

SESSION 03 | AI & INNOVATION

Presentation 02

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Analysis on Public Sentiment Towards AI Based on Media Text

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Analysis on Public Sentiment Towards AI Based on Media Text

Dwivedi et al. (2022)

- Analyzed X on AI ethics, challenges, reliability, and risks.
- Used emotional words for sentiment analysis to gauge public concerns.

This Study

- First to apply deep learning for emotion analysis on AI.
- Provides a novel approach to understanding public emotion towards AI.

AI-Related News Articles: Collection and Filtering Process

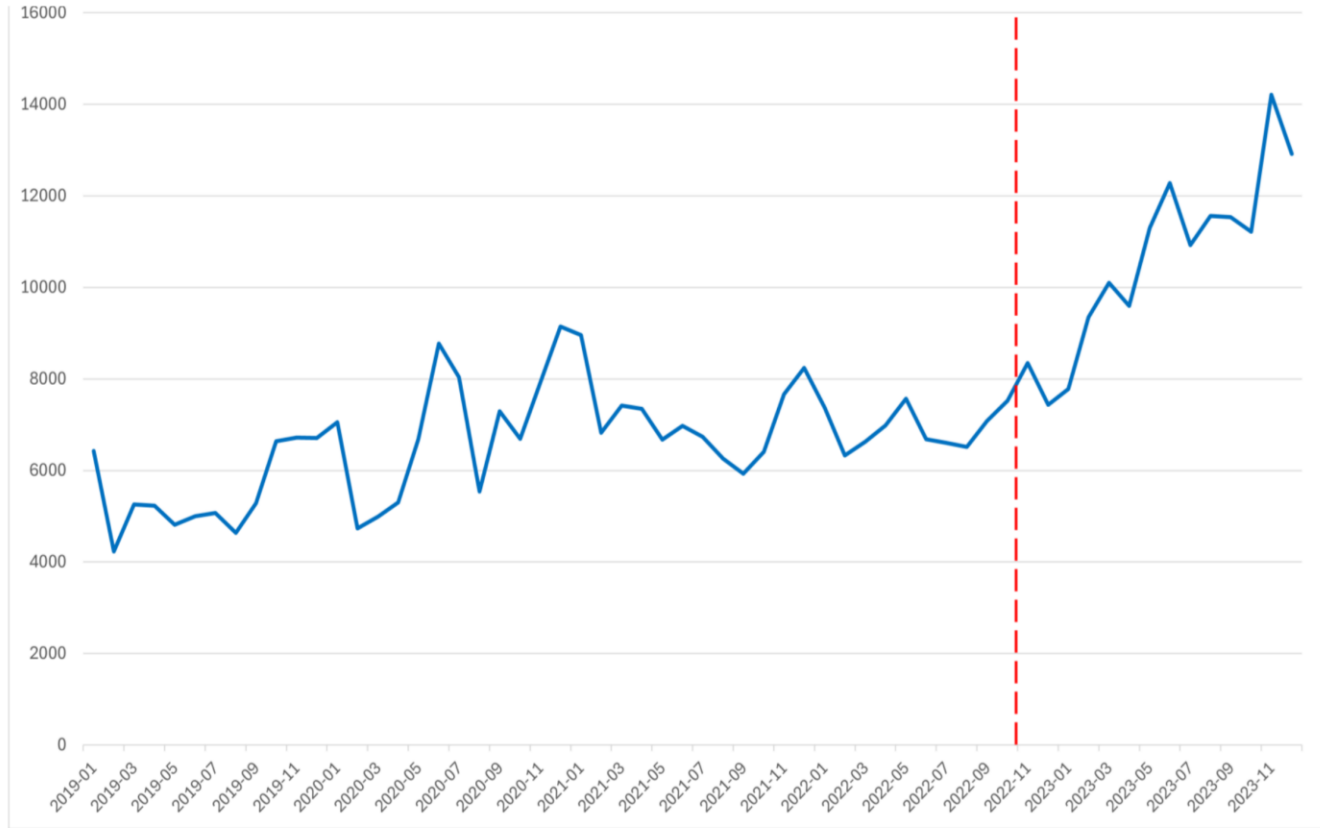
Data Collection & Filtering

- **Source:** News articles (2019-2023) from 54 major media outlets via BigKinds (Korea Press Foundation).
- **Keywords:** "Artificial intelligence" or "AI" (excluding weather, sports, etc.).
- **Total Articles:** 451,493 collected.

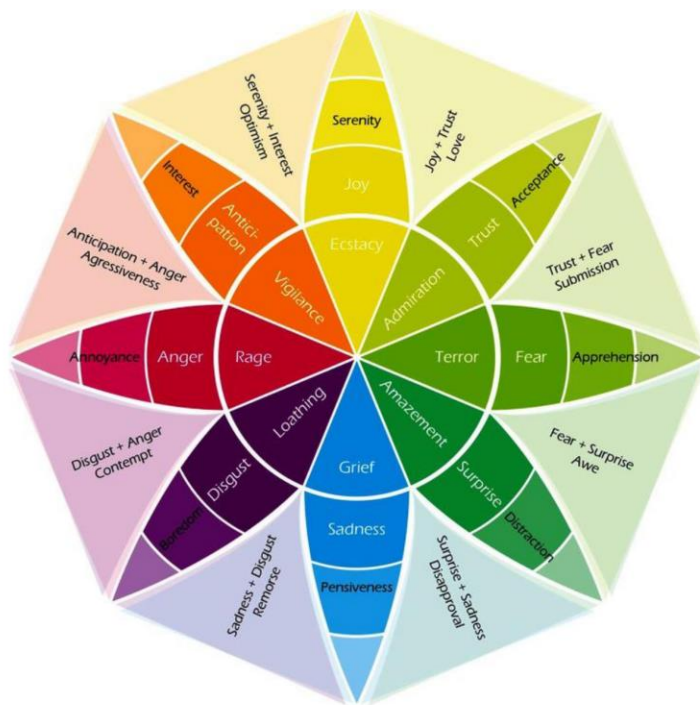
Data Cleaning

- Removed irrelevant articles (e.g., "AI Peppers"): 10,140 articles (0.22%) filtered out.
- Further filtering based on AI-related keywords (e.g., "AI," "deep learning"): 231,255 articles (52.38%) removed.
- Remaining for Analysis: **210,198 articles** (47.62%).

Trend of the Number of Articles by Period

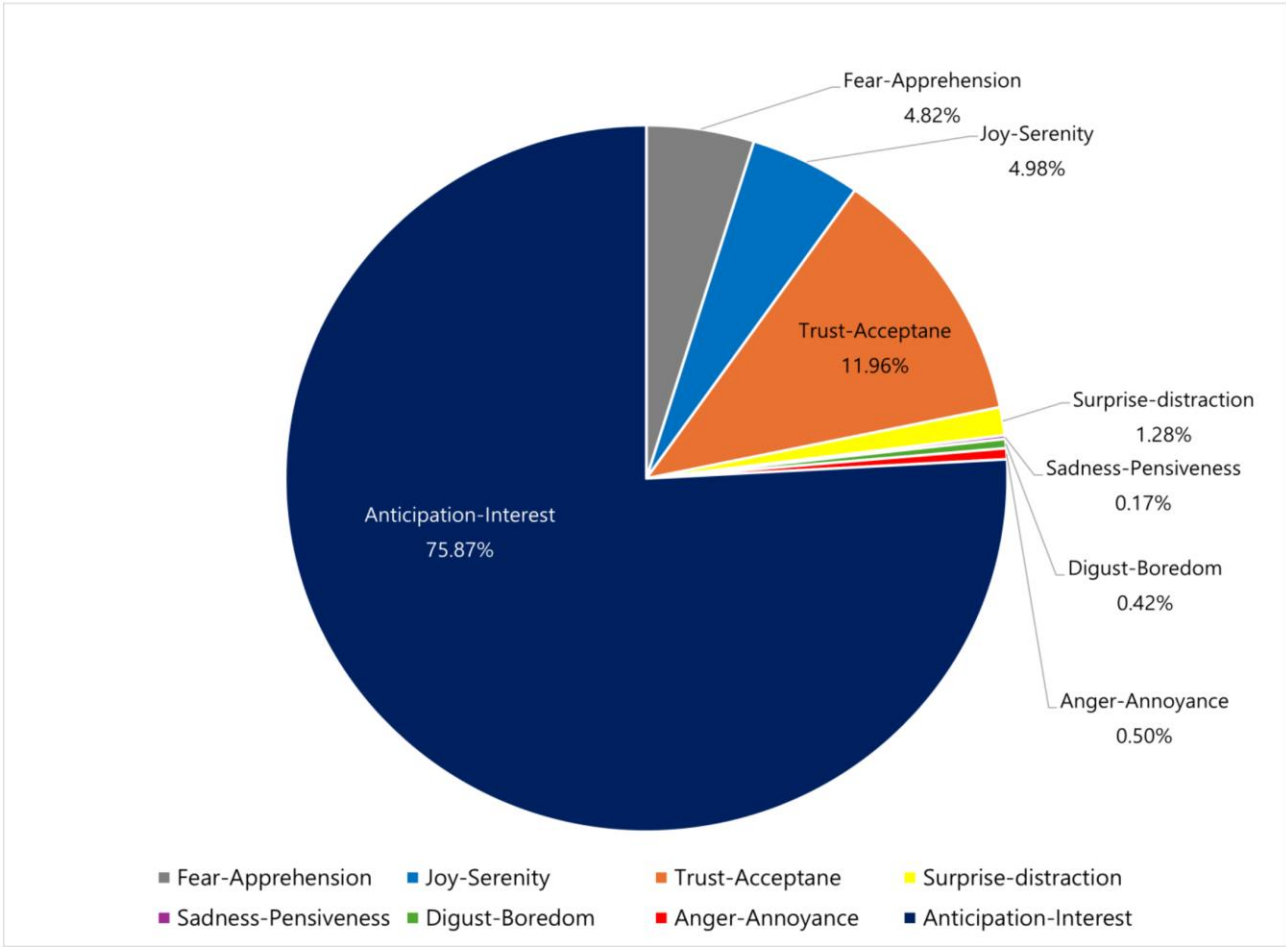


Wheel of Emotion and its Categories

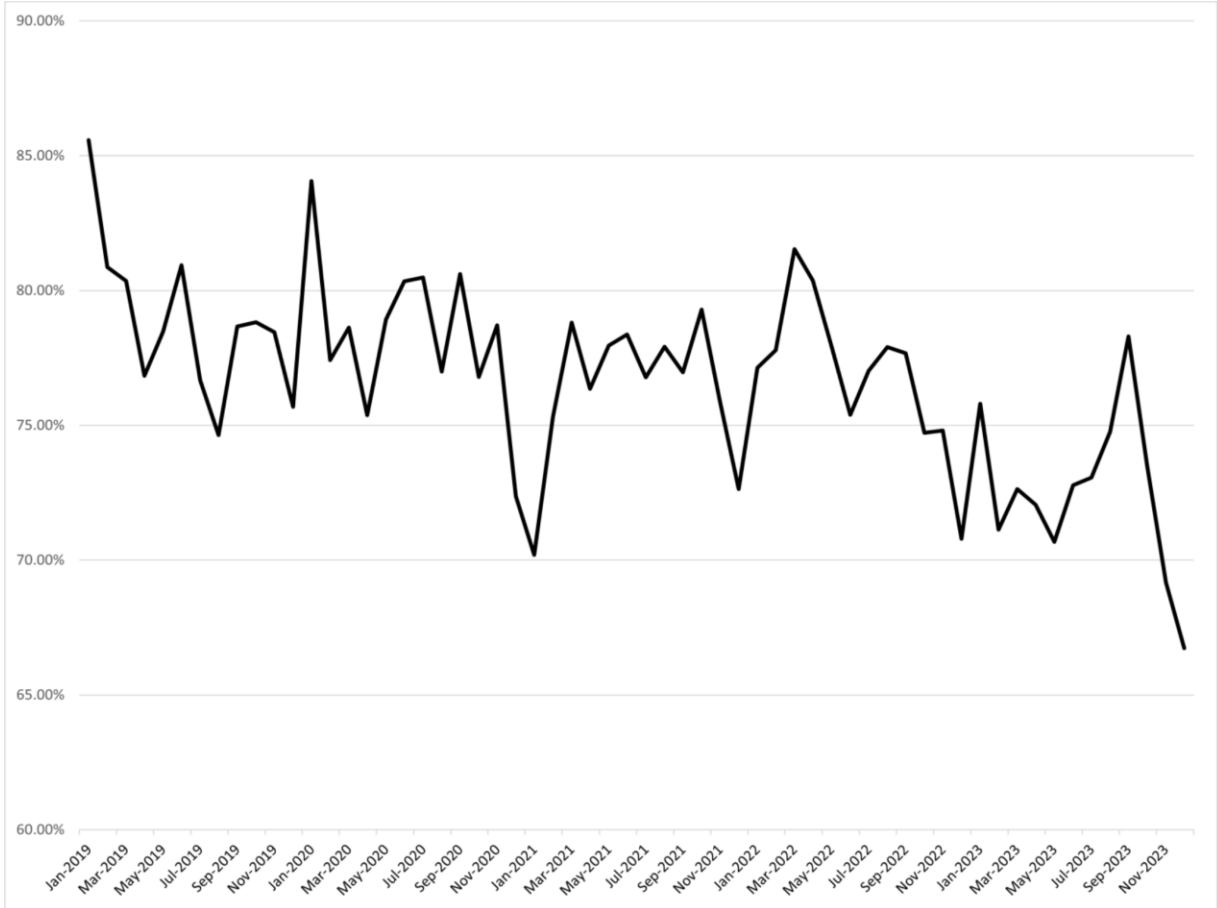


Primary Emotions	Milder Emotions
Joy	Serenity
Trust	Acceptance
Fear	Apprehension
Surprise	Distraction
Sadness	Pensiveness
Disgust	Boredom
Anger	Annoyance
Anticipation	Interest

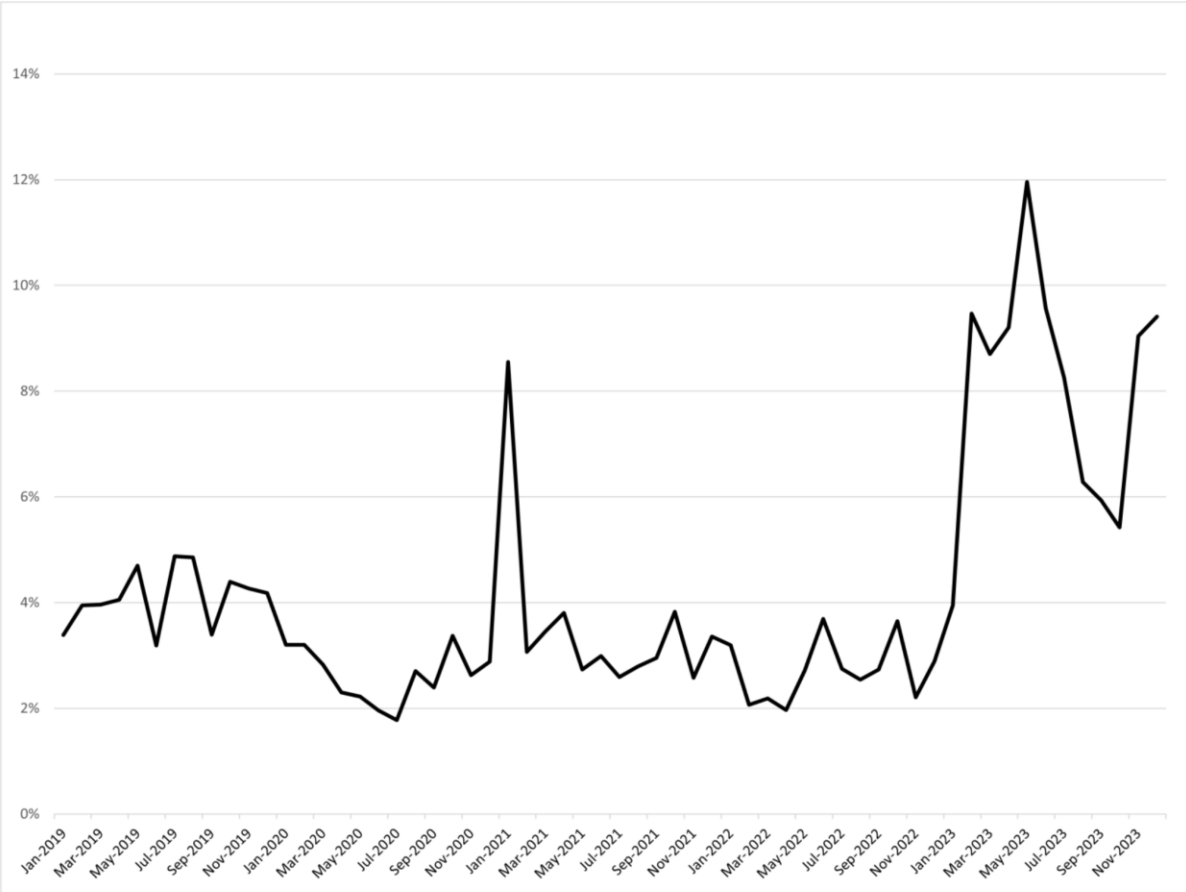
Proportions Articles by Emotion



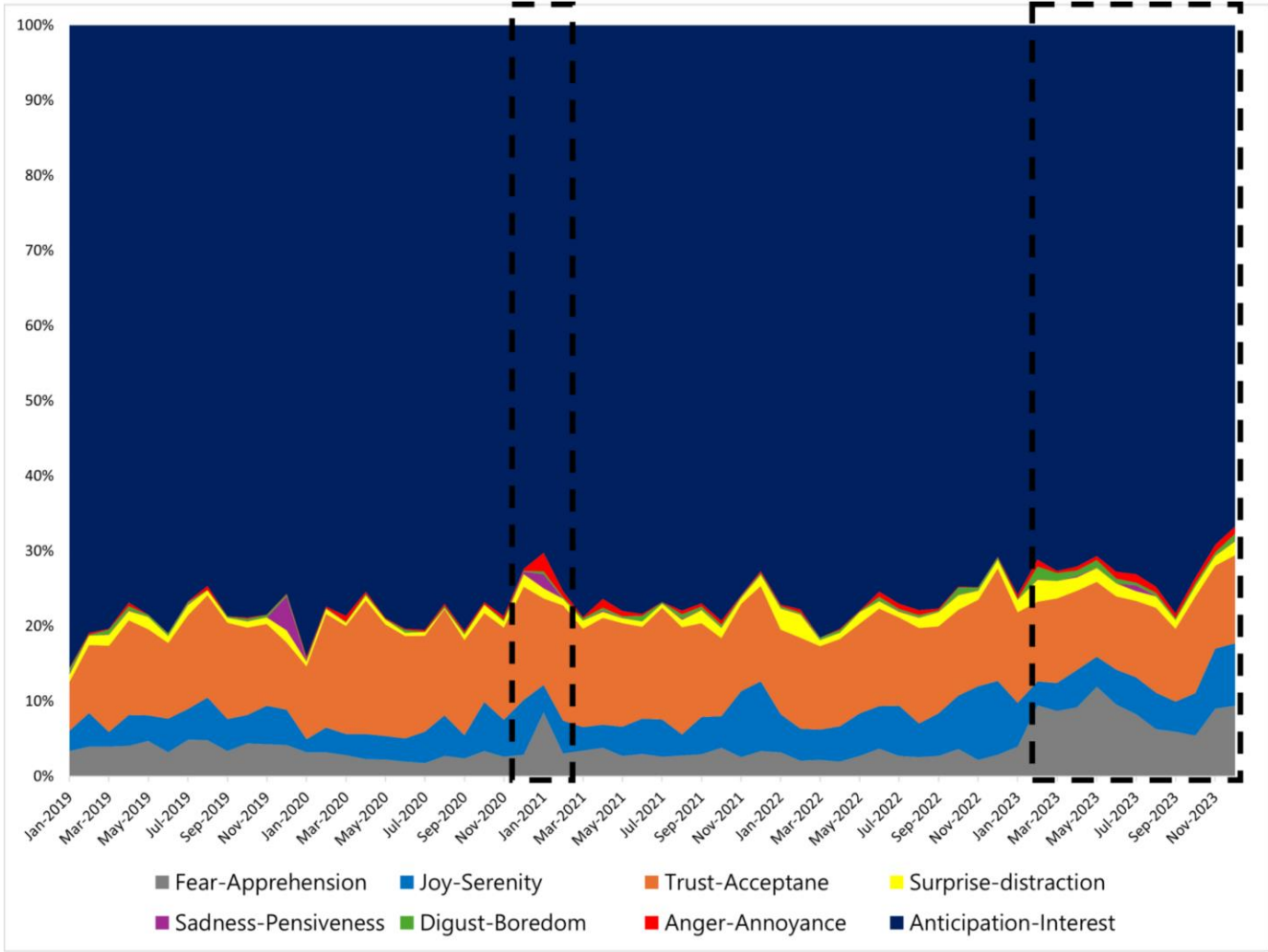
Trend in Anticipation-Interest Proportion



Trend in Fear-Apprehension Proportion



Emotion Trend on Key Issues



Conclusion

Sentiment Trends (2019-2023)

- **Surge in AI-Related Articles (2023):** Driven by innovations like ChatGPT and new product launches, particularly in the “Anticipation-Interest” category.

Shifts in Public Discourse

- **Decline in “Anticipation-Interest”:** Initial excitement decreased over time.
- **Increase in “Trust-Acceptance”:** Steady growth reflecting confidence in AI from broader adoption and technological advancements.
- **Steady “Fear-Apprehension”:** Occasional spikes, notably in 2021 due to the “Iruda” chatbot controversy, and a marked increase in 2023.

Implications

- **Dynamic Public Sentiment:** Indicates growing confidence alongside increased concern about AI.
- **Need for Regulation:** Rising “Fear-Apprehension” highlights the importance of effective regulatory measures for responsible AI development.