

# **Emerging Markets Discoveries: Trends and Innovations**

## Transforming the Education Industry with AI Technology



**Stephen Lew**SENIOR FUND MANAGER



**Emery Brewer**SENIOR FUND MANAGER



**Ivo Kovachev**SENIOR FUND MANAGER

## **KEY POINTS**

- In China's K-12 education sector, AI adaptive learning is expected to reach 19% by 2025, disrupting traditional teaching methods.
- There is growing demand for AI-enabled educational tablets in China, and the market expected to hit \$20 billion by 2026.
- AI is revolutionizing afterschool tutoring, making it more interactive and personalized, which could greatly improve educational quality and student outcomes.
- Tablet devices, if monetized properly, could potentially generate significant earnings, highlighting the investment potential of AI in the afterschool tutoring industry.

The JOHCM Emerging Markets Discovery strategy focuses on identifying growing companies with competitive business models that can sustainably compound equity value over time. The strategy's process-centric approach aims to deliver to investors long-term market-beating performance over equity cycles.



As readers of Emerging Markets Discoveries: Trend and Innovations may know, we typically focus our discussions on global trends and innovations ripe for investing in emerging markets. For instance, in the June 2023 issue, we highlighted the emerging developments in the artificial intelligence ("AI") space. We suggested that existing business models in school learning were one of the two areas that the introduction of AI could disrupt. In this instance, AI could be integrated into the core teaching process to assist, lead, and even replace human teachers without intervention. This could enable students to experience personalized learning by using AI. This trend is rapidly manifesting in China. A study by Ernst & Young predicts that the penetration rate of AI adaptive learning in China's K-12 education sector is expected to reach 19% by 2025, while the overall market size is expected to grow to over RMB 100 billion (c. US\$14 billion) by 2025<sup>1</sup>.

Although AI assistance has been used in various cases within the Chinese education system, we believe tutoring tablets is the most promising area for its deployment.

Source: Bloomberg/JOHCM.

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<sup>&</sup>lt;sup>1</sup>"Intelligent beyond imagination, adaptive to the future – China AI adaptive learning industry whitepaper." ey.com, Ernst & Young Global Limited, https://www.ey.com/en\_cn/education/intelligent-beyond-imagination-adaptive-to-the-future-china-ai-adaptive-learning-industry-whitepaper.



## We are witnessing the "paper-to-digital" transformation enabled by AI in real-time.

Education is seen as the country's primary means of social mobility, and with a massive population vying for a limited number of places at top universities, the pressure to perform in school is intense. Following a clampdown on afterschool tutors by the government, many parents have resorted to alternative approaches to improve their children's grades. This has driven an avalanche of demand for educational devices, particularly tablets touting AI capabilities. According to the research firm Frost & Sullivan, the market for educational devices in China is projected to be worth \$20 billion in 2026<sup>2</sup>. While retail sales of paper-based kids' reading and supplemental materials are declining, the total addressable market for smart learning devices is expected to grow at a 13% CAGG from 2023-2026, reaching nearly US\$10 billion<sup>3</sup>.

## PORTFOLIO HOLDING CASE STUDY

### IDENTIFYING THE PARADIGM SHIFT

We believe that integrating AI in afterschool tutoring presents a paradigm shift in the education industry, which may provide significant monetization potential in emerging markets, particularly in China. With the introduction of AI technology, the entire industry can be transformed by making the educational experience more interactive, adaptive, and fun<sup>4</sup>. AI-based educational tablets can now see, hear, talk, and interact with kids, making education more personalized. This transformation has the potential to enhance the quality of education and outcomes significantly.

#### THE INVESTMENT CASE

One of our holdings is an afterschool service provider that is currently undergoing a fundamental evolution in its business model due to the introduction of AI technology. The company's core business is providing afterschool enrichment programs for students in K-12 through both online and offline channels. In 2023, the company introduced an education tablet embedded with a specialized AI chip with a proprietary large language model called Math GPT. This innovation allows users to input math problems, either as text or images, and receive interactive solutions. The device further generates additional questions dynamically based on the user's responses. We believe that the tablet device, if monetized properly, could potentially generate significant earnings for the company in the future, highlighting the investment potential of AI in the afterschool tutoring industry.

Past performance is no guarantee of future results.

Fund holdings are subject to change at any time and are not recommendations to buy or sell any security.

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RISK CONSIDERATIONS: The Fund invests in international and emerging markets. International investments involve special risks, including currency fluctuation, lower liquidity, different accounting methods and economic and political systems, and higher transaction costs. These risks typically are greater in emerging markets. Such risks include new and rapidly changing political and economic structures, which may cause instability; underdeveloped securities markets; and higher likelihood of high levels of inflation, deflation or currency devaluations.

Emerging markets involve heightened risks related to the same factors, in addition to those associated with their relatively small size and lesser liquidity.

The small- and mid-cap companies in which the Fund may invest may be more vulnerable to adverse business or economic events than larger companies and may be more volatile; the price movements of the Fund's shares may reflect that volatility.

The views expressed are those of the portfolio manager as of May 2024, are subject to change, and may differ from the views of other portfolio managers or the firm as a whole. These opinions are not intended to be a forecast of future events, a guarantee of future results, or investment advice.

<sup>&</sup>lt;sup>2</sup> Chen, Caiwei. "Parents turn to AI tablets after China's tutor crackdown." rest of the world: Reporting Global Tech Stories, Rest of World, https://restofworld.org/2024/china-student-tablet-ai/

<sup>&</sup>lt;sup>3</sup> Zhao, T., Keung, R., & Liu, E. (2023) "On the cusp of a new profitable growth era; Buy EDU and TAL." Goldman Sachs Equity Research.

<sup>&</sup>lt;sup>4</sup> Sharif, Atif. "AI in Education: TAL's Journey into the Future of Education Technology at CES 2024." The Good Men Project. https://goodmenproject.com/education-2/ai-in-education-tals-journey-into-the-future-of-education-technology-at-ces-2024/