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Humans forget, machines remember: Artificial intelligence and the Right to Be Forgotten

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A B S T R A C T

This article examines the problem of AI memory and the Right to Be Forgotten. First, this article analyzes the legal background behind the Right to Be Forgotten, in order to understand its potential applicability to AI, including a discussion on the antagonism between the values of privacy and transparency under current E.U. privacy law. Next, the authors explore whether the Right to Be Forgotten is practicable or beneficial in an AI/machine learning context, in order to understand whether and how the law should address the Right to Be Forgotten in a post-AI world. The authors discuss the technical problems faced when adhering to strict interpretation of data deletion requirements under the Right to Be Forgotten, ultimately concluding that it may be impossible to fulfill the legal aims of the Right to Be Forgotten in artificial intelligence environments. Finally, this article addresses the core issue at the heart of the AI and Right to Be Forgotten problem: the unfortunate dearth of interdisciplinary scholarship supporting privacy law and regulation.

Nothing fixes a thing so intensely in memory as the wish to forget it – Montaigne.

Popular society is often still impressed at the pace of new artificial intelligence (AI) advancements. In 1996, IBM's Deep Blue beat a reigning world champion in a game of chess.[1] Twenty years later, Google's AlphaGo beat a grandmaster at Go, a game long considered to be a challenge too complex and difficult for AI.[2] Artificial intelligence success at mastering Go is only one small example of the great strides AI technologies have made in the past few decades, but it is a sign of the exponentially increasing power and importance of AI in human society. Artificial intelligence is rapidly developing, and it is necessary for lawmakers and regulators to keep up with the pace of this new and increasingly important technology.

Unfortunately, our current laws[3] are not fit to handle the complexities and challenges of artificial intelligence. One area in which current law is insufficient is privacy regulation.

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[1] https://www.theatlantic.com/technology/archive/2016/02/when-computers-started-beating-chess-champions/462216/.

[2] https://www.wired.com/2016/03/googles-ai-wins-fifth-final-game-go-genius-lee-sedol/.

[3] This article focuses on the laws of the E.U., due to the comparatively advanced nature of privacy laws in the E.U. as compared to that of other jurisdictions.

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While it may be easy to dismiss legal questions of AI and privacy as mere iterations of Easterbrook's "law of the horse,"[4] artificial intelligence fundamentally changes our current understanding of privacy because much of what scholars conceive to be privacy today rests on an understanding of how humans process information—especially, how humans remember and forget. This deficiency in understanding is especially apparent when considering the privacy law concept of the "Right to Be Forgotten".

The Right to Be Forgotten has risen to prominence alongside the rising importance of privacy law in general, particularly as understood in regulations like the European Regulation 679/2016 on Data Protection (the "General Data Protection Regulation" or "GDPR").[5] The Right to Be Forgotten is essentially the concept that individuals have the right to request that their data (collected by others) be deleted. This concept of "data deletion" has come to the forefront of many juridical discussions of the Right to Be Forgotten.

While "data deletion" may seem to be a straightforward topic from the point of view of many regulators, this seemingly simple issue poses many practical problems in actual machine learning environments. In fact, "data deletion" requirements can be considered to actually border on the edge of impossibility.

The problem with the Right to Be Forgotten and its inapplicability to AI may be due to our inaccurate understanding of privacy in relation to AI. People often view privacy as, metaphorically, hiding their information from others. This is especially apparent when examining the principle of the Right to Be Forgotten, under which individuals can request that information made public be deleted (and thus, made private). In the case of public information that is made private, the metaphor of a human mind forgetting a piece of information applies well. When individuals make previously-public information private, they metaphorically request that others forget that information. However, this metaphor is unique to human minds only and does not necessarily translate to the AI/machine learning era.

To understand the Right to Be Forgotten in context of artificial intelligence, it is necessary to first delve into an overview of the concepts of human and AI memory and forgetting. Our current law appears to treat human and machine memory alike—supporting a fictitious understanding of memory and forgetting that does not comport with reality. (Some authors have already highlighted the concerns on the *perfect remembering*.[6])

This article will examine the problem of AI memory and the Right to Be Forgotten, using this example as a model for understanding the failures of current privacy law to reflect the realities of AI technology.

First, this article analyzes the legal background behind the Right to Be Forgotten, in order to understand its potential applicability to AI, including a discussion on the antagonism between the values of privacy and transparency under current E.U. privacy law. Next, the authors explore whether the Right to Be Forgotten is practicable or beneficial in an AI/machine learning context, in order to understand whether and how the law should address the Right to Be Forgotten in a post-AI world. The authors discuss the technical problems faced when adhering to strict interpretation of data deletion requirements under the Right to Be Forgotten, ultimately concluding that it may be impossible to fulfill the legal aims of the Right to Be Forgotten in artificial intelligence environments. Finally, this article addresses the core issue at the heart of the AI and Right to Be Forgotten problem: the unfortunate dearth of interdisciplinary scholarship supporting privacy law and regulation. While this article approaches that larger systemic deficiency through a contrasting legal and technical analysis of the Right to Be Forgotten, the authors' ultimate goal is to encourage greater interdisciplinary research in all facets of privacy law as applied to new technologies, particularly including artificial intelligence.

1. A legal analysis of the Right to Be Forgotten

1.1. *A brief legal history of the Right to Be Forgotten*

The legal history of the Right to Be Forgotten can be said to have begun in 2010. That year, a Spanish citizen (together with the Spanish National Data Protection Agency) sued both a Spanish newspaper and Google, Inc. The Spanish citizen argued that Google was infringing on his right to privacy, due to the fact that Google's search results included information relating to a past auction of the man's repossessed home. The plaintiff requested that his information be removed from both the newspaper and from Google's search engine results.

Representatives for Google explained that even if the company could censor certain search results, as it had done in, for example, Google China, the censored information would still remain in the original websites from which the Google results were created. Google effectively argued that they were data processors and not data controllers (two distinct classes with much different privacy obligations under E.U. privacy law).

Ultimately, the Division of Administrative Law of the Spanish National Court agreed to submit to the European Court of Justice (ECJ) questions of interpretation regarding certain provisions of the Data Protection Directive from 1995 on the protection of personal data. The questions were: 1) whether the Data Protection Directive applied to search engines; 2) whether the EU Law applied to Google Spain if the server was in the United States; and 3) whether a data subject could request to have his/her data removed from accessibility via search engines.

In 2014, the ECJ ruled in favor of the Spanish citizen (C-131/12).[7] The court stated that, according to the Art. 4.1 a)

[4] Easterbrook, Frank H. (1996). *Cyberspace and the Law of the Horse* [PDF]. University of Chicago Legal Forum.

[5] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

[6] Mayer-Schönberger, V. (2011). *Delete: The Virtue of Forgetting in the Digital Age*. Princeton University Press.

[7] Court of Justice of the European Union (2014) C-131/12 Google Spain SL, Google Inc v. Agencia Española de Protección de Datos (AEPD), Mario Costeja González. Available at: curia.europa.eu/juris/document/document.jsf?text = &docid = 152065&doclang = EN.

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