

Challenging The Black Box:

On the Accountability of Algorithmic Law Enforcement

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Abstract

Distributed networks opened up new opportunities for open access to creative materials. The low cost of coordinating creative efforts and distributing creative works to a large audience, enable individual users to collaborate in the production of creative works and freely share it with communities of their choosing. At the same time, however, digital networks constitute a robust mechanism of enforcement. Algorithms perform a large part of our law enforcement activity. Many enforcement mechanisms are embedded in systems design, performing surveillance and implementing filtering and blocking measures. Copyright was at the forefront of algorithmic law enforcement, employing technical measures, such as Digital Right Management Systems and Technological Protection Measures from the early 90's. Nowadays, much of the copyright law enforcement activity is implemented by online intermediaries, which monitor, filter, block, and disable access to allegedly infringing content (e.g., the "notice and take down" regime under the Digital Millennium Copyright Act).

One of the challenges arising from algorithmic enforcement is how to secure the public interest. Algorithms are making critical choices on access to creative content, in non-transparent ways. It is difficult to subject non-transparent "black box" governance to public or legal scrutiny. Yet, without adequate channels of review, unauthorized restrictions on non-infringing content cannot be promptly corrected.

This paper seeks to map the barriers for enhancing public scrutiny of algorithmic copyright enforcement and explore different mechanisms to minimize them. In particular, it considers the complicated and non-transparent nature of algorithms; the dynamics of copyright enforcement mechanisms that are based on constantly evolving learning machines; the legal barriers that prohibit "black box tinkering" as means of improving public knowledge of the system that regulates their behavior, and the limits of existing mechanisms, such counter-notices, to offer sufficient checks and balances.