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SOCIAL MEDIA RECOMMENDATION ALGORITHMS AS A FACTOR IN THE TRANSFORMATION OF USER BELIEFS

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The paper examines how the interaction between users' socio-psychological dispositions and the algorithmic architecture of social media platforms drives the transformation of beliefs. It distinguishes the filter bubble and the echo chamber as conceptually distinct phenomena and argues that algorithmic influence operates across ontological, gnoseological, and epistemological dimensions, formatting not merely individual interpretations but the structural foundations of worldview. Developing cognitive skills and worldview integrity is proposed as an adequate critical response.

The subject of this study is the interaction between a person, who embodies a set of sociocultural and psychological qualities and desires, and the modern communicative field, the structure of which is determined by the recommendation algorithms of social networks. The specific conditions shaped by communication algorithms are capable of locking an individual into an isolated info cluster, totally narrowing the available context, the scope for interpretation, and the range of problematic influences that might push consciousness beyond the zone of info comfort. It is precisely in the convergence of individual psychological dispositions with the logic of algorithmic personalisation that the problem lies, which underlies a less obvious but more fundamental process of shaping beliefs and the overall structure of one's worldview.

Recommended algorithms don't work as neutral tools for selecting relevant information, but as active mediators that reconstruct the user's information query based on engagement metrics: view duration, reactions and behavioural patterns. The platform is optimised to retain attention and therefore systematically offers content that evokes an emotion and aligns with existing interests, gradually narrowing the range of available meanings and alternative interpretations. Wu-Ouyang conceptualises personal content curation as a communicative act through which the user signals their preferences to algorithms, forming a closed loop of personalisation [1]. Such isolation was practically impossible in the context of the traditional communicative space, which constantly confronted the individual with alternative views, contradictions and uncertainty — a necessary condition for the formation of what is referred to in the psychoanalytic tradition as the reality principle: the ability to reconcile one's own perceptions with the objective constraints and challenges of the external world [2]. The personalised information space undermines this condition, replacing an encounter with the complexity of

reality with a continuous stream of curated content, which qualitatively distinguishes it from all previous forms of organising the communicative space.

To adequately analyse the phenomenon under study, it is necessary to distinguish two concepts often confused in academic discourse: the filter bubble and the echo chamber. A filter bubble results from the interplay between a platform's algorithmic logic and a person's tendency to narrow their information environment: the system shapes the perceptual framework, not by directly imposing specific views, but by limiting the available context; thus, its influence is hidden and hard to reflect upon. The bubble's efficacy rests on the individual's tendency to immerse in an environment where stimuli are switched on and off with a single click, where everything is clear and desirable — and it is precisely this environment that people get through social media platforms, then sustain through their own engagement. Figà Talamanca and Arfini argue that isolation within the bubble is shaped by the interplay between technology and the user's prior dispositions: this tendency is innate to the individual [3].

The second key phenomenon, the echo chamber, arises from the interplay of conformity and the need for social validation with social confirmation processes: people feel psychologically uneasy when faced with views that clash with their own, and so they seek out environments where everything is predictable and free of cognitive discomfort. Such an environment is not only provided by social media platforms, but is also actively sustained by the user's own engagement, attention and time, as they maintain a dynamic bond with the information space and constantly reproduce its structure through their behaviour. Such engagement can span all aspects of life and be continuous. As a result, a positive feedback loop forms, where the more active the user, the narrower their information space becomes, driving a qualitative shift in the very nature of communication. Thus, the filter bubble and the echo chamber are conceptually distinct: the former stems from algorithmic and behavioural optimisation of engagement, the latter is rooted in conformity and the need for social approval.

However, despite their conceptual differences, both phenomena point to the same effect: algorithmic influence on the individual is not limited to narrowing and adjusting consumed content, but can shape beliefs as the bedrock of a person's worldview. Beliefs are the core level of worldview, enabling the unity of experience, and it is precisely for this reason that their transformation is the deepest mark of algorithmic influence. Such influence has ontological, gnoseological and epistemological dimensions. At the ontological level, basic conceptions and readings of reality are normalised and entrenched; at the same time, any alternative views are marginalised. At the gnoseological level, the criteria for what counts as knowledge, and the valid procedures for its acquisition and verification, are transformed. At the epistemological level, the very bounds of what is deemed reliable shift. Crucially, this influence operates largely beyond the user's conscious awareness: not through direct imposition of views, but through a gradual shift in focus, a narrowing of evaluative criteria and the limits

of interpretation. Moreover, the algorithmic environment shapes not only the scope of problems but also the level of complexity of their framing: simplistic views of reality have always existed, but today they have found snug niches, cut off from challenge and free from contact with rival interpretations. Research shows that users form informal theories about how algorithms work, yet lack real grasp of personalisation mechanisms [4], making them prone to covert forms of influence not only at the level of immediate views on specific issues, but also at the level of core beliefs. Telling in this context is the phenomenon of post-truth: the algorithm seals off emotionally resonant ideas regardless of their accuracy and internal contradictions, blurring the line between belief and verified knowledge and removing the need to reconcile them. Beliefs become detached from other components of worldview, logical sequence and lose their structural unity, which opens up a broad horizon for their complete reformatting, both in the process of spontaneous, disordered restructuring and through targeted manipulation, including via mechanisms of «general acceptance» or «obviousness».

The transformation of beliefs, therefore, is not the result of a one-sided technological influence. It is made possible by the interaction between the psychological dispositions of a person immersed in the communicative space of modern networks, which is structured according to the algorithmic logic of information personalisation. The influence of recommendation algorithms, which occurs simultaneously in ontological, gnoseological and epistemological dimensions, transforms not only individual interpretations of reality, but also beliefs. An adequate response lies in the development of a coherent worldview and advanced cognitive skills as a conscious ability to reflect on one's own informational position and critically transcend the boundaries of the algorithmically constructed space.

List of references:

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