Chapter 16
Overcoming Copyright Protection Difficulties in Cloud Settings

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ABSTRACT

Since the storage and delivery services are migrating to the cloud which is expected to reach over $678.8 billion by 2027, the cloud-computing industry has emerged with intricate legal issues of enforcing copyright. In this chapter focal point is the

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issues of infringement in the cloud systems whereby it gives an insight to the liability of the providers in the light of the U.S. Copyright Act as well as the recent court ruling and preceding global regulations. It talks about the influence of cloud models such as SaaS, PaaS and IaaS on the distribution and reproduction of copyrighted materials. It also examines the existing weaknesses of the laws available to deal with cross-border platforms particularly with regards to intermediary liability and DMCA safe harbor provisions. Difficulties in enforcement are illustrated in Dropbox, Google drive, and Mega case studies. The chapter ends with the observations that there are gaps in the law and need to create new policies and technologies such as better DRM and content recognition that will enhance the protection of copyright in the cloud.

1 INTRODUCTION

The popularity and proliferation of cloud computing solutions can be said to have revolutionized the digital content creation, distribution, accessing, and storage (storage) world, as it has altered the way digital content is produced, shared, read and saved. The established centralized approach of content distribution, where owners of content (publishers) and tangible mediums were dominant, has in recent years been replaced by a much more decentralized and virtualized setting with circulation of data being constant and unaided through the inter-connected networks spread across the world. In such a digital age, cloud systems are the new de facto mode of storing and transmitting large amounts of data, whether it be academic content and multimedia files, proprietary software, and real-time user-generated information (Adeusi et al., 2024).

Cloud computing is commonly put into different structures of service models, the most common three of these structures are Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) which offer different level of control, abstraction and responsibility between the overall service provider and the end user. These models permit users, including individuals, to multinational corporations to access and use computing resources as demanded without the need to manage physical computing resources or maintain local infrastructure. This systemic transformation brings in issues of new scalar, efficiency and flexibility. Nevertheless, it poses meaningful legal issues especially in copyright law, where the framework already in place cannot be easily adjusted to the dynamics of digital ecosystems that are no longer subject to geographic or jurisdiction limits.

As shown in Table 1, different cloud service models provide varying copyright concerns, with SaaS systems more vulnerable to user-uploaded content infringement, whilst IaaS faces issues such as hosting pirated files.