

## **Online culture in an evolutionary pressure cooker**

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What is the cultural equivalent of using a petri dish to force the evolution of antibiotic resistance in bacteria? Could such an environment be constructed online? What would its consequences be?

This paper describes how certain online communities, specifically 4chan, have played the historically unprecedented role of such petri dishes in digital culture, and discusses the cultural, political, and scientific implications of the evolutionary outcomes.

First, a model is presented, explaining how the design decisions of 4chan led to extreme selective pressure on cultural expressions and forms (colloquially known as memes) and the skills of the participating agents while encouraging variation and transmission.

Second, the fitness function of the cultural forms which survived these selective pressures is speculated upon. A description is given of how these forms are especially suited to capturing attention and commanding behavior in various online settings.

Third, research questions, approaches, and possible sources of data are sketched, which could be fleshed out into both qualitative and quantitative research projects, thus filling gaps in the academic understanding of digital culture. This would enable researchers to understand the broader cultural and political impact of these forms, both online and offline, in phenomena ranging from changing language use in political communication to “troll armies”.

Digital culture is both increasingly important and increasingly complex. Understanding its evolutionary roots would help researchers and professionals in various fields adapt to it. Such research could thus elevate the study of cultural evolution into higher relevance.