Maximizing ROI with Microstrategy: A Total Economic Impact Study

Pranay Mungara

Engineering Manager, Business Intelligence, wesley chapel, FL, USA
pranay.mungara@gmail.com

Abstract New government IT initiatives in developing nations have a significant failure rate, with 35% being considered complete failures and about 50% being categorized as partial failures. For this study, ten senior managers from a public sector firm in Uganda were selected for their proven ability to successfully implement IT initiatives that utilized IT ROI reporting. Aiming to address the issue, "How did senior public sector officials in Uganda use IT ROI reports to reduce failure rates during planning, budgeting, and implementation of IT projects?" this qualitative single-case study examined the officials' utilization of these reports. The success framework and the model for strategic IT alignment both functioned as models for ideas. The qualitative data was gathered through in-person interviews and a review of the organization's performance reports. After the study team verified the data from the interviews and document reviews, the findings were more compelling. A number of points were raised regarding the following: the involvement of senior management in IT ROI reporting, the use of past reports for planning, budgeting, and implementation, the delegation of authority to project teams to assess IT ROI performance, the need for comprehensive and regularly available reports, and the implementation of a program to manage change. While some trailblazers are making good use of AI, most companies are struggling to capitalise on the prospects for value generation. This study echoes previous work that has highlighted the performance benefits, success criteria, and challenges of implementing AI. This review's findings highlight the gaps in our current understanding of AI and the areas that require greater investigation before we can build AI capabilities, incorporate them into business and IT plans, and ultimately increase value across all areas of a company. Only by meticulously embracing and executing these state-of-the-art technologies can organizations hope to thrive in the modern era of digital transformation alignment.

1. Introduction

Stakeholders concerned with maximizing the return on investment (ROI) of information technology recognize the significance of centralized comprehensive information resources to effective strategic business planning [1]. Strategic alignment of IT investment returns and corporate performance was investigated by Alryalat et al. (2017), who found that when corporate and IT strategies were more closely aligned, IT ROI increased and corporate performance was improved. They backed up their claims with data showing that this alignment improved IT return on investment. The key comprehensive information resources used to measure the link between the two variables were gathered from the prior IT investment reports.

External disruptors have altered the way in which systems build their long-term investment strategies, which has resulted in changes to the capital allocation process for hospitals over the course of the years.

System Investments in patient access points, technology innovation, and physician recruitment have shifted chief financial officers' (CFOs') priorities from large-scale hospital plant investments like new buildings or beds

[2]. Disruptors like Walgreens, United Healthcare, and CVS are aiming to shake up the healthcare industry, and large hospital systems are trying to keep their finances in good shape while increasing spending. This is due to the fact that, to stay ahead of the competition, it is necessary to put money into both established infrastructure and emerging areas of focus. The drive to establish physician networks, expand outpatient presence, and invest heavily in technology benefits larger hospital systems with strong access to financial markets, pricing power in the market, and additional lines of business.

This is because these hospital systems are able to improve their financial performance. As a consequence of this, hospital systems are having a difficult time finding the optimal balance between investing for the future and ensuring their continued profitability over the long run [3]. This issue is made even more difficult by the fact that non-profit hospitals have historically been more reluctant to take on debt in comparison to their FP counterparts [4]. There is a gap in our information regarding industry norms for evaluating the appropriate combination of equity and debt investments, as well as the influence on the financial performance of hospital systems, as a result of this behavior. This gap in knowledge is a result of the fact that this conduct has occurred.

1. In the modern, data-driven world, data analytics has developed into an essential component of commercial strategies. The use of data analytics is becoming increasingly widespread across all sectors of the economy, with the goals of maximizing return on investment (ROI), gaining important insights, and making well-informed decisions. Companies are able to discover opportunities, reveal hidden patterns, and spot trends that can have a big influence on their bottom line when they leverage the power of data analytics.

2. In this particular industry, one of the most significant advantages is the capability of data analytics to maximize return on investment. Identifying areas in which they may make improvements, streamline processes, and more effectively allocate resources is something that organizations can do by evaluating data from a variety of sources. Utilizing consumer purchase data, for instance, a retail organization might determine which products are the most profitable and then optimize their inventory management in accordance with those findings. Because of this, costs may be reduced, stockouts can be minimized, and ultimately, sales and return on investment can be increased.

3. Tips for optimizing return on investment through the utilization of data analytics:
- Define clear goals: Before beginning to work with data analytics, it is essential to establish goals and objectives that are crystal clear. In what particular aspects of your company do you wish to achieve optimal performance? Your attempts to analyze data will be more effective if you have defined goals, whether those goals are to improve marketing campaigns, enhance operational efficiency, or increase customer retention.
- Collect relevant data: Collecting data that is pertinent is absolutely necessary in order to guarantee correct and meaningful realizations. Data sources from both inside and outside the organization are included here. Sales numbers, customer information, and operational metrics are examples of internal data. On the other hand, market trends, competitor analysis, and industry benchmarking are examples of external data. The greater the breadth and variety of your data sources, the more valuable insights you will be able to extract from them.
- Utilize advanced analytics techniques: Data analysis approaches that are considered to be fundamental, such as descriptive analytics, can offer extremely helpful insights about previous performance. With that being said, in order for businesses to fully maximize their return on investment (ROI), they should implement sophisticated analytics techniques such as predictive analytics and prescriptive analytics. For the purpose of maximizing return on investment (ROI), these techniques can assist in identifying future trends, forecasting results, and recommending best tactics.

4. Case study: Company X, which is a provider of telecommunications services, desired to improve its return on investment by optimizing its strategy for client acquisition. The organization was able to identify certain client groupings that had the best potential for conversion by conducting an analysis of customer demographic data, call records, and historical sales data. The company was able to modify its marketing campaigns to more

effectively target these segments as a result of this insight, which led to a big rise in the rates at which it acquired new customers and a substantial improvement in its return on investment that was achieved.

Introduction to Data Analytics and ROI Optimization

Data analytics has become an integral part of business strategies in today's data-driven world

Tips for leveraging data analytics for ROI optimization

Another example is Company Y, a manufacturing firm, which used data analytics to optimize its production processes

A   B   C   D   E

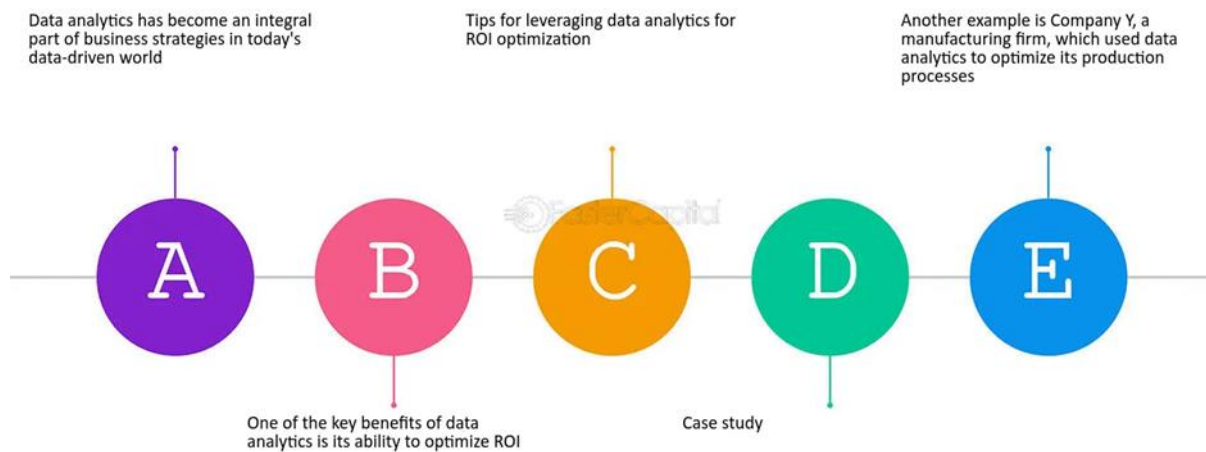One of the key benefits of data analytics is its ability to optimize ROI

Case study

Fig 1: Data analytics: Making the Most of Data for Successful Return on Investment Optimization (ROI) — An Introduction to Data Analytics and ROI Optimization

5. One other illustration of this is the manufacturing company Company Y, which utilized data analytics in order to improve the efficiency of its production procedures. The company was able to identify bottlenecks and inefficiencies in their manufacturing line by conducting an analysis of data from machine sensors as well as historical production data. After that, it adopted process changes, such as modifying production schedules and optimizing machine settings, which ultimately led to an increase in production output and a reduction in expenses. As a result, the company saw a large increase in its return on investment (ROI).

It can be concluded that data analytics is a valuable instrument that may help firms optimize their return on investment (ROI). The utilization of data analytics methodologies, the establishment of well-defined objectives, the gathering of pertinent data, and the application of advanced analytics allow organizations to make well-informed decisions, recognize opportunities, and improve their operations in order to maximize their return on investment [5].

The organization used the documented data and information from the organization's Annual Performance Reports (APRs) for fiscal years 2017/2018, 2019/2020, and 2021/2023 to inform the planning and budgeting of new projects, specifically focusing on the return on investment (ROI) that information technology could provide. It was widely agreed upon that the success of IT-enabled system implementations led to the conception of an enterprise resource planning (ERP) system with the goal of easing the integration of standalone systems. Online tax filing, online tax balance checking, online and real-time customer contact, one-stop centers, MTN mobile payment, a single customs clearance process, an electronic single window, and online viewing of tax approval status were all part of these systems.

2. REVIEW OF LITERATURE

2.1 Integration of artificial intelligence (AI) in business and IT strategies

Throughout the duration of the COVID-19 outbreak, it has been abundantly evident that changes in population, as well as changes in socio-technical and political-economic conditions, have swiftly accelerated. In order to

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successfully manage the ever-changing dynamics of the market and the behavior of their clients, modern businesses have been obliged to develop their adaptability abilities as a result of the challenging situations that they have been forced to face. Capabilities that are adaptable not only serve as a foundation for organizational change and digital transformation, but they also make it feasible for organizations to adjust quickly to changing circumstances [6]. On the other hand, there is still a lack of strategic guidelines that are necessary in order to keep up with the exponential pace of modern technology. Technologies that are considered to be cutting edge are utilized by businesses that are currently in operation in order to improve and adjust their internal operations. One of the technologies that can be classified under this category is the next generation of analytics, which is also generally known as artificial intelligence [7].

"Artificial intelligence" is a word that is used in the field of computer science to refer to a wide range of cutting-edge analytics, applications, and logic-based approaches that are designed to simulate human behavior, decision-making, and processes such as learning and problem-solving. In addition, as a component of the digital transformation, technologies that utilize artificial intelligence provide businesses a multitude of chances to transform their operations across a tremendous variety of business sectors [8]. For instance, the use of decision-making that is driven by artificial intelligence to the forecasting of sales, loans, or credit [9] is an example. In addition, artificial intelligence has the potential to offer major advantages by automating tasks that were previously performed manually and by enabling better procedures in which humans and AI work together in a constructive manner.

A research that was published by Gartner not too long ago stated that senior executives believe that analytics and artificial intelligence are essential game changers that would enable firms to survive the current crisis. Currently, there is a significant amount of academic discourse taking place regarding the challenges associated with the use of artificial intelligence, as well as the skills and capacities that are necessary for the achievement of useful results from a strategic perspective [10].

Despite the excitement that surrounds the potential that artificial intelligence carries, this is the situation that actually exists. In order for enterprises to successfully implement artificial intelligence and enable a high effect that does not reverse all of the expenses and work, they need to build a compelling common vision when a significant shift is required [11].

There is a possibility that businesses of any size could reap major benefits from the implementation of artificial intelligence. In addition, in order to establish skills for adaptive transformation and sense-and-respond technologies, companies need to make use of a variety of different technologies at their disposal, such as artificial intelligence. These skills will enable greater performance, while also fostering innovation, enhancing customer service and experience, and enhancing consumer satisfaction [12].
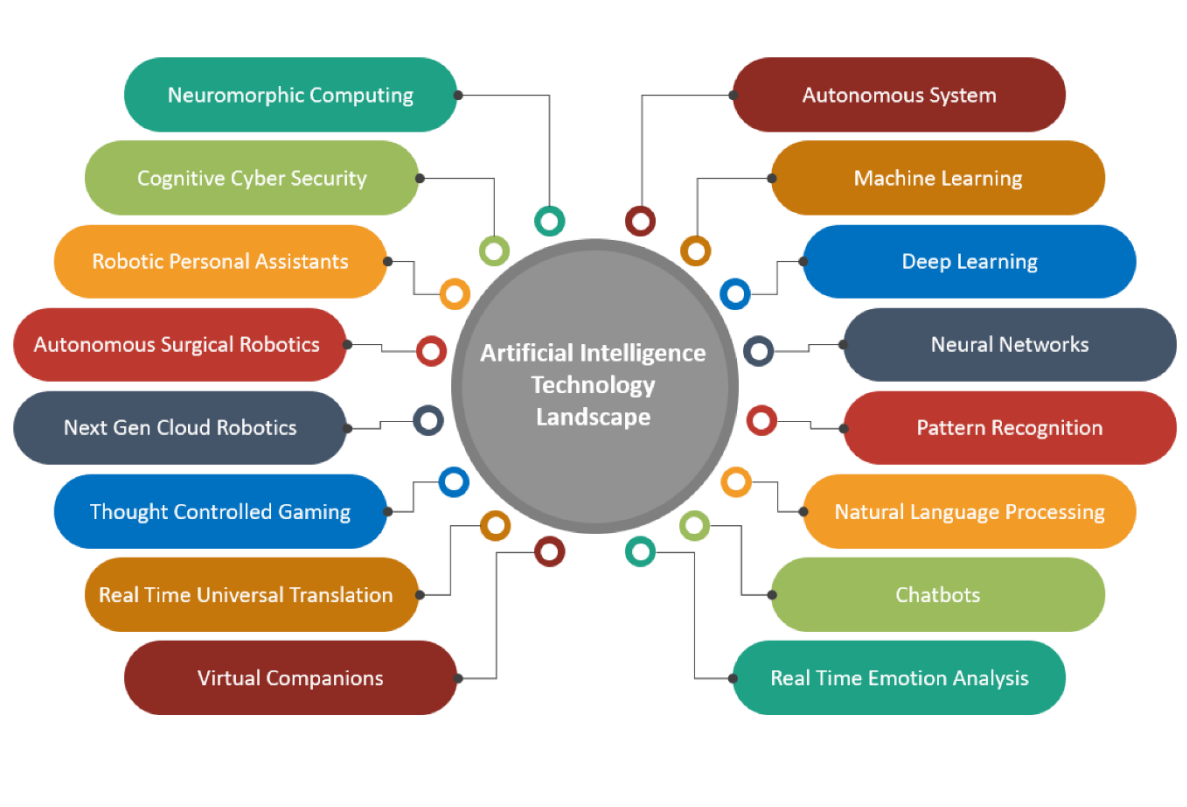
Figure 2. Resources devoted to AI concept development and implementation.

In the context of the field of artificial intelligence (AI), the phrase "artificial intelligence" (AI) refers to the capability of machines to mimic human intelligence and perform tasks that would typically require human intelligence. Education, the ability to solve problems, the ability to make decisions, and the comprehension of natural language are all included in these tasks [13]. Some of the technologies that fall under the category of artificial intelligence are illustrated in Figure 2. These technologies include machine learning, natural language processing, robotics, and computer vision.

The subject of artificial intelligence known as machine learning involves teaching computer programs to recognize patterns in data and then using those patterns to make predictions or judgments based on the data. Machine learning comes from the discipline of artificial intelligence. Deep learning is a subfield of machine learning that involves the utilization of neural networks that have multiple layers in order to process complex inputs like speech or images. Deep learning is accomplished through the employment of neural networks. Natural language processing is the ability of computers to comprehend, interpret, and produce human language. This encompasses both spoken and written language. The phrase "natural language processing" alludes to this capability. Computer vision refers to the capacity of computers to analyze and comprehend visual information, such as images and films. images and videos are examples of visual information.

It has been discovered through research on information systems (IS) and business that is being carried out by academic and professional institutes that artificial intelligence is gaining momentum in the industry. There has been a steady advancement in the research that has been carried out on the topic of artificial intelligence ever since the 1950s, when the idea of AI was first presented to the public for the first time. Over the past ten to fifteen years, there has been a significant acceleration in the study and practical use of artificial intelligence. This is despite the fact that there has been a significant acceleration. The increasing availability of large amounts of data, advancements in computing processing capability, and the advent of fresh artificial intelligence methodologies, learning algorithms, and applications are all factors that have contributed to this development [14].

A wide variety of societal disciplines, including marketing, healthcare, and human rights, are experiencing an expansion of the effect of artificial intelligence (AI). Leaving the development of applications that use artificial intelligence to proceed without any kind of supervision can out to be counterproductive. Consequently, it is of the utmost importance to give help for a trustworthy artificial intelligence that abides by the requirements of the law and upholds moral principles (both from a technological and a social point of view). It is therefore necessary for the regulation of artificial intelligence to extend beyond the content alone and incorporate the analysis of the content as well [15]. AI ought to be regarded as a cutting-edge computational frontier, which is the reason why this is the case. With the aim of addressing issues such as the lack of alignment between business users and analytics practitioners, governance mechanisms for analytics are required in addition to governance mechanisms for information technology and data. This is necessary in order to address concerns.

2.2 Applying return on investment (ROI) to human capital investments

It would appear that not only are shareholders in organizations demanding an assessment of their sponsored human capital (HC) investment, but so are authorities at the state, federal, and international levels, as well as international nonprofit funders and commissioners. It seems like these standards are all about figuring out how an investment turned out and being able to attribute the results back to the investment [16]. The proliferation of models for assessing HC investments like these is a direct result of this. Some have called the Logical Framework Approach (LFA) "an all-pervasive tool," and it is certainly one of the most used evaluation approaches.

For the most part, it evaluates investments in social change by employing the logic model, which consists of input, activity, output, and outcome. The Learning Evaluation Model developed by Kirkpatrick is one example of an evaluation instrument that may be used for training purposes. The application of these kinds of strategies can be difficult to accomplish.

Although it has been mentioned that return on investment (ROI) is being used to evaluate investments in the field of healthcare [17], there is a very limited amount of study on how the metric is really implemented in practice. An additional concern was raised regarding the relevance of the ROI statistic to human resources, and it was suggested that "the potential of financial metrics such as return on investment" has not been thoroughly studied. Previous research has investigated the return on investment (ROI) of international assignments. For the purpose of carrying out evaluations, none of these had a return on investment (ROI) methodology, which is a formal process that incorporates the ROI statistic. Therefore, it is quite probable that different processes would have been taken in order to evaluate the return on investment (ROI) of an international assignment carried out by each of the participating companies. As a result of this, there is a lack of clarification in the application of the technique and the formula that the participants applied in order to assess the return on investment with regard to their overseas assignments. Because of this, there is a lack of clarity. Therefore, despite the fact that challenges were identified, it is impossible to establish the point at which the process of implementing ROI becomes problematic. This is because the point at which the implementation of the process becomes problematic is not known.

In order to make an investment in health care, it would be necessary to create and implement interventions that have the potential to bring about a change in the individual through the means of education, training, or professional medical treatment [18]. Following the implementation of these interventions, returns would be provided to the individual, the organization, and/or the government. According to the research that has been conducted, the evaluation of health care investments at the national or country level is discussed. In most cases, the returns that the nation receives for the investments that it makes in its population, such as in education, are the primary emphasis of this statistic. Take into consideration the first example: [19] It has been proved by researchers that investments in a nation's human capital result in return on investment that is favourable.

3. Measuring Social Media Performance: Applicability of the ROI

As a result of the increasing number of companies all over the world that are utilizing social media, it has finally turned into a significant business. The amount of money that is spent on social media in the United States is

expected to increase by 17.1% from the previous year to the present year, reaching $94.4 billion in 2023, which is an increase from $80.6 billion in 2022. This information comes from "Statisca." The amount of money spent on social media in the United States has been growing at an average pace of 28.2% between the years 2018 and 2023. Spending on social media advertising in Asia is projected to expand from $ 99.8 billion in 2022 to $119.6 billion in 2023, which represents an annual increase of 19.8%. This is despite the fact that it is estimated that spending on social media advertising in Asia will reach $119.6 billion in 2023. A compound annual growth rate (CAGR) of 10.22% is predicted to be achieved between the years 2023 and 2027, according to projections.

Consequently, it is anticipated that the overall amount spent on advertising will reach $176.5 billion by the year 2027, with China being the nation that would lead the way as the country with the largest amount spent on advertising. A recent survey conducted by "Uswitch" found that there were more than 1,300 hours spent on social media by Americans in the year 2020.

This presents a dilemma for managers who are aware of the significance of social media but have difficulty quantifying its influence. This is especially applicable in situations where upper management requires evidence of prospective return on investment prior to allocating marketing money. Additionally, it has not yet been established a comprehensive overview of the various interpretations of "ROI" for organizations that aim to achieve returns through the implementation of social media. This is despite the fact that return on investment (ROI) is a widely accepted measure of tangible outcomes from investments ([20]).

In new advertising medium, the ongoing questioning of return on investment (ROI) can be explained by the contradiction that exists between intuitive understanding and the requirement for quantifiable statistics.

The use of social media marketing across many platforms is on the rise as companies jump on the bandwagon, as reported in [21]. Because of how commonplace internet use and social media engagement have become, this has happened. Consequently, advertising content posted on social media sites is a viable option for generating revenue. Looking back at what has happened throughout history, it is clear that social media is here to stay. It has altered cultural norms in both beneficial and negative ways, depending on the specific context, and it has done so in a very short amount of time. The connections between companies, customers, brands, and business organizations have also changed as a result of people's increased usage of social media. Thus, social media has grown into a must-have tactic for corporate executives. There is still a lot of untapped potential for social media to help both brands and consumers through smart use.

The logical conclusion is that companies can benefit from understanding how to calculate the "Return on Investment: ROI" of their social media marketing initiatives, which will allow them to better promote their products and services [22]. This study will explore the use of return on investment (ROI) as a way to measure the efficacy of social media. The evaluation of return on investment (ROI) can range from straightforward to intricate, depending on the goals and objectives of a firm. It is said that businesses are able to generate important insights that can assist in the enhancement of marketing strategies in the promotion of products and services if they are aware of how to measure the return on investment from social media.

Furthermore, [23] underlined the major benefits of adopting social media for small and medium firms (SMEs), which include the development of a brand, the establishment of a community, high levels of consumer happiness and loyalty, and improved performance. In order to establish a brand, you need to increase visitors, search ranking, and positive newspaper coverage. Engaging customers and producing material that is tailored to their likes and dislikes are essential components of community building.

The utilization of social media can enhance customer satisfaction and loyalty by providing a platform for two-way contact, feedback, and listening to customers. Gains in revenue, decreases in expenditure, and elimination of marketing budget over time can all be used as metrics to gauge success. In this context, "social media" means any number of online tools that facilitate two-way communication, knowledge sharing, and community building among users, such as websites, mobile apps, and social networks. Despite the fact that many definitions have coexisted and gained broad acceptance in the literature, no universally accepted phrase has been used to describe social media [24].

Bear in mind, though, that the use of the internet or other forms of online technology is implied in almost every definition of social media. To provide just one example, the best approach to define social media would be as a technologically-based type of social interaction that is interactive, participative, and collaborative. Moreover,

everyone agrees that the Web 2.0 platform's technologies were crucial to the expansion and extensive use of social media. "Social media" is described as "online applications that are constructed using Web 2.0 principles and technologies," according to [25].

But Web 2.0 is more than just a website; it's an idea and a platform that leverages group intelligence. Similar to what you might find in [26], social media is defined as a set of web-based applications that are based on Web 2.0 ideas and technology that allow users to create and share their own content.

Also, according to one definition, social media are websites that let users build profiles and show off their connections with other people [27]. Further, data showing the massive user base of social media platforms provides strong evidence that these platforms are effective advertising platforms. This is similar to the situation that exists in the advertising sector. Due to the fact that it has such a large audience, social media gives a chance for advertising that is exceptionally promising and difficult to compete with [28].

4. Conclusion

The widespread usage of social media icons attests to the pervasiveness of social media in mainstream culture. Now that companies don't have uniform measurements, measuring social media performance has stalled. The measurement capabilities, particularly those utilizing financial indicators like return on investment (ROI), are, however, evolving towards more precision and diversity. Hybrid metrics and key performance indicators are anticipated to evolve into more precise measurements in the next years, notwithstanding the lack of a universally accepted metric for gauging social media performance and the efficacy of return on investment as a performance measure. A movement is growing for brands to be more forthright and honest with their customer service. There are many firms that cannot immediately link social media to revenue. Furthermore, worth should not necessarily be evaluated in terms of monetary value. On the other hand, statistics such as audience reach and engagement should be something that is taken into consideration. Given this, the most effective method for marketers to evaluate the performance of their social media efforts is to employ a combination of quantitative and qualitative characteristics in their evaluations. People think AI is going to completely alter the way companies function. This study explores the various ways AI may be integrated with IT and business strategies to assist firms in navigating the digital landscape and accomplishing their objectives. Based on the findings, digital transformation alignment may be achieved through the integration of AI capabilities with business/IT strategy. Additionally, the research concludes that the combined benefits of creative and routine AI deployment are more significant than any individual benefit. The study's central finding is that AI is more than a tool; it is a powerful force with the potential to alter an organization's inherent character. In their pursuit of AI's benefits, companies should keep in mind the technologies' potential to open up new avenues of opportunity and release previously unrealized wealth. This calls for an in-depth familiarity with the technology as well as an openness to challenging traditional wisdom and venturing into unknown realms. Integrating AI with business and IT goals is like performing alchemy; it allows firms to turn data and technology into competitive advantages. For this to work, you need to know your way around AI's fundamentals and be not afraid to try new things and see what happens.

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