

***OPTIONAL COURSE UNIT  
 SOCIAL SCIENCES AND HUMANITIES TRACK  
 FALL SEMESTER 2022/2023***

<p><b>1. Unidade curricular (UC)/Curricular Unit</b></p> <p>a. Name: <b>Mind, Self and 21st Century Technology</b></p> <p>b. Número de vagas/Vacancies: 30</p>
<p><b>2. Pequeno texto introdutório que deve refletir, o enquadramento da UC proposta na oferta curricular da NOVA FCSH, bem como, o carácter inovador ou a complementaridade com outras UC's existentes.</b></p> <p>The human environment is increasingly saturated with 'smart' artefacts. We already inhabit a world conditioned by ubiquitous presence of computer and artificial intelligence technologies from the smart assistants to the wireless internet. This amounts to a radically new epistemic and cognitive environment. The course explores the history, contemporary context, possible futures of the ever-deepening engagement between mind, human nature, cognition and personal identity in the context of this artefactual background of our lives. In so doing it seeks to develop a deep understanding of how smart technologies are shaping the human environment. It provides students with access to the theories, tools, and resources to help them think about this new engagement and ideally help shape its future. Engagement with course materials will inform and complement the student's studies in the social sciences and will give them new tools to face the future.</p>
<p><b>3. Código da unidade curricular/Curricular unit code:</b> <i>[Não Preencher]</i></p>
<p><b>4. Faculdade/Faculty:</b> Faculdade de Ciências Sociais e Humanas</p>
<p><b>5. Unidade de Investigação/Research Unit:</b> <i>[Optional]</i></p>
<p><b>6. Curso/Course:</b> Opção livre aberta a todos os cursos de Licenciatura/<i>Optional course for all undergraduate students</i></p>
<p><b>7. Nível do curso/Course Level:</b> Licenciatura/<i>Bachelor's Degree</i></p>
<p><b>8. Carácter da unidade curricular:</b> Opcional/<i>Optional</i></p>

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<p><b>9. Tipo da unidade curricular/Type of curricular unit:</b> Unidade Curricular Letiva / BA course</p>
<p><b>10. Percentagem de aulas práticas/Percentage of practical classes:</b> __%</p>
<p><b>11. Ano do plano de estudos/Syllabus year:</b> 1<sup>st</sup> year</p>
<p><b>12. Semestre/Semester:</b> 1.º semestre/1st semester</p>
<p><b>13. Número de créditos/Number of credits (1 crédito = 28h):</b> 6 ECTS (licenciatura)</p>
<p><b>14. Docente ou Investigador responsável/Teacher or principal researcher:</b> Robert William Clowes</p>
<p><b>15. Course program details</b></p> <ul style="list-style-type: none"> <li>a. <b>Número de horas por sessão/Number of hours per session:</b> 2 horas (licenciatura)</li> <li>b. <b>Número de sessões por semestre/Number of hours per semester:</b> 32 sessões (licenciatura)</li> <li>c. <b>Periodicidade/periodicity:</b> 2 sessões por semana /2 sessions per week</li> <li>d. <b>Período de funcionamento/Class period:</b></li> </ul>
<p><b>16. Objetivos da unidade curricular/Learning objectives (máx. 200 palavras; expostos em termos do que se espera que o aluno adquira):</b></p> <p>This course will furnish students with a strong foundational understanding of the nature of human / technology relations in the early 21<sup>st</sup> century and the various urgent discussions that surround it. It will provide a series of frameworks for thinking about this relationship including: the history and pre-history of human technology relations, the nature and artefactual dependence of human cognition and knowledge, the cognitive implications of technological change, the mediative roles of technology, the changing nature of knowledge and cognition against an artefactual background.</p> <p>The student will be guided to develop the skills to think critically, ask questions and reason about human technology relations. Especially we will focus on investigation into the role of technology in shaping both human life and mind, including technologies such as social media, artificial intelligence, the mobile web and how these are changing the nature of human cognitive ecology. We foreground the understanding the- sometimes implicit - ethical</p>

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and epistemic questions that frame our encounters with the design, use of technologies.

The course will provide resources for students to think about technology in the context of ethical questions such as the nature of human flourishing. It aims to give students a series of interconnected tools to think about the current mind / technology interaction and allow students the conceptual tools to reframe their impact and import for their critical engagement with human futures.

**17. Competências gerais do grau/General skills of the degree:** a); b); c); d); e); f)

**18. Competências específicas do curso/Specific Course skills:** Não aplicável/*Not applicable.*

**19. Requisitos de frequência/Attendance requirements:**

Students are expected to participate in course assignments and activities. Classes will be taught in English. An intermediate/upper knowledge of English is required.

**20. Conteúdo da unidade curricular/Syllabus** (máx. 200 palavras):

This course aims to develop the ability to think critically about humanity’s ongoing relationship with technology and contextualize the new forms of technology of the 21<sup>st</sup> Century. Especially the course aims to equip students to better think about human cognition, mind, and our sense of self in the context of ‘smart’ technologies. We address what can be learnt from previous major transitions in material (and now digital) culture and its deep entwining with human cognition. We pay special attention in this course to the “cognitive ecology” of tools and artefacts and how our minds and cognition depend upon them. We also put these in the context of contemporary cognitive science, especially, 4E – embodied, embedded, extended, enactive – approaches to cognitive science in order to deepen our understanding of our minds and their artefactual dependence (Clark, 1997; McCullough, 1996). We explore several different frames for thinking about the nature of digital media and artificial intelligence and what they contribute or inhibit in human cognition. We adopt a design outlook on human thought and action and ask whether it is possible to shape these technologies toward more adequate future spaces for reflection and thinking. Through this understanding, we consider fundamental problems and opportunities facing humanity from who we are, what we may be becoming, and the future nature of our society.

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**21. Bibliografia recomendada/Recommended Reading list:** (máx. 5 títulos. Por ordem decrescente de data de edição.)

1. Clark, A. (2003). *Natural Born Cyborgs: Minds, Technologies and the Future of Human Intelligence*. New York: Oxford University Press.
2. Verbeek, P.-P. (2005). *What things do: Philosophical reflections on technology, agency, and design*: Penn State Press.
3. Floridi, L. (2014). *The fourth revolution: How the infosphere is reshaping human reality*: OUP Oxford.
4. Smart, P. R., Clowes, R. W., & Heersmink, R. (2017). Minds Online: The Interface between Web Science, Cognitive Science and the Philosophy of Mind. *Foundations and Trends in Web Science*, 6(1-2), 1-232.
5. Schneider, S. (2019). *Artificial You: AI and the Future of Your Mind*: Princeton University Press.

**22. Métodos de ensino/Teaching method:**

**The teaching will be carried out through lecture / seminars. Most sessions will begin with a seminar style review of the material discussed and the reading and/or films from the last session (approximately 50 minutes). The last hour will consist in a lecture and (in later weeks) student presentations that introduce and reflect upon course readings and themes.**

**23. Métodos de avaliação/Evaluation method: The course evaluation is split into three parts:**

- A short exam paper in class time discussing authors and theories presented in the course. (30 %)
- A presentation either introducing or applying material from the course to contemporary problems. (20 %)
- A longer 3500 - 4000 word approx. paper, title to be arranged with tutor on material from the course. (50%)

**24. Língua de ensino/Teaching language: Inglês/English**

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