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Analytic Summary

Apezteguía, Maite (Apezteguia Architects. Monte Monjardín, 8 bajo. 31004 Pamplona): **The co-UTOPIA of the 21st century city** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: In the 21st century, digital technologies redefine human connections, compressing space and expanding time. This shift prompts a reevaluation of work, culture, and information. As cities evolve, a return to proximity becomes paramount. Balancing micro (places fostering social interaction) and macro (flows and networks) elements, cities must be polycentric, dense yet permeable, diverse, and safe. Co-governance, driven by active citizen participation, emerges as the key to building a 21st-century city that integrates modern technologies, values, and aspirations—a co-utopia for all.

Keywords: Cities. Planning. Governance. Digitalization. Transformation.

Balluerka, Nekane; Goñi-Balentziaga, Olatz (Euskal Herriko Unibertsitatea, UPV/EHU. Psikologia Fakultatea. Tolosa Hiribidea, 40. 20018 – Donostia-San Sebastián): **Technology and Mental Health: Benefits and Risks** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: This article analyzes the benefits and risks that technology can have for mental health. Technology can be used to improve our mental health, but its inappropriate use carries risks to both mental health and data privacy. It concludes that promoting mental health for all citizens requires maintaining a balance between

technological innovation and person-centered mental health as well as increasing the number of psychiatrists and psychologists in the public health system.

Keywords: Mental Health Prevention, Mental Health Treatment, Benefits of Technology, Risks of Technology.

Gurrutxaga Abad, Ander; (University of the Basque Country. Department of Sociology and Social Work. Sarriena, z/g. 48940 – Leioa); **Galarraga Ezponda, Auxkin** (University of the Basque Country (UPV/EHU). Faculty of Law. Department of Sociology and Social Work. Manuel de Lardizabal, 2. 20018 Donostia-San Sebastián): **Distant Futures and Situated identities: Unforeseen Consequences of Technosocial Systems in the Left Bank of Nervión River** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: This article reflects on the way in which socio-technical systems interact both with changing socio-structural conditions that have a global reach, and with the history and identity of specific territories that delimit their possibilities for defining a future in terms of welfare. The case study of the left bank of the Nervión River allows us to illustrate some of the socio-cultural dissonances that the techno-welfare systems of the future will have to face.

Keywords: Technological development. Social change. Unforeseen consequences. Deindustrialization. Cultural identity.

Ipiña Larrañaga, Nagore (Mondragon Unibertsitatea. Humanitate eta Hezkuntza Zientzien Fakultatea. Eskoriatzako Campusa. Dorleta auzoa, z/g. 20540 – Eskoriatza); **Atxa Uribe, Vicente** (Mondragon Unibertsitatea. Loramendi, 4. 20500 – Arrasate): **Critical and conscious digital humanities: a decalogue for the short future** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: This paper explores the emerging field of critical and conscious humanities in digitalized spaces, focusing on the intersection of technology and the humanistic view. As digitalization has become a widespread force shaping our societies, economies, and daily lives and as it advances at a rapid pace, it is crucial to ensure that digitalization remains grounded in human values. This paper examines the theoretical underpinnings and ethical considerations associated with digital humanities. By incorporating diverse perspectives and approaches, this paper sheds light on the potential of critical and conscious humanities to address societal issues, empower marginalized voices, and foster transdisciplinary collaboration. The paper concludes by

proposing a decalogue to prioritize human experiences and ethical considerations in technological development and deployment.

Keywords: Digital humanities. Critical. Conscious. Intersection of technology and humanism.

Larrañaga, Pedro; Pérez-Soloviev, Vicente (Universidad Politécnica de Madrid. Artificial Intelligence Department. Campus de Montegancedo, s/n. 28660 – Beodilla del Monte, Madrid): **Elements of complex networks** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: The infrastructures made up of different layers interoperating within society to provide global and public technological services, constituting the so-called techno-social systems, can be represented graphically by means of complex networks. Complex networks are the mathematical paradigm used as the basis for modeling the behavior of these techno-social systems and able to predict their behavior. A complex network is a graph with non-trivial topological features that can be characterized by statistical indicators such as different measures of centrality and detection of communities. Applications of complex systems have been developed in disciplines as diverse as the Web, communication networks, brain networks, biological networks, climate networks, sport, and social networks. This article intuitively shows the underlying theory of complex networks, as well as different methods for their modeling from data. By way of illustration, the application of an open access software to the induction and characterization of a complex network of bibliographic citations among researchers from a department at the Universidad del País Vasco/Euskal Herriko Unibertsitatea is presented.

Keywords: Techno-social systems. Complex systems. Complex networks. Topological and structural characteristics. Complex network models. Dynamics on complex networks. Bibliographic citations network.

López-de-Ipiña, Diego; Casado-Mansilla, Diego; Puerta-Beldarrain, Maite; Gómez-Carmona, Oihane (University of Deusto. Faculty of Engineering. Avda. de las Universidades, 24. 48007 – Bilbao): **Humanized Computing for higher collaboration and reciprocal learning between machines and people** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: This work explores two sociotechnical approaches to realize smart communities which adopt digital technologies to achieve a higher collaboration where reciprocal learning between machines and people is possible. On one hand, co-production promotes behaviour change by empowering citizens in the co-design

and co-delivery process, designing user-centric solutions, leveraging local knowledge, fostering collaboration, and facilitating capacity building. On the other hand, citizen science can inspire and enable behavioural change that leads to more sustainable, responsible, and community-oriented actions by promoting awareness, empowering the community, and facilitating collaboration. This work argues that these two approaches can help us progressing towards a new generation of computing that includes humans always in the loop, namely Humanized Computing.

Keywords: co-production, citizen science, reciprocal learning, human computation, artificial intelligence

Otegui-Feliz, Itziar (CIC nanoGUNE BRTA. Tolosa Hiribidea, 76. 20018 – Donostia - San Sebastián); **Ibarra, Andoni** (University of the Basque Country. Fac. of Education, Philosophy and Anthropolgy. Tolosa Hiribidea, 20. 20018 – Donostia - San Sebastián); **Pitarke, Jose Mari** (CIC nanoGUNE BRTA. Tolosa Hiribidea, 76. 20018 – Donostia - San Sebastián): **Basque Research and Innovation as a learning techno-social system: organization, policies, and challenges** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: Research and innovation constitute a large techno-social (LTS) system of basic importance in the dynamic interplay between science, technology, and society. Here, we discuss Basque Research and Innovation as a LTS facing a number of societal challenges, and we reflect on how these challenges could be overcome in the framework of open responsible research and innovation.

Keywords: Basque Research. Innovation. Society. Large Techno-Social Systems.

Palacios-Huerta, Ignacio (BBBB): **Human Preference Formation and Measurement of Impact in Large Techno Social Systems** (Orig. en)

In: *Rev. int. estud. Vascos*. 68, 2 (2023)

Abstract: Large techno-social systems refer to complex systems that integrate technology and social structures to deliver services, products and solutions to large populations. Examples include the Internet, social media networks, online marketplaces and e-government systems. This paper addresses two fundamental aspects arising in these systems. First, since human preferences are both an input and an output, these systems may have a significant impact on behavior, for example, by shifting consumer preferences, changing attitudes, reinforcing existing biases, creating new biases or by altering social norms and expectations. This means that to understand this impact it is necessary to have an equilibrium framework for thinking about the endogenous formation of preferences. Second, much research argues that these systems

may disrupt traditional business models, create new markets, increase competition, and alter labor markets. As such, they will have an impact on the equilibrium forces in the global economy. But, how strong are these forces and in what direction they operate? These are challenging questions whose answers, intuitively, depend on who are the most important or influential agents. This in turn begs the question: How can we measure the impact of different agents in an interdependent, interconnected world? This paper reviews formal frameworks available in the literature that are useful to study both the endogenous formation of preferences and the measurement of impact in these systems.

Keywords: