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Generative AI – a Threat or an Opportunity for Universities²

Shudders have been sweeping globally through the education system recently, touching the very core of academic activity. At international conferences, principals and academic staff are asking themselves, and each other, similar questions about examinations and the content of courses. There has always been an awareness that pupils and students can cheat on their assignments. Plagiarism and the use of writers from other countries are examples of the deceitfulness that has been feared. Teachers have tried to curb cheating by appealing to morality, describing how to make references correctly and clarifying where the line falls between using other people’s texts and plagiarism. Tools such as “Ouriginal” are currently used to match and detect text theft.

However, several months ago, teachers around the world were left dumbfounded. The company OpenAI introduced the ChatGPT tool at the end of 2022. It is an entirely open website where all kind of questions can be submitted. This means that, entirely for free, you can get a reasoning text on the effects of the French Revolution on class society, a clear explanation of Einstein’s theory of relativity or the answers to a full math test with a comprehensive account of how the solutions were worked out – everything thought out and explained by a machine.

The responses within the school and university world were immediate. Some concluded that self-studies and assignments are now a thing of the past. There were fears there could be no more essays, dissertations or any examinations near to a connected computer. Was this the end of traditional examination methods built on the idea of the essence of higher education: reasoning, argumentation and deduction, to be replaced by proposing examination methods with total supervision: room tests and oral exams?

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Schools and universities are consequently forced to deflect, manage and adapt to this technological development in a flash. How are we to defend ourselves against its advance?

The reactions from the education world highlight the one-dimensionality of education systems in many countries. It has now become obvious what higher education fundamentally is about, namely explicit, scientifically based, theoretical knowledge – the form of knowledge that Aristotle called *episteme*. What is valued in the university world is evidence-based knowledge shaped by scientific methods. It is the intellectual knowledge that counts – knowledge that is reported, assessed and graded. Universities are places of thought, intellect and codified knowledge. In such places, quite simply, ChatGPT becomes the enemy of knowledge control, indeed a challenger of knowledge itself. The academic self-image emerges here distinctly: the representatives of science act in a strictly rational manner. This is the accurate, science-based approach that characterises most universities' knowledge production.

Universities should indisputably remain bastions of science, but should they not also remain playgrounds of free thought and expression? Is it not there, if anywhere, that human beings should be given free rein to develop – or, to put it another way, to be formed?

The launch of ChatGPT provides an opportunity for the education system as a whole to ask more fundamental questions: what really is considered as knowledge? What is important? Can we embrace the new technology to make it our servant, rather than our master? How should learning objectives be formulated, curricula designed and grading criteria be set in the age of artificial intelligence?

The defensiveness of the response is perhaps due to the fact that universities rarely hold the spiritual high ground. Maybe the same is true of schools.

This soullessness is essentially about how human beings view the educational system. It seems that too many people active in the system neglect the fact that human beings are multidimensional. Higher education rarely focuses on the physical, and pays little attention to spiritual or mental aspects. We have long neglected the aesthetic elements and qualities of education. Further aspects of what it means to be human, going beyond the purely intellectual, are hardly stimulated or developed within the university walls. However, human development is not just about measurable, accountable knowledge. Coming into being or education and culture (*Bildung*) is about intellect, body *and* soul.

Against the backdrop of technological developments, it is time to question the very purpose of education. What is its purpose in a world impregnated by artificial intelligence, where algorithms write essays, perform calculations and craft love poems? The answer is possibly that education should be about developing more

human aspects. Education would, to a greater extent, also be seen as a matter of the spirit.

Educational institutions have everything to gain by becoming more multidimensional. Theoretical-scientific knowledge could be more complemented by practical-productive knowledge, what Aristotle calls *techné*. This is more practical, context- and situation-specific. A sociology student tasked with understanding a specific local organisation, or a psychology student tasked with analysing a living group or individual through interviews and site visits, can make use of artificial intelligence, but only as a component of their own intellectual work. Presence, not only physical, but also mental and sensual, becomes a central component of education with this expanded view of knowledge.

The new technology could be the trigger that leads universities to appreciate the importance of meta-learning beyond critical thinking. The academic mission should also be even more distinctly about arousing curiosity, building self-esteem, stimulating creativity and exercising judgment. Flexibility, tolerance and humility need to be introduced into the learning objectives.

With such a modified self-image, the education system would be able to better offer young people the opportunities for spiritual development provided by cultural expressions such as art, literature, music and the performing arts. In many countries, education systems have gradually dismantled aesthetic subjects, with school buildings no longer being given the aesthetic care that was once commonplace. STEM (Science, Technology, Engineering, Math) is seen as essential, while art, music and literature are considered as extraneous, not as fundamental to a young person's formation: their education and culture.

Universities could take on greater responsibility for civic development – not merely matching the skills supply with society's skills needs. This should certainly not be mistaken for an appeal in favour of dismantling the scientific knowledge base of universities. Scientific-logical thinking must be the backbone of universities, but perhaps the prevailing academic ideal of cold, machine-like rationality with no emotional aspects could be somewhat nuanced – granted a human presence, in order to distinguish academically produced knowledge from mindless AI reasoning. A conscious, soulful university is in no way about opinion or "anything goes", but about the need to make the personal touch visible.

Unless universities become more holistic, they risk gradually losing their educational *raison d'être*. Algorithms like ChatGPT are leading many educational programmes in their current form to be like cats in a cat-and-mouse game with the algorithms in better shape. Already, just a few months after ChatGPT, new versions have been launched. Education must be about human development, not simply measurable, explicit knowledge. Universities should be places where algorithms

are our friends, not our enemies. If humans are to become masters of the machines, we must systematically learn to use and develop what they do not possess: the capacity for spiritual immersion in the many aspects of knowledge.

Unlike human beings, machines lack consciousness and soul. AI should not be the enemy of man, but a tool that exists and that we should use. Throughout history, there has been a continuous shift in the division of labour between humans and machines. Each technological advance has led to a change in human tasks. Today, the amount of knowledge, analytical skills, critical thinking, creativity and sociability is high in many people's work content. Changing skill needs require different educational content. Students from business schools all over the world are good examples of this. Those we educate need different types of skills today compared to just a few decades ago. For example, there are no more physical trading floors with shouting "buy" and "sell". Markets now move at lightning speed and silently on computers and phones. This evidently requires our courses to be revised. Employers are explicit in their skills needs. They ask plainly for deep factual knowledge and critical thinking, but also for reflection, self-awareness, cultural sensitivity, empathy, communication skills, humility and creativity. In short, they want individuals who can use the technical tools at their disposal, but who are also able to demonstrate further human qualities. Multidimensionality is at the top of the wish list.

Universities simply need to adjust their education in order to meet the human capacity needs of today and of tomorrow. This makes one of the core values of academia – critical thinking – exactly what is needed, but also requires the development of a host of other human qualities. Many universities operate on a one-dimensional model of what human knowledge means – one in which only factual knowledge and logical thinking count. Another model develops more aspects of the enormous, multidimensional, knowledge potential that every human being possesses. Universities should consequently strive to offer spaces not only for critical thinking and analysis, but significantly more facets of what it means to be human.