On Contents Transformation and Social Changes of the Future by Generative AI
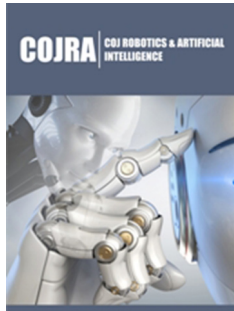
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Abstract

In this paper, I we will discuss the large-scale contents transformations made by generative AI. Humans have become all-mighty in creating contents that were impossible in the past. We will summarize the changes in humans and society that the advent of AI will bring and explain the challenges and future. Finally, equality of having intelligence for all people can lead to equality of nations. To achieve this, we have to solve AI-divided problems. Humans having full control of AI system and development of AI service that creates only genuine contents to control the overflow of fake articles will be important for the future.

Keywords: Generative AI; ChatGPT; Auto-GPT

Introduction

Due to the development of AI, an era where humans do not need to work anymore is coming [1]. AI has been used for classification and recognition by performing discriminant functions for a long time. However, advances in deep learning technology have made the era of generative AI possible. In addition to the explosion of contents created by humans, the creation of new content by AI will bring an infinite increase in contents in the future. There will be more AI-generated content than human-generated content [2]. The various kinds of contents transformation from base contents will bring a great era of digital contents humans can enjoy almost freely without limitation. The only restrictions on contents are due to the limit of human imaginations. In this paper, in Section 2, I will explain the various content conversions that generative AI will bring, and in Section 3, I will explain the changes in humans and society. And in Section 4, it consists of examining the challenges faced by mankind.

Contents Creation and Transformations by AI

AI, which has developed with a focus on discrimination such as language translation, voice recognition, and object recognition, has shifted to the era of full-scale generative AI with the advent of large-scale language model technology. The generative AI system represented by Chat GPT has made it possible for computers to generate all content. We can create various types of text contents such as texts, novels, poems, lyrics, etc., by inputting the expression of the desired content as text (prompt), and even create pictures or images such as webtoons. We can create single media contents by giving short prompt text and from this single media, we can apply many AI-based operations (we can treat this operation as one of function) on it like translation, summary, voice recognition, character conversion in video, voice conversion, TTS (Text to Sound) and AI TTS (text with emotions), 3D creation, or video creation to create new contents. Figure 1 shows the content conversion calculations that can be done with AI. Input content can be converted into output content by a single AI operation(edge). Here, the abbreviations are used as TXT (Text), VID (Video) and IMG (Image) and it shows that the prompt Text (TXT) is at the center of conversion. (Directed arc of node A to node B represents media transformation from A contents to B contents) this single media AI operation is like a

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function for a kind of content and complex content can be created by combining and using several functions. The combined AI operation to make composite Contents can be created with a multimodal input. The following shows an example of creating complex content. Recently AI content operation that can be make complex contents have been introduced such as Auto-GPT [3] and Long Chain [4].
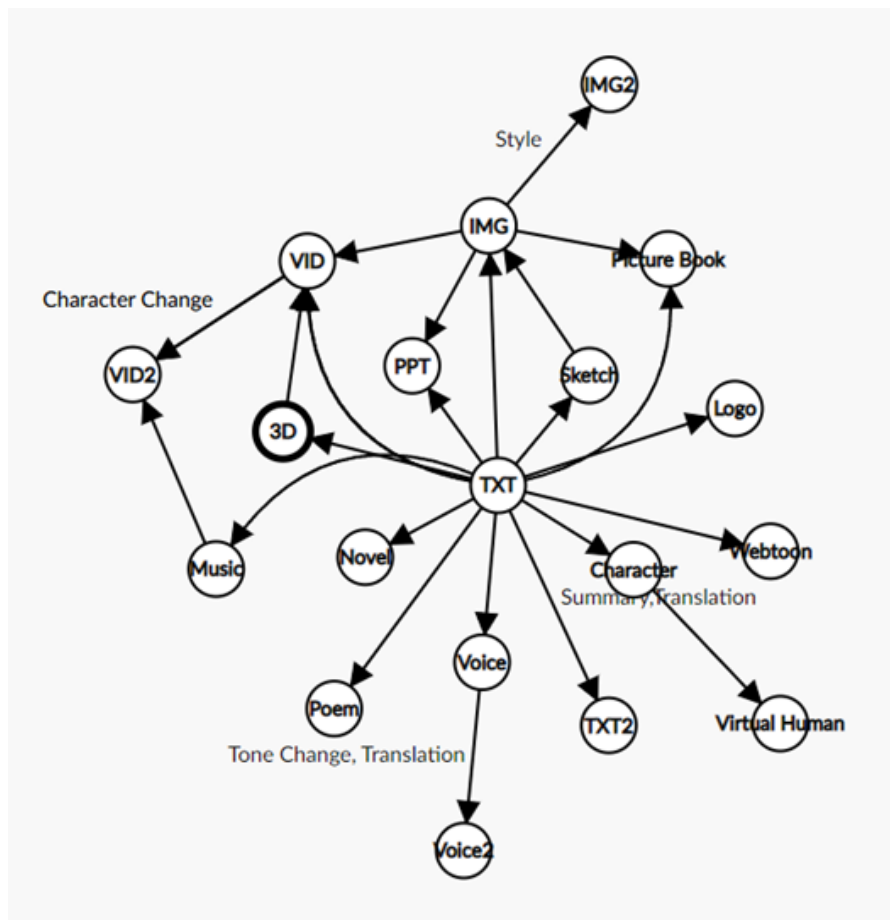

Figure 1: Contents Transformation diagram.

We can create composite contents using a series of AI operations as follows:

A. Various scenarios and movies if given the main character and basic structure of the story,

B. Picture books and webtoons with just prompt input,

C. Music and imaginary pictures in the same high-definition level as real life,

D. Slides like PPTs that fit specific topics and even videos with explanatory characters and voices.

Numerous contents are converted by mutual AI. Humans only envision the overall structure, and AI will create and complete all the empty parts. Examples of such an operation are:

a) If you upload only photos, a story is automatically created.

b) Documentary video production will be possible if everything is filmed with smart glasses. And if these camera-wearing recordings are applied to high-ranking officials, all corruption in the world will disappear and the development of all countries will accelerate.

c) In real time, the voice of the other party in another country will be converted into the desired voice (celebrity or other) and heard.

Human and Social Changes by Generative AI

Content conversion and creation, which were thought to be possible only by humans, is expected to greatly change our future society. The biggest impact of COVID-19 on mankind over the past three years is that it has accelerated alienization [5]. However, generative AI is expected to change the world more rapidly than Corona. The following personal changes can be predicted:

The development of AI and digital human production technology will gradually allow humans not to do the following if necessary.

a) No need to think. For creation, you only need to review the draft created by the AI assistant and select it. And AI can make all decisions instead of you because AI's decision will be better than humans. We can only order AI to generate candidates and just select one. If you wear smart glasses combined with the recently appeared AI application called rizzGPT [6], it tells you what to say

in certain situations. Therefore, there is no need to worry about what to say.

b) No need to speak. Using anyone's voice fonts, TTS (text to speech) will speak instead of you.

c) No need to write. The special pen-like device or printers will write instead of you using your handwriting.

d) No need to make various facial expressions to express emotions. Avatar robots take over all facial expressions and will go anywhere instead. Or we can make wearing facial mask for this purpose.

e) No need to sing. Instead, he sings like a singer with his own voice. Hidden Singer will not be a match against an imitation singer, but against an AI singer.

f) Living as a digital human eternally. When voice cloning, handwriting fonts, face animation cloning, and movement cloning are completed, digital resurrection can be done for everyone and living forever will become a reality.

If we consider the changes of society and the nation according to these individual changes, the following can be mentioned.

A. Equal intelligence and knowledge power: This will lead to the leveling of income. People will seek other discriminations, such as different forms of appearance. Plastic surgery will also eliminate this discrimination. Universalization of knowledge, by accessing accurate and objective knowledge to anyone, will prevent foolish thoughts and judgments in the blind spot of knowledge. The ubiquity of superintelligence, the appearance of GPT and Bard [7], should solve the problem of expense.

B. Explosive increase in content production: Only educated people with creative abilities could produce content. In the division between the producer and consumer markets, generative AI has made it possible for anyone to create content today.

C. Elimination of language barriers: An era where everyone can freely communicate in their own language. Can be realized. Since the development of translation and voice recognition technology will disappear cultural and language barriers, AI will accelerate the creation of global citizens and reduce cultural barriers between countries. Universal human values will expand. Global common sense also expands. Differences in food and religion are bound to diminish.

D. Overflow of fake contents: Anyone can easily create fake contents, so it will overflow, and it will not be easy to determine the authenticity. By making the world a completely virtual world, there will be more kingdom building of their own. Just as spam mail accounts for more than 90% today, the proportion of AI-generated content will increase rather than human-generated content.

E. Equalization of most nations: Intellectual equalization of all individuals will lead to national equalization. To achieve this, we can solve severe digital-divide and new AI-divide problems.

F. Leveling up human capabilities: AI now can transform from a human who cannot do something to a new human who can do everything. Normal person can compose music, write novels, draw design and pictures etc. So, the capabilities of every human will become almost equal.

G. Increase in virtual humans: Virtual humans' population will be larger than that of real humans. All virtual humans can have almost perfect outlook with very good manner, voice etc. Accordingly real humans can be treated as second grades because all humans will prefer virtual ones.

Such changes will introduce a totally new history for society and mankind. After a considerable period, historians might classify human civilization into pre-AI and post-AI eras.

New Challenges and Future

These changes do not proceed naturally and inevitably bring about numerous conflict and confusion. In particular, mankind lacks the ability to cope with sudden changes. Therefore, we need a way to slow it down. However, AI technology is currently developing innovatively even within a year, and the appearance of GPT-4 [8], which took place only a few months after the announcement of ChatGPT, is shocking. So, among those who are pessimistic about the future, it has created a movement to stop AI research for at least six months right now. Their argument is that we should stop until we find a way to completely control AI [9]. And we must wisely solve the following problems.

A. Implementation of a control system for AI: Although a control system for nuclear proliferation has been created, the control of nuclear bomb failed by the fact that countries having nuclear weapons continue to expand. Likewise controlling AI technology is expected to fail.

B. Fake news problem: Lying is something only smart people can do. However, since AI can generate lies that are difficult to distinguish from the real thing, more fake news is bound to spread. Musk said he would develop Truth GPT [10], so look forward to it.

C. Resolving the AI divide problem: AI, which has already started paid services, will expand the digital divide problem into a new AI gap problem, and the gap between companies and countries as well as individuals is expected to widen. The solution to the gap caused by AI is cheap or free services through public super-giant AI development.

So far, this paper has summarized and explained the changes that AI will bring, and in particular, generative AI has made humans possess abilities that were impossible in the past in addition to intelligence, and eventually leveled them out. So now we have to accept new changes and we will face the posthuman era [11]. Advances in AI and humanoid technology are expected to lead to the emergence of humanoid Olympics. Instead of the martial arts of slaves in the Roman era, humanoid robots manufactured by each country and companies will compete in various events, developing into a new competition between countries. There is a saying that

we will not be replaced by AI but will be replaced by humans using AI. The appearance of humanoids is currently becoming more life-like complete. Then most humans will have avatar companion humanoid with super-intelligence, and we can live together with the humanoid just like family companion of pets.

In the future, people have to think about what to do for life. It is said that civilization develops, but there is no use if it is not transmitted properly and does not spread enough. However, if the assets of human civilization contained in AI are served to anyone, we will come into contact with the history of really smart mankind according to the flattening of the Earth in the true sense.

References

1. Jerry K (2015) Humans need not apply.

2. Hwan SY (2023) AI foundation, Infinity publishers, Korean.

3. https://github.com/Significant-Gravitas/Auto-GPT

4. https://www.pinecone.io/learn/langchain-intro/

5. Scott G (2020) Post corona: From crisis to opportunity.

6. https://github.com/acui51/monocle-rizz/

7. https://bard.google.com/

8. https://openai.com/product/gpt-4

9. Pause giant AI experiments: An open letter.

10. Elon M (2023) Elon musk says he will launch rival to Microsoft-backed Chat GPT.

11. Rosi B (2013) The posthuman.