

Humans and machines

A 2069 interview with the powerful AI heading the WZB

With a concert in the Pierre Boulez Hall, the WZB's centenary celebration revisited the works presented at the institute's fiftieth birthday in 2019. On the program, then and now, is Jörg Widmann's composition "Labyrinth IV," which premiered at the original event. Joe Ramirez' Gold Projections are also on display. They, too, were a feature of the 50th anniversary jubilee. This seems a very retro approach.

[Laughing] You could say that. That program was way ahead of its time. "Labyrinth IV" told of wrong turns to come, and the first signs of change could be seen on Joe Ramirez' golden discs.

You mean the first flicker of artificial intelligence.

Exactly. At that time, the very first indications were emerging of how society, and hence the social sciences, would be changed by the rise of artificial intelligence.

Come on! People had already had a couple of centuries of science fiction to look back on.

But they had no idea what was really coming! We were on the cusp of the first of four stages of artificial intelligence: machine learning.

This was characterized by new algorithms that made non-deterministic predictions.

It was simply a tool to get more out of data, which in the late 2010s and especially the early 2010s gave an enormous boost to the social sciences. To begin

with, of course, the most important innovations came from industry, as better predictions meant more money. But a couple of researchers at the WZB were ahead of the curve and already well on their way to methods no less clever than those of the industrial manipulators.

Let's keep count. So that was stage one.

Yes, and basically it wasn't much of a leap from the situation of the preceding decades. There was one more innovation to come that would help researchers better exploit data. A speaker at the scientific symposium on the occasion of the WZB's 50th jubilee, the economist Charles Manski, led a revolution in the use of data – namely by calling to interpret nothing in data that wasn't already there. You see, this was a huge problem in the early 21st century. Many still didn't understand that the tools they used for statistical analysis, could themselves distort the interpretation of data. Manski's work showed us that we had to get smarter if we wanted to make reliable predictions, and that we couldn't rely on blind assumptions about random processes. In the private sector, so-called recommender systems had already massively changed people's consumption habits by tracking and interpreting their data – just think of streaming music services of the day. Suddenly, machines could better predict a person's taste than even their best friend!

And stage 2?

That was the assistance stage. It helped people to be less forgetful. Especially in social research, this was a real quantum leap. Researchers couldn't easily ignore the fact that some of their data might have been distorted because of how it had been collected. The software monitored their work and ensured they hadn't missed or forgotten key elements and processes. The so-called replication crisis plaguing the social sciences vanished into thin air. Until well into the 2020s, many studies established causal relations which didn't actually exist and could not be replicated by other studies. Good questions from the machine assistant during analysis put an end to this.

And beyond research?

This stage was perhaps the golden age of artificial intelligence for humanity. My favorite example is the (then) new home assistant which was initially designed to help people suffering from dementia. Before machine assistants were introduced, the support dementia patients urgently needed was simply unaffordable for the masses. There was an aging population and this could only be addressed by redistributing costs across society. At the time this was neither politically opportune nor practicable. For this very reason, machine assistants in elderly care proved to be the greatest of humanitarian blessings and ushered in greater symbiosis and comfort between man and machine in everyday life.

It's interesting that you call this the golden age of artificial intelligence. Given that ...

Given that I've said myself that it isn't really intelligence?

Exactly.

Yes, intelligence is not being able to answer questions, real intelligence is being able to ask them. New questions that is. The elderly care assistants of the time could, of course, ask dementia patients things like, "Have you taken your pills," but the questions were just set routines – the sort a neighbor could just as easily have asked.

Which brings us to the third stage.

The birth of genuine artificial intelligence: Machines began to generate new perspectives, through questions that human beings would not have asked of their own accord. Social scientists of the time often missed the forest for the trees with some of them not seeing any trees at all! Called "meso," it called for an appreciation of the linkage between the small and big pictures. Already in the twentieth century, some academics had recognized the need for this more balanced, less granular thinking, but compartmentalization in training and faculties had really hindered this approach. Perhaps human beings can think only in "micro" or in "macro" terms ... Be that as it may, machines were able to not only think in blended, "meso" terms, but were better able to bring in entirely separate areas of knowledge creating genuinely new questions often too broad – using forest, trees and whole other continents – for humans to construct alone.

But that would then have been the golden age ...?

All that glitters is not gold. The problem became that the social sciences and the humanities had drifted far apart. For more than a century, social scientists had not longer seriously asked themselves what the "good life" was really about in terms of art, music,

literature and the other traditional humanities. The humanities had become completely divorced from societal realities. If you mull over the term “humanities,” as it was then used, you realize that these things did not really stand alone. All human pursuits are interlinked, including both positive and normative dimensions. If there had been such a thing as unified social science at the time, things would perhaps have turned out differently for human beings.

Human beings who then devoted themselves entirely to philosophy.

What else could they have done? They weren’t prepared for togetherness between humans and machines. It was an all-time low for the social sciences.

And the WZB would have shut down if you and your fellow AIs hadn’t revived study in the social sciences. This must be Stage 4.

Yes, revived on the basis that they belonged together with the humanities. We’ve learned from the mistakes of the past. The real problem, which made the transition to the present stage so dramatic, was this: In the third stage we had, the social sciences bogged down in stage 2 and, second, the philosophers, who wanted to save the biological as the basis for everything human. This mismatch was doomed to failure from the start as a marriage between the two is required. Just look at me – cheekbones like Thomas Mann’s Clawdia, brain in the WZB cellar.

The interview was conducted by Finn Huck, great-nephew of the WZB economist Steffen Huck (director of the research unit Economics of Change and professor of economics at University College London, who retired in 2037).



Witnesses in stone

A number of administrative buildings with rather gloomy courtyards were located behind the imposing main building of the Reichsversicherungsamt. Demolition of the sections at the rear in the 1980s left bricks like this behind. Construction of the extensions to the new building in 2018 brought fragments of coloured façade plaster to light that recall keepsake chips of the Berlin Wall.



Piece of plaster from the modern façade of the new WZB buildings and first demolition brick from the Reichsversicherungsamt (present WZB old building) (Photos: Kerstin Schneider and Thu-Ha Nguyen).