



Research on AGI based on Big Data to Improve the Quality of Life of Single People

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Abstract. This paper aims to explore the feasibility of the application of the AGI in the life of single people. According to development of AI technology, this paper proposes the application path of the AGI entering the core relationship of human beings for improving the quality of the life of single people.

Keywords: Single people, Big data, AGI, ChatGPT

1 Introduce

With the continuous development of chip computing power, AI algorithms, and data training, AI technology has brought tremendous changes to various fields. In particular, OpenAI launched the AI large language model ChatGPT based on Natural Language Processing (NLP) in November 2022, breaking through AI bottlenecks through high computing power and large-scale training data, achieving more human like and logical dialogue abilities, providing the possibility for AI assistants to enter the field of human emotional life, This article mainly discusses whether the application of AI can play a more important role in single social life in today's accelerating development of AI large language models(LLM).

2 Breakthrough in the development of current AI technology

AGI (Artificial General Intelligence) can be thought of as a higher level of AI, referring to an AI system that can think, learn, and perform multiple tasks like a human. ChatGPT is an important milestone on the road to AGI. After OpenAI released the chat robot ChatGPT on November 30, 2022, it caused a huge social sensation. The content generated by ChatGPT for chatting with humans has high coherence and readability, which is in line with human language habits and can be summarized and summarized like humans, refer to Figure 1 and Figure2. At the same time, the latest ChatGPT4 version can pass many human exams and achieve impressive results.

Input

Andrew is free from 11 am to 3 pm, Joanne is free from noon to 2 pm and then 3:30 pm to 5 pm. Hannah is available at noon for half an hour, and then 4 pm to 6 pm. What are some options for start times for a 30 minute meeting for Andrew, Hannah, and Joanne?

Output

Andrew: 11 am - 3 pm
Joanne: 12 pm - 2 pm, 3:30 pm - 5 pm
Hannah: 12 pm - 12:30 pm, 4 pm - 6 pm

Common availability for a 30-minute meeting: 12 pm - 12:30 pm

Fig. 1. ChatGPT can help humans summarize and summarize

Input

Explain the plot of Cinderella in a sentence where each word has to begin with the next letter in the alphabet from A to Z, without repeating any letters.

Output

A beautiful Cinderella, dwelling eagerly, finally gains happiness; inspiring jealous kin, love magically nurtures opulent prince; quietly rescues, slipper triumphs, uniting very wondrously, xenial youth zealously.

Fig. 2. ChatGPT can assist humans in sentence construction and meet regulatory requirements

ChatGPT is different from the historical AI model, where GPT is the "Generative pre trained transformer", where "Generative" refers to the model's ability to generate natural language text. Pre trained "means" pre trained ", which requires inputting a large amount of text data into the model for training. The model has to some extent mastered the grammar rules and expression of the language." Transformer "GPT follows the mainstream Transformer model, which adopts a self-attention mechanism and performs better than RNN (Recurrent Neural Network) on NLP.

The latest release of GPT-4 is the latest milestone in OpenAI's expansion of deep learning. GPT-4 is a large multimodal model that accepts image and text inputs and outputs text. Although its capabilities are not as good as humans in many real-world

scenarios, The speed at which it evolved is phenomenal, and we can't help but think about his possible future relationship with humanity.

3 With the continuous improvement of living conditions, single life may become the mainstream lifestyle

Taking Shanghai as a specific research area, the per capita GDP entered a low level of development in 2017 (i.e., the per capita GDP was around 20000 US dollars), refer to Figure 3. At the same time, the social relationship structure is also changing, with the number of marriages decreasing year by year and the stability of marriages deteriorating year by year, refer to Figure 4 and Figure 5. Of course, at the same time, the average life expectancy continues to rise with the improvement of living standards, and the birth rate also continues to decline. Combining with the same phenomenon that has occurred in some developed countries internationally, it can be inferred that with the improvement of social wealth level, the mainstream lifestyle in the future is likely to become single as the mainstream lifestyle. reference 4 has the same analysis conclusion.

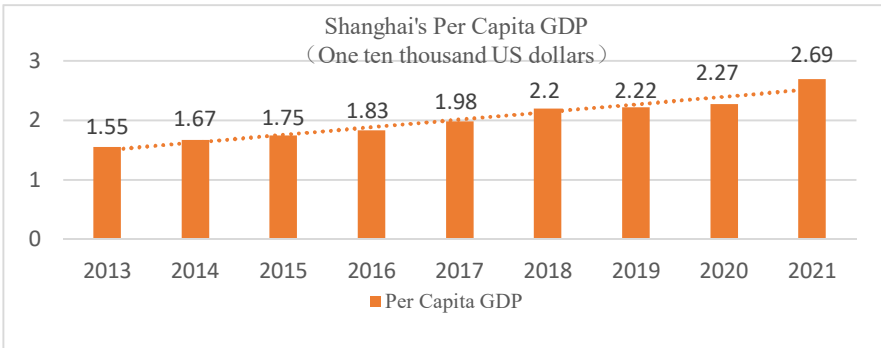


Fig. 3. Shanghai's per capita GDP entered the threshold of 20000 US dollars around 2017 (internationally recognized as a low level of development)

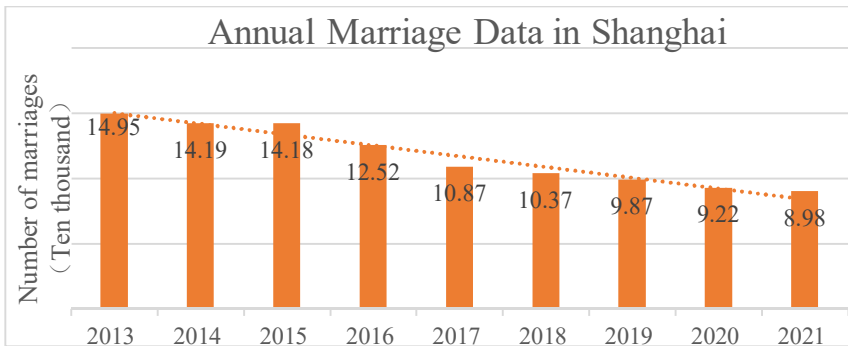


Fig. 4. The number of married people in Shanghai has shown a significant downward trend

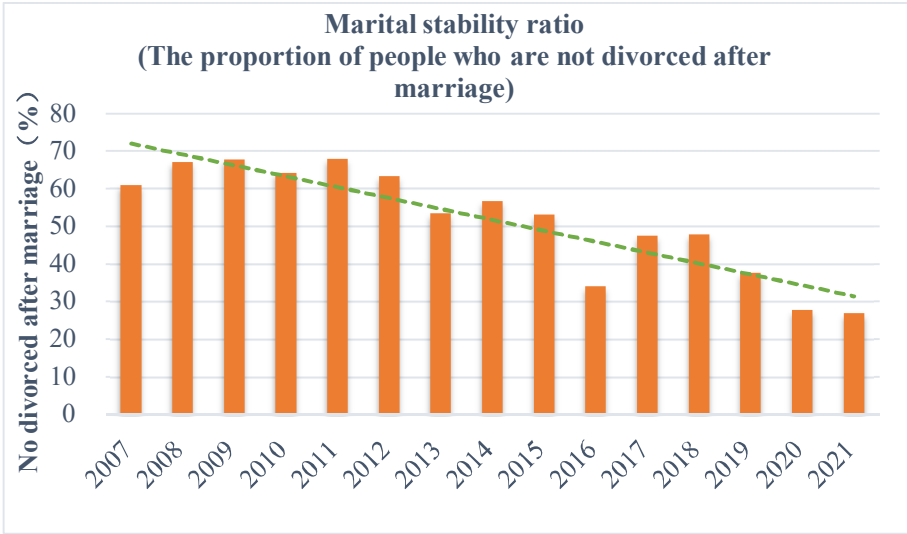


Fig. 5. The stability of marriage is decreasing year by year

*Marital stability ratio (estimated)=(1- (number of divorces/number of marriages)) * 100%

* Fig 3-5, The resource of data in these tables are from reference 5, official website of Shanghai Bureau of Statistics

4 Under the dominant social form of single population, the social relationships of the population are also undergoing changes

In traditional social relationships, marital relationships are the core of all social relationships, with marital relationships>child relationships>parental relationships>other relationships, refer to Figure 6.

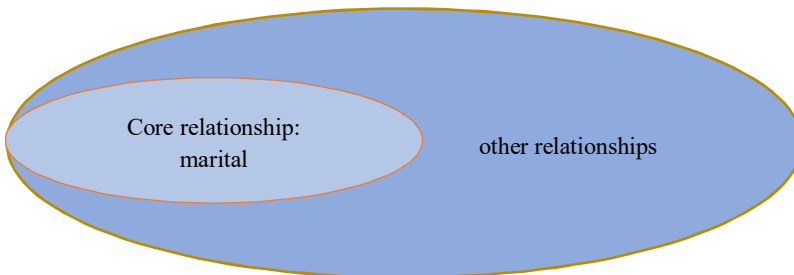


Fig. 6. Traditional Social Relationship Diagram

In a society dominated by the new single population, core relationship is vacant due to the lack of marital relationships, refer to Figure 7.

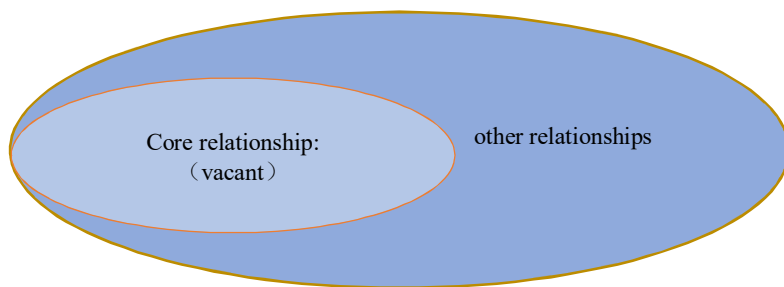


Fig. 7. Future Social Relationship Diagram

The lack of core relationships can first be filled by friends and parents, but the characteristics of privacy, loyalty, shared property, and other needs of core relationships are difficult for other populations to meet. The lack of core relationships directly leads to increased psychological problems, loneliness, depression, and other issues. Reference 1、 2 and 3 has the same analysis conclusion.

5 Feasibility Study on Artificial Intelligence Filling Core Relationships

5.1 Some forward-looking explorations of movies in this area

The movie "Her" tells the story of a human-computer romance that occurred in the near future. The protagonist, Theodore, is a letter writer who has just ended his marriage to his wife Catherine and has not yet emerged from the shadow of heartbreak. By chance, he is exposed to the latest artificial intelligence system OS1, whose incarnation, Samantha, has a charming voice, gentle and thoughtful, yet humorous. Theodore and Samantha soon discovered that they had such a close relationship, and there were two-way needs and desires. The human-machine friendship eventually developed into a strange love that was not understood by the secular world.

"Her" has sparked a lot of thinking and discussion about artificial intelligence and emotional companionship, and the emergence of large models of AI may make AI companionship a reality.

5.2 Feasibility of AI based emotional partners filling human core relationships

- Privacy and loyalty: The AI generative model can optimize personalized parameters based on individual differences, formulate privacy and loyalty rules, and match human demands for core relationships;
 - Wisdom and professionalism: AI generative models can serve as versatile professionals such as doctors, lawyers, teachers, sports coaches, etc.

- Accompanying at any time: AI generative models can accompany users at any time;
- Resonance: AI generative large models are trained and parameter matched according to users' own habits, achieving the goal of matching users' personal preferences;
- Plasticity: AI generated large model images are malleable, and current 3D engine technology can generate virtual images that satisfy users based on input information.

6 Conclusion

The booming development of large language model AI has certain significance for the trend of human singles. High level AI can become a personal assistant, emotional partner, personal doctor, and core relationships for single individuals. With the continuous progress of AI technology, this application will continue to deepen and profoundly change the way humans interact in society.

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