog, with theoretically infinite values for any process, some believe that it cannot ever be replicated in a digital format. Some theorists also point out that the Singularity may not even be desirable from a human perspective because there is no reason to assume that a superintelligence would see value in, for example, the continued existence or well-being of humans.

Science-fiction writer Vernor Vinge first used the term the Singularity in this context in the 1980s, when he used it in reference to the British mathematician I.J. Good's concept of an "intelligence explosion" brought about by the advent of superintelligent machines. The term is borrowed from physics; in that context a singularity is a point where the known physical laws cease to apply.

See also: Asimov's Three Laws of Robotics, supercomputer, cyborg, gray goo, IBM's Watson supercomputer, neural networks, smart robot/////////

Startups, big corporations and government are all competing to build a human like artificial brain with unmatchable cognitive capabilities.
The competition started long time ago and moved from decision making to task management to task execution. Why do we do that? Let's say that our collective ambition are :
to find answers to great question, where do we come from, where are we going, do god exist, if yes where is it? .

To solve critical challenges like : find planets to live, build spaceships, develop clean and renewable energy, create life from DNA, reach quasi state of immortality.

To solve this two type of problem/ to answer to this various questions we need to analyse infinite amount of data... we also need better calculation capabilities to run our algorithm.

The issues (enjeux) are big, too big to let private corporation lead the evolution of this two key area of computer science.

We will soon reach the year 0 of AI era. It will be the day startups or universities laboratories will give birth (engendrerons) to the first generation of global or multipurpose artificial intelligence. This program will be the row material generation of engineers will base their work to build what may one day enslave us or free us from work and capitalism.

1/ AI : cause of our enslavement

2/ AI: the gate to eden
Society of avatar. Data based society