ai and business intelligence

AI and Business Intelligence: A Powerful Synergy Reshaping the Business Landscape

Author: Dr. Evelyn Reed, PhD in Data Science & Analytics, Certified Business Intelligence Professional (CBIP), with 15 years of experience leading AI and BI initiatives in Fortune 500 companies.

Keywords: AI and Business Intelligence, Artificial Intelligence, Business Intelligence, Data Analytics, Machine Learning, Predictive Analytics, AI-powered BI, Data-driven Decision Making, Business Transformation.

Abstract: This article delves into the transformative relationship between Artificial Intelligence (AI) and Business Intelligence (BI). We explore the historical evolution of both fields, their convergence, and the current applications that are reshaping business strategies across diverse industries. We examine the benefits, challenges, and future implications of integrating AI and BI, highlighting the crucial role this synergy plays in fostering data-driven decision-making and competitive advantage.

1. The Genesis of Business Intelligence and the Rise of AI

Business Intelligence (BI), in its rudimentary form, has existed for centuries. Merchants and traders have always relied on data – sales figures, inventory levels, market trends – to inform their decisions. However, the formalization of BI as a distinct field emerged in the late 20th century, driven by the increasing availability of computing power and data storage capacity. Early BI systems focused primarily on reporting and data warehousing, offering descriptive analytics to understand past performance.

The advent of Artificial Intelligence, on the other hand, can be traced back to the Dartmouth Workshop in 1956. While early AI research focused primarily on symbolic reasoning and expert systems, the field has undergone a dramatic transformation in recent decades, fueled by advancements in machine learning (ML), deep learning (DL), and big data technologies. These advancements have enabled AI to move beyond symbolic reasoning and engage in tasks requiring pattern recognition, prediction, and complex decision-making.

2. The Convergence of AI and Business Intelligence

The convergence of AI and BI represents a powerful synergy. Traditional BI excels at descriptive analytics, providing insights into past events. AI, however, significantly extends these capabilities by incorporating predictive and prescriptive analytics. This means that AI-powered BI systems can not only tell us what happened but also why it happened and what might happen in the future. Furthermore, these systems can even suggest optimal actions to take, leading to improved decision-making and strategic planning.

This integration manifests in various ways:

AI-driven data preparation: AI algorithms automate data cleaning, transformation, and feature engineering, significantly reducing the time and effort required for data preparation, a traditionally laborious aspect of BI.
Enhanced data visualization: AI can personalize dashboards and reports, adapting the visual presentation of data based on individual user needs and preferences, making complex information more accessible and understandable.
Predictive modeling and forecasting: AI algorithms, particularly machine learning models, can analyze historical data to predict future trends and outcomes, enabling proactive decision-making and risk management.
Automated insights generation: AI can automatically identify patterns and anomalies in data, flagging potentially important insights that might otherwise be missed by human analysts.
Prescriptive analytics: AI can go beyond prediction by suggesting optimal actions based on predicted outcomes, automating decision-making processes in certain contexts.

3. Current Applications of AI and Business Intelligence

The applications of AI and Business Intelligence are vast and rapidly expanding across diverse sectors. Some notable examples include:

Customer Relationship Management (CRM): AI-powered CRM systems use customer data to personalize marketing campaigns, predict customer churn, and improve customer service.
Supply Chain Optimization: AI algorithms optimize inventory management, predict demand fluctuations, and improve logistics efficiency.
Fraud Detection: AI detects fraudulent transactions in real-time, minimizing financial losses.
Risk Management: AI analyzes various data sources to assess and mitigate risks in areas such as credit scoring, insurance, and investment.
Personalized Recommendations: AI powers recommendation engines in e-commerce, entertainment, and other industries, enhancing user experience and driving sales.

4. Challenges and Considerations in Implementing AI and BI

Despite its immense potential, the implementation of AI and BI faces several challenges:

Data quality and availability: AI and BI systems are only as good as the data they are trained on. Poor data quality can lead to inaccurate predictions and flawed insights.
Integration complexities: Integrating AI and BI systems with existing infrastructure can be complex and require significant technical expertise.
Skills gap: There is a growing demand for professionals with expertise in both AI and BI,

creating a skills gap that needs to be addressed.
Ethical considerations: The use of AI in BI raises ethical concerns regarding data privacy, bias in algorithms, and the potential for job displacement.

5. The Future of AI and Business Intelligence

The future of AI and BI is bright. We can expect to see further advancements in areas such as:

Explainable AI (XAI): Increasing transparency and interpretability of AI algorithms, building trust and understanding.
Edge AI: Deploying AI directly on devices at the edge of the network, reducing latency and improving real-time decision-making.
Quantum computing: Leveraging quantum computing to solve complex optimization problems that are currently intractable for classical computers.
AI-driven automation: Further automation of data analysis and decision-making processes, freeing up human analysts to focus on more strategic tasks.

Conclusion

The convergence of AI and Business Intelligence is revolutionizing the business world. By combining the descriptive power of BI with the predictive and prescriptive capabilities of AI, organizations can gain unprecedented insights into their operations, customers, and markets. While challenges remain, the benefits of integrating AI and BI far outweigh the risks, making it a critical investment for businesses seeking to remain competitive in today's data-driven economy. The continued development and refinement of AI and BI technologies will undoubtedly further enhance their capabilities, unlocking even greater potential for business transformation in the years to come.

FAQs

1. What is the difference between AI and BI? BI focuses on analyzing historical data to understand past performance, while AI uses algorithms to predict future outcomes and even suggest optimal actions.

2. How can AI improve the accuracy of BI insights? AI can automate data cleaning, identify patterns humans might miss, and build more robust predictive models.

3. What are the ethical concerns around AI in BI? Concerns include data privacy violations, algorithmic bias leading to unfair outcomes, and potential job displacement.

4. What are the key benefits of integrating AI and BI? Improved decision-making, enhanced forecasting, automated insights, and increased efficiency.

5. What skills are needed for AI and BI roles? Strong analytical skills, programming expertise (Python, R), knowledge of databases and data warehousing, and

understanding of machine learning algorithms.

6. How much does it cost to implement AI and BI? Costs vary greatly depending on the scale of implementation, existing infrastructure, and required expertise.

7. What are some examples of successful AI and BI implementations? Netflix's recommendation engine, Amazon's supply chain optimization, and fraud detection systems in financial institutions.

8. What are the challenges of implementing AI and BI? Data quality issues, integration complexities, skills gaps, and ethical considerations.

9. What is the future of AI and BI? Continued advancements in explainable AI, edge AI, and quantum computing will further enhance their capabilities and applications.

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ai and business intelligence: AI Meets BI Lakshman Bulusu, Rosendo Abellera, 2020-11-03 With the emergence of Artificial Intelligence (AI) in the business world, a new era of Business Intelligence (BI) has been ushered in to create real-world business solutions using analytics. BI developers and practitioners now have tools and technologies to create systems and solutions to guide effective decision making. Decisions can be made on the basis of more reliable and accurate information and intelligence, which can lead to valuable, actionable insights for business. Previously, BI professionals were stymied by bad or incomplete data, poorly architected solutions, or even just outright incapable systems or resources. With the advent of AI, BI has new possibilities for effectiveness. This is a long-awaited phase for practitioners and developers and, moreover, for executives and leaders relying on knowledgeable and intelligent decision making for their organizations. Beginning with an outline of the traditional methods for implementing BI in the enterprise and how BI has evolved into using self-service analytics, data discovery, and most recently AI, AI Meets BI first lays out the three typical architectures of the first, second, and third generations of BI. It then takes an in-depth look at various types of analytics and highlights how each of these can be implemented using AI-enabled algorithms and deep learning models. The crux of the book is four industry use cases. They describe how an enterprise can access, assess, and perform analytics on data by way of discovering data, defining key metrics that enable the same, defining governance rules, and activating metadata for AI/ML recommendations. Explaining the implementation specifics of each of these four use cases by way of using various AI-enabled machine learning and deep learning algorithms, this book provides complete code for each of the implementations, along with the output of the code, supplemented by visuals that aid in BI-enabled decision making. Concluding with a brief discussion of the cognitive computing aspects of AI, the book looks at future trends, including augmented analytics, automated and autonomous BI, and security and governance of AI-powered BI.

ai and business intelligence: AI-Powered Business Intelligence Tobias Zwingmann, 2022-06-10 Use business intelligence to power corporate growth, increase efficiency, and improve corporate decision making. With this practical book featuring hands-on examples in Power BI with basic Python and R code, you'll explore the most relevant AI use cases for BI, including improved forecasting, automated classification, and AI-powered recommendations. And you'll learn how to draw insights from unstructured data sources like text, document, images files. Author Tobias Zwingmann helps BI professionals, business analysts, and data analytics understand high-impact areas of artificial intelligence. You'll learn how to leverage popular AI-as-a-service and AutoML platforms to ship enterprise-grade proofs of concept without the help of software engineers or data scientists. Learn how AI can generate business impact in BI environments Use AutoML for automated classification and improved forecasting Implement recommendation services to support decision-making Draw insights from text data at scale with NLP services Extract information from documents and images with computer vision services Build interactive user frontends for AI-powered dashboard prototypes Implement an end-to-end case study for building an AI-powered customer analytics dashboard

ai and business intelligence: Artificial Intelligence for Business Doug Rose, 2020-12-09 The Easy Introduction to Machine Learning (Ml) for Nontechnical People--In Business and Beyond Artificial Intelligence for Business is your plain-English guide to Artificial Intelligence (AI) and Machine Learning (ML): how they work, what they can and cannot do, and how to start profiting from them. Writing for nontechnical executives and professionals, Doug Rose demystifies AI/ML technology with intuitive analogies and explanations honed through years of teaching and consulting. Rose explains everything from early “expert systems” to advanced deep learning networks. First, Rose explains how AI and ML emerged, exploring pivotal early ideas that continue to influence the field. Next, he deepens your understanding of key ML concepts, showing how machines can create strategies and learn from mistakes. Then, Rose introduces current powerful neural networks: systems inspired by the structure and function of the human brain. He concludes by introducing leading AI applications, from automated customer interactions to event prediction. Throughout, Rose stays focused on business: applying these technologies to leverage new opportunities and solve real problems. Compare the ways a machine can learn, and explore current leading ML algorithms Start with the right problems, and avoid common AI/ML project mistakes Use neural networks to automate decision-making and identify unexpected patterns Help neural networks learn more quickly and effectively Harness AI chatbots, virtual assistants, virtual agents, and conversational AI applications

ai and business intelligence: *INTERSECTION OF AI AND BUSINESS INTELLIGENCE IN DATA-DRIVEN DECISION-MAKING.* , 2024

ai and business intelligence: Artificial Intelligence and Machine Learning in Business Management Sandeep Kumar Panda, Vaibhav Mishra, R. Balamurali, Ahmed A. Elngar, 2021-11-04 Artificial Intelligence and Machine Learning in Business Management The focus of this book is to introduce artificial intelligence (AI) and machine learning (ML) technologies into the context of business management. The book gives insights into the implementation and impact of AI and ML to business leaders, managers, technology developers, and implementers. With the maturing use of AI or ML in the field of business intelligence, this book examines several projects with innovative uses of AI beyond data organization and access. It follows the Predictive Modeling Toolkit for providing new insight on how to use improved AI tools in the field of business. It explores cultural heritage values and risk assessments for mitigation and conservation and discusses on-shore and off-shore technological capabilities with spatial tools for addressing marketing and retail strategies, and insurance and healthcare systems. Taking a multidisciplinary approach for using AI, this book provides a single comprehensive reference resource for undergraduate, graduate, business professionals, and related disciplines.

ai and business intelligence: Artificial Intelligence for Business Jason L. Anderson, Jeffrey L. Coveyduc, 2020-04-09 Artificial Intelligence for Business: A Roadmap for Getting Started with AI will provide the reader with an easy to understand roadmap for how to take an organization through the adoption of AI technology. It will first help with the identification of which business problems and opportunities are right for AI and how to prioritize them to maximize the likelihood of success. Specific methodologies are introduced to help with finding critical training data within an organization and how to fill data gaps if they exist. With data in hand, a scoped prototype can be built to limit risk and provide tangible value to the organization as a whole to justify further investment. Finally, a production level AI system can be developed with best practices to ensure quality with not only the application code, but also the AI models. Finally, with this particular AI adoption journey at an end, the authors will show that there is additional value to be gained by iterating on this AI adoption lifecycle and improving other parts of the organization.

ai and business intelligence: E-Business Robert M.X. Wu, Marinela Mircea, 2021-05-19 This book provides the latest viewpoints of scientific research in the field of e-business. It is organized into three sections: “Higher Education and Digital Economy Development”, “Artificial Intelligence in E-Business”, and “Business Intelligence Applications”. Chapters focus on China’s higher education in e-commerce, digital economy development, natural language processing applications in business, Information Technology Governance, Risk and Compliance (IT GRC), business intelligence, and more.

ai and business intelligence: *AI-Enabled Analytics for Business* Lawrence S. Maisel, Robert J. Zwerling, Jesper H. Sorensen, 2022-01-19 We are entering the era of digital transformation where human and artificial intelligence (AI) work hand in hand to achieve data driven performance. Today, more than ever, businesses are expected to possess the talent, tools, processes, and capabilities to enable their organizations to implement and utilize continuous analysis of past business performance and events to gain forward-looking insight to drive business decisions and actions. AI-Enabled Analytics in Business is your Roadmap to meet this essential business capability. To ensure we can plan for the future vs react to the future when it arrives, we need to develop and deploy a toolbox of tools, techniques, and effective processes to reveal forward-looking unbiased insights that help us understand significant patterns, relationships, and trends. This book promotes clarity to enable you to make better decisions from insights about the future. Learn how advanced analytics ensures that your people have the right information at the right time to gain critical insights and performance opportunities Empower better, smarter decision making by implementing AI-enabled analytics decision support tools Uncover patterns and insights in data, and discover facts about your business that will unlock greater performance Gain inspiration from practical examples and use cases showing how to move your business toward AI-Enabled decision making AI-Enabled Analytics in Business is a must-have practical resource for directors, officers, and executives across various functional disciplines who seek increased business performance and valuation.

ai and business intelligence: Artificial Intelligence for Business Analytics Felix Weber, 2023-03-01 While methods of artificial intelligence (AI) were until a few years ago exclusively a topic of scientific discussions, today they are increasingly finding their way into products of everyday life. At the same time, the amount of data produced and available is growing due to increasing digitalization, the integration of digital measurement and control systems, and automatic exchange between devices (Internet of Things). In the future, the use of business intelligence (BI) and a look into the past will no longer be sufficient for most companies.Instead, business analytics, i.e., predictive and predictive analyses and automated decisions, will be needed to stay competitive in the future. The use of growing amounts of data is a significant challenge and one of the most important areas of data analysis is represented by artificial intelligence methods.This book provides a concise introduction to the essential aspects of using artificial intelligence methods for business analytics, presents machine learning and the most important algorithms in a comprehensible form using the business analytics technology framework, and shows application scenarios from various industries. In addition, it provides the Business Analytics Model for Artificial Intelligence, a reference procedure model for structuring BA and AI projects in the company. This book is a translation of the original German 1st edition Künstliche Intelligenz für Business Analytics by Felix Weber, published by Springer Fachmedien Wiesbaden GmbH, part of Springer Nature in 2020. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation. Springer Nature works continuously to further the development of tools for the production of books and on the related technologies to support the authors.

ai and business intelligence: Artificial Intelligence and its Impact on Business Wolfgang Amann, Agata Stachowicz-Stanusch, 2020-06-01 Artificial intelligence (AI) technologies are one of top investment priorities in these days. They are aimed at finding applications in fields of special value for humans, including education. The fourth industrial revolution will replace not only human hands but also human brains, the time of machines requires new forms of work and new ways of business education, however we must be aware that if there is no control of human-chatbot interaction, there is a risk of losing sight of this interaction’s goal. First, it is important to get people to truly understand AI systems, to intentionally participate in their use, as well as to build their trust, because “the measure of success for AI applications is the value they create for human lives” (Stanford University 2016, 33). Consequently, society needs to adapt to AI applications if it is to extend its benefits and mitigate the inevitable errors and failures. This is why it is highly recommended to create new AI-powered tools for education that are the result of cooperation between AI researchers and humanities’ and social sciences’ researchers, who can identify cognitive processes and human behaviors. This book is authored by a range of international experts with a diversity of backgrounds and perspectives hopefully bringing us closer to the responses for the questions what we should teach (what the ‘right’ set of future skills is), how we should teach (the way in which schools should teach and assess them) and where we should teach (what implications does AI have for today’s education infrastructure). We must remember as we have already noticed before “…education institutions would need to ensure that that they have an appropriate infrastructure, as well as the safety and credibility of AI-based systems. Ultimately, the law and policies need to adjust to the rapid pace of AI development, because the formal responsibility for appropriate learning outcomes will in future be divided between a teacher and a machine. Above all, we should ensure that AI respect human and civil rights (Stachowicz-Stanusch, Amann, 2018)”.

ai and business intelligence: Research Anthology on Artificial Intelligence Applications in Security Management Association, Information Resources, 2020-11-27 As industries are rapidly being digitalized and information is being more heavily stored and transmitted online, the security of information has become a top priority in securing the use of online networks as a safe and effective platform. With the vast and diverse potential of artificial intelligence (AI) applications, it has become easier than ever to identify cyber vulnerabilities, potential threats, and the identification of solutions to these unique problems. The latest tools and technologies for AI applications have untapped potential that conventional systems and human security systems cannot meet, leading AI to be a frontrunner in the fight against malware, cyber-attacks, and various security issues. However, even with the tremendous progress AI has made within the sphere of security, it’s important to understand the impacts, implications, and critical issues and challenges of AI applications along with the many benefits and emerging trends in this essential field of security-based research. Research Anthology on Artificial Intelligence Applications in Security seeks to address the fundamental advancements and technologies being used in AI applications for the security of digital data and information. The included chapters cover a wide range of topics related to AI in security stemming from the development and design of these applications, the latest tools and technologies, as well as the utilization of AI and what challenges and impacts have been discovered along the way. This resource work is a critical exploration of the latest research on security and an overview of how AI has impacted the field and will continue to advance as an essential tool for security, safety, and privacy online. This book is ideally intended for cyber security analysts, computer engineers, IT specialists, practitioners, stakeholders, researchers, academicians, and students interested in AI applications in the realm of security research.

ai and business intelligence: *Artificial Intelligence* Harvard Business Review, 2019 Companies that don't use AI to their advantage will soon be left behind. Artificial intelligence and machine learning will drive a massive reshaping of the economy and society. What should you and your company be doing right now to ensure that your business is poised for success? These articles by AI experts and consultants will help you understand today's essential thinking on what AI is capable of now, how to adopt it in your organization, and how the technology is likely to evolve in the near future. Artificial Intelligence: The Insights You Need from Harvard Business Review will help you spearhead important conversations, get going on the right AI initiatives for your company, and capitalize on the opportunity of the machine intelligence revolution. Catch up on current topics and deepen your understanding of them with the Insights You Need series from Harvard Business Review. Featuring some of HBR's best and most recent thinking, Insights You Need titles are both a primer on today's most pressing issues and an extension of the conversation, with interesting research, interviews, case studies, and practical ideas to help you explore how a particular issue will impact your company and what it will mean for you and your business.

ai and business intelligence: AI-Driven Intelligent Models for Business Excellence Samala Nagaraj, Korupalli V. Rajesh Kumar, 2022 As digital technology is taking the world in a revolutionary way and business related aspects are getting smarter this book is a potential research source on the Artificial Intelligence-based Business Applications and Intelligence--

ai and business intelligence: *Artificial Intelligence for Business* Rajendra Akerkar, 2018-08-11 This book offers a practical guide to artificial intelligence (AI) techniques that are used in business. The book does not focus on AI models and algorithms, but instead provides an overview of the most popular and frequently used models in business. This allows the book to easily explain AI paradigms and concepts for business students and executives. Artificial Intelligence for Business is divided into six chapters. Chapter 1 begins with a brief introduction to AI and describes its relationship with machine learning, data science and big data analytics. Chapter 2 presents core machine learning workflow and the most effective machine learning techniques. Chapter 3 deals with deep learning, a popular technique for developing AI applications. Chapter 4 introduces recommendation engines for business and covers how to use them to be more competitive. Chapter 5 features natural language processing (NLP) for sentiment analysis focused on emotions. With the help of sentiment analysis, businesses can understand their customers better to improve their experience, which will help the businesses change their market position. Chapter 6 states potential business prospects of AI and the benefits that companies can realize by implementing AI in their processes.

ai and business intelligence: Adaptive Business Intelligence Zbigniew Michalewicz, Martin Schmidt, Matthew Michalewicz, Constantin Chiriac, 2006-12-02 Adaptive business intelligence systems combine prediction and optimization techniques to assist decision makers in complex, rapidly changing environments. These systems address fundamental questions: What is likely to happen in the future? What is the best course of action? Adaptive Business Intelligence explores elements of data mining, predictive modeling, forecasting, optimization, and adaptability. The book explains the application of numerous prediction and optimization techniques, and shows how these concepts can be used to develop adaptive systems. Coverage includes linear regression, time-series forecasting, decision trees and tables, artificial neural networks, genetic programming, fuzzy systems, genetic algorithms, simulated annealing, tabu search, ant systems, and agent-based modeling.

ai and business intelligence: AI and Machine Learning for Coders Laurence Moroney, 2020-10-01 If you're looking to make a career move from programmer to AI specialist, this is the ideal place to start. Based on Laurence Moroney's extremely successful AI courses, this introductory book provides a hands-on, code-first approach to help you build confidence while you learn key topics. You'll understand how to implement the most common scenarios in machine learning, such as computer vision, natural language processing (NLP), and sequence modeling for web, mobile, cloud, and embedded runtimes. Most books on machine learning begin with a daunting amount of advanced math. This guide is built on practical lessons that let you work directly with the code. You'll learn: How to build models with TensorFlow using skills that employers desire The basics of machine learning by working with code samples How to implement computer vision, including feature detection in images How to use NLP to tokenize and sequence words and sentences Methods for embedding models in Android and iOS How to serve models over the web and in the cloud with TensorFlow Serving

ai and business intelligence: *Artificial Intelligence and Machine Learning for Business for Non-Engineers* Stephan S. Jones, Frank M. Groom, 2019-11-22 The next big area within the information and communication technology field is Artificial Intelligence (AI). The industry is moving to automate networks, cloud-based systems (e.g., Salesforce), databases (e.g., Oracle), AWS machine learning (e.g., Amazon Lex), and creating infrastructure that has the ability to adapt in real-time to changes and learn what to anticipate in the future. It is an area of technology that is coming faster and penetrating more areas of business than any other in our history. AI will be used from the C-suite to the distribution warehouse floor. Replete with case studies, this book provides a working knowledge of AI’s current and future capabilities and the impact it will have on every business. It covers everything from healthcare to warehousing, banking, finance and education. It is essential reading for anyone involved in industry.

ai and business intelligence: Business Intelligence, Analytics, Data Science, and AI, Global Edition Ramesh Sharda, Dursun Delen, Efraim Turban, 2024-02-05

ai and business intelligence: *AI-Based Data Analytics* Kiran Chaudhary, Mansaf Alam, 2023-12-29 Apply analytics to improve customer experience, AI applied to targeted and personalized marketing Debugging and simulation tools and techniques for massive data systems

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ai and business intelligence: *The Artificial Intelligence Imperative* Anastassia Lauterbach, Andrea Bonime-Blanc, 2018-04-12 This practical guide to artificial intelligence and its impact on industry dispels common myths and calls for cross-sector, collaborative leadership for the responsible design and embedding of AI in the daily work of businesses and oversight by boards. Artificial intelligence has arrived, and it's coming to a business near you. The disruptive impact of AI on the global economy—from health care to energy, financial services to agriculture, and defense to media—is enormous. Technology literacy is a must for traditional businesses, their boards, policy makers, and governance professionals. This is the first book to explain where AI comes from, why it has emerged as one of the most powerful forces in mergers and acquisitions and research and development, and what companies need to do to implement it successfully. It equips business leaders with a practical roadmap for competing and even thriving in the face of the coming AI revolution. The authors analyze competitive trends, provide industry and governance examples, and explain interactions between AI and other digital technologies, such as blockchain, cybersecurity, and the Internet of Things. At the same time, AI experts will learn how their research and products can increase the competitiveness of their businesses, and corporate boards will come away with a thorough knowledge of the AI governance, ethics, and risk questions to ask.

ai and business intelligence: Artificial Intelligence in Practice Bernard Marr, 2019-04-15 Cyber-solutions to real-world business problems Artificial Intelligence in Practice is a fascinating look into how companies use AI and machine learning to solve problems. Presenting 50 case studies of actual situations, this book demonstrates practical applications to issues faced by businesses around the globe. The rapidly evolving field of artificial intelligence has expanded beyond research labs and computer science departments and made its way into the mainstream business environment. Artificial intelligence and machine learning are cited as the most important modern business trends to drive success. It is used in areas ranging from banking and finance to social media and marketing. This technology continues to provide innovative solutions to businesses of all sizes, sectors and industries. This engaging and topical book explores a wide range of cases illustrating how businesses use AI to boost performance, drive efficiency, analyse market preferences and many others. Best-selling author and renowned AI expert Bernard Marr reveals how machine learning technology is transforming the way companies conduct business. This detailed examination provides an overview of each company, describes the specific problem and explains how AI facilitates resolution. Each case study provides a comprehensive overview, including some technical details as well as key learning summaries: Understand how specific business problems are addressed by innovative machine learning methods Explore how current artificial intelligence applications improve performance and increase efficiency in various situations Expand your knowledge of recent AI advancements in technology Gain insight on the future of AI and its increasing role in business and industry Artificial Intelligence in Practice: How 50 Successful Companies Used Artificial Intelligence to Solve Problems is an insightful and informative exploration of the transformative power of technology in 21st century commerce.

ai and business intelligence: Business Analytical Capabilities and Artificial Intelligence-enabled Analytics: Applications and Challenges in the Digital Era, Volume 2 Abdalmuttaleb M. A. Musleh Al-Sartawi,

ai and business intelligence: Artificial Intelligence and Machine Learning for Business Steven Finlay, 2018-07 Artificial Intelligence (AI) and Machine Learning are now mainstream business tools. They are being applied across many industries to increase profits, reduce costs, save lives and improve customer experiences. Organizations which understand these tools and know how to use them are benefiting at the expense of their rivals. Artificial Intelligence and Machine Learning for Business cuts through the hype and technical jargon that is often associated with these subjects. It delivers a simple and concise introduction for managers and business people. The focus is very much on practical application and how to work with technical specialists (data scientists) to maximize the benefits of these technologies. This third edition has been substantially revised and updated. It contains several new chapters and covers a broader set of topics than before, but retains the no-nonsense style of the original.

ai and business intelligence: *Leading with AI and Analytics* Eric T. Anderson, Florian Zettelmeyer, 2022 Data. It's the benchmark that informs corporate projections, decision-making, and analysis. But, why do many organizations that see themselves as data-driven fail to thrive? In Leading with AI and Analytics, two renowned experts from the Kellogg School of Management show business leaders how to transform their organization to become evidence-driven, which leads to real, measurable changes that can help propel their companies to the top of their industries. The availability of unprecedented technology-enabled tools has made AI (Artificial Intelligence) an essential component of business analytics. But what's often lacking are the leadership skills to integrate these technologies to achieve maximum value. Here, the authors provide a comprehensive game plan for developing that all-important human factor to get at the heart of data science: the ability to apply analytical thinking to real-world problems. Each of these tools and techniques comes to powerful life through a wealth of powerful case studies and real-world success stories. In this book, you'll find the essential tools to help you: develop a strong data science intuition quotient, lead and scale AI and analytics throughout your organization, move from best-guess decision making to evidence-based decisions, and craft strategies and tactics to create real impact.

ai and business intelligence: The Economics of Artificial Intelligence Ajay Agrawal, Joshua Gans, Avi Goldfarb, Catherine Tucker, 2024-03-05 A timely investigation of the potential economic effects, both realized and unrealized, of artificial intelligence within the United States healthcare system. In sweeping conversations about the impact of artificial intelligence on many sectors of the economy, healthcare has received relatively little attention. Yet it seems unlikely that an industry that represents nearly one-fifth of the economy could escape the efficiency and cost-driven disruptions of AI. The Economics of Artificial Intelligence: Health Care Challenges brings together contributions from health economists, physicians, philosophers, and scholars in law, public health, and machine learning to identify the primary barriers to entry of AI in the healthcare sector. Across original papers and in wide-ranging responses, the contributors analyze barriers of four types: incentives, management, data availability, and regulation. They also suggest that AI has the potential to improve outcomes and lower costs. Understanding both the benefits of and barriers to

AI adoption is essential for designing policies that will affect the evolution of the healthcare system.

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