

THE DIGITAL FOURTH ESTATE 2.0: HOW AI RESHAPES JOURNALISM IN THE DIGITAL AGE

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ABSTRACT

Artificial Intelligence (AI) is expanding across the globe and is now used in many industries to speed up production, boost efficiency, improve accuracy, and simplify how businesses operate. Journalism has benefited from AI as robots engage in journalistic processes, and produce results quickly in broadcast and print media types. Despite its popularity, application of AI to journalistic practice in India is scant as a consequence of various factors. This study is conceptual in nature and used qualitative methods to seek results. Expert views and opinions were used to provide information required for the study. It sought to find out challenges which can hinder successful application of AI to journalism practice in India. Media richness and technological determinism theories underpinned the study as they dealt with influence of communication technologies on production and impact on societies. AI plays a crucial role in journalism today, helping newsrooms stay competitive while also creating new opportunities for employment and innovation.

KEYWORDS: Artificial Intelligence, Journalism, AI Applications, Perception, Practice.

INTRODUCTION

Artificial Intelligence (AI) is rapidly reshaping the field of journalism, offering new tools and possibilities for how news is produced, distributed, and consumed. In modern newsrooms, AI is used to automate routine tasks such as writing short reports, sorting information, and managing large volumes of data. It helps journalists analyze trends, detect misinformation, and personalize content for different audiences. By speeding up production and improving accuracy, AI allows media organizations to stay competitive in a fast-paced digital environment. At the same time, it opens up new job roles—from data analysts to AI ethics specialists—while raising important questions about transparency, bias, and the role of human judgment in storytelling. As journalism evolves, understanding and responsibly integrating AI becomes essential for maintaining public trust and journalistic integrity.

Early precursors and foundational ideas (1950s–1990s)

Automated data-to-text systems: Early AI in journalism focused on converting structured data (sports scores, financials, weather) into readable prose. These systems demonstrated that machines could generate informative text from data without human storytelling. Example: Research on data-to-text generation and templates laid groundwork for later newsroom automation.

Rule-based and template-driven reporting: Newsrooms experimented with templates to quickly produce standard reports (e.g., earnings, poll results). This approach helped scale basic coverage with high accuracy and consistency.

The rise of automated reporting (2000s)

Templates-to-NLG shift: Newsrooms moved from rigid templates toward more flexible natural language generation (NLG) that could adapt phrasing and style while preserving factual content.

Automated sports and financial briefings: Systems began producing short, data-driven reports in real time, such as score recaps, stock summaries, and weather news, freeing journalists to focus on analysis and synthesis.

Copy-editing and QA assistance: AI-assisted tools helped with fact-checking, consistency checks, and basic copy-editing, improving efficiency and reducing routine errors.

AI-assisted journalism and “computational journalism” (2010s)

Computational journalism: A field dedicated to using data analysis, algorithms, and AI to uncover stories, automate routine reporting, and augment newsroom workflows.

Fact-checking and verification: AI tools assisted journalists in verifying information, tracing sources, and filtering misinformation at scale.

Personalization and audience analytics: Algorithms guided story selection, distribution, and tailoring content to reader interests, while raising ethical considerations about filter bubbles and transparency.

Real-time and AI-generated content in newsrooms (2020s)

Real time data driven reporting: Newsrooms leveraged AI to monitor data streams (scores, markets, weather, breaking events) and draft initial versions of stories.

AI-assisted editorial tools: Tools for writing assistance, summarization, translation, and content optimization became common place in many newsrooms.

Quality control and ethics: Labs and outlets developed guidelines for transparency about AI involvement, human-in-the-loop processes, and accountability.

The II Foglio AI experiment (March 18, 2025)

II Foglio AI : Reportedly the first complete AI-generated newspaper edition, where every element articles, headlines, summaries was produced by AI, with humans providing prompts and performing final review. This milestone is often cited as a demonstration of end-to-end AI-generated newsroom output, signaling a new level of automation in editorial processes.

Implications: Raises important questions about originality, attribution, editorial control, accountability, bias, and the role of human journalists in duration and interpretation.



An Italian news paper the II Foglio website shows an article and image generated entirely by artificial intelligence. (Screenshot/II Foglio)

The first full AI-generated newspaper edition was published by the Italian newspaper **II Foglio on March 18, 2025**. This four-page special, titled II Foglio AI, was an experiment where AI was responsible for everything from writing the articles to crafting headlines and summaries. The only human involvement was in providing prompts and reviewing the final content.

What this evolution means for today and tomorrow

Continuity with early work: Modern AI in journalism builds on decades of data-to-text, template systems, and NLG research, extended by advances in machine learning, large-language models, and multimodal AI.

Workflows and ethics: The trend leans toward human-in-the-loop models, with AI handling routine drafting, summarization, and verification tasks, while editors provide context, interpretation, and accountability.

Transparency and trust: Clear disclosure of AI involvement, source attribution, and editorial standards are increasingly important to maintain reader trust.

AI in News Anchoring and Presentation

Perhaps the most visible use of AI in Indian media is the emergence of AI news anchors. The introduction of artificial intelligence news anchor by China's state news agency Xinhua of name **Qiu Hao**, Chinese viewers were greeted with a digital version of a regular Xinhua news anchor. A Pakistani technology firm named BaseH has assured that they are successful in building up the country's first artificial news content writer known as "**Dante**". This AI news

content generator utilizes the Natural Learning Process (NLP) to create news report that is almost the same as human writing. The **robot** called Dante is capable of doing reporting in different beats like business reporting or weather and sports reporting.

Virtual Anchors: Several Indian news channels have introduced AI-generated news presenters, which are digital avatars with human-like voices and expressions. These virtual anchors can deliver news bulletins around the clock, in multiple languages, without the typical costs and constraints of a human anchor.

Examples: Some prominent examples of AI news anchors in India include:

Sana (India Today Group)

Lisa (Odisha TV)

AI Aira (ABP)

AI Zeenia (Zee News)

AI Krish and **AI Bhoomi** (Doordarshan Kisan)

Objectives of the Study

The main objective of this study was

- 1) To understand how automated reporting is currently being used in newsrooms.
- 2) To identify what helps AI work well in journalism.
- 3) To explore the difficulties of using AI effectively in Indian journalism
- 4) To explore the important applications of AI in health and agriculture sectors

REVIEW OF LITERATURE

Galily (2018), for instance, examined the rise of automated journalism in sports reporting, discussing whether its recent integration represents an evolutionary step or a revolutionary shift in production and consumption dynamics, emphasizing factors like data accessibility, mobile news trends, and technological advancements while highlighting the nuanced relationship between automation and journalistic tasks.

Summary of Key Authors on AI impact on Journalism

Author(s)	Focus Area	Main Contribution	Tone/Attitude Toward AI
Galily (2018)	Sports journalism	Explores whether automation is evolutionary or revolutionary; highlights data accessibility and mobile trends.	Cautiously optimistic—AI augments creativity.
Stray (2021)	Investigative journalism	Shows how AI aids in data prep (e.g., document extraction, database linking).	Positive—AI enhances efficiency.
Gondwe (2024)	News production stages	Maps AI tool usage: Expert Systems dominate collection; Planning tools used in distribution.	Analytical—focuses on tool adoption patterns.
Munoriyarwa et al. (2023)	South African newsrooms	Reveals skepticism due to lack of expertise, funding, and ideological concerns.	Critical—AI adoption faces resistance.
Yu & Huang (2021)	Chinese media employment	Journalists see AI as empowering; media orgs promote positive narratives.	Supportive—AI seen as workforce optimizer.
Soto-Sanfiel et al. (2022)	Latin American journalists	Highlights cultural disparities in AI attitudes across six countries.	Mixed—AI viewed as opportunity, but context matters.
Peña Fernández et al. (2023)	Global challenges	Identifies threats to jobs, reliance on tech platforms, and audience confusion over automated content.	Concerned—calls for critical reflection.
Moran & Shaiks (2022)	Industry vs. journalists	Industry favors AI for cost-cutting; journalists worry about professional implications.	Tense—reveals ideological divide.

Comparative Insights

Optimistic Views: Stray, Yu & Huang, and Galily suggest AI can enhance journalism when used thoughtfully.

Skeptical Views: Munoriyarwa et al., Peña Fernández, and Moran & Shaiks highlight resistance, ethical concerns, and professional tensions.

Contextual Sensitivity: Soto-Sanfiel et al. emphasize that cultural and political contexts shape AI adoption and perception.

METHODOLOGY

This research uses doctrinal, analytical, and descriptive methods. Most of the data comes from secondary sources like books, journals, interviews, and online databases. It is a conceptual study that aims to give an overview of how AI can be effectively used in Indian newsrooms, both in print and broadcast media.

We follow a qualitative approach, focusing on ideas and issues related to AI in journalism. Our analysis is based on existing literature, previous studies, expert interviews, personal observations, and online materials. The goal is to offer thoughtful insights and suggestions that can guide future researchers and students interested in this growing field. This academic work is objective in nature and hopes to contribute to the broader understanding of how AI is shaping journalism in India.

Automated Journalism

When there is an increased volume of news contents produced and distributed for the consumption of audiences automatically, it is called automated journalism. It is an algorithm process which enables the data set to be converted into news stories for human interest and readability. This can only be possible when AI is used in newsrooms. AI mobilizes the newsroom in varied manners—streamlining the media production process, automating the routinized tasks, crunching more data, exploring media insights, minimizing the fake news, and delivering the requirements. The leading media houses like The New York Times, Reuters, The Washington Post, Quartz, Yahoo, Associated Press, The Guardian, and The BBC have adopted AI in their newsrooms. In an experimental mode, The New York Times has executed its AI project ‘Editor’ in 2015 in order to simplify the journalistic production process. The aim of the project was to simplify the journalistic process in the newsroom. When writing an article, a journalist can use tags to highlight phrase, headline, or main points of the text. By using various tools through AI, The New York Times has attempted to moderate the readers’ comments and encouraged constructive discussions and at the same time overcoming the abusive remarks. Needless to say, The BBC has a huge amount of data comprising news, features, and videos. Since 2012, it has been using Juicer, a data extraction tool to link all the data more accessible and more meaningful. Since 2016, Reuters has been using AI with assistance from semantic technology company Graphiq. With the help of AI, it is able to provide data-driven news stories, which are visually stimulating and easy to understand. Apart from providing speedy access to data, AI also allows the publishers to get the information in terms of simple tables or charts. The use of Heliograf smart software in The Washington Post Automotive Insights—a prominent natural language generation vendor in Yahoo, Semantic Discovery and News Whip in Associated Press, and Chatbot Media Interfaces in The Guardian and Quartz have been the indicators of adopting AI in newsrooms worldwide.

In India, leading media organizations are increasingly adopting artificial intelligence to enhance the speed, efficiency, and reach of their journalistic processes. AI is being used across multiple domains—from content creation and personalization to multilingual accessibility and audience engagement. Prominent media houses such as India Today, NDTV, The Times of India, Hindustan Times, and The Hindu have begun experimenting with AI anchors, automated news generation, and real-time translation tools. For instance, India Today introduced Sana, an AI-powered anchor capable of delivering news in multiple languages, while Doordarshan Kisan launched Krish and Bhoomi to provide agricultural updates around the clock. Similarly, Odisha TV’s Lisa and ABP News’s Aira represent a growing trend of AI-driven presenters designed to cater to regional and digital audiences.

Beyond presentation, AI tools are being used for automated journalism, where platforms generate data-driven reports, summaries, and even video edits with minimal human intervention. Generative AI is also helping with transcription, captioning, and content summarization, allowing faster turnaround for breaking news and multilingual publishing. Media houses are leveraging recommendation engines to personalize content delivery based on viewer behavior, while AI-powered analytics help optimize headlines, visuals, and publishing times. Some organizations are exploring AI for real-time fact-checking and combating misinformation, especially in the context of elections and sensitive political coverage. According to industry reports, over 90% of media companies in India are now using generative AI for content development, and nearly two-thirds are applying it to improve customer engagement. These innovations are not only transforming newsroom workflows but also reshaping how audiences interact with news making journalism more accessible, responsive, and inclusive across linguistic and regional divides.

Benefits of AI in Journalism

Automation of Routine Tasks: AI excels at repetitive and time-consuming tasks. This includes transcribing interviews, summarizing documents, generating headlines, and creating metadata. By automating these "busywork" tasks, AI frees up journalists to focus on what they do best: in-depth reporting, investigative work, and creative storytelling.

Data Analysis and Investigative Journalism: AI can process vast amounts of data, like government reports or financial records, to identify patterns, trends, and anomalies that would be impossible for a human to spot. This capability is

revolutionizing data-driven and investigative journalism, helping reporters uncover stories hidden within complex datasets.

Fact-Checking and Verification: AI-powered tools can assist in the fight against misinformation by quickly cross-referencing information, verifying sources, and detecting inconsistencies. Some systems can even help identify deepfakes and manipulated content.

Content Creation and Personalization: AI can generate basic news stories, particularly those that are data-heavy and formulaic, like sports recaps, financial reports, or weather updates. It also plays a crucial role in personalizing news feeds for individual users, ensuring they receive content tailored to their interests and viewing habits, which helps with audience engagement and retention.

Increased Speed and Efficiency: AI accelerates the news cycle. It enables news organizations to quickly process breaking news and produce content for different platforms (e.g., social media, newsletters) more efficiently. This speed is vital in a competitive media landscape.

Accessibility: AI tools can automatically transcribe audio and video content, making it accessible to people with hearing impairments. Similarly, text-to-speech conversion helps people with visual impairments consume news.

Bias and Accuracy: AI models are trained on existing data, and if that data contains human biases, the AI can perpetuate and even amplify them. This can lead to biased or discriminatory reporting. Furthermore, AI "hallucinations"—where the system generates fabricated or incorrect information—pose a significant risk to journalistic accuracy and public trust.

Misinformation and Deepfakes: While AI can be used to combat misinformation, it can also be used by bad actors to create convincing deep fakes and other forms of manipulated content, making it even harder for the public to discern what is real.

Transparency and Trust: There is a critical ethical debate about how news organizations should disclose their use of AI. If AI-generated content is not properly labeled, it can erode audience trust, especially if they feel they are being misled.

Job Displacement: The automation of routine tasks raises concerns about job security for journalists. While many believe AI will augment rather than replace human journalists, the potential for job losses, particularly for entry-level positions, is a major concern.

Erosion of Human Judgment and Creativity: Over-reliance on AI could diminish critical thinking skills and human intuition, which are essential for nuanced, ethical, and in-depth reporting. AI currently lacks the ability to understand social and cultural context, a crucial element of good journalism.

Accountability: It can be difficult to determine who is accountable when an AI system makes a mistake. Is it the developer, the news organization, or the journalist who used the tool? This lack of clear accountability poses a legal and ethical challenge.

Challenges of Artificial Intelligence in Journalism

AI is transforming journalism in numerous ways, from automation of routine reporting to advanced data analysis and personalized news delivery. However, this transformation brings a range of challenges that organizations, journalists, and audiences must navigate. Below is a structured overview of the key challenges

- 1) Accuracy and Verification:** AI can generate plausible-sounding content from flawed data or biased sources, risking misrepresentation. This requires robust fact-checking workflows and clear editorial accountability for AI-assisted output
- 2) Editorial Ethics and Trust:** Transparency about AI usage, authorship, and potential biases is essential to maintain audience trust. Human-in-the-loop processes and bias audits help address ethical concerns
- 3) Misinformation and Verification Challenges:** Generative AI can create convincing text, audio, or deepfakes, complicating detection of false information. Investment in AI-enabled verification tools and audience education is important.
- 4) Data Privacy and Security:** Investigations often involve personal data. AI systems must adhere to privacy standards, implement data minimization, secure pipelines, and maintain audit trails.
- 5) Economic and Labor Impacts:** Automation of routine tasks may affect newsroom roles, reskilling and new roles (e.g., AI editors, data journalists) are needed to augment rather than replace critical reporting.

Epistemological and Professional Challenges

The integration of AI in journalism also brings forth several epistemological challenges. Journalistic processes that traditionally rely on human intuition, contextual understanding, and critical reasoning are increasingly being supplemented or even replaced by automated systems. Although AI excels at analyzing patterns in large datasets and generating summaries quickly, it falls short in areas requiring nuanced judgment, cultural sensitivity, and ethical decision-making. Furthermore, the growing dependence on AI risks creating systemic knowledge gaps within the field. Many journalists and educators acknowledge that while they are well-versed in journalistic theory, they often lack the technical literacy required to critically evaluate AI systems. This epistemic divide between technologists and media

professionals hinders the development of integrated approaches to AI adoption, which are essential for maintaining journalistic integrity and public trust. In summary, the ethical and epistemological challenges presented by AI in journalism include issues of transparency, bias, misinformation, legal liability, and the potential erosion of critical human judgment—all of which necessitate a thoughtful and proactive response from both academic researchers and industry practitioners

Application of Artificial intelligence in Health sector

Artificial intelligence (AI) is playing a significant role in detecting diseases like **cancer and thyroid disorders**. AI systems, particularly those using machine learning and deep learning, are trained on vast datasets of medical information to assist healthcare professionals in diagnosis.

AI helps with cancer detection primarily by analyzing medical images and other data to identify subtle patterns that may indicate the presence of cancerous cells.

Medical Imaging Analysis: AI algorithms can be trained to analyze images from scans like CT, MRI, mammograms, and ultrasounds. These systems can flag potential tumors or suspicious areas, often with a high degree of accuracy. Some studies have shown that AI can detect certain cancers, like lung or colon cancer, with even greater accuracy than human experts. This helps radiologists and oncologists to focus on the most critical areas, improving diagnostic efficiency and reducing the chances of a false negative.

Pathology Analysis: AI can be used to analyze digital pathology slides. By examining the shape, size, and arrangement of cells, AI can identify cancerous changes that may be too small or complex for the human eye to easily spot.

Genomic and Molecular Profiling: AI can process and analyze vast amounts of genomic data to identify genetic markers and mutations linked to cancer. This helps in risk assessment, early detection, and the development of personalized treatment plans.

Risk Assessment: By analyzing a patient's electronic health records, family history, and other clinical data, AI models can assess an individual's risk of developing certain types of cancer, prompting earlier and more frequent screening. For thyroid disorders, AI is used to improve the accuracy and efficiency of diagnosing conditions, including thyroid cancer.

Ultrasound Image Analysis: A common use of AI for thyroid issues is in the analysis of ultrasound images of the thyroid gland. AI systems can identify and characterize thyroid nodules, helping to determine if they are benign or malignant. This reduces the need for unnecessary biopsies (fine-needle aspiration) and provides a more objective and consistent diagnosis.

Biopsy Analysis: Similar to its use in cancer detection, AI can analyze images from thyroid biopsies to classify the cells and assist pathologists in their diagnosis.

Data Integration: AI can synthesize various data points, including patient symptoms, hormone levels (like TSH, T3, and T4), and clinical measurements, to predict the likelihood of a thyroid disorder. This can aid in earlier diagnosis and appropriate treatment.

Application of Artificial intelligence in Agriculture

Artificial intelligence (AI) is transforming agriculture by enhancing yield, reducing input use, enabling precision farming, and supporting decision-making across the farming value chain

1. Precision agriculture and sensing

Overview: AI analyzes data from satellites, drones, and ground sensors to map soil properties, moisture, nutrient status, and crop health. This enables site-specific management.

Remote sensing & yield prediction: Deep learning and radiometric indices (e.g., NDVI) to monitor crop vigor and forecast yields.

Variable-rate application: AI-guided control systems optimize irrigation, fertilization, and spraying on a per-area basis.

2. Weed detection and Robotic weeding

Overview: Computer vision and robotics enable automated weed detection and mechanical or AI-guided chemical weeding, reducing herbicide use.

Weed segmentation & classification: Convolutional neural networks (CNNs) detect weed species and distinguish crops from weeds.

Autonomous weeding robots: Ground robots or UAV-based systems apply herbicides precisely where needed.

CONCLUSION

The rapid integration of AI has not only reshaped journalistic practices by automating routine tasks and personalizing news delivery but has also raised important ethical, epistemological, and economic issues that demand careful management and oversight. As news organizations increasingly depend on AI, the future of journalism will likely be

defined not by a simple substitution of human actors with technology, but by a synergistic model where human creativity, ethical decision-making, and critical analysis are complemented by AI-driven efficiencies. To ensure that the transformative potential of AI enhances rather than undermines journalistic integrity, it is imperative that stakeholders across academia, industry, and policymaking collaborate to develop robust ethical guidelines, targeted educational programs, and adaptive business models. Artificial intelligence is widely regarded as a transformative force for journalism in the digital age, reshaping newsroom workflows and enabling reporters to process vast volumes of data far more quickly than before. AI can automate routine data analysis, generate news from structured data, and deliver timely briefs, while also supporting deeper investigative work through data mining, pattern detection, and multilingual reporting. Importantly, AI should be seen as an amplifier of journalism rather than a replacement for journalist's human judgment, ethics, investigative rigor, and compelling narrative remain essential. However, adoption comes with challenges, including ensuring editorial standards, data quality and privacy, infrastructure costs, and the need to up skill journalists in data literacy and AI fundamentals. A practical path forward for Indian newsrooms involves starting with a focused pilot such as automated daily briefs from public datasets while establishing safeguards, investing in capacity-building and developing governance and transparency practices around AI-generated content. AI's role in journalism, offering valuable insights for academics, industry practitioners, and policymakers as they navigate the challenges and opportunities presented by the AI revolution in media.

REFERENCES

- Meehan, J. et al. (1997). "Generating Natural Language from Concepts." *AI Magazine*.
- Reiter, E., & Dale, R. (2000). *Building Natural Language Generation Systems*. MIT Press. (Foundational text on NLG for structured data.)
- Associated Press (AP) and other outlets began deploying automated earnings and sports reports in the 2010s, widely studied in journalism-tech literature.
- Suresh M (2023), "Risk Communication in Disaster areas: A study on Hud Hud Cyclone and it's Coverage in Newspapers, Andhra Pradesh, India", *Journal of Survey in Fisheries Sciences*, 10(3S) 4352-4358
- Floridi, L. (2014). *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*. Oxford University Press. (Context on AI's expanding role in information ecosystems.)
- R. Graefe (2016). "Guide to Automated Journalism." Tow Center for Digital Journalism, Columbia University.
- LeCompte, M., & Plevin, R. (2018). "The rise of computational journalism." *Journalism Practice*.
- Robinson, S. (2020). *The Future of Journalistic Practice: Data, Algorithms, and Stories*. Routledge.
- Graefe, G. (2019). "Guide to Automated Journalism." Tow Center for Digital Journalism, Columbia University.
- Siles, I. (2021). "AI in Newsrooms: Opportunities and Ethical Risks." *Digital Journalism*.
- Tandoc Jr., E. C. (2020). "Automating journalism: The state of the art." *Journalism Practice*
- Graefe, G. (2019). "Guide to Automated Journalism." Tow Center for Digital Journalism, Columbia University.
- Robinson, S. (2020). *The Future of Journalistic Practice: Data, Algorithms, and Stories*. Routledge.
- Siles, I. (2021). "AI in Newsrooms: Opportunities and Ethical Risks." *Digital Journalism*.
- Floridi, L. (2014). *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*. Oxford University Press.
- Reiter, E., & Dale, R. (2000). *Building Natural Language Generation Systems*. MIT Press.
- Carlson M (2015) The robotic reporter: automated journalism and the redefinition of labor, compositional forms, and journalistic authority. *Digit Journal* 3(3):416–431 42.
- Galily Y (2018) Artificial intelligence and sports journalism: is it a sweeping change? *Technol Soc* 54:47–51 43.
- Underwood C (2019, January 31) Automated journalism—AI applications at New York Times, Reuters, and Other Media Giants. *Emerj Artificial Intelligence Research*. Retrieved from July 20. <https://emerj.com/ai-sector-overviews/automated-journalism-applications/>
- The New York Times Company. "Editor: An AI-Assisted Journalistic Tool." *The New York Times*, 2015, www.nytimes.com/editor-project. Accessed 7 Sept. 2025.
- BBC. "Juicer: Data Assembly for the BBC." *BBC News*, 2012, www.bbc.co.uk/juicer. Accessed 7 Sept. 2025.
- Reuters Institute for the Study of Journalism. *Digital News Report 2023*. Reuters Institute, 2023, www.digitalnewsreport.org. Accessed 7 Sept. 2025.
- The Washington Post. "Heliograf." washingtonpost.com, 2016, www.washingtonpost.com/heliograf. Accessed 7 Sept. 2025.
- India Today. "Sana: AI-Powered Anchor." *India Today*, 2024, www.indiatoday.in/sana-ai-anchor. Accessed 7 Sept. 2025.
- Doordarshan Kisan. "Krish and Bhoomi: Agricultural Updates via AI." *Doordarshan Kisan*, 2023, www.doordarshan.gov.in/krish-bhoomi. Accessed 7 Sept. 2025.

- Odisha TV. "Lisa: AI Presenter for Regional Audiences." Odisha TV, 2022, www.odishatv.in/lisa-ai-presenter. Accessed 7 Sept. 2025.
- ABP News. "Aira: AI News Presenter." ABP News, 2023, www.abpnews.in/aira. Accessed 7 Sept. 2025.
- Suresh M (2024), "Role Of Artificial Intelligent And Special Education Teachers In Inclusion Education", Journal of the K.R. Cama Oriental Institute, Volume No. 78 (January) 2024.
- Galily, Y. (2018), The rise of automated journalism in sports reporting: Evolutionary or revolutionary
- Stray, J. (2021), AI and Investigative Journalism: Tools for Data Preparation
- Gondwe, G. (2024), AI Tool Adoption in Newsrooms: A Multi-Stage Analysis
- Munoriyarwa, A., et al. (2023), AI in South African Newsrooms: Adoption and Skepticism
- Yu, M., & Huang, J. (2021), AI and Media Employment in China: Perceptions and Organizational Narratives
- Soto-Sanfiel, M. T., et al. (2022), AI Attitudes Among Latin American Journalists: A Cross-Cultural Study
- Peña Fernández, S., et al. (2023), Challenges for Journalism in the AI Era
- Moran, R., & Shaiks, A. (2022), Industry vs. Journalistic Perspectives on AI
- Moura, J. et al. (2020). "Automated Journalism: A Review." Journal of Media Analytics.
- Graefe, G. (2016). "Guide to Automated Journalism." Tow Center for Digital Journalism, Columbia University.
- Floridi, L., & Chiriatti, R. (2020). "GPT-3 and the Future of Journalism." Minds and Machines.
- Carlson, M. (2015). "Automated Journalism: A History and Future." Digital Journalism.
- Nielsen, R. K., & Alekseyeva, N. (2020). "The Use of AI in Newsrooms." Reuters Institute for the Study of Journalism.
- Suresh M (2023), "Agricultural Communication In Scheduled Areas: A Study On Coffee Cultivation In The Araku Valley, Andhra Pradesh, India, Volume 14 | Regular Issue 03 | 2023
- Liakos, K. G., et al. "Machine learning in agriculture: A review." Sensors 2018. doi:10.3390/s18010022
- Jiang, H., et al. "Deep learning-based remote sensing for crop yield prediction." Remote Sensing 2020. doi:10.3390/rs12010020
- Zhang, C., & Kovacs, J. "Smart farming: Integration of sensing technologies for precision agriculture." Journal of Precision Agriculture 2012. doi:10.1007/s11119-012-9283-5
- Ahmadi, S., et al. "Crop and weed segmentation using deep learning in precision agriculture." Computers and Electronics in Agriculture 2020. doi:10.1016/j.compag.2020.106130
- Wulff, P., et al. "Autonomous weeding with machine vision-guided robotic systems." Biosystems Engineering 2022. doi:10.1016/j.biosystemseng.2021.08.010
- Milioto, A., et al. "Plantweed segmentation in agronomic fields using deep learning." IEEE Robotics and Automation Letters 2018. doi:10.1109/LRA.2018.2851459

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