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Interpreting Editorial Intentions in Artificial Intelligence Articles by *Science Daily* Using Language Attitude Analysis

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ABSTRACT

The popularity of artificial intelligence (AI) rises as the practice of computer science area especially machine learning that functions like a human brain, self-learning from existing data, gaining experience from previous data, and making predictions. Science Daily, as the scientific website providing press releases of current researches narratively, also concerns on publishing articles about AI. In this research, the article titles about AI were the data collected and analyzed in order to know how Science Daily's editorial views AI. The researcher also tries to classify possible intentions by the editorial in viewing AI. This research was done qualitatively by using systemic functional linguistics (SFL) approach on appraisal, detailed on attitude system: affect, judgement, and appreciation. The researcher finds the most AI articles were entitled positively, dominantly on appreciation: valuation and judgement: capacity. About the possible editorial's intentions, the researcher classifies them into AI that offers benefits in facilitating particular uses, enables to gain its use by several options, results product and service, and compares with others.

Keywords: *artificial intelligence, editorial, language attitude, science daily*

INTRODUCTION

The era of computerization, automation, and internet has shown its developments. One of them is the raise of artificial intelligence (AI). It is part of computer science area that functions machines like a human brain. AI enables self-learning in getting meaning from provided data. AI is then known as the practice of machine learning by gaining experience from previous data up to make prediction (Abduljabbar et al., 2019, p. 1; Holzinger et al., 2019, p. 1). The curiosity of understanding and implementing AI gains, especially in the fields of essential living such as transportation (Abduljabbar et al., 2019), medicine (Holzinger et al., 2019), health industry (Bohr & Memarzadeh, 2020; Robert, 2019) up to achieving Sustainable Development Goals (Vinuesa et al., 2020).

Research trends of AI can be tracked from various journal indexing providers. To inform current research developments, Science Daily exists as recommended option to find. *Science Daily* was established by Dan and Michele Hogan. Started in 1995, *Science Daily* publishes press releases about science in its website including sources of research publications. Reading the

website, readers can explore trends, developments, and innovations based on researches and packaged narratively.

This research tries to know the attitude expressed by editorials in providing articles about AI. The attitude is analyzed by systemic functional linguistics (SFL) approach studying the words and phrases in the titles. The researcher classifies them by using the theory of studying language as part of expressing attitude by (Martin & White, 2005). There are three regions: emotion, ethics, aesthetics. Those three meanings are classified linguistically as affect, judgement, and appreciation. These meanings represent interpersonal meaning system that enables language users negotiate his or her ideas. While the meanings are classified by attitude system, they are attitudinal words implementing emotion, ethics, and aesthetics.

Analyzing attitude has been majorly believed by previous researches as the way of mapping feelings reflected in texts. This treatment allows those researchers in revealing texts such as comparing mass media in reporting particular news (Asad et al., 2021), investigating contents of speech by public figure (Adisti & Hasbi, 2022), and understanding public views towards specific case (Yuliyanti, 2023).

This analysis enables to view how *Science Daily* editorials shape their articles about AI and embed them with their reaction, impression, curiosity, and insight that are trying to negotiate with the readers. The result and discussion in this research will give the readers understanding about the image of AI reported by *Science Daily.* By mapping the feelings from language attitude analysis, this research is also able to classify possible editorial's intentions in concerning AI into the articles.

METHODS

This research is qualitative by analyzing words and phrases from the article titles in *Science Daily* website. This research belongs to text analysis that study on language use and its pattern functions in the text (Riazi, 2016, pp. 316–317). The language use is represented through the words and phrases as the data. They were collected from the data source addressed in *Science Daily*'s AI articles.

The data were collected from January 1st to November 10th 2023 with intention to know the attitudes reflected in the AI articles starting from the beginning of 2023 up to the newest topics while this journal article is being finished. After the titles had been collected, the researcher analyzed attitudinal words for classifying them into affect, judgement, and appreciation along with their values whether positive or negative. The findings were specifically classified into each illustrative realization. The researcher then connected the linguistic findings with possible *Science Daily* editorial's possible intentions in viewing AI.

RESULTS AND DISCUSSION

Results

By studying the titles of AI articles in *Science Daily*, the analysis shows all attitudes are expressed, although there are not all illustrative realizations covered. Mostly, the article titles are written in positive feelings. They concern on appreciation followed by judgement and just several express affect.

Table 1. The Illustrative Realization of Attitude Findings

Affect								**Judgement**										**Appreciation**					
Des		**Hap**		**Sec**		**Sat**		**Nor**		**Cap**		**Ten**		**Ver**		**Pro**		**Rea**		**Com**		**Val**	
+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
1	0	0	0	2	0	0	0	1	0	7	2	1	0	0	0	0	0	2	0	0	0	12	1

The table above shows the findings of the illustrative realization (e.g. des, nor, rea, etc.) in each attitude. Generally, the AI articles are entitled positively by implementing aesthetic meanings on valuation (+val) and reaction (+rea); ethics on capacity (+cap), normality (+nor), and tenacity (+ten); then emotions in security (+sec) and desire (+des). The examples of them are respectively provided below.

(1) Efficient training for artificial intelligence.
(2) Creating a tsunami early warning system using artificial intelligence
(3) Artificial intelligence conjures proteins that speed up chemical reactions
(4) Artificial intelligence discovers secret equation for 'weighing' galaxy clusters
(5) Contrary to common belief, artificial intelligence will not put you out of work
(6) Ecology and artificial intelligence: Stronger together
(7) Artificial intelligence aids discovery of super tight-binding antibodies

Negative feelings are only two. Each is expressed in -val and -cap by the words 'common' and 'out of work'. They are shown in the title below.

(8) Contrary to common belief, artificial intelligence will not put you out of work

The practice of expressing negative feelings in (8) is conveyed in the meaning range of appreciation and judgement. Those feelings are not directed to what AI does to people, yet to thought as in the word 'belief'. Even, the word wards what common belief imagines 'out of wok' because this it is supported by the word 'not'.

Discussion

According to the findings above, the AI articles are mostly entitled positively. In this part, the researcher tries to get the connection from his findings and finally finds the purpose of analyzing attitude in conveying editorial's possible intentions. He formulates them in to the following discussions.

AI Offers Benefits in Facilitating Particular Uses

The editorial views AI as positive entity. Observing the samples (1) to (7) above, *Science Daily* view AI has ability such as it 'conjures proteins that speed up chemical reaction'. The other title show AI 'could help pollen jigsaw of present and ancient flora'.

Through their articles, the editorial tries to negotiate their readers about the benefit of using AI in living. This way is supported by the references as *Science Daily*'s regular posts for publishing current researches' press releases. These goals are dominantly expressed through judgement. Some others are expressed by appreciation such as the discovery of 'super tight-binding antibodies' and 'rare DNA sequence'.

Several Options are Available to Gain the Use of AI

Many article titles report some treatments to gain the utility of AI. (1) is the example of this. The other articles are entitled such as 'New superconducting diode could improve performance of quantum computer and artificial intelligence' and 'Lithography-free photonic chip offers speed and accuracy for artificial intelligence'. Appreciation is the attitude system that facilitates this meaning.

AI Results Product and Service

AI is believed as the tool for helping humans in experiencing life by utilizing machine learning and big data. The objective is not limited to it. AI is reported in having ability to result something. AI is able to create tsunami early warning system as written in (2) above. Science Daily also reported AI is utilized 'to create next-generation gastric acid treatment'. Those are facilitated by meaning range of appreciation.

AI is Compared

The editorial offers AI as something that is compared with others. In its application, the article invites the readers to find whether AI harmonizes. (6) is the best example to this. It shows that AI works well with other. On the other hand, there is article entitled 'Better than humans: Artificial intelligence in intensive care units'. AI is also viewed in having much valuation in working. Editorial tries to inform the readers that AI as the option for effectivity.

CONCLUSION

This research has explored the practice of words and phrases in the text for conveying attitudes towards particular thing. In this context, the attitudes are analyzed to know the feelings towards AI. Because the data are taken from mass media, the findings are able to connect with the possible intentions by editorial in reporting AI articles. Article title as the abstraction of the following passages is a good start to know the stance of editorial about the published articles. The next and further studies can be explored through the contents of article so that the readers will experience in getting attitudes that are included in the words and phrases spread in the text.

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