- Name : Marina Alves
- Name of your level : L0
- Paper title : : Preparation of Papers in Two-Column Format (romanpub.com)*Angelo R. Santos (2022). The Importance of Artificial Intelligence in Start-up, Automation, and Scalation of Business for Entrepreneurs. International Journal of Applied Engineering & Technology 4(3), pp.1-5.*
- Source : google scholar
- Keywords specific to the paper : indexing, speech understanding, knowledge-based reasoning robotics, workload, SEO optimization, digital transformation.
- AI model used : computer science, linguistics, cognitive science.

In a given field of application, AI makes use of different types of knowledge, is not only associated with computer science computer science, but its projects are also linked to linguistics, logic, cognitive science and more.

In the case of the theorem proving, without the demonstration of a new theorem, the machine is still capable of producing results. That's why it's important to understand the essential aspects of control and reasoning in different games.

Natural language processing covers a huge range of activities, such as the generation and interpretation of sentences for the purpose of automatic indexing, human-machine dialogue, computer-assisted translation, access to databases or services, document retrieval, etc. To interpret the text or sentence being handled, these activities require highly effective contextual reasoning techniques and large corpuses of knowledge.

Regarding speech understanding and recognition, the decoding signal system is difficult to use. Commercial products are available for single-word control systems and continuous speech recognition, including transcription and dictation. The use of knowledge-based reasoning methods to understand a sentence is necessary to design a true man-machine dialog system. is necessary to design a true man-machine dialog system.

Also Understanding image interpretation is important for inspection, diagnosis, robot guidance, etc. Knowledge-based reasoning is important for understanding a scene or image to some extent.

In the domain of robotics, Mechanical engineers have made progress in robot actions and motion sequences. AI methods are hardwired into various aspects of their perception, behavior, planning, reasoning and so on. Robots still need to acquire more knowledge about everyday life, so that they can operate smoothly in a human environment.

As we can notice, AI is applicated in numerous fields such as sales, marketing, customer support, accounting, human resources and operations.

To lead prioritization is an important role for AI, it helps sales professionals prioritize their customers. It combines social media posts, customer interaction history and customer history information and uses an algorithm to rank prospects, which can increase their chances of success. A personalized message generated from the outset facilitates the opening of a conversation with the customer. The artificial intelligence algorithm saves time by sending personalized messages to multiple customers and generating personalized e-mails.

The workload of the teams can be reduced and conversion can be increased by gaining a deeper understanding of the targeted customers through AI. To provide recommendations, calendar, or manage emails, artificial intelligence bots can be used as personal assistants. AI assistance can also be used to treat customer inquiries, giving HR more time to focus on implement strategies in the purpose of growing their business. User details can be analyzed via AI when interacting with the website and based on the analysis, the most relevant offers appear on the display. This can help with website personalization experience, image recognition, push notifications and SEO optimization.

In the field of customer support, contact center and operations, AI helps target specific audiences by identifying patterns in an individual's search behaviors, providing them with the knowledge they seek. Chatbots are considered frontline customer agents and help communicate with customers, resolve their issues, and manage business tasks. It identifies the consumer's need and puts them in touch with the right person. It supports consumers 24/7 and reduces their charging time without a human employee.

Thanks to AI, complex operations are made easier by robotizing service procedures leading to a fortunate digital transformation. It can systematize cyber security and software maintenance task and also catch threats in the system, monitors its schemes and records the company against cyberattacks after resolving the source and take precautions to prevent future threats, while safeguarding infrastructure.

- Name : Marina Alves
- Name of your level : L0
- Paper title : : AI business model: an integrative business approach | Journal of Innovation and Entrepreneurship (springer.com) *Shrutika Mishra and A. R. Tripathi (2021)*
- Source : google scholar
- Keywords specific to the paper : data intelligence, cutting-edge strategies, smart automation, blockchain, advertising, manufacturing costs
- AI model used : Applied AI, data security, neural AI

Cutting-edge methods and tools for renovating businesses through automated systems involve a combination of design, invention, advertising, soft promotion, marketing, and selling. This approach enables businesses to adapt to the rapidly evolving technological landscape and stay ahead of the competition. One key aspect of this renovation is data intelligence, which plays a dynamic role in any establishment's efforts to enhance their offerings and implement cutting-edge strategies. By harnessing the power of data, businesses can gain valuable insights into customer behaviors, market trends, and industry innovations, allowing them to make informed decisions and drive success. Another important tool in the renovation process is artificial intelligence (AI), which can transform business strategies and operations in numerous ways. AI technology can help improve manufacturing costs, increase productivity, enhance technological synchronization, provide automatic updates, and enable businesses to adapt to the global economy. By leveraging AI, businesses can streamline their operations, drive efficiency, and achieve sustainable growth in the competitive business landscape.

AI and machine learning are revolutionizing the business ecosystem by enabling innovations through research and development labs supported by tech giants like Google, Apple, IBM, Microsoft, and others. These innovations are powered by AI and Applied AI, which can detect and prevent scams using machine algorithms. Moreover, the development of ultra-smart mini and microchips is making AI more accessible and efficient for businesses. Smart automation, driven by AI, is streamlining processes and increasing productivity across various industries. The convergence of AI with other emerging technologies, such as IoT and blockchain, is creating new opportunities for businesses to transform their operations and offerings. By enhancing efficiency and efficacy, AI is helping businesses make better decisions and deliver superior products and services to customers. The completion of impressive research through AI is leading to groundbreaking discoveries and advancements in various fields. Furthermore, AI is also improving data security by detecting threats and vulnerabilities in systems, thereby protecting sensitive information from potential breaches. Overall, AI and machine learning are renovating the business platform by providing businesses with powerful tools to innovate, automate, and secure their operations in a rapidly evolving digital landscape.

AI is revolutionizing business models across various industries by offering a wide range of benefits. One of the key ways in which AI is transforming business models is by enhancing customer amenities. With AI-powered tools such as chatbots and personalized recommendation systems, businesses can provide seamless and efficient services to their customers, ultimately increasing customer satisfaction and loyalty.

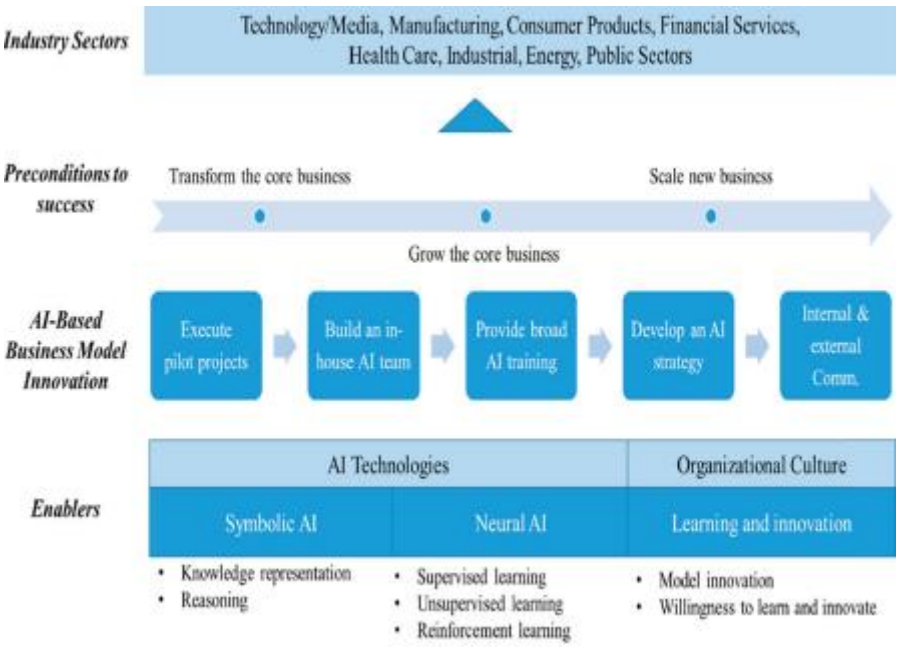
Additionally, AI is being used to explore and analyze vast amounts of data that businesses generate. This data can provide valuable insights into customer behavior, market trends, and operational

efficiency. AI algorithms can process this data at a much faster rate than humans, leading to more informed decision-making. Moreover, AI can help businesses predict and automate various aspects of their operations, such as workforce management, financial transactions, and trading

To implement AI into their business models, companies are adopting various strategies. This includes executing pilot projects to test the effectiveness of AI solutions, building in-house AI teams to develop custom solutions, providing extensive AI training to staff, developing an overall AI strategy, and communicating both internally and externally about the benefits of AI adoption. Enablers of AI-based business model innovation include symbolic AI (logical reasoning), neural AI (mimicking human brain functions), and continuous learning and innovation. These technologies are driving the evolution of AI and its applications in business models. However, one major concern surrounding the adoption of AI in business models is security and privacy. AI systems often rely on large amounts of sensitive data, which can be vulnerable to data breaches and cyber-attacks. Companies must prioritize security measures to protect their data and maintain customer trust.

AI is impacting various industry sectors, including technology, consumer products, financial services, healthcare, and public sectors. In each of these industries, AI is driving business model innovation by enabling companies to reimagine their products, services, and processes in ways that were previously not possible. These sectors are leveraging AI to improve their products and services, streamline operations, and gain a competitive edge in the market.

In conclusion, AI presents significant opportunities for businesses to drive growth, enhance customer experiences, and achieve competitive advantages. By embracing AI technology and incorporating it into their operations thoughtfully, businesses can unlock new possibilities and stay agile in an ever-changing market landscape. Prioritizing security and privacy considerations will be key to building trust with customers and safeguarding company reputation in the age of AI.



- Name : Marina Alves
- Name of your level : L0
- Paper title : Sustainability | Free Full-Text | Artificial Intelligence in the Agri-Food System: Rethinking Sustainable Business Models in the COVID-19 Scenario (mdpi.com) *Assunta Di Vaio, Flavio Boccia, Loris Landriani and Rosa Palladino, 14 June 2020*
- Source : Google Scholar
- Keywords specific to the paper : stakeholders, value creation, sustainability, COVID-19 pandemic, supply chain, business model.
- AI model used : IoT, cloud, blockchain, TOMRA

In today's business landscape, sustainable and socially responsible issues are becoming increasingly important for enterprises in order to maintain a competitive advantage. By embracing these principles, businesses can differentiate themselves from their competitors, attract customers who prioritize ethical practices, and build a positive reputation among investors and other stakeholders.

By actively engaging with stakeholders and addressing their concerns, enterprises can identify new opportunities for innovation and growth. For example, by collaborating with suppliers to improve working conditions or sourcing materials from ethical sources, businesses can create value for all parties involved.

Overall, by integrating sustainable and socially responsible practices into their operations, enterprises can not only do good for the planet and society, but also gain a competitive advantage in the marketplace. Stakeholders have a critical role to play in this value creation process, as they can provide input, feedback, and support to help businesses achieve their sustainability goals and ensure long-term success.

One of the key functions of AI in agri-food business models from a sustainable perspective is to improve the overall efficiency and effectiveness of the entire supply chain. By utilizing AI technology, companies can better track and trace the origin of their products, ensuring transparency and accountability in the production process. This not only helps to protect consumers by providing them with accurate information about the quality and safety of the food they consume but also ensures that the food production process is more sustainable and environmentally friendly.

Additionally, AI can be used for sorting and categorizing food products, optimizing supply chain logistics, and ensuring compliance with hygiene standards. For example, AI-powered sorting systems can help to reduce food waste by accurately identifying and separating damaged or spoiled products from the rest of the supply chain, thus improving overall efficiency and reducing costs.

Furthermore, AI can be used in food and drink preparation processes to optimize recipes and cooking methods, ensuring that resources are used efficiently and that products are prepared in a sustainable manner. By leveraging AI technology, businesses can reduce their environmental impact and improve the overall sustainability of their operations while still meeting the needs and preferences of their customers. The adoption of AI in agri-food business models plays a crucial role in driving sustainability and promoting responsible practices in the food industry. By harnessing the power of AI, companies can not only enhance the quality and safety of their products but also contribute to a more sustainable and environmentally conscious future for the agriculture and food sector.

The new role of stakeholders in the agri-food supply chain within AI technologies is to actively participate in the integration and adoption of these technologies in order to drive innovation and sustainability in the sector. This includes collaborating with technology providers and researchers to identify opportunities for improvement and implementing AI-driven solutions to enhance efficiency, traceability, and quality assurance throughout the supply chain.

Stakeholders must also engage in dialogue with policymakers, regulators, and other industry players to ensure that AI technologies are implemented in a way that aligns with ethical, social, and environmental objectives. This may involve advocating for the development of guidelines and standards for the responsible use of AI in agriculture, as well as addressing potential challenges related to data privacy, security, and employment.

Furthermore, stakeholders play a crucial role in promoting transparency and trust among consumers by providing accurate and reliable information about the use of AI technologies in food production, processing, and distribution. By fostering greater awareness and understanding of the benefits and risks associated with AI in the agri-food supply chain, stakeholders can help build confidence in these technologies and drive greater acceptance and adoption across the industry.

- Name : Marina Alves
- Name of your level : L0
- Paper title : The role of artificial intelligence in business transformation: A case of pharmaceutical companies - ScienceDirect *Ignat Kulkov Faculty of Science and Engineering, Åbo Akademi University, Piispankatu 8, 20500, Turku, Finland*
- Source : Elsevier
- Keywords specific to the paper : business process management, modelling, clinic trials
- AI model used : analytical solution system, mathematical algorithm, R&D, procurement software, warehouse.

Hammer's approach to reengineering business processes using IT solutions focuses on achieving improvements in business performance. Guha, on the other hand, emphasizes project planning, identifying existing processes, developing alternatives, and monitoring and evaluating updates for possible transformations. The Hammer-Guha approach combines reengineering principles with process analysis and improvement techniques to drive organizational change and achieve sustainable competitive advantage.

IT solutions play a crucial role in this approach by leveraging technology to streamline processes, enhance efficiencies, and improve overall business performance through automation, data-driven insights, and real-time analytics. The ultimate goal of reengineering processes is to achieve measurable improvements in key performance indicators such as cost reduction, revenue growth, customer satisfaction, and operational efficiency.

Transformation is a key element in this approach, as it requires a fundamental shift in organizational mindset, culture, and operations to embrace change, adapt to market dynamics, and stay competitive in a rapidly evolving business environment. By combining Hammer's reengineering principles with Guha's process analysis and improvement techniques, organizations can drive lasting change and achieve long-term success in today's competitive business landscape.

AI in pharmaceuticals is revolutionizing the way drugs are developed and tested by streamlining the long and complex process. By combining mathematical algorithms with its ability to independently learn and make recommendations, AI can significantly reduce the time and cost involved in drug development. One of the key areas where AI is making a significant impact is in target selection and validation, where AI systems can analyze large datasets to identify potential drug targets more efficiently than traditional methods. AI is also being used in the screening of compounds and optimization of leads, where it can rapidly analyze and prioritize potential drug candidates based on their molecular properties and predicted effectiveness. In the preclinical stages, AI-powered analytical solutions are being used to predict the safety and efficacy of potential drugs, helping researchers make more informed decisions about which compounds to move forward with. AI is also playing a crucial role in clinical trials, where it can help identify the best candidates for trials based on their genetic profiles and other factors. Overall, AI is increasing the efficiency and success rate of drug development in the pharmaceutical industry, leading to the potential for new and improved treatments for a range of diseases.

Research and Development (R&D) is a crucial aspect of pharmaceutical companies, where algorithms play a key role in enabling researchers to browse databases and utilize artificial intelligence (AI) to solve various tasks such as target identification, generation of new small molecules, and scoring. The

approach to R&D in mid-sized companies is often likened to a pipeline, with larger companies able to undertake more projects simultaneously. AI analysis of patient-specific factors, including genetic characteristics and disease history, can significantly enhance the likelihood of successful drug creation.

In the planning phase, pharmaceutical companies must adhere to Food and Drug Administration standards, subjecting new drugs to rigorous testing for safety and efficacy. Procurement involves establishing policies for the supply chain, optimizing data sourcing, and ensuring scalability. Production processes can benefit from AI-based applications that assist in developing production plans based on internal and external factors.

Quality control relies on consumer feedback to ensure the efficacy and safety of products. Sales and marketing efforts are essential for driving revenue, involving tasks such as calendar management, invoicing, market forecasting, and identifying efficient marketing channels. Warehousing and delivery operations are critical for inventory management, aiming to increase productivity in warehousing facilities and reduce handling costs.

The role of AI in business process transformations in the pharma industry.

	Small	Medium	Large
Key business processes			
R&D	**Major**	**Major**	*Minor*
Planning	N/A	Special case	Special case
Procurement	N/A	*Minor*	Special case
Production	N/A	*Minor*	**Major**
Quality	N/A	*Minor*	*Minor*
Sales and marketing	N/A	N/A	**Major**
Storage and delivery	N/A	N/A	Special case
Support business processes			
Master data management	**Major**	**Major**	Special case
Compliance	*Minor*	*Minor*	*Minor*
Legal	N/A	N/A	N/A
Analysis and reporting	**Major**	**Major**	**Major**
Finance and controlling	N/A	N/A	*Minor*
Human resources	**Major**	**Major**	*Minor*
Real estate management	*Minor*	*Minor*	*Minor*
IT services	**Major**	**Major**	*Minor*