Blockchain Technology and Courtroom Evidence

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Abstract

Blockchain technology is one of the trendiest topics in the field of law and technology, particularly in regard to evidence law. This article explores how blockchain technology would change and influence the practices of criminal courts, and how the court may adapt the existing evidentiary principles to the issues brought about by this new technology. In Chapter I and II, this article introduces what a blockchain is, and its fundamental technical characteristics. It asserts there are two core characteristics of blockchains, decentralization and immutability, which resonate with the fundamental pursuit of evidential principles.

In Chapter III, this article analyzes the pros and cons of storing evidence in blockchain network ("being blockchain-ed"). I will illustrate major concerns and risks which policy makers and legal professionals should consider when it comes to blockchain-ed evidence. Then, this article turns to a discussion about the connection between the emerging use of blockchain technology and the existing evidentiary principles in Chapter IV, V, and VI.

The Chapter IV studies whether blockchain evidence is hearsay, because it may involve the reproduction of a person's statement, in this case, by computer. Different from what most of the literature argues, either for or against the concept that blockchain evidence is hearsay, this article contends that we should first clarify how blockchain technology is being used. Chapter V talks about another evidence law issue: authentication. Authentication is usually not a very tough requirement to satisfy in most cases involving exhibits, but it may be complicated

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with regard to blockchain evidence. The proponent of blockchain evidence should provide information to describe what a blockchain is and how it works, and show that it produces an accurate result.

In Chapter VI, this article attempts to predict how blockchain evidence may be used in Taiwan's criminal courts, by examining how courts in Taiwan have used other types of digital evidence. Previous court decisions show that courts are inclined to make digital evidence admissible, based on the belief that it has higher probative value than traditional exhibits or testimony due to an unwarranted faith in technology. This article describes concerns about this inclination towards admissibility, because it seems the belief of courts does not have a solid foundation.

Keywords: digital evidence, hearsay, relevancy, authentication, hash