Analyzing the research power behind ChatGPT: the post-90s generation has become the main force, and large tech companies are no longer the first choice for top AI talents

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The popularity of ChatGPT has not only brought capital attention and user interest to OpenAI, but also its personnel advantages have become the focus of attention in the discussion surrounding "Why OpenAI can produce ChatGPT."

Recently, Zhipu Research and AMiner released a statistical report on the research team behind OpenAI. According to the report, a total of 87 people contributed to the ChatGPT project this time, with notable characteristics including "very young", "fancy background", "focus on technology", "deep accumulation (of experience)", "advocating entrepreneurship" and "eye-catching Chinese~~-eye-catching~~"

Report link (in Chinese): https://mp.weixin.qq.com/s/Y_LjjsuoEEmhIg5WO_iQhA

In such a team of less than 100 people, the phenomenal large-scale language model ChatGPT was born. This imposed significant pressure on Google, Microsoft, Baidu, Alibaba and other major companies, and they have followed closely, releasing or pre-releasing products similar to ChatGPT.

As a non-profit artificial intelligence research institution, OpenAI has always been regarded as a technological paradise by many young talents who are interested in developing AI careers. Here, they can directly participate in the most cutting-edge and creative AI projects, mobilize the most core scientific research resources, and devote themselves to technological innovation without distraction.

In recent years, marginalization and hesitation have caused AI research institutes and scientific research talents in major Chinese tech companies to face survival problems. However, it is believed that under the impact of ChatGPT, AI talents will return to the public eye and will usher in a new round of shuffling and competition.

1. Nearly 90% (of the team) are technical personnel; post-90s generation are a main force

Judging from the division of labor in the ChatGPT team (Figure 1), among the 87 people participating in this project, the number of R&D personnel reached 77, accounting for 88%, including the company's co-founder Wojciech Zaremba, who was previously selected as the most influential scholar in the field of robotics by the 2023 AI 2000 list (an AMiner publication).

There are 4 product personnel, accounting for 5%, and the position information of 6 participants cannot be obtained.

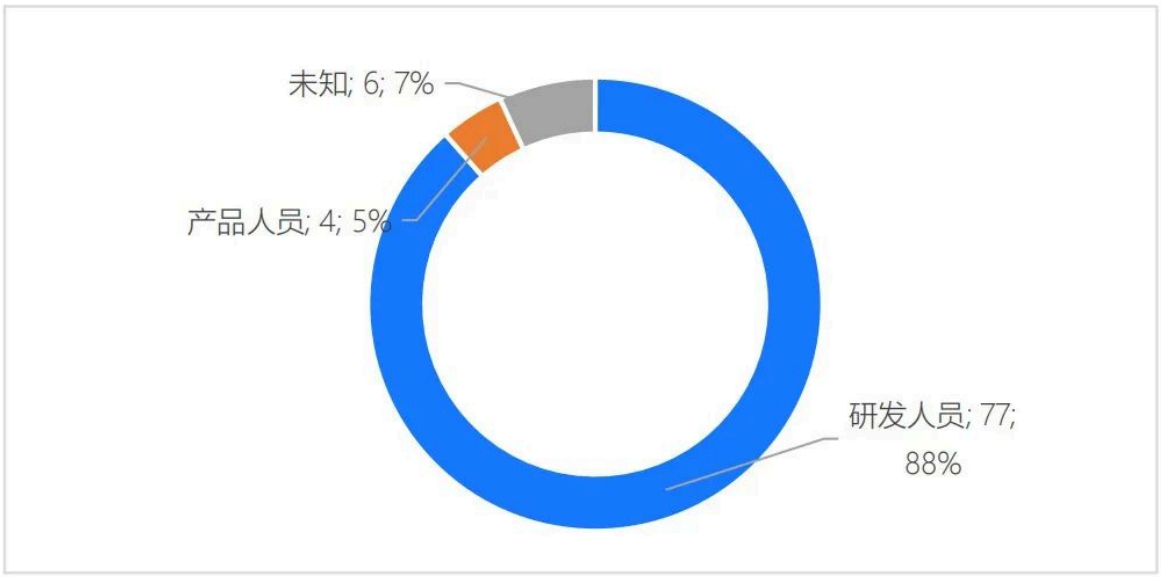

Figure 1: ChatGPT team job division

In terms of the age distribution of members (Figure 2), the post-90s generation is the main force of the team. Among them, there are 28 members in the age range of 20-29, accounting for 34%; the number of members in the 30-39 age group is the largest, with a total of 50 members , accounting for as high as 61%; in addition, there are 3 people in the age range of 40-49 years old, and only 1 person over 60 years old.

According to statistics, the average age of this research team is 32 years old.

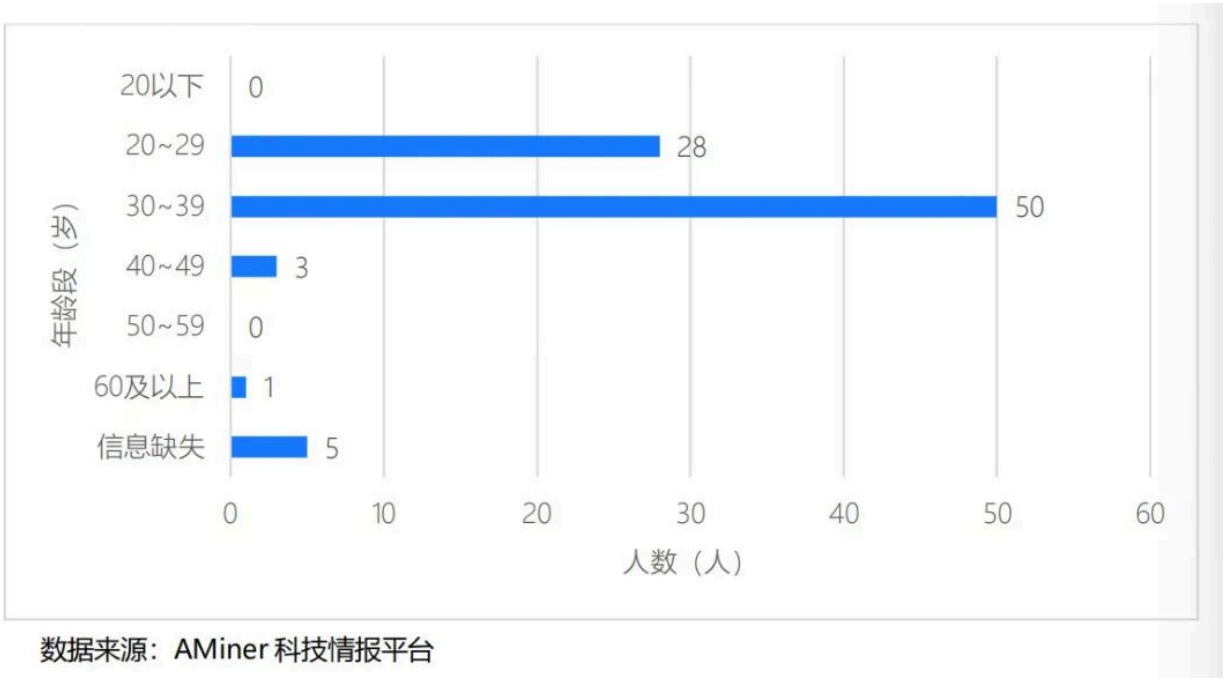

Figure 2: Age distribution of the ChatGPT team

"Very old" and "focus on technology" are two distinctive characteristics of ChatGPT team members.

Although their average age is only 32 years old, the team members are highly focused on technical research and development. Based on their great interest and dedication to AI innovation and research and development, they created this model that became a phenomenon and ignited a new round of global technology. It can be seen that young people who are considered to be inexperienced in research and development are entirely likely to make major breakthroughs in the field of cutting-edge technology.

At present, in china, there is no shortage of young talents like those in OpenAI’s team.

After ChatGPT came out, Zhang Jiaxing, chair scientist of IDEA Research Institute, quickly shifted the team's large-scale model development to ChatGPT's dialogue task route at the end of last year.

According to his disclosure, the main research force in his team are all outstanding young talents born in the 90s. Currently, the ChatGPT-like model they developed is equivalent to ChatGPT, and has only 5 billion parameters, and the text generation speed is also very fast. It is currently in internal testing and will be publicly tested in the near future.

2. Prestigious educational backgrounds, Chinese accounted for 9; Big tech companies are no longer the first choice for top talents

ChatGPT team members have a relatively balanced number of undergraduate, master, and doctoral degrees. Among them, 27 have a bachelor's degree, 25 have a master's degree, and 28 have a doctoral degree, accounting for 33%, 30%, and 37% respectively.

Among them, Stanford University has the most alumni with 14, followed by UC Berkeley with 10 and MIT with 7.

排名	毕业高校	校友人数（人）
1	[美]斯坦福大学	14
2	[美]加州大学伯克利分校	10
3	[美]麻省理工学院	7
4	[英]剑桥大学	5
5	[美]哈佛大学	4
5	[美]佐治亚理工学院	4
7	[美]卡内基梅隆大学	3
7	[中]清华大学	3
9	[美]莱斯大学	2
9	[波]华沙大学	2

数据来源：AMiner 科技情报平台

Figure 3: Top 10 Colleges and universities from which ChatGPT team members graduated

Chinese scholars are an important scientific and technological innovation force in the team, with a total of 9 members, accounting for nearly 10%.

Among them, 5 have graduated from Chinese universities, and 3 have graduated from Tsinghua University, namely Weng Jiayi, Zhao Shengjia, and Yuan Qiming. They are currently working as R&D engineers in the team; Huazhong Science and Technology University as well as Peking University/Hong Kong University each have one team member that graduated from their institution, Jiang Xu and Weng Lilian respectively.

They all went to the United States for further study after graduating from top universities in China and obtained a master's or doctoral degree.

It can be seen from the flow of personnel that big tech companies are no longer the first choice for top talents, and purer research institutions such as OpenAI are more favored by them.

Among the team members, a total of 5 were selected as AI 2000 Global Artificial Intelligence Scholars in (AMiner's) 2023 ranking. They are:

1. Wojciech Zaremba, co-founder of OpenAI (selected field and ranking: Robotics, No. 10)

2. Lukasz Kaiser, Researcher of ChatGPT (Field and Rank: Machine Learning, No. 10)

3. John Schulman, co-founder of OpenAI and research scientist of ChatGPT (selected field and ranking: machine learning, No. 41)

4. Tomer Kaftan, R&D engineer of ChatGPT (Field and ranking: database, No. 52)

5. Barret Zoph, Research Scientist of ChatGPT (Field and Rank: Machine Learning, No. 95)

81% of the staff come from other companies, 13% are fresh graduates from colleges and universities, 4% come from scientific research institutions, and 3% come from colleges and universities. Most of them come from a well-known technology company such as Google, Microsoft, Meta, Intel, Nvidia, Apple, etc. A total of 10 people joined from Google, and 1 person had worked in Baidu.

According to statistics, many ChatGPT team members had previously worked on research and development for the first seven technical projects related to ChatGPT.

The CodeX project has the largest number of participants, with a total of 22 people having participated in that project, accounting for 25% of the team; followed by webGPT and instructGPT, with a total of 9 people having participated; GPT-3 has a total of 6 people having participated, ranking third; ranking fourth is RLHF, with 3 people having participated.

It can be said that ChatGPT is the result of OpenAI's years of technical accumulation in the field of large-scale language models, the gathering of top talent leaders and outstanding AI technicians, and has laid a solid foundation for the successful development of ChatGPT.

3. The battle for AI talent

In fact, in the past few years, AI research institutes and AI talents with large tech companies have long faced the dilemma of being marginalized and strategically shifted back and forth. As was mentioned with Google above, many talents have flowed to OpenAI, a pure scientific research holy land.

It is often difficult for AI personnel in large tech companies to exert their supposed capabilities and achievements within the organizational structure of the enterprise.

But unlike traditional technology giants, if OpenAI and other companies take "development of artificial intelligence" as their mission, dedicated to AI R&D and innovation – that is, to participate in the most cutting-edge AI projects at close range — transferring the most core resources to research and development requires the ability to bear the responsibility of not producing results for a long time. Among them, the GPT model takes as long as three years from the first launch to the completion of training, which requires a complete set of systematic guarantees such as funds, technology, and talents from the team.

The emergence of ChatGPT has brought AI talents back to the public view, and reiterated the importance of pure scientific research, which is bound to set off a new round of talent competition. At the same time, it will also increase the importance placed by large tech companies on infrastructure such as large models and computing resources, and speed up the catching up and complementing of underlying technical capabilities.

Just as former Sogou CEO Wang Xiaochuan said on Weibo, "The success of OpenAI is first and foremost the victory of technical idealism." The success of ChatGPT cannot be separated from the combined strength of industry-academia-research institutions. Behind it is the team members' interest in artificial intelligence technology and their belief in it. There is no shortage of top scientific research forces in China, and it is of great significance to promote China's AI innovation and development by focusing on cutting-edge technological innovation and making steady progress.