Analytical Report

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Introduction

Businesses operate in a fiercely competitive and dynamic environment where the keys to survival are agility and speed. Businesses that are agile have a higher probability of adapting to changing market conditions. Speed of change and timely adaptation is also crucial, as the ability to launch new products at a rate faster than one's competitor has been identified by many as a major determinant of competitive advantage. The more knowledge a business has about its customers, products, markets, and competitors, the better off it will be. While many businesses realize that knowledge is valuable, only the industry leaders have done anything about it; hence, they are the leaders. All businesses have abundant data stored in their operational systems, such as billings, sales, and production. The challenge, however, is to tap into these data stores and generate knowledge. Unless knowledge is extracted, the data stores remain untapped gold mines (Desouza, 2002).

What is Artificial Intelligence

As an alternative to natural intelligence, researchers have developed a symbolic form of human intelligence: artificial intelligence (AI). Unlike the popular connotation of the term artificial intelligence, it has nothing in common with scientific robots or extraterrestrial spaceships. Instead, artificial - intelligence techniques can be applied in a limited fashion to imitate human decision-making. Various forms of artificial - intelligence techniques add to the value of systems through incorporation of human thought and decision processes. These systems help organizations overcome information overload syndromes through sifting through large data sets and discovering hidden patterns and trends. They are also used for capturing human expertise in computer models for distribution within organizations (Desouza, 2002).

AI and Executive support Systems

Executive support must be consistently visible and it must demonstrate commitment to a knowledge-based organization. Successful knowledge management is an organization wide initiative that must have a buy-in at all levels, from front-line workers to top-level executives, from suppliers to customers (Marakas, 2002).

With the Internet becoming the main support system of most organizations, data size and content has multiplied. Richer multimedia content and conversion of paper sources to electronic records have done little to ease the boom in unstructured data. To top it all, the continuous exchange of data between organizations - in unstructured forms of phone calls and file attachments - has built up large volumes of data in types, formats, and languages that are not entirely usable. Artificial intelligence (AI) can help to convert all these data into structured, usable formats (Marakas, 2002).

Artificial Intelligence outlines the latest trends in this field and the areas in which it has gained maximum acceptance. Data mining is proving to be a great tool for exploring new avenues to automatically examine, visualize, and uncover patterns in data that facilitate the decision-making process. It simplifies the task of inferring information and patterns from data that might run into hundreds of pages. AI-based algorithms impart a ‘sixth sense’ to the data mining systems. Data mining can be used to follow the growth patterns of a product, and gauge its market success and the number of repeat orders. This can help companies fine-tune their products and processes. The system could also look into volumes of transactional data to detect frauds that are not visible to the naked eye. Data mining solutions are designed for incorporation into existing intelligent technology infrastructures,

and hence, companies have been developing forecasting tools and predictive analysis technology to meet this requirement (Marakas, 2002).

AI-based solutions are redefining CRM systems, thereby enabling organizations to meet the increasing customer service demand and provide ease of operation cost effectively. New, improved speech recognition systems with automatic help desk options and call center solutions are already a big hit in the CRM space (Marakas, 2002).

Effective Leadership and SOG Curve

Business increasingly depends on Information Systems (IS) for cost reduction, coordination within and across organizations, reduction of cycle times, and efficient and effective delivery of goods and services. As a consequence of this growing dependence, the Chief Information Officer (CIO) has assumed a more important organizational role and has, in many enterprises, joined the ranks of the top management team. However, the effect of IS Leadership on firm performance is not well understood (Blanchard, 1998).

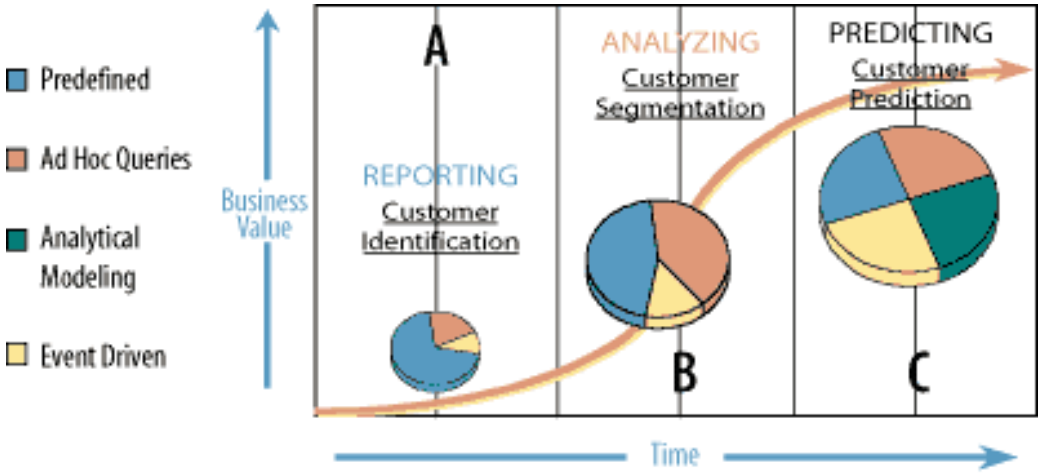

Figure : Stages of Growth

Effective IS leaders can be construed as business partners who

- Tie technology and innovation to specific business needs and goals
- Understand business needs and budgetary responsibilities beyond the IS department.

They also function as IS strategists who

- Promote an IS vision that supports the company strategy
- Implement best practices.
- Foster an innovative and creative IS staff

Effectively manage the IS function

- Develop leadership skills inside the IS organization
- Learn from both success and failure to improve IS processes and products.
- Create positive and rewarding work environments

Effective leadership will also build cooperative relationships and leverage technology vendors as partners . This will also result in educating the top management team on IS capabilities and set realistic expectations on how IS can enable business strategy (Blanchard, 1998).

Conclusion

The scale and significance of the potential consequences of AI make it an important futures concern. Perhaps more so than other emerging technologies, particularly because AI is concerned with replicating and enhancing intelligence, and this concept, related as it to consciousness, is at the heart of human identity. Added to this we have the uncertainty over what capabilities are being developed, and the real concern over not being able to control a

new and separate train of evolution that we may be setting in motion. It is clear that the developments in AI are overdue for exploration and futures analysis (Desouza, 2002).

Works Cited

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