Podiplomskašola ZRCSAZU
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UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Antropologija tehnologije
Course title:	Anthropology of Technology

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Primerjalni študij idej in kultur, doktorski študij 3. stopnje	Antropologija: razumevanje svetotvornih praks	/	/
Comparative Study of Ideas and Cultures, doctoral study 3rd cycle	Anthropology: Understanding Worldmaking Practices	/	/

Vrsta predmeta / Course type	izbirni / elective
Univerzitetna koda predmeta / University course code:	109

Predavanja / Lectures	Seminar / Seminar	Vaje / Tutorial	Klinične vaje / Clinical work	Druge oblike študija / Other study forms	Samost. delo / Individual work	ECTS
30					150	6

Nosilec predmeta / Lecturer:	Borut Telban (izvajalka: Tanja Ahlin)
Jeziki / Languages: Predavanja / Lectures:	slovenščina, angleščina / Slovenian, English
Vaje / Tutorial:	

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Končana druga bolonjska stopnja ali univerzitetni študij VII. stopnje.	Second-cycle Bologna degree or a university (level VII) degree.

Vsebina:	**Content (Syllabus outline):**
Človek in tehnologija sta v sodobnem svetu prepletena na vseh družbenih področjih, od družine, šolstva in zdravstva do ekonomije in politike. Tehnologijo pogosto dojemamo kot orodje, ki ljudem omogoča doseči določene cilje, na primer cilj komunikacije, transporta ali proizvodnje. Antropologija, zlasti v povezavi s sorodnim področjem družbenih študij znanosti in tehnologije (*Science and Technology Studies*), tehnologijo obravnava širše, kot del družbenih praks in kulturnih vrednot. Različne tehnologije niso samo orodje v rokah ljudi, temveč postanejo akterji, ki na različne načine vplivajo	Humans and technology are intricately intertwined in all areas of society today, from family, education, and healthcare to the economy and politics. Technology is often perceived as a tool that enables people to achieve specific goals—such as communication, transportation, or production. Anthropology, particularly in connection with the related field of Science and Technology Studies (STS), approaches technology more broadly—as part of social practices and cultural values. Technologies are not merely tools in human hands; they become actors that influence social practices,

na družbene prakse in odnose ter celo identiteto posameznic in posameznikov. Poleg tega tehnologije niso nevtralne, ampak tako odražajo kot oblikujejo družbene hierarhije, ideologije in razmerja moči. Sem spadajo tudi načini, kako se lahko spolne in rasne pristranskosti vtkejo v tehnološke sisteme, na primer v algoritme ali uporabe umetne inteligence, ki reproducirajo ali celo okrepijo obstoječe družbene neenakosti.

Študentke in študenti obravnavajo primere etnografskih raziskav iz različnih področij, od zdravja do migracij in reorganizacije dela, in se seznanijo z metodami antropološkega raziskovanja tehnologije. Cilj predmeta je razviti kritično razumevanje tehnologije kot kulturnega pojava, sposobnost analize tehnoloških praks v širšem kontekstu ter občutljivost za etične in politične razsežnosti tehnološkega razvoja. Predmet je primeren za vse, ki jih zanima presečišče med kulturo, družbo in tehnološkimi spremembami, raziskoval pa bo med drugim naslednje teme, ki vključujejo različne vrste tehnologij, od vsakdanjih predmetov do najsodobnejših digitalnih tehnologij:

- Zgodovina antropologije tehnologije,
- Osnovne teorije STS,
- Tehnološke in podatkovne infrastrukture,
- Tehnologije skrbstva in zdravja,
- Nosljive tehnologije in nadzor,
- Algoritmi, umetna inteligenca in roboti,
- Spol, rase in razmerja moči,
- Tehnologije in delo.

relationships, and even individual identities in various ways. Moreover, technologies are not neutral; they both reflect and shape social hierarchies, ideologies, and power relations. This includes how gender and racial biases can become embedded in technological systems—for example, in algorithms or AI applications that replicate or amplify existing social inequalities.

Students examine ethnographic case studies from different fields, such as health, migration and reorganization of work, and become familiar with anthropological methods of studying technology. The goal of the course is to develop a critical understanding of technology as a cultural phenomenon, the ability to analyse technological practices in a broader context, and sensitivity to the ethical and political dimensions of technological development. Suitable for anyone interested in the intersection between culture, society and technological change, the course will explore, among other topics, the following themes involving different types of technologies, from everyday objects to cutting-edge digital technologies:

- History of the anthropology of technology,
- Fundamental STS theoretical frameworks,
- Technological and data infrastructures,
- Technologies of care and health,
- Wearable technologies and surveillance,
- Algorithms, artificial intelligence and robots,
- Gender, race and power relations,
- Technologies and work.

Temeljni literatura in viri / Readings:

Zgodovina antropologije tehnologije / History of the anthropology of technology

- Bruun, M. H., & Wahlberg, A. (2022). The anthropology of technology: the formation of a field: introduction. In The Palgrave handbook of the anthropology of technology (pp. 1-33). Singapore: Springer Nature Singapore.
- Escobar, A. (1995). Anthropology and the future: New technologies and the reinvention of culture. Futures, 27(4), 409-421.
- Miller, D. (Ed.). (2020). Materiality. Duke University Press.
- Pfaffenberger, B. (1992). Social anthropology of technology. Annual review of Anthropology, 491-516.

Osnovne teorije STS / Fundamental STS theoretical frameworks

- Haraway, D. J. (1985). A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century. Posthumanism.

- Law, J. (2008). Actor network theory and material semiotics. The new Blackwell companion to social theory, 141-158.
- Mol, A. (2002). The body multiple: Ontology in medical practice. Duke University Press.
- Suchman, L. A. (2007). Human-machine reconfigurations: Plans and situated actions. Cambridge university press.
- De Laet, M., & Mol, A. (2000). The Zimbabwe bush pump: Mechanics of a fluid technology. Social studies of science, 30(2), 225-263.

Tehnološke in podatkovne infrastrukture / Technological and data infrastructures

- Larkin, B. (2013). The politics and poetics of infrastructure. Annual review of anthropology, 42(2013), 327-343.
- Adams, V. (2016). Metrics: What counts in global health. Duke University Press.
- Srinivasan, J. (2022). The political lives of information: Information and the production of development in India. MIT Press.

Tehnologije skrbstva in zdravja / Technologies of care and health

- Ahlin, T. (2023). Calling family: Digital technologies and the making of transnational care collectives. Rutgers University Press.
- Hoeyer, K. (2023). Data paradoxes: The politics of intensified data sourcing in contemporary healthcare. MIT Press.
- Ruckenstein, M., & Schüll, N. D. (2017). The datafication of health. Annual review of anthropology, 46(1), 261-278.
- van Voorst, R. (2024). The medical tech facilitator: an emerging position in Dutch public healthcare and their tinkering practices. Medicine Anthropology Theory, 11(2), 1-23.

Nosljive tehnologije in nadzor / Wearable technologies and surveillance

- Lupton, D. (2016). The Quantified Self: a sociology of self-tracking.
- Tamminen, S., & Holmgren, E. (2016, November). The anthropology of wearables: The self, the social, and the autobiographical. In Ethnographic Praxis in Industry Conference Proceedings (Vol. 2016, No. 1, pp. 154-174).
- Zuboff, S. (2023). The age of surveillance capitalism. In Social theory re-wired (pp. 203-213). Routledge.

Algoritmi, umetna inteligenca in roboti / Algorithms, artificial intelligence and robots

- Forsythe, D. E. (1993). Engineering knowledge: The construction of knowledge in artificial intelligence. Social studies of science, 23(3), 445-477.
- Seaver, N. (2022). Computing taste: Algorithms and the makers of music recommendation. In Computing Taste. University of Chicago Press.
- Keane, W. (2025). Animals, Robots, Gods: Adventures in the Moral Imagination. Princeton University Press.
- Hasse, C. (2022). Humanism, posthumanism, and new humanism: how robots challenge the anthropological object: posthumanism. In The Palgrave handbook of the anthropology of technology (pp. 145-164). Singapore: Springer Nature Singapore.

Spol, rase in razmerja moči / Gender, race and power relations

- Arora, P. (2024). From pessimism to promise: Lessons from the Global South on designing inclusive tech. MIT Press.
- Benjamin, R. (2019). Race after technology: Abolitionist tools for the new Jim code. Polity Press.

- Wright, J. (2019). Robots vs migrants? Reconfiguring the future of Japanese institutional eldercare. Critical Asian Studies, 51(3), 331-354.

Tehnologije in delo / Technologies and work

- Del Castillo, A. P., Galanos, V., Stewart, J. K., Ekbia, H. R., Nowotny, H., Ulnicane, I., ... & Mandinaud, V. (2024). Artificial intelligence, labour and society.
- Irani, L. (2019). Chasing innovation: Making entrepreneurial citizens in modern India. In Chasing Innovation. Princeton University Press.
- Ritter, C. (2023). Digital ethnography: Understanding platform labour from within.
- Gray, M. L., & Suri, S. (2019). Ghost work: How to stop Silicon Valley from building a new global underclass. Harper Business.
- Rosenblat, A. (2018). Uberland: How algorithms are rewriting the rules of work. Univ of California Press.

Cilji in kompetence:

Namen predmeta je študentom in študentkam predstaviti antropološko in interdisciplinarno proučevanje tehnologije kot kulturnega, družbenega in političnega pojava. Osnovni cilj je razviti široko razumevanje, kako se tehnologije vključujejo v družbene prakse in kako jih oblikujejo vrednote, razmerja moči in zgodovinski konteksti ter kako same vplivajo na družbene odnose, prakse in identiteto posameznikov in skupin.

Študenti in študentke bodo na višji ravni razumeli:

- Kako antropologija in STS razumevata tehnologijo ne le kot orodje, temveč kot nekaj, kar se aktivno vključuje v odnose, prakse in identiteto ljudi.
- Kako tehnologije vplivajo na neenakosti, vključno na področju spola, rase in socialnoekonomskih razredov.
- Pomen etnografskih metod pri analizi tehnologije v vsakdanjem življenju.

Splošne kompetence:

- Kritično in interdisciplinarno mišljenje o vlogi tehnologije v družbi.
- Samostojno akademsko raziskovanje in interpretacija empiričnega gradiva.
- Jasno in koherentno akademsko pisno in ustno izražanje.

Predmetno-specifične kompetence:

- Razumevanje ključnih antropoloških in STS teorij o tehnologiji.

Objectives and competences:

The main aim of the course is to introduce students to the anthropological and interdisciplinary study of technology as a cultural, social and political phenomenon. The primary aim is to develop a broad understanding of how technologies are embedded in social practices and how they are shaped by values, power relations and historical contexts, and how they themselves influence social relations, practices and identities of individuals and groups.

Students will understand:

- How anthropology and STS understand technology not just as a tool, but as something that is actively engaged in people's relationships, practices and identities.
- How technologies affect inequalities, including in the areas of gender, race and socio-economic class.
- The importance of ethnographic methods in analysing technology in everyday life.

General competences:

- Critical and interdisciplinary thinking about the role of technology in society.
- Independent academic research and interpretation of empirical material.
- Clear and coherent academic writing and discussion.

Subject-specific competences:

- Understanding key anthropological and STS theories related to technology.

• Uporaba etnografskih metod pri analizi tehnoloških praks. • Kritična presoja kulturnih, etičnih in političnih razsežnosti tehnološkega razvoja. • Prepoznavanje, kako tehnologije odražajo in oblikujejo družbene kategorije, kot so spol, rasa in razred.	• Applying ethnographic methods to the analysis of technological practices. • Critically evaluating the cultural, ethical, and political implications of technological development. • Identifying how technologies reflect and shape social categories such as gender, race, and class.

Predvideni študijski rezultati:	Intended learning outcomes:
Po končanem predmetu bodo študentje in študentke lahko: • analizirali tehnologije kot del družbenih praks in kulturnih vrednot. • kritično primerjali različne antropološke in STS pristope k proučevanju tehnologije; • interpretirali etnografske primere v povezavi s teoretskimi koncepti; • predstavili etične in politične dimenzije tehnologij razvoja ter njihovo vpetost v razmerja moči; • samostojno pripravili pisno analizo izbranega primera tehnološke prakse v širšem družbenem kontekstu.	After this course the students will be able to: • analyse technology as part of social practices and cultural values. • critically compare different anthropological and STS approaches to the study of technology. • Interpret ethnographic examples in relation to theoretical concepts. • Present the ethical and political dimensions of technologies of development and their embeddedness in power relations. • Independently write an analysis of a selected case of technological practice in a broader social context.

Metode poučevanja in učenja:	Learning and teaching methods:
Oblike dela: ☒ Frontalna oblika poučevanja ☒ Samostojno delo študentov ☒ e-izobraževanje Metode (načini) dela: ☒ Razlaga ☒ Razgovor/ diskusija/debata ☒ Delo z besedilom	Types of learning/teaching: ☒ Frontal teaching ☒ Independent students work ☒ e-learning Teaching methods: ☒ Explanation ☒ Conversation/discussion/debate ☒ Work with texts

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Krajši pisni izdelki	20	Short written assignments
Daljši pisni izdelki	60	Long written assignments
Javni nastop ali predstavitev	20	Presentations

Reference nosilca / Lecturer's references:

- Ahlin, Tanja, and Anna Mann. 2024. Ambiguous animals, ambivalent carers and arbitrary care collectives:
- Ahlin, Tanja, and Anna Mann. 2024. Re-theorizing Resistance to Care Robots in a Dialysis Unit in Austria. *Social Science and Medicine* 365: 117587. https://doi.org/10.1016/j.socscimed.2024.117587
- Ahlin, Tanja, Kasturi Sen and Jeannette Pols. 2024. Telecare that Works: Lessons on Integrating Digital Technologies in Elder Care from Indian Transnational Families.

Anthropology and Medicine 1-16. https://www.tandfonline.com/doi/full/10.1080/13648470.2024.2378726

- Van Voorst, Roanne, and Tanja Ahlin. 2024. Key points for an ethnography of AI: an approach towards crucial data. *Nature: Humanities and Social Sciences Communications* 11, 337. https://doi.org/10.1057/s41599-024-02854-4
- Ahlin, Tanja. 2023. *Calling Family: Digital Technologies and the Making of Transnational Care Collectives.* New Brunswick: Rutgers University Press (open access).
- Ahlin Tanja. 2022. The unseen care work of nurses from Kerala. In: John, Maya and Christa Wichterich (Eds.). *Who Cares? Health Workers, Care Extraction and Struggles over Health Care Work in India*. New Delhi: Zubaan, 276-300.
- Ahlin, Tanja. 2018. Only near is dear? Doing elderly care with everyday ICTs in Indian transnational families. *Medical Anthropology Quarterly* 32(1): 85-102. https://doi.org/10.1111/maq.12404.
- Telban, Borut. 2021. Sensing the Acoustics of a New Guinea Rainforest. *The Asia Pacific Journal of Anthropology* 22(2-3): 252-254.
- Telban, Borut. 2017. Seeing and Holding Time: Karawari Perceptions of Temporalities, Calendars and Clocks. *Time and Society* 26(2): 182-202.
- Telban, Borut in Daniela Vávrová. 2014 Ringing the Living and the Dead: Mobile Phones in a Sepik Society. *The Australian Journal of Anthropology* 25(2):223-238 (Special Issue: Communication Technology and Social Life).