

Local Media Association / Local Media Foundation Industry Report • April 2023

Here come the machines: Al for local news



Image source: Midjourney text to Al image generator

By Frank Mungeam
Chief Innovation Officer, Local Media Association

Contents

About the author	3
Introduction	4
Overview of AI: gaming intelligence	5
Computing power plus situational analysis	5
Artificial neural networks	5
Large language models	6
Artificial general intelligence (AGI)	6
How big is AI for news? Threats and opportunities through a product lens	7
By Kim Wilson, founder, Social News Desk	7
Business opportunities for media companies to leverage Al	8
By Guy Tasaka, director, LMA Technology Resource Center	8
Thinking strategically about AI applications for news organizations	10
By Mark Briggs, vice president, SmithGeiger	10
Newsroom and reporting applications for AI chatbots	11
By Joe Amditis, assistant director for product and events,	
Center for Cooperative Media	11
Understanding and examining AI through an equity lens	14
By Candace Mays, project lead, Mapping Black California	14
Ethics and transparency in using AI at news organizations	16
By Lynn Walsh, assistant director, Trusting News	16
Conclusion	17
Resources and additional reading	19
Joe Amditis: ChatGPT for Local News Publishers	19
CBS Morning: Godfather of AI talks impact and	40
potential of artificial intelligence (video)	19
Thomas Friedman: Our Promethean moment	19
The future of AI in the workplace: A survey of American managers	19
Harvard Business Review: Why you (and your company) need to experiment with ChatGPT now	20
ChatGPT did NOT title this podcast	20
Here are 5 ways workers can use GPT-4 to improve productivity	21
About the Local Media Innovation Alliance	22

About the author

Frank Mungeam is chief innovation officer at Local Media Association, where he leads initiatives including the Lab for Journalism Funding and the Covering Climate Collaborative.

Mungeam has a passion for leadership and developing people. He has a degree in psychology and social relations from Harvard University; and a master's degree in communication and leadership studies from Gonzaga University. He is also an author of two books including the business book *Dream It*, *Do It*.



Before joining LMA, Mungeam was Professor of Practice in TV News Innovation at the Walter Cronkite School of Journalism and Mass Communication at Arizona State University.

Previously, Mungeam was vice president of digital content for TEGNA and director of digital content for Gannett Broadcasting. Mungeam spent years in local television as a producer and executive producer at stations in Seattle and Portland before moving into digital media leadership.

All content ©2023, Local Media Association. All rights reserved. https://www.localmedia.org/

Introduction

By the time you read this, some of the insights here will already be obsolete. Welcome to the age of accelerations driven by advances in artificial intelligence, aka AI.

Given the pace of innovation powered by chat bots like ChatGPT, it's urgent for media leaders to educate themselves now on this technology to better understand both its early applications and long-term implications for the information economy and the news business.

It didn't take long after ChatGPT-3 rolled out to the public in November 2022 for news industry hand-wringing to begin. Reporters, suspicious of authority by nature, were quick to hone in on the myriad threats from this disruptive technology: Will the machines take over reporter jobs? How will we know if something is "real" or written by a machine (and will that even remain a distinction in the future)? If the internet is rife with misinformation, what will happen to AI-powered "results" when machines generate them from the internet?

Only in hindsight will we know for sure whether this moment is transformational, like before vs. after computers and the internet; or more incremental, like the shift from VHS to DVD. Right now, it feels transformational.

If history is any guide, what happens next will both be less disruptive than we fear in some ways, and likely more disruptive in ways we don't yet imagine. History also tells us that technological disruption creates both winners and losers.

So how should media outlets begin to think about these opportunities and threats in ways that leverage the benefits and capabilities of AI chat bots, and manage the myriad disruptive threats?

I asked a sampling of thoughtful industry leaders where they see the early opportunity to apply AI chat bots like ChatGPT-4, Bing's AI integration, and Google Bard.

Here is a "first draft" of how chatbots and the latest wave of Al advances could shape the future of news.

Overview of AI: gaming intelligence

If you want to understand the progression of AI that's brought us to this moment, think of it like a game. In fact, the progress of AI-powered computers in playing popular games is one of the best ways to understand the series of breakthroughs that have led to this latest generation of artificial intelligence.

Computing power plus situational analysis

In May 1997, the AI <u>Deep Blue</u> beat the reigning world chess champion by a combination of overwhelming computing power — the ability to examine 200 million game board positions per second — and ability to analyze and rank each board "situation" to pick the best moves. For AI researchers, defeating the chess world championship was a victory of brute force computing power, enabled by ever smaller, cheaper and faster microprocessor chips.

Artificial neural networks

The next leap in AI performance was powered by more than just iterations in computing power. Once again, a game provided the yardstick. The ancient and internationally popular game of Go represents an order of complexity, in terms of possible moves, that for computers posed the kind of challenge that was involved in mastering chess vs. mastering checkers. The sheer number of Go pieces and board squares, compared to the game of chess, meant that exponentially more moves were possible for a computer to evaluate. In time, with ever faster, smaller, cheaper processing chips, a computer could likely have mastered Go with the same brute-force approach used to beat the best chess player in the world. But the team at AlphaGo applied the next breakthrough strategy, training a computer on thousands of past games by high-level Go players to enable it to develop an artificial equivalent of our human neural network, in effect creating computing pathways connecting past best moves in various board situations. This shortened the process of finding a best move at any stage in the game. This breakthrough in machine learning to

develop artificial neural networks led, in March 2016, to AlphaGo defeating the world's leading Go player in a head-to-head match.

Large language models

These same principles — developing artificial neural networks by training a computer on large amounts of past data — have now been applied to language. ChatGPT and its peers use large language models (LLMs), training on huge data sets, such as the entire accessible contents of the World Wide Web. As a result, this new generation of "generative AI" are staggeringly good at generating "answers" to most questions. What appears to be "intelligence" in these answers is really closer to "prediction," based on a massive dataset of previous inputs and outputs. Critics have called these chatbots little more than highly-trained "auto-complete" tools — far less capable than the sentient AI machines of science fiction fame. But for lay people the results these chatbots produce seem indiscernible from true "intelligence."

Artificial general intelligence (AGI)

The ultimate frontier, artificial general intelligence, is the point at which computers become independently capable of self-learning. That, of course, raises all kinds of existential and apocalyptic questions. We are not there yet.

So the most practical question regarding General AI is: How far away is this level of computing capability? The answer from the AI community seems to be: It depends on who you ask, but everyone agrees it's now closer than we once thought. On social media, AI experts often point to projections that place that moment of AGI as happening in the 2050s; but in a recent CBS interview, Geoffrey Hiatt, the so-called "godfather of AI," would not rule out the possibility of that happening in the next five years, given the recent rate of advances.

For now, these futuristic scenarios remain, first and foremost, in the future. It's important to understand the progression in AI capabilities that has brought us to this moment, in order to better understand what chatbots like ChatGPT can and cannot do, to leverage the potential of these new capabilities, and also to manage the risks they entail.

How big is AI for news? Threats and opportunities through a product lens

By Kim Wilson, founder, Social News Desk

The biggest opportunity for local news with ChatGPT might also be the biggest threat. And I don't mean having the computer write your story for you. Rather, this technology will ultimately be measured by the value it delivers to a consumer.

Simply delivering an article written by a computer instead of a human might save a few dollars, but doesn't add a ton of value for that consumer. At best, it's the same information. At worst, it is misinformation masquerading as news. Neither represents a positive value proposition for the consumer.

Consumers win when the technology improves journalists — not replaces them. It's the difference between printing out directions to the crime scene via MapQuest and using your GPS to bring you there turn-by-turn. The technology not only made it easier to do the job, it also eliminated a tedious task and allowed the journalist to put her time elsewhere. Enter generative AI.

What repetitive, time-consuming research might this technology take over — and improve — for local news? Anything from analyzing election results to identifying emerging crime trends or unsafe intersections. Newsrooms may come to think of ChatGPT as the ultimate assignment manager. Imagine you had someone at the assignment desk who could read the entire internet in a matter of seconds, analyze it and hand you an index of relevant data points to support your story.

And while on the surface this seems like a great time saver, it may also present the world's largest verification challenge. Journalists often say, "If your mom says she loves you, check it out." Good luck checking everything ChatGPT says.

Business opportunities for media companies to leverage Al

By Guy Tasaka, director, LMA Technology Resource Center

Al is probably the greatest opportunity in media since the web press or the vacuum tube. My expectation of Al was greatly expanded when I caught <u>Jensen Huang's 11 minute</u>



<u>video</u> on new AI announcements. Huang is the CEO of NVIDIA, the technology that powers most of the world's AI platforms including ChatGPT. In the video, he outlines what is currently being worked on in the world of AI far beyond ChatGPT.

For many of us, AI was a nebulous concept tied closely to *Terminator* and Skynet until Nov. 30, 2022, when ChatGPT was released and quickly became relevant to all of us. It felt very similar to the early 1990's when Mosaic web browser and Netscape Navigator brought the internet to everyone (or at least the 2 million homes that had computers.)

The greatest opportunity in local media will be that things that are hard and expensive today will become much more accessible. Think about how, in a traditional broadcast station or newspaper, most of the expenses are behind the camera or non-journalistic: operations, production, back office and sales. Many of those jobs or expenses will give way to AI process optimization.

Many of the vendors who create these optimized processes will be new. With any disruptive technology, many incumbent vendors will not be able to maintain their pricing models and will have a vested interest in maintaining the status quo.

For those media companies who choose to reinvest into journalism and content this will be a gold rush. In this new AI-powered world, the entire media landscape will be leveled. A media entity will be able to use a single newsroom to distribute video/television, audio/radio, web/mobile and print if it chooses, but more likely a tablet-optimized digital reading experience. Generative AI

will be very close to creating virtual "on-air" avatars/anchors within a year. And it will be way better than <u>Max Headroom</u>. It can already create very good audio packages, AI end-to-end.

The pendulum will swing from having production competencies to having product and journalism expertise. And by journalism, I mean newsgathering, research and reporting. The more mundane tasks like writing and copyediting will be replaced by AI tools. Reporting will become more structured data than prose.

The greatest threat to the industry will be culture and adoption of the new technology by incumbents vs. upstarts and second-tier media companies in a geography, such as the third- and fourth-rated TV stations. Disruptive technology is disruptive for a reason; it allows new players to enter a market. It also poses the challenge of incumbents being able to defend traditional moats like the need for high capital investments and government-issued licenses.

I worked in Silicon Valley during the height of the PC explosion in the '80s and '90s. I was in New York City in the '90s, Seattle and Austin in the '00s and '10s, and witnessed the disruption that came with the internet. AI will be exponentially faster and way more disruptive. The question is: Do you want to be the disruptor or the disrupted?

Thinking strategically about Al applications for news organizations

By Mark Briggs, vice president, SmithGeiger

News leaders are asking, "Just because we can, does it mean we should?"

With continuing pressure on staffing, I believe the answer is: "This is inevitable." We are all about to become AI editors.

While we can't control the proliferation of ChatGPT into news organizations since it's now on everyone's computer, we can control the discussion on what's appropriate, ethical and effective. Start having those discussions today. Where does the benefit outweigh the risk? What are we willing to trade for increases in efficiency and productivity, which can be huge.

I've been working at the intersection of media, technology and innovation for more than 20 years and this is the most disruptive and fastest-moving technology of my lifetime. It's important for leaders to convey a message of calm as fears of worst-case scenarios bounce around "water cooler" conversations and social media. We know very little about this technology to which everyone suddenly has access, and that can be scary. It's time to begin the necessary discussions to create the guidelines and guardrails for our teams that will help everyone leverage this in productive ways without sacrificing our journalistic values or breaking the trust we have with our audience.

Newsroom and reporting applications for AI chatbots

By Joe Amditis, assistant director for product and events, Center for Cooperative Media

It is a game-changer. That term is going to become meaningless at some point if it's not already. But the advances in logical reasoning, and its ability to understand complex requests and instructions, and then output coherent workable code, for instance, is insane to me. I just have never seen anything like it before.



My journey was, I think it was like 12:15 in the morning back on Nov. 30, and I was on TikTok, as one does in bed. I saw a TikTok about this new OpenAI tool. I'd been following OpenAI somewhat closely with its GPT-3. I'd made a video or two about it on TikTok. I [instantly] jumped over to this ... and I was up for three hours until like four in the morning, just on my phone going back and forth. I was blown away.

I've just been obsessed with it ever since. I've been using it and playing around with it in my personal time. ... I've tried to test the limits of it, tried to see if I can trick it, get creative with it, see what it's able to do.

I decided to write this ebook, <u>ChatGPT for Local News Publishers</u>, after being duped into paying \$2 for a shitty prompt handbook that was clearly generated using ChatGPT instead of written by a real person. It was frustrating to see the hustle-culture grifters taking advantage of this emerging technology without taking the time to actually explain its capabilities and limitations. I wanted to provide a reliable and informative guide that would help local news publishers effectively use ChatGPT to save time and stress.

In his ebook, Amditis includes a first draft of more than 25 potential applications, just for newsrooms.

From ChatGPT for Local News Publishers:

Here are possible use cases for ChatGPT in its current iteration:

- Drafting meeting outlines, project budgets, and grant proposals
- · Generating lists of story ideas
- Creating event agendas and materials
- Translating stories into different languages
- Drafting scripts for news broadcasts or podcasts
- Suggesting different headline variations for articles
- Fact-checking articles and other news content
- Automating routine administrative tasks like scheduling, invoicing, and recordkeeping
- Generating templates for different types of news stories, like obituaries, crime reports, and human-interest pieces
- Generating customized newsletters based on user preferences and interests
- Analyzing social media and other online sources for story leads and trends
- Generating news quizzes and other information-based games and activities
- Converting plain text lists into machinereadable languages to instantly generate flowcharts and visual diagrams
- Providing a space for you to shoot the shit with your robot buddy

- · Summarizing large amounts of text
- · Quickly creating lists of FAQs
- Responding to FAQs for a project or story
- Generating summaries of public meetings and reports
- Creating social media posts from news stories
- Creating transcripts of audio and video recordings
- Categorizing and labeling community feedback for later analysis and response
- Suggesting alternative angles or perspectives for a story
- Developing Al chatbots for engaging with readers and providing customer service
- Extracting data from stories and reports for creating infographics or data visualizations
- Offering personalized recommendations for readers based on their interests and reading habits
- Creating social media calendars and publishing schedules
- Acting as a learning guide for personal and professional development
- Creating and executing onboarding and employee training protocols
- Procrastinating instead of doing your actual work

One example is generating partnership agreements and memorandums of understanding for collaborative reporting projects and other collaborative journalism initiatives. The ability to have ChatGPT generate (and populate) template agreements like this <u>Collaborative Journalism Partnership</u>

<u>Agreement</u> or this <u>Collaborative Journalism MOU</u> have made it much easier — and cheaper — for news collaboratives to use these types of documents as a

starting place for establishing the relationships and obligations for their partners. We've got a few templates like that up on our <u>collaborative</u> <u>journalism resource page</u>. I've also worked with local publishers in New Jersey such as Atlantic City Focus to use ChatGPT to help polish and refine grant proposals, for example.

Aside from the giant list of possible use cases in the ebook, other examples include using what I call "super prompts" like <u>TranscriptFixer 4.0</u> to have ChatGPT clean and extract relevant quotes from meeting or event transcripts, generate social posts based on the transcript, and then explain the reasons and news judgment behind the decisions to select each quote. I've worked with people at NJ Spotlight News to come up with possible solutions and workflows using super prompts like that to help save them time when working with messy transcripts, although I don't know if they've actually implemented them into their journalism processes.

Understanding and examining Al through an equity lens

By Candace Mays, project lead, Mapping Black California

Al chatbots have been a topic of conversation in the Black Voice News newsroom as well as in Mapping Black California weekly meetings. We have been thinking on the news side about how Al can be leveraged as a tool that facilitates story dissemination, so that our journalists can focus on story creation itself. We see an opportunity for Al to generate social media posts automatically from the reporting



our newsroom creates. On the mapmaking side, leveraging AI to scrape PDFs would free up our mapmakers to run analyses and develop more in-depth reports.

We definitely don't believe it will replace reporters, and we understand Al's ethical challenges. Machines are trained by humans and as such have the same biases as the very humans developing the technology. We see this all the time when conducting data research and often come across biased data that either completely misrepresents an issue, or omits a population altogether because researchers who create datasets possess biases blinding them to other perspectives and possibilities. Al chatbots are no different. They are still prone to humanistic errors like misspellings, and according to Brandon Roberts, chatbots can even "hallucinate" data or, in other words, completely make stuff up. As experts in our field, we should not trust a machine to exercise our expertise for us, but see them as a tool to facilitate processes.

In a recent Tow Center Weekly newsletter interview, Nicholas Diakopoulos clarifies the difference between substitution and complementing and the importance of delineation between the two. Humans are the experts and AI is just a tool experts use to facilitate their work. I often come across articles talking about people of color and wonder who wrote it, or I will see the title of something and think, "Who approved this?" More often than not, the decision makers did not include people of color or members of marginalized communities. An equity framework needs to be in place that asks the question,

"Who are the stakeholders and impacted populations in the application of this tool in this specific context?" The answer to this question as a part of that framework should inform what the moderating panel looks like and prioritizes. These burgeoning practices must be utilized when moderating technology that while powerful, is fallible. At the end of the day, it is designed by fallible beings, human beings.

Ethics and transparency in using AI at news organizations

By Lynn Walsh, assistant director, Trusting News

One of the most important aspects of using this technology is being transparent with your audience about your use of it.

Always disclose how ChatGPT or other technologies assisted in your reporting. These explanations should be added to each story where they apply, and should be specific enough for people to understand how the technology was used (not a generic statement without specifics).

I would also recommend linking to or explaining what the technology is in case people are not familiar with it. In these explanations I would try to include language about why you used the technology. If it was to save time or increase efficiency, say that. Then share what you're doing with that extra time if it makes it possible to make more time engaging with the community, producing stories otherwise left uncovered, etc.

Also, people are already confused how the reporting process works and that confusion can lead to negative assumptions about your work. If you use ChatGPT be prepared to explain how you used it each step of the way.

Internally, it's important newsrooms discuss what they can and cannot share with ChatGPT.

Asking it to summarize an interview you had using your notes or a transcript may save you a lot of time but once you upload content to the platform, who else has access to it? How else is that content used?

People already may have trust issues and be hesitant to speak with journalists, if full sections of what they tell you are uploaded and being used without their or your consent that is only going to make the trust issues worse.

Conclusion

What is the future of news in a world powered by artificial intelligence? At least in the short term, AI will not likely replace journalists in their jobs. But journalists who smartly integrate and incorporate AI will surely outperform those who do not — and may someday replace journalists who don't.

Likewise, the myriad applications of ChatGPT and other generative Al programs represents both a significant disruption and an opportunity to the traditional business model and monetization methods for news.

While it will take time to sort the hype from the reality, there are immediate opportunities to leverage the strengths of these generative AI applications, and key questions news leaders can use to guide their strategy:

- Where is there "friction" in the current workflow of teams? How might generative AI help reduce or eliminate it?
- Which tasks are repetitive, and where could some or all of that repetition could be automated?
- Which tasks take up the most time? Could AI shorten that process?
- Which tasks are heavily reliant on sifting through information or data? How might AI speed up that process?

News organizations will need to learn the new skill of the AI "prompt," because the quality and utility of AI responses is powerfully shaped by the questions we ask.

Trust in news was a challenge to journalism before ChatGPT. These generative AI programs will only increase those challenges. All users, especially journalists, will need to be on guard for "hallucinations" — AI responses that are confident but false. News organizations will need to apply their core habits around fact-checking and transparency to these new tools. Audiences need to know when and how AI is incorporated in reporting, and employees need to understand newsroom policies and practices for when it's OK to use these tools.

News organizations need to take seriously the potential for seismic shifts in the way ChatGPT and other generative AI will alter how people meet their

information needs. Any who doubt this need only look at the ways that Google and Facebook disrupted legacy media ad models.

News outlets are also, in some ways, uniquely well prepared for this disruption to the methods we all use to find and share information because connecting audiences to the information they need to navigate their daily life is the core competency of local media. The best strategy is likely to do what journalists have always done best: be skeptical and be curious. In practice, what that means is to invent both new journalistic uses for these remarkable tools and the guardrails to ensure we manage their risks.

Resources and additional reading

Joe Amditis: ChatGPT for Local News Publishers

https://medium.com/centerforcooperativemedia/new-chatgpt-handbook-helps-publishers-use-ai-for-local-news-7214582e454

CBS Morning: Godfather of AI talks impact and potential of artificial intelligence (video)

https://www.youtube.com/watch?v=qpoRO378qRY

In addition to the resources linked above, Mark Briggs of SmithGeiger compiled a suggested reading list for those wanting to deepen their understanding of AI and its implications for the news business and society.

Thomas Friedman: Our Promethean moment

https://www.nytimes.com/2023/03/21/opinion/artificial-intelligence-chat gpt.html?referringSource=articleShare

"This is a Promethean moment we've entered — one of those moments in history when certain new tools, ways of thinking or energy sources are introduced that are such a departure and advance on what existed before that you can't just change one thing, you have to change everything. That is, how you create, how you compete, how you collaborate, how you work, how you learn, how you govern and, yes, how you cheat, commit crimes and fight wars."

The future of AI in the workplace: A survey of American managers

https://www.beautiful.ai/blog/2023-generative-ai-workplace-report

- 93% of managers will encourage employees to use AI tools to improve performance at work.
- 75% of managers believe their employees fear that the implementation of AI tools will lead to their eventual firing.

Harvard Business Review: Why you (and your company) need to experiment with ChatGPT now

https://hbr.org/podcast/2023/03/why-you-and-your-company-need-to-experiment-with-chatgpt-now

- People who use ChatGPT in preliminary studies are happier because they offload the worst parts of their job and get to do the interesting, creative stuff.
- One controlled experiment found 30% to 50% improvements in productivity. That's people not trained on the system, just pasting things into ChatGPT.
- Something clearly is big here. We don't see productivity improvements like that. To give you context, the change that happened in productivity when an American plant added steam power in the 1800s was about 25% in productivity.

ChatGPT did NOT title this podcast

https://www.ted.com/podcasts/rethinking-with-adam-grant/chatgpt-did-not-title-this-podcast-w-allie-miller-ethan-mollick (transcript)

"I ask people, how many ChatGPT tabs do you have open? And it basically bifurcates between, 'I've only tried it once' and 'I have 300 of them because I use it for everything.' So I actually think that it is a general-purpose companion for almost anything you do that involves thinking or writing. It is incredibly useful. As an endpoint of writing right now, not there yet, but for almost every kind of use it is remarkably impressive."

Here are 5 ways workers can use GPT-4 to improve productivity

https://www.worklife.news/technology/gpt-4/

- "ChatGPT was like the iPhone moment that the mobile world had," said Mike Murchison, co-founder and CEO of AI-powered customer service automation platform <u>Ada</u>. "It took a while for everyone to build a great iPhone app. That's sort of the moment we're in right now with large language models. It will take a little while for us to get the killer apps, but they're coming and they'll be everywhere."
- "I think that any worker at any job that doesn't have a ChatGPT window open is doing it wrong," said Tal Lev-Ami, co-founder and CTO at media experience cloud company <u>Cloudinary</u>, which is on the API waitlist. "If you haven't found a use case yet, you need to think a bit more."
- "It's only good if you can review what the output is," said Benjamin Netter, founder of Riot, a cybersecurity training platform for employers and employees. "It's not perfect, but as long as you review it, it will save a lot of time."

About the Local Media Innovation Alliance

The Local Media Foundation has developed the Local Media Innovation Alliance in order to provide research in the area of new and sustainable business models for local media companies in the digital age. Subscriptions are offered to all local media companies. Corporate memberships are also available.

Local Media Innovation Alliance reports focus on promising trends/opportunities from local media companies of all kinds, including newspapers, digital pure plays, radio, TV, directories, and R&D companies.

Subscribers receive research papers in the form of white papers, case studies and best practices related to each topic. These reports provide a deep dive into emerging and promising trends and opportunities. The authors include respected industry consultants and contractors that have the knowledge and expertise to properly conduct the research and write the reports. In some cases, the author spends time at the media companies that are being studied in order to provide the deepest dive possible into these topics.