

DHP11012 Cultural Technical Systems

Module type Core (Digital Humanities and Culture) / Option (Identities and Cultures of Europe, Literary Translation, Applied Intercultural Communications)

Term / hours HT / 18 (+ self-directed reading & learning)

ECTS 10

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Module description

The aim of this course is to engage students in a critical assessment of the technologies, platforms and companies commonly encountered in 21st century culture and society. Based within the emerging discourses of the critical digital humanities, it will provide you with case studies, analysis, theoretical frameworks and complementary perspectives that will enable you to analyse and speak in a more informed manner about technology development and its relationship to core human activities.

Be aware that you will be reading across a number of fields and disciplines in order to forge your ability to address technological developments from the perspective of cultural evidence: literature and the arts, philosophy, history, science and technology studies, computer science, library science. Each of these disciplines has a different vocabulary, values and argumentation style, and one of the key things you will learn is how to read across these disciplines at a meta-level.

Weekly topics for reading and discussion may include:

Questions of Embodiment. Even though more and more of our life may seem to play out online, we are still mortal creatures, subject to our physical needs, limited to a single place, and dependent on a fragile planet. What effects do virtuality have on us, and what approaches (such as affective computing) might address the challenges that might arise?

Biases and knowing what we know. One of the key determinants both of who we think we are and how willing we are to engage with others is our perception of the world and the meaning of events that occur within it. There is no question that many of the technologies we will be looking at this term have the status of 'knowledge technologies,' which disrupt our conceptualisations of things like veracity and confidence in our knowledge, and which either become normalised or discarded over time. But what happens when the disruptions come too fast or fundamentally, and/or when they leave openings for exploitation? In this session, we will look at some of these perversions of changing approaches to knowledge creation, including mis- and dis-information, deepfakes, and filtering.

Trust. One of the most prominent terms in the current policy debate about emerging technologies is the question of trust. Framed in this way, it becomes an exceptionally difficult challenge to address, as trust is very contextually and culturally dependent. In this session we will look into some of the discussion around trust (and its flip side, authority, a quality which grants trustworthiness) to try to

understand why this discussion is so fraught, an ambiguity which will also require us to understand the concept of technological determinism. Having already explored interpersonal trust as a function of our knowledge technologies, in this session we will look at the macro level of trust in institutions, and in particular how the use of algorithmic models and decision-making systems based upon them can disrupt social trust. We will also look at how social movements against established power use new media to further their causes (and the possible costs or limits of this).

Creativity. In this final session, we will look at issues of creativity and generativity through the way in which technology is converging with artistic production. What does it mean for a machine to be creative? Indeed, can a machine be considered a creator (legally and practically)? What definition(s) of creativity and the arts underlies the tensions in the emerging technologised landscape? The examples we will look at engage the fields of languages, visual arts and music.

Personhood, Memory, and Identity. Who do we think we are? Our identities are formed via complex interactions with others, directly and indirectly, from perhaps even before we are born. In this session, we will look at the intersections of technology and identity from a number of perspectives: including how technologies inform our self-perception, how they may shape our relationships with others, and, at the most macro level, the impact on the preservation of our shared culture as a key contributor to how we perceive ourselves, as individuals and as collectives. We will consider these two sides of this last issue, looking both at the 'way back machine,' and other (unreliable) attempts to make sure our digital heritage remains accessible to us, as well as the 'right to be forgotten,' (which is easier to say than do).

Empathy. Since the time of the second industrial revolution, the drive to increase machine efficiency and extend mechanical processes has led us to, at times, view our fellow human beings as tools, and/or to delegate ever more sensitive human interactions to machines. What does this trend say about our ability to understand and connect with others? Turned around, does this mean that we should also be able to feel empathetic responses for machines, and feel we receive them in return? Looking at AI and other forms of human simulacra, this session revisits and expands on some of the issues discussed earlier, including the conceptual frameworks of trans- and posthumanism

Responsibility, Agency and Authority. In this session, we will look more deeply into the concept of engineered sociality (Heikili and Seibt) and lack of a precautionary principle in technology development, in particular in the context of autonomous systems and the ethical oversight of science and technology development. For this we will look at the intersection between IOT and AI (or, perhaps more accurately, A/IS, 'Autonomous and Intelligent Systems' as the IEEE calls them), where devices are not merely collecting data, but triggering actions in the real and virtual worlds. But who is responsible for them? This question will require us to look a bit into the role of ethics in R&D as pertains to advancing technologies, for which we will take both the current perspective, and also that of a historical comparator, in the rise of bioethics.

Privacy. Privacy is, well, private, right? Actually, no. This session will look into the concept of individual privacy as a public good, and the big business that is driven by our willingness to share our personal data openly. We will discuss a number of cases where choices by one have exposed others, or unintentionally exposed more about the self than intended. We will also look at some of the technological drivers in collecting big data about the little guy, in particular Facial Recognition (FRT) and Emotion Detection, as well as assessing how exposed we ourselves are by downloading the record Google keeps on each of us.

Assessment

The module is assessed through a mid-term guided writing assignment (15%) and an end-of-term 5,000-word essay (85%).

Indicative bibliography

Hertzmann, Aaron, 'Computers Do Not Make Art, People Do', *Communications of the ACM*, 63:5, May 2020, 45-48.

McPherson, Tara, 'Why Are the Digital Humanities so White?', *Debates in the Digital Humanities* (University of Minnesota Press, 2012).

O'Neill, Cathy, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (Penguin Books, 2017) (excerpts).

Presner, Todd, 'The Ethics of the Algorithm: Close and Distant Listening to the Shoah Foundation Visual History Archive', in *History Unlimited: Probing the Ethics of Holocaust Culture* (Harvard UP, 2015).

Sætra, Henrik Skaug, 'Freedom under the Gaze of Big Brother: Preparing the Grounds for a Liberal Defence of Privacy in the Era of Big Data', *Technology in Society*, August 2019.

Turkle, Sherry, *Alone Together* (Basic Books, 2011) (excerpts).

Yee, Nick, Jeremy N. Bailenson, and Nicolas Ducheneaux, 'The Proteus Effect: Implications of Transformed Digital Self-Representation on Online and Offline Behavior', *Communication Research*, 36:2, 2009, 285-312.

Learning outcomes

Upon successful completion of this module, students should be able to:

- LO1 Recognise core texts, contexts and concepts for the discussion of science and technology studies.
- LO2 Demonstrate familiarity with case studies in which technology has either greatly supported or harmed social, cultural or individual development.
- LO3 Explain the complex interactions in such cases with technological affordances, social/cultural/psychological factors and political or business imperatives.
- LO4 Present persuasive oral and written work with analytic arguments based on evidence, reading and reason.