



Why are PDFs Changing the World?

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According to Merriam-Webster, a PDF is **"a computer file format for the transmission of a multimedia document that is not intended to be edited (...)."**

"Just like a printed document," say others. But year after year, it is literally revolutionizing the world of engineering, architecture, law and other major areas of society. Why? Here's a quick history of the PDF and where it is headed.

The Birth of a Standard

In 1991, John Warnock, one of Adobe's co-founders, created the PDF. His goal? Provide a solution to capture electronic documents to make them readable from any application and operating system. He might not have known it at the time, but he had just invented one of the greatest IT standards.





PDF stands for *Portable Document Format*

PDFs and digital signatures not only make it easier to share content; they also make it easier than ever to ensure their integrity on any IT platform.



**Fun
Fact**

The popularity of PDFs is mainly due to the defunct Netscape Navigator browser, which was one of the first to offer a free PDF reader.

A Document Made to Last

What makes PDFs so unique? When you create a PDF, you capture everything in your document, including text and images, but you can also—and this is very important—**ensure its sustainability over time much like a paper document.**

Indeed, unlike other electronic formats, a PDF can preserve the readability of its content without worrying about changing operating systems or future updates.

This means that it is now possible to archive our documents on hard disks or in the cloud instead of locking them in oversized filing cabinets.

Besides being stable and durable, the PDF makes it possible to guarantee its integrity by incorporating a digital signature. The affixing of electronic signatures is defined by the PAdES standards, issued by the **European Telecommunications Standards Institute (ETSI TS 102 778)**. In terms of reliability, it's pretty much the best around.



Geek Fact

Non-repudiation of a PDF

To guarantee the non-repudiation of a PDF, a digital signature certificate can be embedded in the PDF that associates the signer's identity with the PDF's digital fingerprint. In the event that the PDF is inadvertently altered after signing, its fingerprint will change and no longer correspond to the fingerprint in the certificate.



Fun Fact

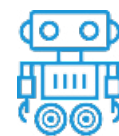
There are fewer than 100 companies worldwide that adhere to the Adobe Approved Trust List (AATL) certification and **Notarius** is the only Canadian member.

An International Quality Guarantee

From London to New York, just as in engineering and architecture, PDFs meet universal quality criteria. While long under the aegis of Adobe, the PDF is now an open patent governed by the International Organization for Standardization (ISO 19005 and ISO 32000).

As a result, today there are PDFs dedicated to specific uses in order to better meet the needs of the industries that use them:

- PDF/A for archiving and legal documents
- PDF/X for printers and editors
- PDF/UA for documents adapted for users with disabilities



Geek Fact

PDF/A format is ideal for archiving. But should you choose PDF/A-1, 2 or 3?

PDF/A-1 is the most restrictive since it cannot integrate attachments. **PDF/A-2** is the second iteration. Additional PDF/As can be attached and text searches can be performed.

PDF/A-3 allows you to attach different types of documents (such as videos and AutoCAD plans), but without guaranteeing the readability of these attachments. Nevertheless, the integrity of the PDF and its attachments is guaranteed.



Fun Fact

The Land Register of Québec has accepted PDFs for more than 20 years.



Geek Fact

Zero encryption

Used to prevent restricted material from being seen, encryption runs counter to the purpose of PDF/A archiving. Consequently, PDF/As cannot be encrypted because it would be an obstacle to viewing the information and ensuring conformity.

Transforming our Cities and Institutions

Internationally, countless professionals, crown corporations and governments are already using PDFs to increase productivity and reduce significant printing and retention costs.

For example, an architect can now have plans approved by suppliers and city administrators in just a few clicks, whereas the process used to take weeks.

At Notarius, we recommend PDF/A-3 for obvious reasons, as it acts as a standalone file, meaning that fonts and other documents are encapsulated in it.

No need for an internet connection or external software to read it.

But what makes it even more secure is that, once digitally signed, the PDF/A cannot be edited without leaving a trace. Thus, its original content can still be restored, which is required by most laws and regulations regarding electronic documents.



Documents That can be Read 100 Years From Now

With the advent of the digital world, it's not surprising that PDFs are at the centre of major urban construction sites and important commercial agreements. Because they are accessible and standardized across the world, PDFs ensure, with a digital signature tools, unparalleled legal reliability while making them easy to archive.

In a thousand years, it's a good bet that archaeologists will be excavating our devices in search of urban plans or legal texts. And let's just say that with all the traceability that PDFs offer, they shouldn't have to dig too deep to reveal what they contain!



Harvard University, in the United States, collects documents in PDF/A format, as do the US Library of Congress and the National Archives.

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