The paperless office is a mirage. We’ve had the technology to go mostly paperless since the early ‘90s. But our paper usage has grown right along with our data volumes, consuming 15 percent of our physical office space.

I do not challenge paper’s continued prominence for knowledge work. Nor do I feel obligated to make the affirmative case for the primacy of digital records for long-term retention. Instead, I want to focus on the largely unnecessary practice of printing digital documents for the sole purpose of affixing a signature — often only to scan the executed document and place it back into our otherwise digital workflow. Survey after survey has shown that companies still feel compelled to execute their contracts in paper form and that a majority of companies attribute a majority of their printing to a perceived need to affix a signature. This is madness. It needs to stop. For over a decade, the legal framework and our technological infrastructure have made digital signatures a far superior alternative to ink.

I’m advocating that you and your company start executing documents digitally. Digital signatures avoid the cost and delay of printing to paper. Paper is not only inefficient and environmentally unfriendly, but it also increases the opportunity for error — paper is easy to lose or mix-up, especially where the parties are signing in counterparts or the contract has gone through multiple iterations. Digital signature methods are built right into Word, Outlook and Reader. In addition, there are all manner of robust digital signature solutions available that are easy to use and mobile ready.

As a legal matter, a signature can be any symbol that is intended to authenticate a document. You can form a binding contract via email because an authenticating symbol can be written, typed, printed, stamped or transmitted electronically. Indeed, authentication predates written language. Cylinder seals used for authentication date back to 4,000 BCE. It was not until 439 CE that the Roman Empire initiated the use of the subscripto (i.e., a short, handwritten sentence at the end of the document) as the primary means of authentication. As technology has evolved, so has the law. In 1867, the United States Supreme Court recognized that a legally-binding signature could be transmitted via telegraph. By 2000, the United States federal government (ESIGN), every state (UETA), and almost every advanced country had adopted a statutory framework that recognized the functional equivalence of electronic signatures to their ink counterparts.

It is long past time to rethink ink. An ink signature is not DNA. There is no reliable method for connecting a few pen strokes to a specific individual. Some courts will not even allow expert testimony on the subject. Writing surface, body position, writing instrument, stress and myriad other factors can all affect handwriting. Even where allowed, it is up to a lay jury to determine which of the dueling experts has provided a more accurate subjective assessment. A modern jury is far better equipped to determine whether an email originated from a particular person’s account. The jury’s assessment can be aided by the actually existing science of digital forensic examination, with its accepted protocols and recognized certifications. Digital documents contain, or can be connected to, all sorts of objective identifying information (e.g., metadata, IP addresses, message ID headers). Digital signature protocols offer an even higher level of certainty with virtually uncrackable encryption keys.

Electronic signatures are not our future. Electronic signatures are our present. Entering a PIN into the ATM is a form of electronic consent that has been common for over 30 years. Purely digital clickwrap agreements define our relationships to the software (e.g., Windows, Office, Acrobat) and services (e.g., Facebook, Twitter, Dropbox) that consume much of our lives. We can apply for and then max out our credit cards completely online. We pay our mortgages, buy our plane tickets and submit our tax returns without putting pen to paper. Trillions of dollars flow through Wall Street, the banking system and commodities markets on the basis of mouse clicks. For the most part, we have accommodated ourselves well to a digital world and the attendant digital forms of consent. But we’ve not made nearly as much progress as our statutory structure permits.

Paperless remains a pipedream. But less paper is achievable immediately. Stop printing for the sole purpose of signing. Electronic signatures are already a huge part of our personal lives; it is long past time we afford them their proper place in our professional pursuits.