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KEYNOTE ADDRESS

by TOM RUBIN*

On September 20, 2024, Tom Rubin, Chief of Intellectual Property and Content, OpenAI, gave the keynote for the 2024 Copyright + Technology Conference. He had previously presented the keynote at the Copyright + Technology Conference in 2011, when he was the Chief Intellectual Property Strategy Counsel at Microsoft. In his keynote speech, he discussed the many opportunities in the age of AI, including for journalism. Mr. Rubin spoke in his personal capacity; his views are not necessarily those of his employer.

INTRODUCTION

Thank you for the invitation to keynote the 2024 Copyright + Technology conference.[1] As you noted, I had the pleasure of giving the keynote in 2011, which was at another critical inflection point in technology – the advent of large-scale,

*Tom Rubin is Chief of Intellectual Property and Content at OpenAI. He has taught numerous courses on copyright and technology policy at Stanford Law School and Harvard Law School; was Chief Intellectual Property Strategy Counsel at Microsoft; and, as Assistant United States Attorney, was the first computer and intellectual property crimes prosecutor in the Southern District of New York. In private practice, he focused on intellectual property and media law as Special Counsel at Quinn Emanuel Urquhart & Sullivan and an associate at Debevise & Plimpton. Prior to law school, he was a news clerk at The New York Times and a stringer for The Associated Press. He is also a longtime board member of the Reporters Committee for Freedom of the Press.

[1] The remarks here are slightly modified for clarity. Fordham University Law School, *2024 Copyright and Technology Conference* (Sept. 30, 2024), https://copyrightsociety.org/event/2024-copyright-technology-conference/?event=22017 (providing a brief summary and agenda for the event).

commercial cloud computing.[2] So I'm proud to identify as an OG of this conference.[3]

It's worth reflecting for a minute on the important role that the Copyright + Technology conference plays.[4] As we all know, there are lots of conferences that focus on copyright, just as there are lots of conferences that focus on technology. But there are too few that focus on the confluence of copyright and technology – and particularly the opportunities that technology provides for creators – which has been one of Bill's guiding principles since he launched this event 15 years ago.[5] Thank you, Bill, for filling that gap so thoughtfully.

I. HISTORICAL PERSPECTIVE

I appreciate the opportunity today to give some personal reflections on generative artificial intelligence, and I'd like to start by briefly looking at the impact of technology more broadly and historically. Since the invention of the printing press in the fifteenth century, technology has been a driving force behind the development and spread of creativity and knowledge throughout the world.[6] The nineteenth and twentieth centuries brought innovations like the telegraph, telephone, gramophone, radio, and television over the course of decades.[7] And as rapid as the rise of those technologies were, innovations have been at comparative warp speed since the personal computer came on the scene in the early 1980s.[8]

For those of us who have experienced the entirety of the computing revolution – as Bill and I have – we've been lucky indeed. Before I was a lawyer, I started my professional career in the newsroom of The New York Times, at a time when the presses were on the ground floor on West 43rd Street and teletype machines spit out wire service copy that humans – copyboys and copygirls – had

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[2] Tom Rubin, Chief Counsel, Intellectual Property Strategy at Microsoft, Keynote Address at the 2011 Copyright and Technology Conference: Copyright at the Speed of Light: Creative Content and Cloud Computing (Nov. 11, 2011).

[3] *OG*, PLANOLY GLOSSARY, https://www.planoly.com/glossary/og (last visited Oct. 28, 2024) (Originating from hip-hop culture, this slang term refers to an original or well-respected member of a particular community. For example, Aretha Franklin is the "OG" Queen of Soul.).

[4] *See* From the Editors note by Bill Rosenblatt *in Elephant in the Room: The Overabundance of Content in the Age of AI*, 71 J. COPYRIGHT SOC'Y (forthcoming in this present issue).

[5] Hotel Roger Smith, 2010 Copyright and Technology Conference (June 17, 2010).

[6] *See generally* Guotie Chen, *Research on Innovation Driving Force and Industrial Upgrading under Information Technology,* 131 ADVANCES IN INTELLIGENT SYS. RSCH. 320, 320 (2017).

[7] *See generally* LYMAN RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE (Vanderbilt University Press 1968).

[8] Although various personal computer models preceded it, the IBM 5150 Personal Computer (known as the IBM PC) with Microsoft's MS-DOS operating system, the progenitor of today's Windows PCs, became the first mass-market personal computer when it appeared in 1981. *See The IBM PC,* IBM: HISTORY, https://www.ibm.com/history/personal-computer (last visited Dec. 28, 2024) [hereinafter *The IMB PC*].

to shepherd from desk to desk.[9] The very first "portable" computers came out during my time there – boy, I loved my Kaypro! – the dimensions of which, though "portable," would be too large to qualify as carry-on luggage on an airplane today.[10]

The technological developments after the PC have come at warp speed. Digitization, the internet, and the cloud – which was the focus of my remarks here in 2011 – to name just a few.[11] Everyone was a profound innovation, every one was accompanied by concerns about how the old order would be impacted and upended, and everyone brought claims of existential threats to creativity. And yet, at the end of the day, everyone produced three remarkable outcomes: they each gave creators new tools to create; they each gave creators the opportunity to significantly increase their reach and distribution; and they each provided opportunities for *new* creators to produce and distribute content more easily.

And to be very clear, it wasn't just creators who benefitted from each of these technological advances. The public did, as each wave of technological innovation substantially increased the availability of creativity and knowledge.[12] And I hardly need to remind the people in this room, that's just what the ultimate goal of the copyright system is: fostering the creation and dissemination of works for the benefit of the public.[13] Despite the creative community's anxiety about every technological advance, in fact the computing revolution has been an accelerant of creativity and knowledge. And, I believe, generative AI will be no different.

As a lawyer, I've been privileged to have worked on many of the developments at the intersection of copyright and technology over the past 30+ years, starting with some of the earliest digitization issues, which involved Sony's Digital Audio Tape recorder,[14] for the few of you who may recall that litigation and its resulting legislation, the Audio Home Recording Act of 1992.[15] I was fortunate to be the first computer crimes Assistant United States Attorney in the Southern District of New York at the dawn of the commercial internet,[16] and then joined Microsoft in 1998 as its first full-time copyright hire at a time when the company invested heavily in online services, including the news sites

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[9] *Tom Rubin*, THE COPYRIGHT SOCIETY, https://copyrightsociety.org/bio/tom-rubin/ (last visited Oct. 28, 2024) [hereinafter *Tom Rubin Bio*].

[10] *Kaypro IV Portable Computer*, SMITHSONIAN: NATIONAL MUSEUM OF AMERICAN HISTORY, https://www.si.edu/object/kaypro-iv-portable-computer%3Anmah_1156670 (last visited Oct. 28, 2024) (exhibiting the IV model from 1983).

[11] *See, e.g., Timeline of Computer History*, COMPUTER HISTORY MUSEUM, https://www.computerhistory.org/timeline/ (last visited Dec. 28, 2024).

[12] As one example, the number of commercial music recordings released per year increased from about 9,600 in the 1970s to 19,000 in the 1980s, 49,000 in the 1990s, 84,000 in the 1990s, and 130,000 in the 2010s. *See generally* MusicBrainz.org. *See also Elephant in the Room: The Overabundance of Content in the Age of AI*, 71 J. COPYRIGHT SOC'Y (forthcoming in this present issue).

[13] *See, e.g.,* U.S. CONST, art. 1, § 8, cl. 8: [The Congress shall have Power . . .] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

[14] *Tom Rubin Bio*, *supra* note 9.

[15] Audio Home Recording Act, S. 1623, 102nd Cong. (1992).

[16] *Tom Rubin Bio*, *supra* note 9.

MSNBC.com and Slate.[17] As Microsoft's Chief Intellectual Property Strategy Counsel, I worked for 15 years on the development of products and policies and partnerships that sought to balance and promote the interests of both technological innovators and the creative community.

And that's exactly what guides me in my work at OpenAI today: technological development brings significant opportunity for society, and it also brings significant opportunity for content creators. I strongly believe that the twin guideposts of this conference – technology and copyright – are mutually compatible and even mutually beneficial.

II. TECH AND CONTENT

Bill may not recall this, but the first time we met was way back in 2007, when we participated in a panel discussion in Aspen, the title of which is as relevant to this conference today as it was back then: "Let's Make a Deal: Getting Content & Tech to the Table."[18] So the issues that are the focus of today's conference aren't new, but they remain vitally important. That's just what I want to focus my remarks on today: how content and tech can work together to take advantage of the immense opportunity that generative AI provides for the world, and also for creators.

So I started working with OpenAI over four years ago, in 2020, as outside counsel, when it was a largely unknown research lab.[19] I then became a strategic advisor and was on hand when Dall-E and then ChatGPT were released to the public.[20] Make no mistake: these were research projects, pure and simple, intended to highlight advances in the science of generative AI.[21] And then a funny thing happened once the public experienced them. They loved them. These tools provided incredible ways for people to express themselves, both creatively and efficiently, and you know where this story goes. There was huge public interest in access to the technology, and what was intended as a research preview unexpectedly became a public sensation.

I joined OpenAI full time 15 months ago as its chief of intellectual property and content.[22] I joined because, as I mentioned, I have seen and believe that advances in technology may be disruptive to creators, but they are full of opportunity. And having helped navigate and promote opportunities from digitization to the internet to the cloud, I was excited to apply learnings from those chapters – both good and bad – to help advance the enormous potential of

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[17] *Id.*

[18] Progress and Freedom Foundation, 13th Annual Aspen Summit, Aspen, CO, August 19-21, 2007, http://www.pff.org/aspensummit/aspen2007/agenda.html.

[19] *Tom Rubin Bio, supra* note 9.

[20] *Id.*

[21] *See, e.g.,* Kyle Wiggers, *OpenAI Launches an API to Commercialize its Research*, VENTUREBEAT (June 11, 2020), https://venturebeat.com/ai/openai-launches-an-api-to-commercialize-its-research/; *See also* Sam Altman (@sama), X (Nov. 30, 2022, 11:38 AM), https://x.com/sama/status/1598038817126027264?lang=en (showed in the presentation slides, "it's very much a research release…").

[22] *Tom Rubin Bio, supra* note 9.

generative AI to tackle many of the world's most critical and fundamental issues. From combating disease to furthering education, generative AI is uniquely positioned to assist society.[23] And the same is true for our important content and media industries and individual creators.

III. STATE OF GENERATIVE AI TODAY

Let me start by level setting on where we are in the adoption of generative AI, less than two years after ChatGPT was launched on November 30, 2022 with a pair of tweets that nearly went largely unnoticed.[24] As you see, ChatGPT was very much a research preview that the company expected to receive relatively little attention. Just 22 months later, it has over 200 million weekly users.[25]

The Federal Reserve Bank of St. Louis just released a research report consisting of "the first nationally representative U.S. survey of generative AI adoption."[26] I'd like to review a few key findings so we're all working from the same foundation. Nearly 40% of the American public already uses generative AI, with over 10% of whom use it daily and over 30% at least weekly.[27] As you see here, there is significant use of generative AI both for work and outside of work. In the workforce, management, business, and computer occupations' usage rates exceed 40 percent, and even one in five "blue collar" workers and one in five workers without a college degree use generative AI regularly on the job as well, according to the report.[28]

The technology is used for a wide variety of tasks, including performing administrative tasks;[29] interpreting, translating, and summarizing;[30] coding;[31] and being a personal assistant.[32] In fact, the uses are so many and so broad that the

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[23] *Future of Health: The Emerging Landscape of Augmented Intelligence in Health Care*, AMERICAN MEDICAL ASSOCIATION 1, 10-14 (Feb. 26, 2024), https://www.ama-assn.org/system/files/future-health-augmented-intelligence-health-care.pdf.

[24] *Id.*

[25] *Open AI Says ChatGPT's Weekly Users Have Grown to 200 Million*, REUTERS (Aug. 29, 2024), https://www.reuters.com/technology/artificial-intelligence/openai-says-chatgpts-weekly-users-have-grown-200-million-2024-08-29/ (Not only did OpenAI report that it had practically doubled its numbers since the year before, but that 92% of Fortune 500 companies are utilizing their products.) [hereinafter REUTERS]; Subsequent to the keynote, OpenAI announced that ChatGPT had exceeded 300 million weekly users, see Emma Roth, *Chatgpt now has over 300 million weekly users*, THE VERGE: ARTIFICIAL INTELLIGENCE (Dec. 4, 2024), https://www.theverge.com/2024/12/4/24313097/chatgpt-300-million-weekly-users.

[26] Alexander Bick et. al., *The Rapid Adoption of Generative AI*, FEDERAL RESERVE BANK OF ST. LOUIS (Sept. 23, 2024).

[27] *Id.* (The study found that 31% of those surveyed had used ChatGPT within the last week and 24.2% of those surveyed between the ages of 18 and 64 used it on a weekly basis.).

[28] *Id.* at 2.

[29] *Id.* at 17.

[30] *Id.*

[31] *Id.*

[32] *Id.*

Federal Reserve study concluded that generative AI is a "general purpose technology," given its wide variety of uses at work and at home.[33]

Here are just a few examples that underscore the breadth of applications, and solutions, and opportunities, that generative AI provides. OpenAI's models and ChatGPT are already being used around the world to help researchers accelerate drug discovery (Moderna);[34] farmers in Kenya and India increase crop yields (Digital Green);[35] governments like the Commonwealth of Pennsylvania support their workforces (Pennsylvania); educators advance student learning;[36] and people with visual impairments navigate our world (Be My Eyes).[37]

And here's what I found to be the most interesting finding in the study. The authors compared generative AI's rate of adoption with two other revolutionary technology events: the launch of the personal computer in 1981[38] and the mass market availability of the internet in 1995.[39] Three years into the PC revolution, which was the earliest point measured, adoption was 20%.[40] Two years after the availability of the internet, it too was at 20% penetration of the US market.[41] Here we are, less than two years after the introduction of generative AI with the launch of ChatGPT, and adoption at the time of the study was nearly 40% and almost certainly exceeds it now.[42] That's over twice the level experienced by PCs or the internet.

What's the message from this? Very simply, we're at the beginning of a profound technology shift. While we are still in the first inning of experiencing how the technology can transform society, it's happening quickly.

IV. NEWS INDUSTRY

Now I'd like to zoom in for a few minutes on how one industry – the news industry – is viewing and managing this shift, as I think it's instructive about the broader opportunities, and also needs, ahead. As it turns out, for centuries, newspapers have often been at the forefront of technological innovation and

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[33] *Id.*

[34] *Accelerating the development of life-saving treatments*, OpenAI, https://openai.com/index/moderna/ (last visited Oct. 29, 2024).

[35] *Digital Green*, OpenAI, https://openai.com/index/digital-green/ (last visited Oct. 29, 2024).

[36] Teaching with AI, OpenAI (Aug. 31, 2023), https://openai.com/index/teaching-with-ai/.

[37] *Be My Eyes*, OpenAI https://openai.com/index/be-my-eyes/ (last visited Oct. 29, 2024).

[38] *See The IMB PC, supra* note 8.

[39] 1995 was the year of Netscape Communications' "big bang" initial public offering that many observers credit as the start of the Internet boom. Netscape Navigator, the first mass-market web browser, launched in December 1994. *See, e.g., 20 Years On: Why Netscape's IPO Was the "Big Bang" of the Internet Era,* Internet History podcast (Aug. 7, 2015), https://www.internethistorypodcast.com/2015/08/20-years-on-why-netscapes-ipo-was-the-big-bang-of-the-internet-era/.

[40] Bick et al., *supra* note 26.

[41] *Id.*

[42] *Id.* ("Generative AI Adoption is most common in management, business, and computer occupations, with usage rates exceeding 40 percent.").

adoption.[43] Printing presses evolved from wood to iron, and the lever technology was improved, to enable the faster production of newspapers.[44] The flat-bed hand press evolved into the rotary press, which was run by steam, horses or manpower, to vastly increase production volumes.[45] In the early 19th century, refinement of the use of cylinders in presses enabled multiple pages to be printed simultaneously.[46] Then came stereotypes and the paper web, allowing over 10,000 copies to be printed in an hour.[47] And then came machinery to automatically fold the papers after they were printed.[48] These were all remarkable technological achievements in their day, which helped create industries and change societies.

Fast forward to the computer age and newspapers remained at the forefront of innovation. A favorite example of mine is how the Columbus Dispatch started distributing a digital edition of the newspaper via Compuserve – way back in 1980.[49] 1980!

And now fast forward to today. It's the news industry once again that is developing and embracing the opportunities of generative AI. I'd like to say it's been smooth sailing, but you know better than that. In fact, when I joined OpenAI full time 15 months ago, this was the tenor of discussion of the issues. Of course, on one level, the sentiment here isn't surprising as an initial reaction. New technology brings uncertainty and, yes, even fear.

And to be sure, the news industry has been particularly hard hit by technological disruption over the past 20 years, including the one-two punch of massive hits to both advertising and print subscription revenue.[50] It has faced an enormous impact from technological disintermediation, as disruptions from search and then social media devastated its business model.[51] But I don't want to bury the lede, so let me show you where Barry Diller ended up just a few months after that article appeared. As I'll discuss over the next few minutes, he and so many others have embraced the real opportunities of generative AI instead of focusing on its potential perils.

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[43] *See, e.g.*, PABLO BOCZKOWSKI, DIGITIZING THE NEWS: INNOVATION IN ONLINE NEWSPAPERS (MIT Press ed. 2005) (2004).

[44] Joanna Colclough, *Printing Newspapers 1400-1900: A Brief Survey of the Evolution of the Newspaper Printing Press*, LIBRARY OF CONGRESS: BLOGS (Apr. 21, 2022), https://blogs.loc.gov/headlinesandheroes/2022/04/printing-newspapers-1400-1900/ ("The first improvements to the press were to replace some of the wooden parts with iron and improve the lever used to press the paper to type.").

[45] *Id.* (discussing how the Gutenberg presses were "individual type pieces arranged backwards by hand, secured in a flat[-]bed, inked by hand, and a great leverage force applied to create the impression.").

[46] *Id.*

[47] *Id.*

[48] *Id.*

[49] *CompuServe in Pictures: The Columbus Company that Helped Start the Internet*, THE COLUMBUS DISPATCH (Jan. 29, 2024), https://www.dispatch.com/picture-gallery/news/local/2024/01/29/compuserve-history-in-pictures/72368251007/.

[50] *See generally Newspapers Fact Sheet*, PEW RESEARCH CENTER (Nov. 10, 2023), https://www.pewresearch.org/journalism/fact-sheet/newspapers/.

[51] *Id.*

My perspective in speaking with you today is personal, not corporate. I'm a lifelong news junkie, I've been a reporter and media lawyer, and I'm a longtime board member of the Reporters Committee for Freedom of the Press.[52] Candidly, I bleed the First Amendment. I joined OpenAI in large part because its mission is to ensure that AI operates to the benefit of society. And given the critical role that news plays in our society, now more than ever, as well as the massive economic challenges faced by the industry, it was important to me, as it is to our CEO Sam Altman, to make that industry a priority.

And here's an important thing to realize when it comes to news and generative AI: it's a natural synergy. On the one hand, models are sophisticated reasoning engines, but without access to trusted, accurate, real-time sources of information, user experiences would be incomplete. For all the magical things that AI can do, it cannot and will not report the news. It could never replace the work of reporters on the ground. In fact, to be most beneficial, AI ultimately needs reporters. And that's one of the foundations of OpenAI's partnerships with news organizations and its commitment to journalism: no model can substitute for the vital work of reporters and editors.

And that brings me to the other side of the equation. While real-time, accurate information improves AI services, the technology similarly can greatly assist news publications and the news industry by helping in the research, investigation, distribution, and monetization of important journalism.

OpenAI did something different during this process and brought reporters, editors and publishers into the conversations early. We discussed the technology in depth, and jointly iterated on ideas about how it could benefit the news ecosystem. It's been a true give and take over the course of many months, frankly leading to better outcomes than if a technology company specced and imposed solutions unilaterally.

The upshot of that process is this: When we think about these opportunities for the news ecosystem, we basically think about two main buckets of value. The first bucket is how news organizations can use an AI API to tackle business opportunities on their own.[53] The range and utility of products that can be built is broad: integration into a CMS that uses AI to recommend archival stories that a writer can link to while they're writing a piece; a natural language search functionality on a publisher's website that allows readers to find source materials or other articles based on the very detail in a story that they're reading at that moment;[54] embedding easy translation tools to turn text into any language or into

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[52] *Tom Rubin*, REPORTERS COMMITTEE FOR FREEDOM OF THE PRESS, https://www.rcfp.org/thomascrubin/ (last visited Nov. 4, 2024).

[53] An API (application programming interface) is a way for software to talk to other software. This refers to news organizations developing software that calls AI functionality through an API to, for example, recommend archival stories or find articles related to a story that a journalist is working on.

[54] *See* Chase Gison, *The Integration of AI into Content Management Systems (CMS)*, MEDIUM (Apr. 3, 2024), https://medium.com/@chasegison/the-integration-of-ai-into-content-management-systems-cms-765b66dc97c7.

audio, thereby expanding the audience for a piece of content;[55] and improving the customer service experience to reduce churn.[56] The list goes on and on. The technology provides immense flexibility, at low cost, which opens up huge new opportunities for engagement and growth.

The other bucket of value that we're really excited about, and the one you may have heard more about, is integrating high-quality journalism into ChatGPT. Here, the goal is simple: connect ChatGPT's more than 200 million users with real-time information from high-quality, trusted sources.[57] And what particularly excites us and publishers is the ability to enhance that information so that users are connected to the exact information they want and even have the ability to interact with that information by exploring the details that are of most interest to them. In short, what makes a generative AI news experience different is that a 700-word article isn't just communicated at readers; readers can interact, probe, and go deeper.

SearchGPT, which you may have heard about, is our first product in this area.[58] We launched a prototype of it in July, available to only a limited number of people in the US, and hope to expand it more broadly over the coming months and merge it into ChatGPT.[59] These first few months have been a great example of collaboration between tech and content, as we're working closely with publishers who are exploring this conversational search product alongside us and providing great feedback about this new reader experience. We have really good dialogue about issues such as referral traffic, value exchange, and the extent of summarization and quotation.

Our mutual goal is to carefully balance the desire of users to efficiently access information and of publishers, who are looking for linking, attribution, and traffic driven back to their sites. Putting this experience in the context of this conference, I'd highlight that some of the successful elements for achieving mutually positive outcomes between technology and content have been a mutual commitment to educating, listening, learning, exploring, negotiating, collaborating, and partnering.

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[55] *See Minnesota's Enterprise Translation Office uses ChatGPT to bridge language gaps*, OPENAI, https://openai.com/index/state-of-minnesota/ (last visited Jan. 3, 2025).

[56] *See* Tina Gada, *Optimizing Customer Satisfaction: The Role of AI in UX Design*, FORBES: BUSINESS DEVELOPMENT COUNCIL POST (Apr. 22, 2024), https://www.forbes.com/councils/forbesbusinessdevelopmentcouncil/2024/04/22/optimizing-customer-satisfaction-the-role-of-ai-in-ux-design/.

[57] REUTERS, *supra* note 25.

[58] Kyle Robison, *OpenAI's search engine is now live in ChatGPT*, THE VERGE (Oct. 31, 2024), https://www.theverge.com/2024/10/31/24283906/openai-chatgpt-live-web-search-searchgpt (since this Keynote Address, OpenAI has officially launched its new search engine into its existing interfaces).

[59] For an overview of the launch, *see* Danny Goodwin, *OpenAI starts testing SearchGPT prototype, here's what it looks like*, SEARCH ENGINE LAND (July 25, 2024), https://searchengineland.com/searchgpt-launches-444399; For the official launch release by ChatGPT, see *SearchGPT Prototype*, OPENAI (July 25, 2024), https://openai.com/index/searchgpt-prototype/.

Okay, so you've heard me talk about this opportunity, but you don't have to take my word for it. Listen to what leaders of the news industry themselves have had to say about the opportunities that they see in generative AI.

Conde Nast CEO Roger Lynch: "Generative AI is rapidly changing ways audiences are discovering information. It's crucial that we meet audiences where they are and embrace new technologies."[60]

News Corp CEO Robert Thomson: "We will learn valuable lessons about how, what, when AI users are accessing news and analysis, and then we can and must incorporate those lessons in the way we create and distribute our news."[61]

Financial Times CEO John Ridding, which was a pioneer of digital subscription models for news: "[T]his partnership will help keep us at the forefront of developments in how people access and use information."[62]

Time COO Mark Howard: "The partnership with OpenAI advances our mission to expand access to trusted information globally as we continue to embrace innovative new ways of bringing Time's journalism to audiences globally."[63]

Le Monde CEO Louis Dreyfus: "The agreement … put[s] the computing power of artificial intelligence at the service of journalism, making it easier to work with data in a shorter time frame as part of large scale investigations, translating our written content into foreign languages or producing audio versions to expand our readership and disseminate our information and editorial formats to new audiences."[64]

Prisa Media CEO Carlos Nunez: "Leveraging ChatGPT's capabilities allows us to present our in-depth, quality journalism in novel ways, reaching individuals who seek credible and independent content. This is a definite step towards the future of news, where technology and human expertise merge to enrich the reader's experience."[65]

Axel Springer put it even more succinctly when just the other day it announced a corporate restructure. The core mission of the new company, it explained, is "shaping the future of independent AI-empowered journalism." And as its CEO Mathias Dopfner explained in a podcast last week: "We truly embrace

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[60] *Condé Nast Announces Partnership with OpenAI*, CONDÉ NAST (Aug. 19, 2024), https://www.condenast.com/news/conde-nast-openai-partnership.

[61] John Buckley, *Read Robert Thomson's memo on News Corp, AI and the Media Landscape*, CAPITAL BRIEF (July 3, 2024), https://www.capitalbrief.com/article/read-robert-thomsons-memo-on-news-corp-ai-and-the-media-landscape-51e7efc0-b004-4528-973c-31bccf2bae67/preview/.

[62] *Financial Times announces strategic partnership with OpenAi*, FINANCIAL TIMES (Apr. 29, 2024), https://aboutus.ft.com/press_release/openai.

[63] *TIME PR, TIME and OpenAI Announce Strategic Content Partnership*, TIME (June 27, 2024, 9:09 AM), https://time.com/6992955/time-and-openai-announce-strategic-content-partnership/.

[64] Louis Dreyfus and Jérôme Fenoglio, *Le Monde and Open AI sign partnership agreement on artificial intelligence*, LE MONDE (Mar. 13, 2024, 9:05 PM), https://www.lemonde.fr/en/about-us/article/2024/03/13/le-monde-signs-artificial-intelligence-partnership-agreement-with-open-ai_6615418_115.html.

[65] *Global news partnerships: Le Monde and Prisa Media*, OPENAI (Mar. 13, 2024), https://openai.com/index/global-news-partnerships-le-monde-and-prisa-media/.

new technology, and do not see artificial intelligence as an enemy. It's a helping hand that can empower us, can make us faster, can help us to focus on the real priorities."[66]

And to be clear, it's not just OpenAI's partners who have identified the transformative power of generative AI to assist news:

Vivan Schiller, the former CEO of NPR and current head of Aspen Digital, along with longtime news industry leader Trei Brundrett, explained: "We are witnessing a major shift in user behavior as this new technology becomes a regular part of people's educational, professional, and personal routines. This isn't only about efficiency and automation that will be valuable in all parts of the news business; it's also a moment of profound empowerment in the information age."[67]

And even Zach Seward, the editorial director of AI Initiatives in The New York Times' newsroom has identified generative AI's "great[] promise for journalism and … lots of other fields": it can "make sense out of chaos by summarizing text, fetching information, understanding data, and creating structure."[68]

Finally, the CEO of the Atlanta Journal Constitution, Andrew Morse, another longtime industry veteran, explained it succinctly from the stage at the World Association of News Publishers' annual Congress in Copenhagen a few months ago, a talk I encourage you all to review: "If we walk around saying [generative AI] is an extinction event, it will be one. If we walk around saying this is remarkable technology, there for the taking, I think this could be a golden age of journalism."[69] I wholeheartedly agree.

I'd like to underscore another important need to look out for. It's great to see widespread interest and use by large industry leaders, but it's equally important that the benefits of generative AI be leveraged by small, local, nonprofit and independent publishers, so that the technology assists some of the hardest hit areas of journalism.To that end, OpenAI partnered with the American Journalism Project last summer to ensure the opportunities reach where they're needed most.[70] The generative AI work AJP has funded at over a dozen publications demonstrates the broad opportunities to newsrooms and news organizations. Just a few of the examples:

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[66] *Axel Springer Announces New Corporate Structure to Unlock Future Growth Potential*, AXEL SPRINGER (Sept. 19, 2024), https://www.axelspringer.com/en/ax-press-release/axel-springer-announces-new-corporate-structure-to-unlock-future-growth-potential.

[67]Vivan Schiller & Trei Brundrett, *AI is a big opportunity for the news media. Let's not blow it.*, COLUMBIA JOURNALISM REVIEW (Feb. 13, 2024), https://www.cjr.org/analysis/ai-opportunity-news-media-lets-not-blow-it.php.

[68] Zach Seward, *AI news that's fit to print*, ZACH STEWARD BLOG (Mar. 11, 2024), https://www.zachseward.com/ai-news-thats-fit-to-print-sxsw-2024/.

[69] Dean Roper, *The Morse code: AJC publisher says it's about time the industry stops ceding its turf,* WORLD ASSOCIATION OF NEWS PUBLISHERS (June 26, 2024), https://wan-ifra.org/2024/06/the-morse-code-ajc-publisher-says-its-about-time-the-industry-stops-ceding-its-turf/.

[70] *Partnership with American Journalism Project to support local news*, OPENAI (July 18, 2023), https://openai.com/index/partnership-with-american-journalism-project-to-support-local-news/.

The Civic News Company is using OpenAI's API to gather, summarize and analyze public meetings involving education and elections, and create databases to make the summaries publicly accessible and searchable.[71]

CT Mirror is using it to experiment with audience engagement and to enhance data analysis, leading to better story idea generation.[72]

THE CITY is using it to increase audience engagement by sifting through online information and answering readers' questions.[73]

Cityside is using it to enhance communications to develop donor relationships.[74]

- inewsource is using it to produce public records requests more quickly, enabling them to target far more government agencies and analyze the voluminous documents they receive more efficiently.
- Spotlight PA is using it to build an interactive, bilingual conversational tool for the upcoming election to connect underserved audiences with trusted, non-partisan information in English and Spanish.

The use of the technology across this breadth of projects is impressive, and it's just the start. And not only is AJP directly funding these projects, they're also committed to becoming a center of excellence for the news media more broadly, ensuring that the learnings from these pilots are leveraged as broadly as possible.

And just as there's critical opportunity locally, there's similar need globally. To address that, OpenAI has also partnered with WAN-IFRA - the World Association of News Publishers - to create an accelerator program that will enable 128 newsrooms in Europe, Asia Pacific, Latin America and South Asia "to fast-track AI adoption and implementation to bring efficiencies and create quality content."[75] Like AJP's commitment at the local level, WAN-IFRA will become a center of excellence to assist the news industry globally reap the benefits from AI. It's a real honor to partner with these two leading organizations and support their efforts in helping transform the news industry by leveraging new technology.

As I hope I've conveyed, we don't pretend to have all the answers; generative AI is a new technology, and we believe society benefits from studying its effects, objectively. Along those lines, one of the first projects that we funded is a journalism and ethics initiative at the Arthur Carter Journalism Institute at NYU,

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[71] Dorrine Mendoza, *Civil News launches AI tool to uncover stories hidden in public school board meetings*, MEDIUM (Dec. 11, 2024), https://medium.com/american-journalism-project/civic-news-launches-ai-tool-to-uncover-stories-hidden-in-public-school-board-meetings-67b31738ec9e.

[72] *What is Branded Storytelling?*, CT MIRROR, https://ctmirror.org/brandedstorytelling/ (last visited Dec. 18, 2024).

[73] Tazbia Fatima & Sujin Shin, *We Asked an AI to Map Our Stories Across NYC*, THE CITY (Feb. 29, 2024), https://www.thecity.nyc/2024/02/29/chatgpt-map-stories-nyc/.

[74] Trei Brundrett, *Exploring emerging technologies: an update on our Product & AI Studio*, AMERICAN JOURNALISM PROJECT (Dec. 20, 2023), https://www.theajp.org/news-insights/insights/exploring-emerging-technologies-an-update-on-our-product-ai-studio/.

[75] *The Newsroom AI Catalyst: a global program with WAN-IFRA*, OPENAI (May 29, 2024), https://openai.com/index/newsroom-ai-catalyst-global-program-with-wan-ifra/.

which is headed by Steve Adler, the longtime Editor in Chief of Reuters.[76] It is studying, among other things, the impact of AI on newsgathering, to ensure that AI assists accuracy and news judgment, as opposed to harms it, and we appreciate their focus and leadership.

Before wrapping up, although not the focus of my remarks today, I want to say a brief word about empowering creators. I discussed today some of the many forward-thinking organizations that are exploring and embracing the opportunities of generative AI. At the same time, there are some who would rather disassociate from it, and, regardless of one's views about fair use and other of copyright's exceptions and limitations, I think that should be their prerogative.

For that reason, we believe AI systems should benefit and respect the preferences of creators and content owners. We've committed to providing them the choice to opt out of training AI models, and have led the industry first by providing opt-outs for Dall-E,[77] then by developing an industry-first robots.txt protocol last year for websites to signal a desire to exclude content from training.[78] And this spring we announced that we are researching and developing technology and systems that aim to enable rightsholders to more broadly identify content and state their preferences. That's no small task, but we think it's important, and we're grateful for the content partners who are working with us as we research and seek to develop that technology.

CONCLUSION

I'll wrap up by emphasizing that what history has shown is that technological inflection points like the one we're at today have been great opportunities for creators that understand them, adapt to them, and build experiences based on them. There are lots of examples I could point to in support of this statement, but let me come around to where Bill and I started a half hour ago.

When I keynoted this conference in 2011, it was at the dawn of scalable, public cloud computing.[79] No doubt that, like today, there was a lot of trepidation by creators about how the technology would impact them. My remarks that day, like those today, focused on the upside opportunities of change: that the cloud

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[76] James Devitt, *Arthur L. Carter Journalism Institute Launches Ethics Initiative*, NYU: NEWS RELEASE (Aug. 8, 2023), https://www.nyu.edu/about/news-publications/news/2023/august/arthur-l--carter-journalism-institute-launches-ethics-initiative.html.

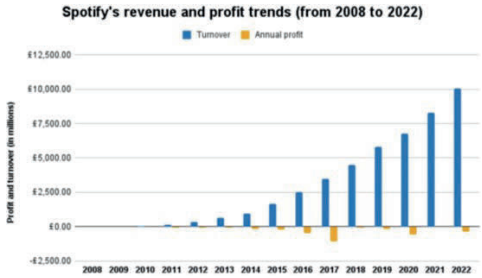
[77] Matt Growroot, *DALL-E 3 Announced, Photographers can Opt Out of its Image Training Data*, PETAPIXEL (Sept. 21, 2023), https://petapixel.com/2023/09/21/dall-e-3-announced-photographers-can-opt-out-of-its-image-training-data/.

[78] That cite is to google (which announced its solution after OpenAi - this is more applicable: https://searchengineland.com/gptbot-openais-new-web-crawler-430360

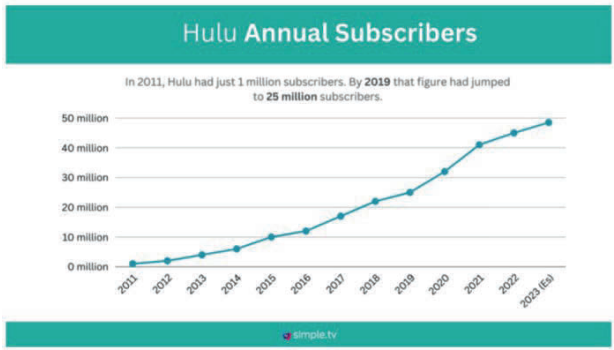
[79] *Microsoft Could Services Vision Becomes Reality With Launch of Windows Azure Platform*, MICROSOFT (Nov. 17, 2009), https://news.microsoft.com/2009/11/17/microsoft-cloud-services-vision-becomes-reality-with-launch-of-windows-azure-platform/.

would provide countless opportunities for those who embrace it, as it would be a catalyst for new content experiences and new business models.[80]

I went further that day 14 years ago and highlighted four companies that were beginning to lean into the opportunities that the technology provided, some of which were barely known at the time and all of which chose to embrace the new technology: Spotify, Hulu, Kindle and Netflix.[81] I hardly need to tell you how the story turned out for each and also for their content partners. A few graphs will illustrate the point.

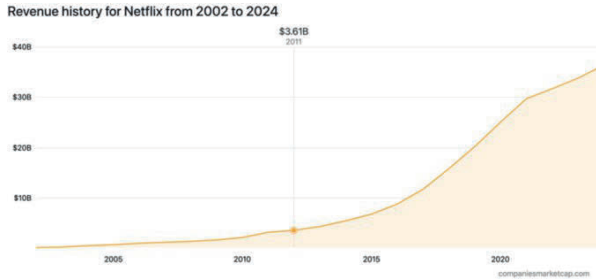


Here's Spotify's revenue growth from 2011, where it is barely perceptible on the graph, through 2022.[82]



[80] *See* Tom Rubin, *Copyright at the Speed of Light: Creative Content and Cloud Computing*, YOUTUBE (Nov. 30, 2011), https://www.youtube.com/watch?v=yPEZ8gL4BhM.
[81] *Id.* at 12:32.
[82] *Exploring Spotify Statistics: Key Figures on Users and Revenue (2024),* SMART HOME FOX (Dec. 23, 2023), https://www.smart-home-fox.co.uk/spotify-statistics.

Here's Hulu's annual subscribers from 2011 to 2023.[83]



And here's Netflix's revenue – 2011 being marked by the vertical line in the middle – through this year.[84]

Each of these stories is remarkable, and each has rewarded their creative partners. What they have in common is that each of those companies identified early the opportunities that the new technology would provide, and they launched or pivoted their businesses to take advantage of those opportunities. And they, and content creators, have reaped significant rewards as a result.

To reiterate what I mentioned earlier, that's the fundamental synergy between technology and content: they each can enhance the other. And that's why I'm incredibly excited for the opportunities ahead for forward-thinking creators in this new age of generative AI.

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[83] *See* Andrea Wilson, *Hulu Subscribers, Revenue & Net Worth Stats 2023*, SIMPLE.TV (Sept. 14, 2023), https://simple.tv/hulu-revenue-subscribers-stats/; For an overview of Hulu data over the past decade, *see* David Curry, *Hulu Revenue and Usage Statistics (2024)*, BUSINESS OF APPS (Nov. 7, 2024), https://www.businessofapps.com/data/hulu-statistics/.

[84] *Revenue for Netflix (NFLX),* COMPANIES MARKETCAP, https://companiesmarketcap.com/netflix/revenue/ (last visited Jan. 7, 2025).