

# Could Artificial Intelligence Replace Human Jobs in Framing of Online Media News CNN Indonesia and Detik.com?

by:

Muhamad Bagas Mahaputra

Supervisor:

Poppy Febriana

Communication Science Studies

Muhammadiyah Sidoarjo University

August, 2024



# Introduction

- Artificial Intelligence (AI) is a technology with human-like abilities that has **the potential to help human work more easily, quickly and accurately.**
- Although it can be helpful and beneficial, the application of AI technology has its cons, besides the many benefits of various fields **there are some risks or negative impacts.** One example that is currently rife is that **AI can take over human jobs which results in unemployment.**

# Introduction

- This is reinforced by data from a report from the McKinsey Global Institute **which estimates that around 400 to 800 million people around the world will lose their jobs due to automation by robots and AI by 2030.**
- With the connected world, online news media will also report on events related to "AI replacing human jobs". **The news will shape perceptions about AI depending on how the media frames it.**

# Introduction

- If the issue of "AI replacing human jobs" **is reported as a bad thing, it will have an impact on perceptions that lead to public trust in AI.** Which perception is the **main factor** shaping trust in AI.
- Meanwhile, according to several international and pan-governmental organisations, including the OECD, the European Commission, and **the G7 Innovation Ministers, trust in AI is necessary for it to be accepted and realise its full potential benefits.**
- So it is necessary to know how the Indonesian media framed the news on this issue.

# Introduction

## Why CNN Indonesia & Detik.com Media?



- **CNN Indonesia & Detik.com are included in the top 5 most trusted media** outlets among 15 other media outlets in Indonesia, which means they will be used as a reference for information for the people of Indonesia.
- **CNN Indonesia & Detik.com have the most publications related to "AI replacing human jobs"** among 5 other trusted media. Where in January 2024, there was a major layoff event in technology companies, which was also due to AI. **CNN Indonesia published 8 news and Detik.com 18 news**, while Kompas only 5, TVRI none, and Liputan 6 only 2.
- So it is interesting to research how the framing is done by the two media.

# Problem Formulation & Objectives

## Problem Formulation

By seeing that trust is important for the development of AI, it is necessary to know how online media framing on CNN Indonesia & Detik.com as trusted media and many publications on issues that replace human work, whether in constructing frames on the issue of AI, there are many positive or negative things in the counter issue.

## Objectives

Knowing how the framing that occurs on the issue of AI replacing human jobs in the news on CNN Indonesia and Detik.com online media whether the counter issue only emphasises the positive or negative side, so that it can find out how the potential of Indonesian people's trust in AI can support the development of AI in the future.

# Methods

- This research is a qualitative research with analysis techniques using framing analysis and using the theory of Robert N. Entman which has the concept that framing is a selection process from various aspects of reality so that certain parts of the event are more prominent than other aspects.
- Data was obtained from CNN Indonesia & Detik.com media with a period of 1 to 31 January with news about AI replacing human jobs.

# Methods

- Robert N. Entmant's framing analysis has four elements,

<b>Define Problems</b>	How an issue is seen
<b>Diagnose Causes</b>	What/who is considered to be the cause?
<b>Make Moral Judgement</b>	What value is presented to explain the cause of the problem
<b>Treatment Recommendation</b>	Solutions offered to address the issue



# Results

## News on CNN Indonesia

<b>1. Meet Rina, Korean Air's stunning AI flight attendant (8 January 2024)</b>	<b>5. IMF Boss: 40 Percent of Jobs Will Be Affected by AI (16 January 2024)</b>
<b>2. Duolingo lays off contract employees due to AI (10 January 2024)</b>	<b>6. AI Claimed Not to Trigger Layoffs in Local Gaming Industry, Instead Gives Jobs (17 January 2024)</b>
<b>3. Duolingo is the latest victim, is there any way to escape the AI 'invasion'? (10 January 2024)</b>	<b>7. Using AI and Cutting Staff, Duolingo Reaps Big Profits (19 January 2024)</b>
<b>4. Focus on AI, Google lays off hundreds of employees (12 January 2024)</b>	<b>8. List of US Companies Laying Off in January 2024: Microsoft to eBay (30 January 2024)</b>

# Results

## News on Detik.com

<b>1. Google starts replacing some of its employees with AI (1 January 2024)</b>	<b>10. AI and the Future of the Came Industry, Can it Open New Jobs? (16 January 2024)</b>
<b>2. Watch out, this beautiful flight attendant is not a real person, but an AI (5 January 2024)</b>	<b>11. IMF Says AI Threatens 40% of Jobs, Developed Countries Most Affected (16 January 2024)</b>
<b>3. Final Fantasy creators to push AI usage (7 January 2024)</b>	<b>12. BRI uses AI to attract customers and conduct anti-fraud analysis (17 January 2024)</b>
<b>4. Duolingo lays off 10% of employees due to AI (10 January 2024)</b>	<b>13. Google Employees Worry, Boss Says There Will Still Be Layoffs (19 January 2024)</b>
<b>5. AI Technology Improves, Google Reduces Employees (11 January 2024)</b>	<b>14. Google employees upset over arbitrary layoffs (23 January 2024)</b>
<b>6. Google lays off hundreds of employees worldwide, these are the divisions affected (12 January 2024)</b>	<b>15. Can't AI Replace the Role of Architects? (23 January 2024)</b>
<b>7. 10 jobs that are threatened with extinction in the future, here's why (13 January 2024)</b>	<b>16. Deputy Minister of Communication and Information mentioned 83 million jobs will disappear in 5 years, but 69 million will appear (25 January 2024)</b>
<b>8. Storm of layoffs hits Google-Discord, AI the culprit? (14 January 2024)</b>	<b>17. AI Won't Replace Human Roles, Instead Open New Jobs (27 January 2024)</b>
<b>9. IMF reveals 40% of jobs in the world will be replaced by AI (15 January 2024)</b>	<b>18. layoffs of up to 25 thousand people (30 January 2024)</b>

# Discussion

## Summary of CNN Indonesia News Framing Results using 4 elements of Robert N. Entman.

### 1. Meet Rina, Korean Air's stunning AI flight attendant (8 January 2024)

**Framing:** the news tends to be **positive** towards AI as it emphasises innovation and the use of AI in aviation.

### 3. Duolingo is the latest victim, is there any way to escape the AI 'invasion'? (10 January 2024)

**Framing:** the news tends to be **positive** towards AI despite having a negative headline, where AI in addition to potentially replacing humans, can also increase productivity and efficiency, and also emphasises that there is optimism towards AI that it will not replace human jobs.

### 2. Duolingo lays off contract employees due to AI (10 January 2024)

**Framing:** the news tends to be **positive** towards AI even though it has a negative title, where AI can increase efficiency and productivity but results in layoffs, but employees are not completely disadvantaged because the company is also looking for solutions for affected employees and is committed to continuing to use human labour.

### 4. Focus on AI, Google lays off hundreds of employees (12 January 2024)

**Framing:** the news tends to be **positive** towards AI even though it has a negative title, where the implementation of AI at Google aims for sustainability by getting opportunities in the future, even though it has to lay off, but employees are not completely disadvantaged because it emphasises Google will invest responsibly and provide other roles for affected employees.

# Discussion

## Summary of CNN Indonesia News Framing Results using 4 elements of Robert N. Entman.

### 5. IMF Boss: 40 Percent of Jobs Will Be Affected by AI (16 January 2024)

**Framing:** the news tends to be **negative** towards AI, emphasising the concerns and challenges faced by the global community in dealing with the impact of AI. And the need for policies to reduce these negative impacts.

### 6. AI Claimed Not to Trigger Layoffs in Local Gaming Industry, Instead Gives Jobs (17 January 2024)

**Framing:** the news tends to be **positive** towards AI, emphasising the positive role of AI in the gaming industry, and neutralising concerns that AI will cause layoffs.

### 7. Using AI and Cutting Staff, Duolingo Reaps Big Profits (19 January 2024)

**Framing:** the news tends to be **positive** towards AI, where even though AI causes layoffs, this technology also encourages increased income, and the number of downloads. and it is confirmed that it will not exchange human skills with AI.

### 8. List of US Companies Laying Off in January 2024: Microsoft to eBay (30 January 2024)

**Framing:** the news tends to be **negative** towards AI, emphasising that the wave of layoffs that hit various large companies in the United States in early 2024 was a consequence of prolonged economic uncertainty and the concentration on AI technology as a form of technological adaptation.

# Discussion

## Summary of Detik.com News Framing Results using Robert N. Entman's 4 elements.

<p><b>1. Google starts replacing some of its employees with AI (1 January 2024)</b> <b>Framing:</b> the news tends to be <b>negative</b> towards AI, emphasising the fears and concerns that come with the automation of jobs by AI.</p>	<p><b>3. Final Fantasy creators to push AI usage (7 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI as it emphasises the use of AI as a tool to increase productivity and create business opportunities despite the many controversies.</p>
<p><b>2. Watch out, this beautiful flight attendant is not a real person, but an AI (5 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI as it emphasises innovation and synergy between the aviation and digital industries.</p>	<p><b>4. Duolingo lays off 10% of employees due to AI (10 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI even though it has a negative title, emphasising that AI can be a useful tool for companies despite layoffs because it still respects human expertise so that it is not disadvantaged.</p>
<p><b>5. AI Technology Improves, Google Reduces Employees (11 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI despite the negative headline, which emphasises supporting the layoff decision at Google as a strategic move needed to adjust to technological developments and maintain company efficiency.</p>	<p><b>6. Google lays off hundreds of employees worldwide, these are the divisions affected (12 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI despite the negative headline, which emphasises supporting the layoff decision at Google as a necessary step to adjust to technological developments.</p>

# Discussion

## Summary of Detik.com News Framing Results using Robert N. Entman's 4 elements.

<p><b>7. 10 jobs that are threatened with extinction in the future, here's why (13 January 2024)</b></p> <p><b>Framing:</b> the coverage tends to be <b>negative</b> towards AI, emphasising the issue of job losses as a consequence of digital transformation and AI adoption.</p>	<p><b>10. AI and the Future of the Came Industry, Can it Open New Jobs? (16 January 2024)</b></p> <p><b>Framing:</b> the coverage tends to be <b>positive</b> towards AI, emphasising that while AI is often seen as a threat, it can actually create new jobs.</p>
<p><b>8. Storm of layoffs hits Google-Discord, AI the culprit? (14 January 2024)</b></p> <p><b>Framing:</b> the news tends to be <b>positive</b> towards AI, emphasising that the application of AI is not the main problem, but the excessive recruitment system during the pandemic and macroeconomic uncertainty are the main problems.</p>	<p><b>11. IMF Says AI Threatens 40% of Jobs, Developed Countries Most Affected (16 January 2024)</b></p> <p><b>Framing:</b> the coverage tends to be <b>negative</b> towards AI, emphasising the risks posed by AI to jobs and social inequality, especially in developed countries.</p>
<p><b>9. IMF reveals 40% of jobs in the world will be replaced by AI (15 January 2024)</b></p> <p><b>Framing:</b> the coverage tends to be <b>negative</b> towards AI, emphasising the serious threat AI poses to jobs around the world and inequality.</p>	<p><b>12. BRI uses AI to attract customers and conduct anti-fraud analysis (17 January 2024)</b></p> <p><b>Framing:</b> the news tends to be <b>positive</b> towards AI, emphasising AI as an important innovative solution in BRI's banking operations.</p>



# Discussion

## Summary of Detik.com News Framing Results using Robert N. Entman's 4 elements.

<b>13. Google Employees Worry, Boss Says There Will Still Be Layoffs (19 January 2024)</b> <b>Framing:</b> the news tends to be <b>negative</b> towards AI, emphasising the anxiety of workers at Google due to the continued layoffs as Google invests more in AI development.	<b>16. Deputy Minister of Communication and Information mentioned 83 million jobs will disappear in 5 years, but 69 million will appear (25 January 2024)</b> <b>Framing:</b> the coverage tends to be <b>negative</b> towards AI, emphasising the challenges faced by the younger generation in facing the changing job landscape due to digitalisation.
<b>14. Google employees upset over arbitrary layoffs (23 January 2024)</b> <b>Framing:</b> the news tends to be <b>negative</b> towards AI, emphasising the issue of continued layoffs at Google due to AI until criticism of the way the company conducts layoffs.	<b>17. AI Won't Replace Human Roles, Instead Open New Jobs (27 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI, emphasising AI as an opportunity to help and create new jobs.
<b>15. Can't AI Replace the Role of Architects? (23 January 2024)</b> <b>Framing:</b> the news tends to be <b>positive</b> towards AI, emphasising that the role of architects remains very important and irreplaceable even by AI, and AI can be used as a tool.	<b>18. layoffs of up to 25 thousand people (30 January 2024)</b> <b>Framing:</b> the coverage tends to be <b>negative</b> towards AI, emphasising that mass layoffs in the tech industry are a serious problem triggered by the 'crowd effect' and companies' adjustments to macroeconomic trends such as rising interest rates and a focus on AI investments.

# Discussion

## CNN Indonesia & Detik.com News Framing Results

- From the results of the framing analysis, it can be seen that both media framed the issue of "AI replacing human jobs" emphasising the positive and negative sides.
- In positive terms, there are many stories about the efficiency and increased productivity of companies due to AI, and the role of AI as a tool to help in the work process or even AI can create new jobs. On the negative side, there is a lot of talk about the number of layoffs that have upset the workforce and there is also the issue of job losses.



# Conclusion

- CNN Indonesia and Detik.com media in their reporting on the issue of AI technology replacing human jobs both frame AI with emphasis from the positive and negative sides. The positive emphasis of the counter issue can shape the potential public perception in favour of AI technology, and **can build public trust in AI, which in turn can potentially be good for the further development of AI as a useful technology.** It can be mentioned that the framing in both media is not always about AI replacing human jobs, but also about the benefits of **AI** for humans, one of which is as a provider of employment, **so it is not possible for AI to be considered fully replacing human jobs.**

# Reference

- Ahmadi, M. (2020). Dampak Perkembangan New Media pada Pola Komunikasi Masyarakat. *Jurnal Komunikasi Dan Penyiaran Islam*, 4(1), 26–37. <http://ejournal.iai-tabah.ac.id/index.php/alamtaraok/article/view/499>
- Alberto Imanuel Simarmata, M., & Yuliana, N. (2023). Analisis Framing Konflik Israel-Palestina Dalam Sindonews.Com Dan Cnn Indonesia. *Triwikrama: Jurnal Multidisiplin Ilmu Sosial*, 2(9), 111–121.
- Arip Nurahman, & Pandu Pribadi. (2022). Pemanfaatan Kecerdasan Buatan pada Media Pembelajaran Berbantuan Google Assistant. *Jurnal Genesis Indonesia*, 1(01), 24–32. <https://doi.org/10.56741/jgi.v1i01.17>
- Eriyanto. (2002). *ANALISIS FRAMING Konstruksi, Ideologi, dan Politik Media*. Lkis Yogyakarta.
- Faqih, M., & Soerjati Priowirjanto, E. (2022). Pengaturan Pertanggungjawaban Pelaku Penyalahgunaan Deepfakes Dalam Teknologi Kecerdasan Buatan Pada Konten Pornografi Berdasarkan Hukum Positif Indonesia. *Jurnal Indonesia Sosial Teknologi*, 3(11), 1156–1168. <https://doi.org/10.36418/jist.v3i11.528>
- Farid, I., Reksoprodjo, A. H., & Suhirwan. (2023). Pemanfaatan Artificial Intelligence Dalam Pertahanan Siber. *Nusantara: Jurnal Ilmu Pengetahuan Sosial*, 10(2), 779–788.
- Febriana, P. (2018). *Buku Ajar Cyber Public Relation*. In Umsida Press.
- Fitri Andri Astuti. (2021). Pemanfaatan Teknologi Artificial Intelligence untuk Penguatan Kesehatan dan Pemulihan Ekonomi Nasional. *Jurnal Sistem Cerdas*, 4(1), 25–34.
- Gillespie, N., Lockey, S., Curtis, C., Pool, J., & Ali Akbari. (2023). Trust in Artificial Intelligence: A global study. In *Human Factors: The Journal of the Human Factors and Ergonomics Society* (Vol. 65, Issue 2). <https://doi.org/10.14264/00d3c94>
- Hafidli, M. N., Nur, R., Lestari Sasmita, D., Nurazhari, L., Rahisa, N., & Putri, G. (2023). Analisis Framing Model Robert Entman Tentang Kasus Kanjuruhan Di Detikcom Dan Bbc News. *JIS: Jurnal Ilmu Sosial*, 3(1), 2548–4893.
- Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., Ko, R., & Sanghvi, S. (2017). *Jobs lost, jobs gained: Workforce transitions in a time of automation*. McKinsey Global Institute, December, 1–148. <https://www.mckinsey.com/~media/BAB489A30B724BECB5DEDC41E9BB9FAC.ashx>

# Reference

- Misnawati. (2023). ChatGPT: Keuntungan, Risiko, Dan Penggunaan Bijak Dalam Era Kecerdasan Buatan. 2(1).
- Newman, N., Fletcher, R., Eddy, K., Robertson, C. T., & Nielsen, R. K. (2023). Digital news report 2023. Reuters Institute for the Study of Journalism.
- Pabubung, M. R. (2023). Era Kecerdasan Buatan dan Dampak terhadap Martabat Manusia dalam Kajian Etis. 6(1), 66–74.
- Pangkey, F. M., Furkan, L. M., & Mulyono, L. E. H. (2019). Pengaruh Artificial Intelligence dan Digital Marketing terhadap Minat Beli Konsumen. *Jmm Unram - Master of Management Journal*, 8(3), 258–269. <https://doi.org/10.29303/jmm.v8i3.448>
- Putri, L. T., Adawiyah, R., & Fitriyani, R. A. (2021). Tren Teknologi Artificial Intelligence Pengganti Model Iklan Di Masa Depan. *Jurnal Sosial-Politika*, 2(2), 118–129. <https://doi.org/10.54144/jsp.v2i2.39>
- Putri, V. M. (2024). PHK “Ugal-ugalan” hingga 25 Ribu Orang. Detik.Com. <https://www.detik.com/jabar/bisnis/d-7167401/phk-ugal-ugalan-hingga-25-ribu-orang>
- Rachmadana, S. L., Alkusuma Putra, S. A., & Dfinubun, Y. (2022). Dampak Artificial Intelligence Terhadap Perekonomian. *Financial and Accounting Indonesian Research*, 2(2), 71–82. <https://doi.org/10.36232/jurnalfairakuntansiunimuda.v2i2.3837>
- Rozaq, A. (2019). Artificial Intelligence Untuk Pemula (E. D. Hapsari (ed.)). UNIPMA Press (Anggota IKAPI).
- Ryan, M. (2020). In AI We Trust: Ethics, Artificial Intelligence, and Reliability. *Science and Engineering Ethics*, 26(5), 2749–2767. <https://doi.org/10.1007/s11948-020-00228-y>
- Santoso, S. (2021). Analisis Resepsi Audiens Terhadap Berita Kasus Meiliana di Media Online. *Komuniti : Jurnal Komunikasi Dan Teknologi Informasi*, 12(2), 140–154. <https://doi.org/10.23917/komuniti.v12i2.13285>
- SARISAKALOĞLU, A. (2021). Framing Discourses in Turkish News Coverage Regarding Artificial Intelligence Technologies' Prospects and Challenges. *Türkiye İletişim Araştırmaları Dergisi*, 37, 20–38. <https://doi.org/10.17829/turcom.803338>
- Siau, K., & Wang, W. (2018). Building trust in artificial intelligence, machine learning, and robotics. *Cutter Business Technology Journal*, 31(2), 47–53.

