ALGORITHM

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Definition

An algorithm is a set of step-by-step instructions or rules designed to perform a specific task or solve a problem. In digital contexts, algorithms operate as computational processes that drive everything from search engines to social media platforms, decision-making systems, and artificial intelligence. While traditionally perceived as neutral and objective, algorithms are increasingly recognized as social and political constructs with significant implications for power, bias, and governance.

Context

Algorithms are foundational to the infrastructure of digital societies, mediating how information is filtered, prioritized, and acted upon. They play a crucial role in personalization, recommendation systems, surveillance, automated decision-making, and predictive analytics. However, as they increasingly determine visibility, opportunity, and even freedom, critical scholarship has questioned their neutrality and transparency.

Cases like Twitter's image-cropping controversy—where the algorithm favored certain races and genders—highlight concerns about algorithmic bias, a recurring theme in public discourse and scholarly research. Some researchers argue, under the GDPR, algorithmic enforcement is now recognized in law as "automated decision-making" with significant impacts on individuals. Researchers such as Sasha Costanza-Chock and the Algorithmic Justice League advocate for understanding algorithms in their sociotechnical context, emphasizing that harm often accumulates across marginalized groups.

Moreover, thinkers like N. Katherine Hayles and Louise Amoore conceptualize algorithms not merely as code but as agents within a technogenesis—a co-evolution of human cognition and computation. From high-frequency trading to sentencing algorithms, they operate within complex and often opaque ecosystems of interaction, making them difficult to audit. This has led to calls for accountability frameworks and new methods, such as bias bounty programs, like the one initiated by Twitter to scrutinize its algorithm.

In essence, algorithms are both technical tools and sociopolitical actors, raising urgent questions of ethics, regulation, and methodology. Within the framework of the RELINK^2 project,

algorithms are central to understanding how digitalisation reshapes political organisations and their interactions with citizens. Algorithms structure visibility, participation, and communication within digital platforms, thereby influencing who gets heard and represented in political processes. The project's focus on secure and inclusive digital transformations makes algorithmic governance a key concern: biased or opaque algorithms can reproduce digital and political marginalisation, while transparent and accountable algorithmic systems can foster participation and trust. Examining how algorithms mediate access to political information, regulate online debates, or personalise campaign content directly supports RELINK2's broader aim of promoting fairness, inclusivity, and evidence-based policymaking in the digitalisation of European political life.

Related Concepts

AI-enabled analytics; Datafication; E-Democracy; E-Governance; E-Government; Fluid Representation; Liquid Democracy; Platform politics

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