



# UNIVERSITIES AND ARTIFICIAL INTELLIGENCE: AN EDUCATIONAL REVOLUTION IN THE MAKING?

As artificial intelligence (AI) applications such as ChatGPT enter the classroom, universities are vacillating between resistance and gradual adoption. We take a look at the issues and practices across universities, including Sciences Po, which has just created an Open Institute for Digital Transformations.

By **Ismaël El Bou-Cottereau**

The news spread like wildfire. In the middle of winter 2023, Sciences Po's decision to ban the use of ChatGPT 'without explicitly naming it', captured the media's attention. Debate quickly ensued. Some considered the app to be a 'cheating tool' (Dominique Boullier, Emeritus Professor of Sociology at Sciences Po). Others emphasised that 'our society needs to know how to deal with surprises' (Asma Mhalla, an expert in political and geopolitical issues surrounding technology and a lecturer at Sciences Po).

The emergence of ChatGPT has shed light on a number of academic issues. Are fraud and plagiarism about to explode? What will become of academic integrity? Can artificial intelligence (AI) ultimately do everything for students? 'ChatGPT is very good at producing summaries that are completely illusionary', said Laurence Bekk-Day, a product owner at Europcar and former journalist, on the set of the broadcasting television network BFMTV in January 2023. He then provocatively mentioned the 'very Sciences Po' and 'fairly slick' tone of AI-infused writing, which is capable of reproducing the dialectic of two-part outlines. But ChatGPT, he points out, will 'never be better than humans'. Will this reassure the teaching staff? More than a year later, the tensions seem to have eased. On 13 March 2024, a report on AI in France was submitted to the French President. Among its recommendations

was to 'broaden the deployment of AI in all higher education courses'. 'Educators and university presidents initially panicked, fearing that they would face a Wikipedia of sorts that would come to life in some evil way to do the students' homework,' explains Sophie Pène, a member of several research committees and Professor Emeritus in information and communication science at Paris Cité University. 'This fear quickly subsided thanks to open discussions and a better understanding of the tools,' she continues.

For example, Sciences Po's School of Journalism has injected AI teaching into its syllabus for the second semester of the 2023–2024 academic year. Students have been able to familiarise themselves with the tools to be integrated into their journalistic work and have had to draw up an ethical charter for the use of AI. The common thread was the idea that AI enables machines to perform tasks that are generally assigned to animals and humans. AI won't replace journalists; it's a way of saving time, freeing them from unrewarding tasks with no added value, such as transcribing interviews or even producing continuous online content from Agence France Presse dispatches. Yet the technology remains shrouded in distrust. The internal rules of the Sciences Po School of Journalism, for example, prohibit the use of images 'generated by artificial intelligence', signalling ambivalence.

## GENERATIVE AI HOW TO SUPPORT TEACHERS

Generative AI and the speed of its development are profoundly impacting education. Addressing the challenges involves university training and support for teachers.

Created by Sciences Po in 2020, the Institut des Compétences et de l'Innovation (ICI) (Institute for Skills and Innovation) seeks to help teachers and educational teams acquire these new skills. Working closely with Sciences Po's researchers and programmes, the Institute also provides the monitoring and incubation services needed to anticipate future changes.

The ICI deployed a series of initiatives as soon as ChatGPT launched. In January 2023, a guide entitled *Generative AI, ChatGPT and Teaching* was distributed to teachers, along with three fact sheets on lesson assessment methods, their integration into teaching activities and their use. These documents are regularly updated to account for the rapid development of these technologies and their use in teaching. In addition, the ICI has provided training on the mechanisms underlying AI and its impact on education to more than 750 Sciences Po teachers and educators to date. Workshops are also offered on the main generative AI tools and on prompting methods so that participants can not only experiment with these tools, but also learn about their limitations. Feedback seminars and a collaborative space to share practices and monitor developments complete the package, with contributions from researchers and engineers affiliated with the Open Institute for Digital Transformations.

Tomorrow's professions will be transformed by AI. It is crucial that teachers train their students in the tools, the related legal rules and their biases, and that they help them acquire, throughout their education, the fundamental skills for critical thinking about these challenges.

'On the one hand,' notes Sophie Pène, 'is a desire to promote AI tools. On the other is a reluctance to fully use them. It can be confusing.' So how do we get out of this 'moil of incrimination and confusion', in the words of Professor Ian Bogost, professor at the Georgia Institute of Technology and author of an article on the subject in *The Atlantic*.

AI is turning the educational contract between student and teacher on its head, challenging the way we learn and study. 'What characterises the contemporary world is the explosion of data,' explains Laura Sibony, teacher and author. 'The difficulty is no longer finding rare information, but sorting through an overabundance of it.'

AI has become necessary,' she continues. At the Paris School of Advanced Business Studies, she teaches her students the major concepts of AI and how it can be used in the world of art and culture to create works or produce recommendations. 'I don't forbid anything to my students,' she says. 'They can use AI for their work. It's up to me to question myself. What am I really assessing? Reasoning, personality, originality of the text or technical perception?'

As a counterpoint, some fear that these new technologies will reinforce the divisions within universities. In an article published in the newsletter of the French Agency for the Mutualisation of Universities and Institutions in December 2023, professors Bernard Fallery, Florence Rodhain and Saloua Zgoulli underscore the risk of a divide between 'an elite trained with quality sources and a majority fed information that is plausible but completely indifferent to the truth'. They believe, in particular, that AI cannot be considered an author and tends to produce texts with flat writing, lacking any real argumentative or reflective framework.

However, proactive uses are beginning to spread throughout universities. At the University of Rennes, AI is helping to correct handwritten papers; at the History of Art and Archaeology Department at Paris I Panthéon Sorbonne, a tool called Archéo-Bot helps students with their learning by answering questions or generating bibliographies for further study. AI can also be used at a more bureaucratic level. At the Côte d'Azur University in Nice, it is used to automate the processing of identity cards. Lecturers also use it for lesson plans and assessments, and to help monitor academic articles. Renaud Monnet, Director of the Digital Lab at Centrale Supélec, has worked with students to develop Aristotle, a 'sovereign' AI that respects data confidentiality and is used for teaching and learning purposes. It is used to extract key points from lectures and to produce reports and assessments.

The AI ecosystem is at the heart of numerous calls for projects, as part of the France 2030 plan to encourage the emergence of 'AI Clusters'. At Sciences Po, the médialab links research and the digital transition and supports researchers and students seeking technological knowledge. 'The tools developed by the médialab expand the possibilities of research,' says Sophie Pène. 'I remember a student working on a thesis on SNCF



[the national rail network] brownfields. Using automatic analysis of control cameras, she was able to identify the colourimetry of the vegetation. This type of research linked to big data allows us to study non-traditional micro-subjects.' Drawing on the médialab, in March 2024 Sciences Po also launched the Open Institute for Digital Transformations. The goal is to explore the impact of digital transformations on society, increase research visibility, and offer training courses for students. Current projects include the Algorithms Laboratory, which will initially support about a dozen public affairs students in algorithm studies. The course will then be expanded to students at the Law School. 'The goal is to train them in the technical determinants underlying AI and to test the hypotheses of these algorithms,' explains Jean-Philippe Cointet, Director of the Institute. 'If we don't want to be instrumentalised by these tools or to depoliticise the issues they raise, we need to grasp them, and measure and objectify the problems.' A dialogue has been initiated between the Institute and the various educational sectors at Sciences Po to consider how digital technology can be used more effectively in training courses.

Thematic selection of books on artificial intelligence in the reading rooms of the Sciences Po library, 2022.

'We're thinking of certification in data and algorithms, not for all students, but for those who want to specialise. This would offer digital colour, with solid skills in these subjects,' explains Jean-Philippe Cointet, who is keen not to pit the social sciences against the hard sciences. 'The idea is not to turn students into computer scientists,' he says. 'But digital technology has become such a vector for the transformation and upheaval of many professions that we can't afford to wear blinkers. The challenge is not so much to know how to code, but to understand the transformations wrought by digital technology.' This objective is ultimately closely aligned with Sciences Po's educational mission.