

Artificial Intelligence's Role in the Growth of Entrepreneurship Development

Shanmugam Sundararajan

Associate Professor in Business Management

Skyline University, Kano, Nigeria -700225

Abstract

Innovation is also an essential part of a business start-up process. Many new ventures grow around a creative idea or a decision to put a new company model on the market. Spontaneously, some revolutionary innovations arise, but most commonly, they emerge out of a deliberately designed and organised phase of the invention. They will need a detailed strategic strategy to bring one's designs to fruition and funding to help users design, test, and sell the inventions. To minimise operating costs, improve performance, increase sales and enhance customer service, many organisations use artificial intelligence (AI) technologies. Businesses should consider putting the entire range of intelligent technology into their systems and goods, including artificial learning, natural language processing and more, for the maximum gain. Also, companies that are new to AI, though, will reap big rewards.

Keywords: Artificial Intelligence, AI, Innovation, Startup, Smart Entrepreneurship, SMART, Business.

Introduction

Innovation is also an essential part of a business start-up process. Many new ventures grow around a creative idea or a decision to put a new company model on the market. Spontaneously, some revolutionary innovations arise, but most commonly, they emerge out of a deliberately designed and organised phase of the invention. They will need a detailed planned strategy to bring one's designs to completion and funding to help users design, test, and sell the inventions. To minimise operating costs, improve performance, increase sales and enhance customer service, many organisations use artificial intelligence (AI) technologies. Businesses should consider putting the entire range of intelligent technology into their systems and goods, including artificial learning, natural language processing and more, for the maximum gain. Also, companies that are new to AI, though, will reap big rewards.

The market effect of artificial intelligence

By introducing the right AI technologies, the organisation will acquire the opportunity to: Save time and resources by automating and optimising repetitive procedures and activities to improve productivity and efficiency of operations. Making quicker business decisions based on cognitive technology outputs prevent mistakes and 'human error,' provided that AI programs are correctly set up to use intuition to anticipate consumer desires and provide them with improved, customised experience mine vast quantities of knowledge to produce quality leads and maximise revenue by detecting and optimising market opportunities. According to a recent report, the key driving force for AI in the industry was a strategic advantage. An executive-led decision needs an unlikely solution to a challenge and offshoot of another initiative from a specific group, organisational or technological problem and internal experiment client.

Benefits of working together with AI and humans

AI cannot always do well on its own, literature shows. AI systems are excellent at driving or even eliminating lower-level, routine activities, but organisations also produce the greatest efficiency enhancements when people and computers operate together.

- Save time and money by automating and optimising routine tasks and procedures
- Increase productivity and efficiency in operations
- Based on outputs from cognitive technologies, make faster business decisions
- Prevent mistakes and 'human error' if AI systems are properly configured
- To predict customer preferences and offer them a better, personalised experience, use insight
- To generate quality leads and grow your customer base, mine vast amounts of data
- Increasing revenue through the identification and maximisation of sales opportunities
- By enabling analysis and providing intelligent advice and support to develop expertise.

The Smart Entrepreneurship

An effective organisation has specifically set and expressed goals to achieve precise targets. However, many organisations miss a concentrated target in Small Businesses. "Get more business" is a common reaction when asked about potential plans by small business owners. To complete a cryptic response, any self-respecting CEO will be thrown out of a shareholder meeting. An organisation's achievement relies on the owner's ability to set and attain targets,

whether they have a corporation of 50 workers or one domain. Put the enterprise on the fast track by applying the SMART target setting rules.

Specific

Great targets are well-defined and concentrated. It is more important to mobilise their squad than "Get more business" to gain two new billion-dollar corporate clients in the Boston property insurance industry." Ryan Blair, the Goal, powerfully states, "Energy generates a strong force: target strength. The goal becomes a magnet when they focus on a goal, dragging them and their money into it-the more concentrated their efforts, the more power they are using to achieve their goals.

Measurable

A target without a visible consequence, a clock or scorekeeper, is like a sporting game. Numbers are an important component of the industry. Bring tangible figures into their targets to know if they are on target. As a daily reminder, a target whiteboard placed in their office will help keep themselves, and their team focused on the desired goals they want to produce.

Attainable

Small companies will, all too many, set targets beyond their reach. No one has ever developed a company worth a billion dollars overnight. Invest capitalists and angel partners discard endless investment proposals with outlandish targets by businesses. Dream big and shoot for the stars, but in fact, keep one foot firmly fixed. In order to set wise expectations, please consult with the business organisation and get a handle on achievable growth in their industry.

Relevant

Achievable market strategies are based on the business climate's existing circumstances and realities. Entrepreneurs may choose to have the best sales year or raise sales by 50 per cent, but if a recession is looming and three new entrants have opened up in their sector, the targets do not apply to the market's realities.

Time-based

Business goals and goals just do not get accomplished because there is no time limit related to setting goals. If the Business aims to raise sales by 20% or find five new buyers, pick a time frame to reach the target. Once the company objectives are SMART, break down each aim into a specific series of tasks and activities to meet the targets. It is important to revisit the priorities

regularly and make changes if necessary. Setting targets for a small company is an important instrument for growth. Remember to be clever in the end.

Ten rules that entrepreneurs should know before adopting AI

Although the company's implementation of artificial intelligence (AI) and machine learning (ML) is still in its early days, the technology has evolved enough for entrepreneurs to begin collecting inspiration and assessing future applications opportunities. Every day, neural network processing capacities are growing, as is the accessibility of large-tech and standard academic APIs in the institutions, which help to accelerate innovation. Instead of attempting to offer generic toolkits to business users or get bogged down in custom software consulting engagements that address non-repeatable use cases, entrepreneurs have now mastered the knowledge of targeting AI applications against real, well-defined business problems.

Today, developers have more chances to address vertical issues than to develop horizontal solutions. Building generic products for consumers across industries is within the ethos of existing tech companies. However, for competitors, the more they can concentrate on solving key business challenges, the more they will be successful. They can thoroughly understand business demands and consumer requirements. Based on the unique pain points of their customer, configure product functionality.

Consequently, the client will see more market value in the approach and be more likely to turn to a paying client. (An additional start-up bonus: lower customer-acquisition costs. Nevertheless, it has been proved difficult for entrepreneurs to write effective AI strategies. After all, technology is a moving target, potential customers are wary of costs and complexities of implementation, and use cases are still missing in many areas.

All this confusion is a fertile breeding ground for entrepreneurs ready to make their mark at the beginning of the digital business age. Here are ten rules to follow to build an AI strategy as an AI-first venture in an existing business or sinking roots.

1. It is as important to consider the business challenge they are solving as the algorithms. While these applications are different from traditional apps because of the technology and data processing behind AI, their company clients are not looking for technology per se. To fix challenges, they want answers. It is not nearly precise to put the service or product as "AI for health care" or "AI for sales". Although we can market AI tools to data science teams or IT agencies, company executives like to ensure that you are intimately aware of

their challenges and prospects and customised their approach to their case. Artificial intelligence should provide a safer solution.

2. In order to fund the approach, is the market-ready? When more of the planet gets digitised, "data collection" begins to accelerate (their ability to gather data from multiple facets of the world has never been quantified before). The problem: Much of the data is not digital and unstructured, especially in traditional industries such as health care, manufacturing, and agriculture, vastly increasing the effort needed to extract, disinfect, normalise, and wrangle. Determine the industry's digital sophistication in embracing AI prior to starting an AI strategy. Is the market advanced, with data collection and ready-to-implement technology already in place?
3. From day one, build the data plan. Experience-based training machine-learning models also need vast volumes of high-quality data to evolve, so it is incredibly necessary to set out the data plan from day one, including how it can manage data sourcing, length, diversity, privacy and protection. In various ways, data can be acquired, including crawling public data, seeking data-rich collaborators, extracting it from clients, or producing it internally. It has its pros and cons, and at various points, their application could be better suited. Data strategy is a rational business decision that entrepreneurs must establish from the outset.
4. Even though the AI is fantastic, the product also needs a better user interface (UX), the best workflow, and detailed documentation. It is not because the AI is superior that they might win, but because the end-to-end product is stronger. Concentrating on representing the end customers of the clients should be baked into the DNA of the team. In most situations, they are creating more than the ML product, so teamwork and cooperation are required across functions and between software engineers and UX designers, both front-end and back-end.
5. AI may be magical, but it still gains sales. Venture capitalist and influential author Fred Wilson argues that "marketing is for businesses that have sucky products." Likewise, many AI founders believe it can sell itself if the product is amazing. That is not the truth of the world of enterprise, however by default, large businesses cannot adapt until they are persuaded that the option is worth their market planning work and the legal-finance team's time to sign negotiations and turn to a new seller. The sales and marketing team respects experience, particularly if they come from the sector or companies on the target list. Today, functional leaders have more leverage to determine which technologies to use than in the past, so entrepreneurs need to find an entry point for the venture.
6. "In ads, be cautious about "AI-first" messaging. An AI-forward positioning might be a successful tactic to get a first meeting considering the buzz surrounding AI that has raised

everyone's interest. However, consumers do not care whether it has AI inside or not regarding actual purchasing decisions. Some start-ups have deleted AI from their marketing and sales messages. Although leading with AI does not make sense, there is value in weaving it into introducing the product, particularly when it comes to simplicity and the underlying machine-learning algorithms are clarified.

7. Stop the trap of "science project." What is the Minimum Viable Algorithm (MVA)? The saying goes, "perfect" is always the "good" enemy. Business management has come to accept the power of efficiently injecting and iterating a minimally viable commodity into the market based on real-world reviews. Similarly, AI ventures should create a minimum viable algorithm and sell it rapidly. The DNA of the founding scientific teams is mostly about solving technical problems and increasing precision from 90 per cent to 95 per cent. This strategy can require some persuasion. Many consumers will not notice the distinction, but they will note how the product progresses from release to release.
8. Manage the over and under-expectations of clients. Half of the fight is over control of standards and coordination when effectively deploying AI in the real world. Customers always overestimate the influence of their AI, thinking of it as superhuman, especially if AI solves difficult issues such as 100% accuracy in self-driving cars and medical diagnosis. They have to make them realise that with time the efficiency of ML goods increases (after all, it is machine learning) and that at the beginning, it is impossible to produce flawless results. If AI addresses a restricted problem such as back-office automation or insurance premiums, underestimates may also occur. It is essential to help customers understand which AI issues can and cannot be solved, just as an Insurance company, which uses AI and other technologies to determine coverage and set premium rates, clearly explained to potential customers how their product worked and what was and was not covered. AI is still a technology that is imperfect and often fails. On that score, there should not be any surprises for clients.
9. Recruit industry specialists as well as domain experts. Both ML engineers (often PhD level) and top software engineers who can produce and deploy AI are needed by their team. (Ideally, they want talent that can do both, but find them with good luck!) There is a limited supply of ML engineers, and big tech companies will pay dearly for a brand new deep learning PhD. For start-ups, it is difficult to attract top AI talent but even harder for Fortune 1000 businesses. However, it is even more significant to attract domain experts from the traditional industries they are trying to disrupt. In order to trust AI's judgments and validate

outcomes, they are critical in assisting target clients, deploying technology, and understanding the input needed and the internal workflow used by companies.

10. **Organisational change:** Toward a culture that is more open and experimental. In Business, ML/AI engineers are still a novelty. Managing an AI-first start-up requires fundamental organisational changes: an experimental culture, a mindset driven by data analytics, and more openness to uncertainties. As a founder, cross-functional teams should be helped to understand how ML products differ from conventional software products, address potential conflicts, and promote a more open and experimental culture.

Top applications of artificial intelligence in Business:

While John McCarthy invented the word "Artificial Intelligence" back in 1955, Alan Turing proposed the first notion of a computer simulating human reasoning and intelligence years ago. In short, the intelligence displayed by computers and software is Artificial Intelligence (AI, for short or the art of making intelligent software and hardware). There are two main branches of Artificial Intelligence, including general AI (its purpose is to learn how many functions, such as a language) and narrow AI (building smart computers and applications that solve real-world and usually business-related problems).

AI has many specialities areas

Gaming sports: Back in 2011, Watson of IBM defeated two of Jeopardy's key teams. While the machine has developed over the years into a complex system of healthcare analytics, it was originally programmed to answer natural language questions;

Networks of Experts: The AI-powered computer can ingest and interpret data even faster than humans, and that is why Watson diagnoses cancer with 90% specificity (while in 50 per cent of all cases, well-trained human doctors are mistaken);

Voice recognition: People can ask Siri to order pizza or find the closest flower shop thanks to Apple's AI efforts, and they do not have to type something in anymore.

Learning by machine: Google search is now improved with machine learning algorithms that deliver meaningful content to consumers, and that is one of the reasons why traditional SEO is dying slowly;

Robotics: Spread, a Japanese lettuce processing firm, has revealed plans to equip its farms with robots to harvest 30,000 lettuce heads daily. Robots can also monitor storage equipment, navigate in-store customers and take care of baggage for guests at hotels and train stations.

Artificial Intelligence can streamline business operations, optimise customer services and exploit marketing and advertisement sensor-driven data. The global demand for information analytics, exploration and cognitive systems will be worth \$ 9.2 billion by 2019.

Use of Artificial Intelligence in Business

Enhanced services for customers. Companies have encountered some improvements in consumer behaviour in the case of running an online shop. Thirty per cent of all internet purchases are now mobile-based. While smartphone owners spend 85 per cent of their mobile time on multiple applications, they focus on just five apps (including messengers and social media). The world's leading retailers such as Macy's and Target add beacons and turn to gamification to promote smartphone app acceptance. Kik and Facebook went even better, introducing chatbot platforms. While among the first businesses to hop on the chatbot bandwagon were H&M, Sephora and Tesco, the promise of bots reached well beyond the e-commerce realm. A Facebook bot was created by Royal Dutch Airlines to assist travellers with check-in documentation and submit flight status updates. A virtual assistant software was created by Taco Bell that handles orders via the Slack messaging app. HP's Print Bot allows users to transfer files straight from Facebook Messenger to the printer. According to David Marcus, VP of Facebook messaging goods, thirty-three thousand businesses have now installed Facebook bots, and now they are "starting to see good experiences on Messenger".

Automation of workloads and predictive maintenance: Work automation will cause a net loss of 9.1 million US jobs by 2025. However, the next employment crisis will not be caused by Artificial Intelligence; instead, smart programs will allow businesses to use their resources more effectively. Engine, an electrical company from France, uses drones and an AI-powered image processing application to monitor its infrastructure. The National Free Hospital in London has partnered with DeepMind (a Google-owned AI start-up) to develop algorithms that detect acute kidney injuries and vision conditions with little or no human interference. General Electric battles computer downtime by gathering and processing input from smart sensors mounted on its devices. Businesses will decrease running costs, improve efficiency and ultimately build a knowledge-based economy through IoT and AI solutions. General Electric encounters computer downtime by gathering and processing input from smart sensors mounted

on its devices. Businesses will decrease running costs, improve efficiency and ultimately build a knowledge-based economy through IoT and AI solutions.

Efficient monitoring and analytics for data: Worldwide, there will be 6.4 billion wired gadgets by the end of this year. If more businesses continue to use IoT technologies for business purposes, the volume of data produced by intelligent sensors is growing (and will reach 400 zettabytes by 2018). We will boil this knowledge down to something concrete thanks to Artificial Intelligence and have a deeper perspective into handling funds and employees. In his "Can Artificial Intelligence Usage Make Hiring Less Biased?" Sean Captain's article talks about Fama's social media presence assessment service for career applicants.

Marketing and advertising growth: The way advertisers have been operating for decades has been transformed by emerging technology. Researchers can have a news article written (or generated!) in seconds using the AI Wordsmith platform. To support the Muppet Show movie, the smart Miss Piggy bot talks with fans. To detect user behaviour and optimise ad targeting, Facebook uses machine learning algorithms. In order to maximise accommodation costs, Airbnb has developed a smart app to take into account the location of accommodation, seasonal demand and common activities held nearby. Marketers can automate a substantial share of repetitive activities with Artificial Intelligence, gain considerable data, and devote more time to their core obligations, i.e. increasing sales and customer loyalty.

Artificial Intelligence Technology in Business

AI technologies can be used for:

They are improving customer services - for example, using virtual assistant systems to provide customers with real-time assistance (for example, billing and other tasks).

Automate workloads - e.g. capturing and processing smart sensor data or using machine learning (ML) algorithms to categorise jobs, route service requests, etc automatically.

Logistics optimisation - for example, using AI-powered image recognition software to track and optimise your networks, schedule transport routes, etc.

Increase manufacturing quality and productivity by automating the production line by incorporating industrial robots into the workflow and training them to execute labour-intensive or mundane tasks.

Prevent outages - such as using anomaly detection techniques to recognise trends, such as an IT outage, that are likely to interrupt the Business. You can also be supported by specialised AI applications to identify and prevent security intrusions.

- Predict results - Use AI applications, for example, to assess when performance targets can be reached, such as response time to support desk calls.
- Predict behaviour - For example, use ML algorithms to evaluate online behaviour patterns to serve customised product offerings, detect credit card fraud, or target relevant advertising.
- Manage and analyse your data - for example; AI will help you view and mine your data more accurately than ever before and offer valuable insight into your finances, your brand, employees, or clients.
- Develop the advertisement and promotions - for example, track consumer behaviour efficiently and automate certain repetitive marketing activities.

Conclusion

Artificial intelligence continues to evolve at a breakneck pace, creating plenty of ground-floor opportunities for entrepreneurs who are disciplined in their approach, identifying the best vertical solution markets, recruiting talented and experienced teams, and who are successful in selling AI not as a technology but as a means to the best solutions. Whatever the justification for choosing AI can modify how the organisation runs. An open-minded attitude and a desire to pursue new challenges everywhere and wherever possible are what it takes to start a new business.

References

Adam Uzialko, (2022). How artificial intelligence will transform businesses. *Business newsdaily.com*

Amoako, G.; Omari, P.; Kumi, D.K.; Agbemabiase, G.C.; Asamoah, G(2021). Conceptual framework—artificial intelligence and better entrepreneurial decision-making: the influence of customer preference, industry benchmark, and employee involvement in an emerging market. *Journal of Risk Financial Management*,14,604. <https://doi.org/10.3390/jrfm14120604> UK

Anupam Sharma.(2020).Entrepreneurship and role of AI. *Proceedings of the 2019 International Conference on Signal Processing And Machine Learning*, 122-123

Bernard Marr (2020) Business Functions ready to use Artificial Intelligence, Artificial Intelligence in Practice. *Forbes.com*

Dominic Chalmers, Sara Carter, Naiall Mackenzie.(2020). Artificial intelligence and entrepreneurship: implications for venture creation in the fourth industrial revolution, entrepreneurship theory and practice, *Sage Publications*.

Mary K. Pratt,(2021) 9 top applications of artificial intelligence in Business, *techtarget.com* published on Jun 30 2021

Thomas H. Davenport, Rajeev Ronanki, (2018). Artificial intelligence for the real world. *Harvard Business Review*, 108–116