

→ **Fast Facts**



Intellectual property

Global intellectual property (IP) filings for patents, trademarks, and designs reached new highs in 2021 (the latest data available) despite the COVID-19 pandemic. Patent offices received 3.4 million patent applications in 2021, up 3.6 percent from the previous year with offices in Asia receiving 67.6 percent of all applications worldwide. Local patenting activity declined in 2021 in the US (-1.2 percent), Japan (-1.7 percent), and Germany (-3.9 percent).

World Intellectual Property Organization (WIPO), "Worldwide IP Filings Reached New All-Time Highs in 2021, Asia Drives Growth," November 21, 2022, https://www.wipo.int/pressroom/en/articles/2022/article_0013.html.



Extreme numbers

Prolific generation of data has driven the need for new prefix names for large number magnitudes. "By the 2030s, the world will generate around a yottabyte of data per year—that's 10^{24} bytes, or the amount that would fit on DVDs stacked all the way to Mars. Four new prefixes [were added] to the International System of Units (SI). The prefixes *ronna* and *quetta* represent 10^{27} and 10^{30} , and *ronto* and *quecto* signify 10^{-27} and 10^{-30} . Earth's mass is on the order of a ronnagram, and an electron's mass is about one rontogram."

Elizabeth Gibney, "How Many Yottabytes in a Quettabyte? Extreme Numbers Get New Names," *Nature*, November 18, 2022. <https://doi.org/10.1038/d41586-022-03747-9>.



New public domain works

Works copyrighted in 1927 have now entered the public domain. Books, periodicals, and movies from that year are now available to copy, share, translate, and adapt. This includes the film *Metropolis* by Fritz Lang, the books *Death Comes for the Archbishop* by Willa Cather and *Mosquitoes* by William Faulkner, and thousands of issues of periodicals from 1927. Many of these are available freely on the Internet Archive.

Alexis Rossi, "Welcoming 1927 to the Public Domain," *Internet Archive Blogs*, January 1, 2023, <https://blog.archive.org/2023/01/01/welcoming-1927-to-the-public-domain>.



News deserts

"The United States continues to lose newspapers at a rate of two per week, further dividing the nation into wealthier, faster growing communities with access to local news, and struggling areas without. A fifth of the country's

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population—70 million people—now live in an area with no local news organizations, or one at risk, with only one local news outlet and very limited access to critical news and information. Since 2005, the country has lost more than one-fourth of its newspapers and is on track to lose a third by 2025.”

Erin Karter, “As Newspapers Close, Struggling Communities Are Hit Hardest by the Decline in Local Journalism,” *Northwestern Now*, June 29, 2022. <https://news.northwestern.edu/stories/2022/06/newspapers-close-decline-in-local-journalism>.



Master’s Degree in AI

“The University of Texas at Austin ... (is) starting a large-scale, low cost online Master of Science degree program in artificial intelligence. Amid a boom in new tools like ChatGPT, the Austin campus plans to train thousands of students in sought-after skills in artificial intelligence starting in the spring of 2024.” The approximately \$10,000 tuition is intended to make AI education more affordable compared to, for example, Johns Hopkins University, which offers an online master’s degree in AI for more than \$45,000.

Natasha Singer, “University of Texas Will Offer Large-Scale Online Master’s Degree in A.I.,” *The New York Times*, January 26, 2023, sec. Technology. <https://www.nytimes.com/2023/01/26/technology/ai-masters-degree-texas.html>.