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Epistemic Bubbles, Echo Chambers, and the Digital Infosphere

Bolle epistemiche, camere dell'eco e l'infosfera digitale

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FRANCESCO PISANO – ANTONIO SCALA

ANTONIO SCALA, THE ANATOMY OF ECHO CHAMBERS

Abstract: In this essay, we investigate echo chambers in the context of social media. Our research delves into their origins, mechanisms, and the consequential polarization they foster among users in these digital spaces. We also examine the influential roles played by algorithms and cognitive biases in shaping online discourse within these chambers. Our study underscores the critical issue of information propagation in the digital age. It highlights the evolving landscape of information dissemination and consumption, challenging conventional notions of information flow and foraging. As we navigate this intricate terrain, our research prompts a reevaluation of strategies to encourage constructive online discourse. It also encourages a nuanced understanding of the evolving information landscape, where individuals actively participate in shaping the narratives they encounter, transcending their passive roles as mere recipients.

Keywords: echo chambers, polarization, social media, algorithms, epistemic closure

ANITA BONETTI – WALTER QUATTROCIOCCHI, ECHO CHAMBERS E BOLLE EPISTEMICHE NELL'ERA DIGITALE. LE PROSPETTIVE DELLA DATA SCIENCE

Abstract: The Internet has radically changed the way we select information, form our beliefs and approach concepts of truth. Potentially, the wide availability of content circulating online should provide the heterogeneous information base needed to form our knowledge, but epistemic bubbles restrict our exposure to a limited amount of information. Within these social epistemic structures, harmful media and misinformation circulate rapidly and individuals are exposed mainly to contents that align with their pre-existing beliefs, increasingly reinforcing them. In this paper, we analyze the impact of epistemic bubbles and echo chambers on information diffusion and individual knowledge formation, through the lens of data science. We show how two case studies, climate change deniers and anti-vaccination groups, find an ideal environment on the web to follow their narratives and radicalize their positions, driven by polarization and echo chambers.

Keywords: epistemic bubbles, echo chambers, data science, misinformation, social network

MATTEO PIETROPAOLI, COMUNITÀ EPISTEMICHE, ECHO CHAMBERS E CITTADINANZA NELL'ERA DIGITALE. CHI È INCASTRATO IN COSA

Abstract: In this work, we intend to face the relationship between epistemic communities, echo chambers and citizenship in the digital age. The goal is to understand to what extent the rhizomatic network of connections, typical of the current information society, fosters a process of expansion of knowledge in various contexts. To this end we begin by analyzing the digital age in both social and individual terms. We proceed with the examination of the phenomena relating to filter bubbles and echo chambers, referring to the dynamics of hybridization and multiplication of “publics”; witnessed in advanced democracies. Finally, we face the method of integration and knowledge renewal specific to epistemic communities, so as to try to answer the following question: in the digital age, is citizenship really more subject to the phenomenon of “information bubbles” than epistemic communities?

Keywords: epistemic communities, echo chambers, citizenship, digital age, information society

THOMAS WILK, CONSPIRACY THEORIES, ECHO CHAMBERS, AND COMMUNAL EPISTEMIC TRUST

Abstract: Echo chambers pervade our epistemic landscape, elucidating phenomena from conspiracy theories to post-truth politics. Prevailing models expound on their emergence within online information environments. This paper posits that a comprehensive grasp necessitates an examination of the epistemic trust underpinning them. Epistemic trust facilitates the seamless integration of individuals into communal knowledge practices. Yet, trust's distribution lacks rational determination, instead arising from social relationships, thereby allowing untrustworthy agents entry into our epistemic practices. Consequently, echo chamber inhabitants often bear no culpability for their epistemic situation. This paper concludes by advocating for trust restoration and the reconstruction of real-world communities to foster trust-building interactions. Through rebuilding trust with denizens of echo chambers we can intervene to reintegrate them into mainstream epistemic practices.

Keywords: epistemic trust, echo chambers, conspiracy theories, social epistemology, epistemic communities

KRISTINA KHUTSISHVILI, EPISTEMIC BUBBLES AND ECHO CHAMBERS IN THE DIGITAL INFOSPHERE. ALIENATION AND RECOGNITION AT THE (NON)-PLACE

Abstract: This paper aims to reflect on the anthropological nature of the digital infosphere being contextual for phenomena such as epistemic bubbles and echo chambers. Is the digital infosphere, the general context for phenomena such as epistemic bubbles and echo chambers, an anthropological place or a non-place? The answer to this question is important to better understand the issue, and to learn how to approach it in a good enough way to minimize the potential harms such as successful disinformation campaigns and occasions of hate speech.

Keywords: epistemic bubbles, digital infosphere, place, identity, Marc Augé

ALESSANDRO DE CESARIS, WHAT'S SO SPATIAL ABOUT CYBERSPACE? DIGITAL LIFE AND THE END OF GEOGRAPHY

Abstract: Our understanding of new digital technologies rests upon a large number of spatial metaphors. The most famous is the idea of the World Wide Web as a cyberspace. William Gibson, who created the word and used it in his masterpiece *Neuromancer*, describes it as «a consensual hallucination», as «a graphic representation of a nonspace». While Gibson expressly used the term as a fancy but meaningless metaphor, academic debate often absorbed it without emphasizing this complex and somehow paradoxical relation between cyberspace and space. The aim of this paper is to offer a critical analysis of the relationship between digitality and spatiality. On one hand, the World Wide Web becomes possible only through an implosion of distance, direction and dimension. On the other side, digital technologies are interpreted as allowing the exploration of new spaces.

Keywords: cyberspace, geography, philosophical anthropology

MARCO DELMASTRO, SOME REFLECTIONS ON PUBLIC DEBATE AND THE FORMATION OF PUBLIC OPINION

Abstract: The article underscores the critical challenge of analyzing the evolving morphological structures within the contemporary public sphere. Traditionally, the public sphere featured a simpler, star-shaped structure with a few dominant news sources, fostering shared facts and facilitating public discourse convergence. However, technological advancements and market dynamics have transformed this landscape, resulting in a more decentralized, polycentric, and fragmented public sphere. This shift has led to the formation of echo chambers and the rapid spread of polarized viewpoints. Understanding these morphological changes is paramount, as they profoundly influence public discourse, opinion formation, and policy responses to issues such as misinformation and polarization.

Keywords: information, misinformation, public sphere, morphology, policy approaches

MARGHERITA MATTIONI, PER UNA CRITICA EPISTEMOLOGICA DEL WEB PERSONALIZZATO

Abstract: This paper aims to provide an overview of the main epistemological consequences of accessing and interrogating the major informational ecosystems hosted and made available by the “Web of Personalisation”, namely the most widely used and culturally influential digital intermediaries. The first part consists in a brief summary of the general epistemic trends of the contemporary Web, such as the systematic information overload and the significant changes brought about by algorithmic filtering in assessing the relevance and the reliability of both digital contents and web sources. The analysis then focuses on the central role played by digital platforms’ custom filters in reinforcing human cognitively biased attitudes, like confirmation bias, homophily or groupthink. The final part discusses the most relevant epistemically and socially challenging risks of the neo-privatisation and polarization of the digital public sphere.

Keywords: digital epistemology, personalized filters, echo chambers, opinion polarization, digital public sphere