

AI Strategy and Project Management

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1. Executive Summary:

"AI Application to Support Teaching and Learning" is more and more popular in the current society. It has the promising future and has the potential to lead to the history breaking effects in the education industry. The revolution of AI Application to Support Teaching and Learning can benefit the branding, long-term growth, reputation, and revenue growth of the school.

The application of talents recommendation facilitate system, Decision Making Facilitate System, ChatBox System, Smart performance ranking System, and so on can help to apply Artificial Intelligence to support teaching and learning.

Artificial intelligence (AI) and machine learning are being rapidly adopted for a range of applications in the education industry. As such, it is important to begin considering the education stability implications of such uses. Because uses of this technology in education are in a nascent and rapidly evolving phase, and data on usage are largely unavailable, any analysis must be necessarily preliminary, and developments in this area should be monitored closely.

2. Company Overview:

I used to work for Accenture, Technology Consulting Group. Accenture has the Slogan of "Accent of Future", which means that they can make the change to help company has a more promising future through technology consulting. Through the technology consulting project, we help lots of companies using SAP Application to build up their system and also use AI Application to support business development in the companies and also use AI Application to support teaching and learning. The strategic partners of Accenture includes SAP, Google Cloud, and so on. Inside SAP, there are plenty of modules, such as the financial modules for financial institutions to achieve the user friendly, business modules to develop their system business system easily. There is also the modules for the education institutions to use AI Application to Support Teaching and Learning.

3. Solution Description:

Personalized learning tools:

There are the courses or programs recommendation system which can suggest the courses and programs which suitable for every individual person, according to their life experiences, past experiences, weakness, strength, career goals, short-term and long-term goal and so on.

Feedback and Assessment capabilities:

There are the system to provide the feedback right away according to each candidate's current performance. And according to the lecture video, Accenture 12-4-1 model can benefit the performance assessment. And each education institution has its own speciality and criteria of talent assessment, the AI tool can help to achieve it easily.

Predictive analytics for student progress:

The machine learning models such as decision tree models, bootstrap models, and so on can help to predictive analytics for student progress.

Accessibility features and compliance with COPPA:

There can be functions and APPs which can help to achieve the user friendly to teachers and learners and use AI to support learning and teaching.

Collaborative Learning functions:

There are certain recommendation system which can suggest the right person to join in the same study group to collaborate together to learning together which can benefit and help them achieve their career goal easily.

4. Implementation Strategy

Scope Agreement and Change Management:

Stakeholder Communication Plan:

There are certain software and APPs which can be user friendly for each stakeholders to cooperate together.

Quality Assurance and testing:

I think separate the training data sets and testing data sets and do the testing validation can help to the quality assurance and testing.

Risk Management:

There would be the alert for every important points of cybersecurity. If there's any insecurity points such as deep fake, insecurity of websites, and so on, it should be alert in the system.

Timeline:

Every single year, there should be the new functions and features of AI which can support and benefit the teaching and learning.

5. Data Security and Compliance

The RegTech and SupTech applications of AI and machine learning can help improve regulatory compliance and increase supervisory effectiveness.

6. Technical Specifications and Compatibility:

Recently, deep learning has led to remarkable results in diverse fields, such as image recognition and natural language processing (NLP). Deep learning algorithms are capable of discovering generalisable concepts, such as encoding the concept of a 'car' from a series of images. An investor might deploy an algorithm that recognises cars to count the number of cars in a retail parking lot from a satellite image in order to infer a likely store sales figure for a particular period. NLP allows computers to 'read' and produce written text or, when combined with voice recognition, to read and produce spoken language. This allows firms to automate educational service functions previously requiring manual intervention.

Many applications tend more toward 'augmented intelligence,' or an augmentation of human capabilities, rather than a replacement of humans. Even as advancements in AI and machine learning continue, including in the area of deep learning, most industries are not attempting to fully replicate human intelligence. As noted by one industry observer "...a human in the loop is essential: we are, unlike machines, able to take into account context and use general knowledge to put AI-drawn conclusions into perspective.

7. Support and Training Services:

There are two kinds of system can provide the support and training services, which include sentiment indicators and chatbox:

Sentiment indicators: Social media data analytics companies use AI and machine learning techniques to provide 'sentiment indicators' to a number of education institutions.

Chatbots are virtual assistants that help customers transact or solve problems. These automated programmes use NLP to interact with clients in natural language (by text or voice), and use machine learning algorithms to improve over time. Chatbots are being introduced by a range of education services firms, often in their mobile apps or social media. While many are still in the trial phase, there is potential for growth as chatbots gain increasing usage, especially among the younger generations, and become more sophisticated. The current generation of chatbots in use by financial services firms is simple, generally providing balance information or alerts to

customers, or answering simple questions. It is worth observing that the increasing usage of chatbots is correlated with the increased usage of messaging applications.

8. Cost proposal:

- **Specific applications:** Developing personalized recommendation systems can cost around \$8,000-\$10,000, while AI-powered simulations and virtual labs may cost around \$20,000.
- **Custom models:** Developing a custom AI model that adapts learning paths can cost between \$50,000 and \$300,000 or more, depending on the complexity and data volume.

9. Evaluation and Differentiation

The boostset loop teachers should be part of is the loop that determines what classroom tools do and which tools are available. Today teachers already plays a role in designing and selecting technologies. AI in supporting teaching and learning can also raise new concerns. For example, the following Formative Assessment section raises concerns about bias and fairness that can lead to algorithmic discrimination. The evaluation of AI models is very important in decide the model and algorithm bias. And the different usage of diverse AI models in different stages can make a differentiation .

References:

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