

Current Status of Artificial Intelligence Application in Human Resource Training at FPT Group Vietnam

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ABSTRACT

In the context of global digital transformation and the 4.0 industrial revolution, the application of artificial intelligence in human resource training is becoming a strategic goal in many enterprises, including FPT Corporation - one of the leading technology enterprises in Vietnam. This article studies the current status of artificial intelligence application in human resource training at FPT Vietnam, thereby improving the quality of human resources, improving work efficiency, optimizing training costs, attracting and retaining talent.

Keywords: Artificial intelligence application, training, human resources, FPT

I. PROBLEM STATEMENT

In the context of the 4.0 industrial revolution taking place strongly, the core technology must include artificial intelligence. Because artificial intelligence has had and is having a profound impact on all fields, especially education and training. In Vietnam, in order not to fall behind, businesses need to adapt promptly, train a quality workforce, have technological capacity, have understanding and apply artificial intelligence is very urgent.

FPT Vietnam Corporation is one of the leading enterprises in digital transformation, has applied artificial intelligence to human resource training, bringing many remarkable achievements such as improving productivity, reducing costs and increasing the ability to attract and retain talent. However, FPT still faces many difficulties and challenges in the implementation process. Therefore, researching the application of artificial intelligence in human resource training at FPT Vietnam is very necessary, helping FPT propose some solutions to overcome limitations and face challenges.

II. THEORETICAL BASIS

2.1. Concept of artificial intelligence in human resource training

According to Zhai et al (2024), artificial intelligence (AI) is a system that can simulate human intelligence to perform functions such as learning, analysis, and decision making. In human resource training, AI supports personalization of learning content, assessment of results, and optimization of skill development paths. AI in human resource training is the application of human intelligence simulation technologies — such as machine learning, natural language processing (NLP), expert systems, big data analytics — to automate, personalize, and improve the efficiency of learning and skill development of employees in the organization.

2.2. Applying AI to training models

The application of AI facilitates the implementation of modern training models such as:

- Kirkpatrick model (1994): The Kirkpatrick model is a globally recognized method of evaluating the results of training and learning programs. It evaluates both formal and informal training methods and evaluates them based on 4 levels of criteria: response, learning, behavior and results. Thanks to the application of AI, businesses can measure these 4 levels automatically.

- The ADDIE model (Analysis, Design, Development, Implementation, Evaluation) is a standard model in the field of training program design and development. With a clear structure, ADDIE helps businesses build optimal training programs, while closely linking with business goals and human resource development. AI tools help process data quickly from surveys, reports, or interviews, providing accurate insights into training needs. In addition, AI creates personalized lessons and learning paths based on learner behavior analysis; AI creates learning materials, tests or

training videos on demand; supports measuring training outcomes through real-time learning data analysis.

- Bloom's Taxonomy is a classic pedagogical tool developed by Benjamin Bloom and his colleagues. This scale classifies educational goals into 6 cognitive levels, from low to high: remember - understand - apply - analyze - evaluate - create. Artificial intelligence, especially Large Language Models (LLMs) such as ChatGPT, Google AI Studio, Gemini, Copilot... are increasingly demonstrating their superior ability in generating and processing natural language. In the field of assessment content design, AI can become a powerful "virtual assistant", contributing to improving design quality.

2.3. The impact of AI on human resource training

- Positive aspects

When businesses use AI to train human resources, AI will help personalize the learning path, track progress in real time, and suggest content that is suitable for each individual's ability. Crompton & Burke (2023) stated that AI can increase course completion rates by up to 30% compared to traditional forms.

Thanks to the ability to automate, activities such as assessment testing and training needs analysis are shortened, thereby reducing training costs.

Flexible training, suitable for personal development orientation helps employees feel invested and developed, thereby increasing the level of commitment to the organization.

- Negative aspects:

When businesses apply AI in human resource training, ignoring traditional training, no teachers, no classrooms, it will reduce communication and working skills, and reduce social interactions in each individual. Zhai et al. (2024) warned that dependence on AI causes learners to gradually lose their ability to debate and think independently.

Personal data will be collected and processed by the AI system, so transparency, privacy, and bias in algorithms are very worrying if not well controlled.

III. PRACTICAL APPLICATION OF AI IN HUMAN RESOURCE TRAINING AT FPT

FPT Vietnam Corporation has affirmed its leading role in applying AI not only to products and services but also to training and developing human resources in the context of comprehensive digital transformation and the 4.0 industrial revolution,

3.1. FPT implements the development of a comprehensive AI training program

Since April 2024, FPT has officially launched the "Basic AI – AI for Everyone" training program for all officers and employees in the corporation. This is a mandatory and synchronous AI training program deployed on a system-wide scale. The training program has popularized basic knowledge about AI for all employees; equipped with technological thinking and the ability to apply AI to work; inspired creativity and adaptability to new technologies in the enterprise.

Table 1. Training model "Basic AI – AI for Everyone"

Target	Value
'Basic AI' Completion Rate	98.8%
Total AI training hours	109.200 hours
Average hours/year	31,7 hours
AI Engineer Training	12.000
NVIDIA certification	~10.000
Satisfying learners	92.6%
Increase productivity	+27%

Target	Value
Study time is reduced	Từ 40h → 28h (↓30%)
Decreased turnover rate	↓18%

(Source: FPT Report (2024))

The training program is short, consisting of 2 hours of theory and 4 quick tests. All staff members study online on the FPT LMS (Learning Management System). AI is integrated into the system to help suggest appropriate content based on the position and level of the staff. Virtual instructors (AI Mentors) provide 24/7 support via chatbots and small learning modules (microlearning).

By the end of 2024, the program had recorded 98.8% of staff completing the course; more than 109,000 hours of AI training were conducted; on average, each employee studied 31.7 hours/year; FPT had more than 12,000 internal AI engineers and nearly 10,000 employees with NVIDIA certification. FPT built this training program not only to disseminate knowledge but also to lay the foundation for a human resource development strategy, helping FPT prepare

resources to flexibly adapt to new technology trends.

3.2. Improve productivity, reduce training costs

In the context of digital transformation, businesses are faced with the problem of increasing labor productivity and reducing training costs. Thanks to the application of AI in human resource training, FPT Vietnam has achieved breakthrough results in both work productivity, learning time, and training costs.

According to FPT's report (2024), employees who completed the AI training program increased their average work productivity by 26.4%. This growth is measured by two indicators:

- Task completion productivity increased from 72% to 91%.
- The rate of reusing training knowledge in work reached 84% after the course, while before it was only 56%.

Table 2. Human resource training results at FPT in 2024

Target	Before AI Application	After AI Application	Change (%)
Task completion productivity	72%	91%	+26,4%
Average study time	40 h	28 h	-30%
Rate of knowledge reuse in work	56%	84%	+50%
Average training cost/personnel	3.8 million dong	2.1 million dong	-44,7%
Training Automation Rate	25%	80%	+220%

(Source: FPT Report (2024))

Through the AI-integrated LMS system, FPT will analyze the input capacity of each employee to shorten the unnecessary learning path. In addition, it also suggests content suitable for the skills, positions, and seniority that are lacking. In addition, updating automated content, learning at your own pace, helps reduce the average learning time by 30% (from 40 hours to 28 hours/person). Therefore, time is saved compared to the original.

Previously, FPT Vietnam had to spend a lot of budget on training such as hiring experts, lecturers, organizing offline classes, and manually monitoring training results. Since deploying the FPT LMS system integrated with AI, the company has automated 80% of the training process (assigning assignments, testing, statistics, evaluation, etc.). The estimated savings are about 50-60 billion VND/year (equivalent to 2 million USD), thanks to a significant reduction in expenses

such as hiring lecturers, offline classes, paper documents, and learning management operating costs. In addition, FPT also increased the number of trained employees each year by 2.5 times compared to the period before applying AI, without having to increase the number of training management personnel.

Thus, FPT has increased productivity and reduced costs by integrating AI into training. FPT has invested in technology that not only brings business efficiency but also improves the quality of human resources, opening up a new direction for Vietnamese enterprises in their human resource development strategy.

3.3. FPT improves talent retention rate thanks to AI training

Technology businesses always face difficulties in retaining talent, especially in the context of a competitive labor market, workers, especially those with high-tech factors, always tend to quit their jobs to find better businesses. FPT has significantly improved its talent retention rate, increasing employee engagement thanks to AI training.

According to FPT's report (2024), employees who quit within 12 months of participating in AI training decreased by about 18% compared to the group that did not participate.

Table 3. Job resignation status at FPT

Human resources group	12-month turnover rate
No AI training involved	22,7%
Join AI training	18,6%
Join + get advanced AI certification	14,9%

(Source: FPT Report (2024))

AI application is both a training tool and a lever to help businesses retain talent. Results at FPT prove that by implementing a systematic training program, AI can help businesses increase learning efficiency, reduce turnover rates, improve employee engagement, and maintain stable resources in the long term.

3.4. Contributing to shaping AI training standards for Vietnamese enterprises

In the context of AI taking place strongly globally, training and developing AI human resources is no longer a trend that businesses must implement to survive in the market. FPT, as a leading technology corporation in Vietnam, has successfully built a large-scale, comprehensively integrated internal AI training model, becoming a practical model worth learning for many other businesses such as Vingroup, Viettel, VNPT...

IV. CHALLENGES FOR FPT

In implementing an internal training ecosystem integrated with AI, although FPT is one of the pioneering enterprises in Vietnam, this process still faces many notable challenges:

Training data is not synchronized and scattered: Currently, there are many systems

storing data related to professional skills, learning processes, and work performance of employees. This reduces data mining and integration capabilities for AI learning analysis, thereby limiting the effectiveness of personalizing training content.

Employee concerns about AI replacing human roles: Some FPT employees are concerned that the application of AI in the training process will gradually replace lecturers or reduce the need for traditional labor, thereby creating a negative attitude in approaching training programs applying new technology.

Learning content is not fully compatible with AI: Some modules in the internal training program are still heavily traditional in form, not designed in the direction of microlearning or adaptive learning - which are optimal formats for AI systems in education. This limits the effectiveness of exploiting AI.

The cost of investing and maintaining AI platforms is still high: Maintaining and developing, as well as updating AI-integrated LMS platforms requires large capital as well as a team of high-tech experts. This is a big challenge for FPT in particular and other businesses in general.

V. PROPOSED SOLUTIONS

Faced with the above challenges, some solutions are proposed to increase the effectiveness of AI application deployment in human resource training at FPT and expand to other businesses in Vietnam as follows:

Build a unified Data Lake system, apply learning data standardization; integrate with the human resources (HRM) system to ensure connectivity.

Organize internal communications to emphasize the supporting role of AI; develop an AI + Human mentoring model, keeping the role of humans in training.

Review and update learning materials according to the microlearning model; integrate automatic feedback and personalization capabilities based on student data.

Apply technology outsourcing (SaaS) to reduce initial investment costs; at the same time develop internal AI engineering capacity to reduce dependence on external experts.

VI. CONCLUSION

In the context of digital transformation and the 4.0 industrial revolution, to enhance the competitiveness of enterprises, the application of artificial intelligence in human resource training is not only a trend, but has become a strategic solution. FPT Vietnam Corporation has systematically and synchronously deployed AI-integrated training for its staff. In addition to creating comprehensive changes in the way internal training activities are designed, organized and evaluated, it also helps personalize learning, saving costs and time. Moreover, AI also contributes to maintaining a high-quality, flexible workforce that is ready to adapt to change.

FPT's model is not only a lesson for smart training, but also a valuable suggestion for Vietnamese enterprises in the journey of building modern digital human resources, quickly adapting to the context of international integration.

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