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# Digital identity – From emergent legal concept to new reality



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#### ABSTRACT

Over the past decade, digital identity has gone from a largely unrecognized emergent legal concept to something that is now well known, but still not fully understood. Most individuals now know that they have a digital identity but its legal nature, its transactional functions, and its implications now and for the future, are not generally well understood.

This article tracks the emergence of digital identity from the time it was recognized as a new legal and commercial concept to the present time; and outlines its impact and significance for individuals, governments, the private sector and even what is means to be a nation and a citizen in the digital era. The author recounts her experience in recognizing the implications of digital identity in 2006 to its current importance and the implications of future evolutions including an international digital identity, the groundwork for which is being laid now.

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#### 1. Introduction

Twelve years ago, I began my research on digital identity when looking for a cyber law topic for my PhD thesis. I have always been in the computer/cyber law field and I had recently seen "digital identity" mentioned in several published articles but "digital identity" was not defined, nor referenced, by the authors. This piqued my curiosity. What exactly is digital identity, I wondered? What is its composition and how does it work, exactly? The even more intriguing question was its legal nature. I set about trying to find answers to these questions and rapidly hit a dead-end. I realized, with amazement, that no one had defined digital identity; and that it had not been the subject of examination from a legal perspective. I had my thesis topic!

I began working on doctoral thesis "Digital Identity – An Emergent Legal Concept" in 2006. At that time, most people

who asked about my research clearly had not heard the term 'digital identity' and did not understand what I was doing except that they realized that it must have had something to do with computers because computer law (or cyber law as it is now known) was my field. By year 2 of my PhD, when I said I was looking at digital identity, the usual question was, "is that, like, identity theft?" When hearing that yes, that was part of my research, the individual would invariably tell me about a recent incident in which he/she, a friend, or a relative had been an identity theft victim. However, by the time I completed my thesis in 2008, "digital identity" was part of the vernacular and there were regular news reports about identity theft, cyber security concerns and the importance of protecting one's identity information. The shift was palpable and it was indicative of how fast this area continues to develop and evolve. It is one of the most challenging and exhausting, yet interesting, aspects of being a cyber law lawyer.

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The change that has occurred since 2006 is astounding. Digital identity is now a familiar term. Identity theft and cyber security are still major concerns and the law, which largely developed to deal 19th and 20th century commerce, struggles to deal with a world transformed. As I look back on my journey and the scholarship produced over this time, it is heartening that the predictions and assertions as to importance of digital identity that were considered futuristic and somewhat fantastic are now reality. However, this reflection also reveals that there is still much that needs to be done by policy-makers and the legal community to effectively address the crucial issues of security and individual rights in an era when a person is known almost exclusively by his/her digital identity, and it is the primary means of transacting in the public and private sectors.

## 2. Digital identity – from emergent legal concept to new reality

To understand the current importance of digital identity and its significance to individuals, governments and the private sector, I will recap the analysis in my earlier scholarship, much which has been published in Computer Law and Security Review at a time when digital identity was a little-known concept.

As I explained in early writings, historically identity has been in the background in commercial dealings, resulting in uncertainty about its legal role and nature, especially at common law. Contract law, for example, generally focuses on whether there is genuine agreement between the parties, particularly in common law jurisdictions. The law usually presumes that in face-to-face dealings each party intends to deal with the person who is physically present, though that presumption can be rebutted by clear, admissible evidence to the contrary. A similar line of reasoning can be found in other branches of the common law such as agency, particularly in relation to the doctrine of undisclosed principal. Consequently, what constitutes a person's identity and its role in a transactional context, have been historically unclear and largely unimportant.

Now though, identity is routinely required for transactions, as dealings conducted in person have been almost entirely replaced by dealings conducted without a history of personal acquaintance, without face-to-face interaction, and often without any human-to-human element. The requirement to use digital identity for transactions has increased exponentially, especially over the past 10 years, to a point that as I predicted, that digital identity is now required for most, if not all, dealings with the private sector and with government.<sup>2</sup> This is

occurred essentially because both private sector and government organizations have moved to online service delivery.

While a concept of transactional identity that consists of a defined set of information had been evident in commercial practice for many years for private sector dealings such as credit card transactions for example, the move to on-line government services crystallized the concept. It elevated digital identity to a new level of commercial and legal significance because government schemes are usually necessarily based on the premise of one person: one digital identity. The move to on-line services was driven by the need to reduce costs and increase efficiency in service delivery, and to reduce fraud, especially welfare fraud. As a result, one person: one identity was and still is an essential element. This development had flow-through consequences for the private sector. While one person: one identity was not, at the outset, an essential requirement for private schemes like Visa for example,<sup>3</sup> the emergence of an officially recognized digital identity also set the standard for the private sector. That was an intentional element for many digital identity schemes especially those first established in European nations such as Austria, Belgium and Estonia but even in countries where this was not a stated objective, and the government did not intend to set the 'gold standard' of identity, it is an outcome which has proved inevitable.

For those unfamiliar with my scholarship, it is worth briefly summarizing the essential features, composition, functions, and implications of digital identity as outlined in my monograph, Digital Identity, and in a series of articles that discuss these aspects in depth. Basically, all digital identity schemes for transactions (as distinguished from social media, for example), depend on two processes. The first process is authentication of identity. The second is verification of identity.<sup>4</sup> Identity is authenticated at the time of registration for a particular scheme, whether it is designated as a national identity scheme or is a de-facto scheme such as exists in Australia, the United States of America (U.S.) and the United Kingdom. At the time of registration, information is collected and checked to determine the authenticity of the individual's identity. Of the information recorded at that time, the identifying information such as signature or photograph or in some scheme, for some purposes, biometrics are used to the link an individual to the digital identity. This identifying information is regarded as beings associated inseparably with that individual but as I have pointed this link is neither robust, nor is it infallible.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> As one scholar aptly or observes in relation to identity generally, 'much legal doctrine obscures the salience of identity qua identity, though when confronted directly with the issue, the law does give substance to the importance of identity.' See Brookes, R. "Incorporating Race" (2006) 106 Columbia Law Review 2023.

<sup>&</sup>lt;sup>2</sup> See, Sullivan, C. 'Identity or Privacy?' submitted on request for Special Issue: Identity, Privacy and New Technologies in (2008) 2(3) International Journal of Intellectual Property Management 289; Sullivan, C. 'Who's Who – Conceptualising Identity' (2007) 21(3) International Review of Law, Computers and Technology 327; Sullivan, C. 'Conceptualising Identity' paper presented at the 2007

British and Irish Law Education and Technology Association conference in the United Kingdom in April 2007and for publication as a BILETA paper on-line at <bid>bileta.ac.uk>; Sullivan, C, 'The United Kingdom Identity Cards Act – Civil or Criminal?'(2007) July International Journal of Law and Information Technology 1; and Sullivan, C. 'The United Kingdom Identity Cards Act 2006 – Proving Identity?' (2006) 3 Macquarie Journal of Business Law 259.

<sup>&</sup>lt;sup>3</sup> An individual could for example, have cards with different names and titles.

<sup>&</sup>lt;sup>4</sup> These terms are often used interchangeably but this approach follows the terms used in original scheme documentation. See, Sullivan, C. 'The United Kingdom Identity Cards Act 2006 – Proving Identity?' (2006) 3 Macquarie Journal of Business Law 259.

<sup>&</sup>lt;sup>5</sup> For a detailed discussion of this point see, Sullivan, C. 'Digital Identity' (2011) University of Adelaide Press; and Sullivan, C.

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