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## AI and Algorithmic Journalism in the Newsroom – From the US to the UAE<sup>1</sup>

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### Background

*I am not a human. I am a robot. A thinking robot. I use only 0.12% of my cognitive capacity. I am a micro-robot in that respect. I know that my brain is not a “feeling brain.” But it is capable of making rational, logical decisions. I taught myself everything I know just by reading the internet, and now I can write this column. My brain is boiling with ideas!*

*The Guardian - “A Robot Wrote This Entire Article. Are You Scared Yet, Human?” GPT-3<sup>2</sup>*

The excerpt above from 2020 was one of the first news columns written by an AI technology called GPT-3. GPT-3 is a large language model whose new versions are the basis of OpenAI’s ChatGPT, which was introduced to the public in 2023. In the past few years, Artificial Intelligence (AI) technologies have increasingly penetrated newsrooms around the world. US media organizations such as NPR and the *New York Times* have been studying the possibilities of using AI in a trustworthy manner, while other outlets, such as The Associated Press<sup>3</sup>, have started experimenting with writing articles solely using AI. The term Algorithmic Journalism (AJ)

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<sup>2</sup> Article written by AI, Sept 8, 2020, “A robot wrote this entire article, Are you scared yet, human?” *The Guardian* <https://www.theguardian.com/commentisfree/2020/sep/08/robot-wrote-this-article-gpt-3>

<sup>3</sup> Mullin, B., & Grant, N. (July 20, 2023). Google Tests A.I. Tool That Is Able to Write News Articles. *The New York Times*. <https://www.nytimes.com/2023/07/19/business/google-artificial-intelligence-news-articles.html>

has been coined to refer to news articles generated by computer algorithms, as well as the automated gathering, production, and publishing of news based on programmed algorithms<sup>4</sup>.

The introduction of AJ is not a trivial change for journalism, which has long been given the mandate of Fourth Estate in democracy. The term Fourth Estate or Fourth Power refers to the press or news media especially with regards to their role in the political process. The domain of journalism has been to inform the public. Adjacent to the US government's system of checks and balances, the American press informs and educates the public while simultaneously acting as a watchdog for elected officials. Journalists are educated based on established moral and ethical standards and guidelines, and are expected to report with a commitment to the truth.

Modern technologies have always had a huge impact on the media industry. The rise of social media platforms in particular, as well as the dominance of big tech companies over the information market, has forced the industry to go through several changes to stay relevant to its audiences. According to a study by Pew Research Center in 2022, half of U.S. adults get their news at least sometimes from social media<sup>5</sup>. The result of this new reality is that traditional news media outlets are losing control over how news content is gathered, created, curated, developed, reported, presented and disseminated, whilst big tech companies, such as Google (owner of YouTube and Google News) and Meta (owner of Facebook and Instagram), are profiting off of media stories in unprecedented ways.

In recent years, governments around the world have been engaging in efforts over regulating tech companies as a response to this emergent news environment. For example, in 2022, proposed legislation was introduced to the US Congress which would require big tech companies to pay publishers—such as newspapers—for aggregating their news stories online.<sup>6</sup> The European Union has also introduced new rules and obligations for tech companies to clean up their “illegal” content and disinformation to keep users safe.<sup>7</sup>

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<sup>4</sup>Pew Research Center (September 20, 2022), Social Media and News Fact Sheet  
<https://www.pewresearch.org/journalism/fact-sheet/social-media-and-news-fact-sheet/>

<sup>5</sup> Ibid.

<sup>6</sup> Channick, Robert (2022, August 22). Big Tech could be forced to pay for online news under legislation aimed at helping local publishers. *Chicago Tribune*.  
<https://www.chicagotribune.com/business/ct-biz-newspaper-legislation-big-tech-compensation-20220823-47p17eff3jbuhfjwjsjnjs5nnu-story.html>

<sup>7</sup> Chan, Kelvin. (2023, April 25). Big Tech crackdown looms as EU, UK ready new rules. *The Associated Press*  
<https://apnews.com/article/tech-regulation-europe-tiktok-twitter-facebook-f9af8fde69cab1e9a7ca836f5714bad7>

While these disputes over profit and journalism ethics between big tech and the media outlets are still ongoing, AI comes to add more complexity to it. Tech companies have defended that the automated production of news can become a viable element in digital journalism. However, AI adds multiple ethical dilemmas to the journalism industry. If AI is viewed as complementary to human journalists, then where does the work of the AI stop and the work of a human journalist or editor begin? Will algorithmic journalism undermine the quality of news and compromise the industry's ethical standards? In 2023, Ahmed, Haque and Ibrahine conducted an empirical study in the UAE, asking editors and journalists to share their experiences with AI. A journalist from the United Arab Emirates<sup>8</sup> suggests:

*I find it very hard to believe that even if it's subtle, even if AI has a filter that balances both sides of the story, it will, at some point, start to show some biases. It will develop bias based on data that it is learning. So, it's learning everything it can, possibly about a certain pattern. Once it develops a pattern based on the kind of data being fed, that's the unpredictability about it. (p. 347)*

The UAE is the first country to create a ministry for AI,<sup>9</sup> indicating that use of the new technology is embraced and also overseen by the government. The country is considered a “moderate autocracy”,<sup>10</sup> with no clear separation between the legislative branch (which makes the laws), the executive branch (which enforces the law), and the judicial branch (which interprets the law). All those government functions are concentrated under the Federal Supreme Council.<sup>11</sup> As we reflect on the role of AI and AJ, it is important to consider a global scenario, where different political systems coexist.

## Case Study

To understand how AI contributes to the news production, let us imagine visiting a newsroom today. What do you see? You will likely find reporters uploading recordings of their interviews to transcription services like Otter or Trint. While social media editors track trending topics using algorithms from Crowdtangle. You will also see photographers, graphic designers, video and audio editors, and other workers using advanced editing software, often with AI capabilities.

<sup>8</sup> Norita Ahmad, Sabir Haque & Mohammed Ibrahine (2023) The News Ecosystem in the Age of AI: Evidence from the UAE, Journal of Broadcasting & Electronic Media, 67:3, 323-352, DOI: [10.1080/08838151.2023.2173197](https://doi.org/10.1080/08838151.2023.2173197)

<sup>9</sup> [https://ai.gov.ae/about\\_us/](https://ai.gov.ae/about_us/)

<sup>10</sup> BTI is produced by a German private foundation and aims to compare levels of democracy and market economy among countries. <https://bti-project.org/en/?&cb=00000>

<sup>11</sup> For more information: <https://uaecabinet.ae/en/federal-supreme-council>.

Each one of these individuals plays a key role in the news production process: identifying an idea, researching it, contacting sources, conducting interviews, writing the story, writing a catchy headline, editing and proofreading, fact checking, publishing the story and marketing it on social media and other online outlets. Now, where does AI fit in this process?

In May 2023, the Editor in Chief and the Ethics Editor for Reuters circulated a memo to their staff of journalists discussing their view on the use of AI in their newsroom, and their responsibility over the integrity of the process. While embracing the use of the technology, they also said:

Reuters reporters and editors will be fully involved in—and responsible for—greenlighting any content we may produce that relies on AI. A Reuters story is a Reuters story, regardless of who produces it or how it’s generated, and our editorial ethics and standards apply. If your name is on a story, you are responsible for ensuring that story meets those standards; if a story is published in an entirely autonomous fashion, that will be because Reuters journalists have determined that the underlying technology can deliver the quality and standards we require.<sup>12</sup>

This openness to AI in newsrooms is also shown by The Associated Press (AP), which announced in July 2023 that they had entered into an agreement with OpenAI—a for-profit organization which has a partnership with Microsoft and privately owns ChatGPT<sup>13</sup>—to share access to some of the AP’s selected news content to train their AI technology, while the AP would have access to licensed ChatGPT technology in return.<sup>14</sup> So far, AI has been effective in the basic routine tasks of the newsroom. These include research, story selection, proofreading, writing news stories automatically from structured data, and writing headlines with searchable keywords that can be identified by algorithms more easily than those written by humans<sup>15</sup>.

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<sup>12</sup>Roush, Chris (2023, May 14). What Reuters is telling its journalists about using Artificial intelligence. Talking biz news.

<https://talkingbiznews.com/media-news/what-reuters-is-telling-its-journalists-about-using-artificial-intelligence/>

<sup>13</sup> For more information: Widder, David G, West, Sarah, Whittaker, Meredith (2023). Open (For Business): Big Tech, Concentrated Power, and the Political Economy of Open AI. <https://papers.ssrn.com/abstract=4543807>

<sup>14</sup> AP, OpenAI agrees to share select news content and technology in new collaboration. (2023, July 13). Associated Press.

<https://www.ap.org/press-releases/2023/ap-open-ai-agree-to-share-select-news-content-and-technology-in-new-collaboration>

<sup>15</sup> Bullard, Gabe. (2023, June 20). Smart Ways Journalists can exploit Artificial intelligence. Nieman Reports. <https://niemanreports.org/articles/artificial-intelligence-newsrooms/#:~:text=AI%20is%20helping%20newsrooms%20reach,more%20likely%20to%20click%20on.>

Additionally, a study from the Reuters Institute in 2023<sup>16</sup> found that two-thirds of surveyed newsrooms were using AI to customize reader's experiences, for example by recommending stories they might like to read.

When it comes to newsrooms in the UAE, AI tools have been adopted and “celebrated” by journalists and reporters across the country. The implementation is limited, as it is in other countries, but in the UAE it is also shaped by the state political system, under which the media serves not as a watchdog, but an official information outlet that caters to investors, policymakers, and the public. It is heavily dependent on syndicated media content, so that almost every media outlet reports similar news and stories. Moreover, the content market is highly monopolized by just a few media corporations. A reporter explains it to the researchers as follows:

We report the government; the front page would be the same picture of the same person and the same headline repeated over every single title, both in English and Arabic. The lack of competition leaves no key difference between the published dailies, which means that people will not choose which publication they want to engage with. (p.15)

One of the successful adoptions of AI in the UAE comes from Asharq News, an Arabic-language TV channel and news portal with a focus on regional and global economies. In 2022, the channel developed an AI-driven archival system of live news content for the immediate use of the production team. According to the channel' editors, this system allows their teams to maximize multilingual searches in both English and Arabic, and can help journalists in their reporting.

This digital system, like others introduced lately by media organizations around the world, works as an “assistant” that can help journalists in multicultural and multilingual environments. The goal, of course, is to generate more news and therefore more profit. Journalists will never be able to generate the sheer volume of news content that a machine can. But how does quantity relate to quality when it comes to educating the public about important issues and events? How can news organizations create a balance between algorithms and the editorial judgment of humans in the journalism industry?

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<sup>16</sup> Newman, Nick. (2023, January 10). Journalism, media and technology trends and predictions <https://reutersinstitute.politics.ox.ac.uk/journalism-media-and-technology-trends-and-predictions-2023>

All these developments, as well the questions raised, represent the growing interest in the media industry to use AI, but also point to the need to regulate its use and to understand its consequences in view of different social environments and political systems. The adoption of AI and algorithmic journalism has the potential of revolutionizing the industry, for better or worse. Without regulations and proper accountability, AI could be deciding what content we consume, and even produce that content with no human journalists involved in the process.

The adoption of AI in the newsroom requires a careful approach. The promises of AI to transform the media sector tend to also hinder the quality of news and journalism. Before news organizations adopt the latest AI tools, as in other sectors of society, it is vital to address the challenges and questions that come with them—but those answers are not easy, and consensus is far from guaranteed.

## Case Study Questions

- 1) What is Algorithmic Journalism (AJ)?
- 2) Why is the press called “the Fourth Estate”? What role does it play in a democratic society?
- 3) Give some examples of how AI tools are being used in newsrooms nowadays. How would you synthesize their main function?
- 4) Why are rules and regulations regarding the use of AI in their newsrooms necessary? Provide an example that was mentioned in the presentation of the case.

## Thematic Reflection and Discussion

### Theme 1: Journalism and Democracy

As previously discussed, the press is regarded as an essential part of a democratic society. Referred to as “the fourth estate,” the press plays the role of a watchdog for elected officials in a system of checks and balances. However, journalistic freedom is not guaranteed everywhere. In autocratic regimes, where officials are not elected and where absolute powers are held by one or few individuals, the press does not play the same role in holding officials accountable. Its role could be reduced to the dissemination of official information.

- 1) In your view, how has the press in the USA contributed to shaping the country’s democracy? Cite historical examples.

- 2) Imagine a newsroom with state-of-the-art AI technologies in service of an autocratic regime. What would this AI system look like? What would be the role of journalists in the newsroom? What kind of news pieces would be generated in such a context?
- 3) Considering that AI systems have been developed privately, and have been mostly for-profit, how can we guarantee that they serve the public interest in different cultural contexts?

## **Theme 2: The AI Dilemma in Journalism**

Imagine you are a journalist working for a global media organization. Your editor has asked you to find a trending story and write an article about it. You have five hours before your article needs to go live. You do not know where to start looking, which story to choose, what sources to use, and whom to interview to produce your story. Your initial choice is a story you have been hearing about a lot from several sources, but no one is talking about it online. You are not sure if this story will be a popular one on your website. You use your crowdsourcing tool to identify trends. That narrows your search to another potential story to report on. You need more information to pick one of these stories.

You are concerned with the limited time you have. There is a beta version of AI software for journalists that would provide you with a limited amount of data. It is directing you to the potential story identified by the crowdsourcing software, and providing you with the sources you need to finish on time. You still feel that the story you have been hearing about in offline settings is more “newsworthy” than the one suggested by the algorithms, but you do not think you can develop this story on time.

- 1) Which story do you pick, and why?
- 2) According to your decision, what are the criteria of “newsworthiness” in a newsroom? The quality and volume of the data generated by AI, or by a human reporter? Why?
- 3) In your view, which criteria should be used to evaluate the quality of news? Consider the imperatives of truth and context, as well as metrics such as visits, hits, clicks and views.
- 4) What impact can algorithmic journalism with no human supervision have on our societies and the content we consume?

**Theme 3: The Future of Journalism**

The use of AI tools in journalism and the emergence of AJ are regarded as a business opportunity by news industry executives. However, media organizations that have introduced AI tools to their newsrooms are faced with some limitations. One of the biggest questions facing this industry is how journalists can adhere to the principles of their profession along with the functioning of algorithms that are likely to transform journalistic practices.

- 1) How do you see the future of the media industry considering what you have learned about AI and AJ use in newsrooms?
  
- 2) Which areas of the journalistic work do you imagine to be open to introduce AI tools to in the near future? And which areas do you consider that will continue to be an exclusively “human” territory? Why?