UCLouvain	**lcomu1240** *2025*	Enjeux des technologies du numérique

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

5.00 credits	30.0 h + 10.0 h	Q2

Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	Evaluation consists of an in-session exam, the practical details of which will be explained to students at the start of the term (and available on Moodle). This will be a written exam unless the number of registered students is low in which case an oral exam may be preferred. As part of a continuous evaluation, teachers can ask students for individual work that will serve to fuel the discussion on the themes addressed during the course sessions. The terms and conditions for the August session are identical to those for the June session. Use of AI tools The use of artificial intelligence during the assessment tests of this course is governed by the rules mentioned in the faculty note on this subject and available on the faculty intranet site in the information for students. For the written exam in session, no such tool is authorized.
Teaching methods	• Lectures by the teachers and possibly by speakers directly involved in digital technologies. • Solicitation of the knowledge acquired by the students in their experience of the use of technologies.
Content	This course is an introduction to the societal issues of digital technologies. After a historical perspective, the aim will be to provide the keys to technical understanding of the digital universe and to raise awareness of some of the major societal issues emerging from it. Through this course, it is the notion of innovation and its link with that of progress that is questioned and put into perspective in the most nuanced way possible. Among the topics covered are: • **Big Data**: what are the risks and opportunities of this massive data collection? • **Artificial intelligence**: what are the main current challenges of AI? What is an algorithm? What influence do algorithms have in our daily lives? What are the pitfalls to avoid (opacity, lack of explainability, bias in decisions)? What place for humans in an automated world? What are generative artificial intelligences and what are their risks and opportunities? • **Immersive technologies**: what future for augmented and virtual reality devices? What are the risks and opportunities of these technologies? What is the metaverse? • **Mobility**: how are digital technologies changing our mobility habits? • **Transhumanism**: what is the transhumanist movement and what are the societal and ethical issues? In addition, several courses will specifically introduce the regulatory and protection issues associated with the use of digital technologies. Topics covered in these specific courses may include the following: • **Privacy and personal data**: history, conflicts and contemporary regulations. Why and how do liberal democracies try to protect our fundamental rights in the digital age? What are the main limitations of current regulations? • **Surveillance capitalism**: How has personal data become the new 'black gold' of the 21st century? How are liberal democracies organising themselves to regulate the GAFAM monopoly? Have they become more powerful than some governments? What are the democratic implications of this new economic order? • **Practical digital self-defence exercises**: What is the difference between free software and proprietary software? How and by what means are our personal data collected? What is a tracker? What are cookies? How can we protect our communications? How can I configure my digital tools to better protect my privacy? What is encryption? What are the more privacy-friendly alternatives? These topics will not necessarily all be covered and other political, legal and digital issues could also be taught.
Inline resources	Presentation materials, useful links, work instructions and other external resources (reference work, etc.) will be made available to students on the Moodle platform of the course.

Faculty or entity in charge	ESPO

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in numerical technologies and society	MINSTIC	5		🔍