

Friday, March 15, 2024

Model/Plan of Proposed Endeavor

My proposed endeavor is to empower US companies and their workers and improve their competitiveness by unlocking better data-driven decision-making capabilities, this mean uses the power of data to make informed and effective decisions. It involves collecting, analyzing, and interpreting data to gain insights and guide decision-making processes across various aspects of an organization or project, this methodology benefits companies and likewise improves the employability of their employees by training them in automated and ai-based technologies which require no prior knowledge in coding, regardless of their role within the organization. I plan to develop a business model that will benefit numerous companies and workers, paving the way for future success in all sectors.

To achieve this, I will focus on implementing streamlined business processes, utilizing Robotics Process Automation (RPA)¹, and AI technologies² with no-code and /or minimum code knowledge, providing training to non-tech users to effectively use these resources. By integrating these activities, I will foster a data-driven culture within organizations, improving accuracy and expediting the decision-making process. In turn, I will contribute to enhancing the competitiveness of both U.S. companies and workers by equipping them with essential digital skills.

I will pursue my endeavor by building on my 15 years of extensive experience in technology and more that 5 years implementing RPA and Artificial Intelligence (AI) technologies, leveraging my extensive national and international experience in different companies in the implementation and improvement of innovative and flexible business processes using RPA and AI in flexible business processes, complemented by my experience as a university professor and as part of the STEM Council in Western Union, for the dissemination of knowledge in science, technology, engineering and mathematics(STEM), I will channel the efforts for the learning of specialized knowledge in modeling tools in decision making, I will pursue my proposed endeavor for the benefit of the United States.

¹ Robotic Process Automation- <https://www2.deloitte.com/uk/en/pages/innovation/solutions/robotic-process-automation.html>

² Key benefits of AI for business-<https://www.techtarget.com/searchenterpriseai/feature/6-key-benefits-of-AI-for-business>

My work will be disseminated in through publications in relevant venues such as my current website (<https://aiml-robotics.com>), active participation in conferences, and collaboration with industry specialists to advance knowledge and create to advance knowledge and create practical solutions for the design of private policy in the commercial sector.

WHY MY PROPOSED ENDEAVOR IS RELEVANT TO THE UNITED STATES

The United States is currently facing challenges in maintaining its economic competitiveness, mainly due to human factors and slow adaptation of its industry to changing environments. This reality is reflected in the fact that, in March 2022, the United States reached a record figure of 11,855,000 unfilled job vacancies according to Federal Reserve Bank of St. Louis. Unfortunately, this is not something conjunctural, it is a trend; in August 2009, this figure was only 2,338,000³. This means that industry in general is increasingly being held back by a lack of the talent needed for the new economic environment. For example, there is a shortage of close to one million software developers according to reports in *The Wall Street Journal*⁴.

It is clear that this situation is hurting the country's progress, productivity, and finally competitiveness. As an entrepreneurial consultant within the technology industry, I have experienced this problem first-hand, and have seen how many initiatives by entrepreneurs to modernize their businesses are frustrated by this reality. I have also had to witness how workers who want ardently to engage in such initiatives cannot do so because they do not have sufficient skills in programming or data management, despite their clear talent and experience in their respective industries.

My Endeavor mainly helps to tackle this problem, including the intensive use of no-code technology within business processes, which with adequate training allows non-tech workers who are being excluded due to lack of knowledge in programming or data-manage to be able to contribute with their inventiveness and experience to the industry, as it becomes possible for them to create their own automated software tools. At the same time, companies will benefit enormously, as they will be able to quickly modernize and adapt their business processes, obtain timely relevant information about their performance, and have more productive and engaged workers.

The automated and ai-based technologies will improve the decision-making strategies, creating a powerful synergy at all organizational levels, significantly improving results and competitiveness, that is, a data-driven culture. A study by Deloitte shows how companies with similar efforts developing a strong data-culture approach have double the probability of exceeding their business goals⁵.

³ Total Unfilled Job Vacancies for United States- <https://fred.stlouisfed.org/series/LMJVTUVUSM647S#>

⁴ America's Got Talent, Just Not Enough in IT-WSJ- <https://www.wsj.com/articles/americas-got-talent-just-not-enough-in-it-11571168626>

⁵ Analytics and AI-driven enterprises thrive in the Age of With: The culture catalyst | Deloitte Insights- <https://www2.deloitte.com/us/en/insights/topics/analytics/insight-driven-organization.html>

I really believe in the potential of my Endeavor, and I have chosen the United States to develop it because the US is a serious country that understands the national importance of encouraging a **data-driven decision-making culture**. For example, the US federal government implemented the FEDERAL DATA STRATEGY in 2020⁶, and decided to continue this in the Biden administration through the FEDERAL DATA STRATEGY 2021 ACTION PLAN which demonstrates a national interest and commitment to promote this kind of endeavors setting as the first main objective of its Federal Data Strategy as follow: “Building a Culture that Values Data and Promotes Public Usage”.

MY PLAN FOR ADVANCING MY PROPOSED ENDEAVOR IN TWO PHASES

1. In the short term, I evaluate the situation in the companies interested in improving their processes and once the collaboration agreements are in place, I start the process of adjusting my techniques to each company depending on their real needs. My work allows me to discover your own and common underlying needs and adapt my techniques to the US market and culture.
2. Once these collaborations have achieved a period of demonstrable sustainability, the next step will be to advance a distribution/business model that lets me extend the use of better, more accurate modelling based on a solid data-driven culture supported by trained workers taking advantage of automated AI no-code technology on their daily business processes.

PROPOSED ENDEAVOR IN THE US AND THE THREE KEY ACTIVITIES TO DEVELOP IT

Using my experience as a leader in business process implementation in technological environments and entrepreneurial undertakings, my endeavor in the US will be focused on the following three activities:

- 1- Implementing business processes:

Identify the Process: Clearly define the process to create or improve. What are its objectives, inputs, outputs, and key steps?

Gather Data: Collect data on the current process performance. Where are the bottlenecks, inefficiencies, or pain points?

Analyze: Analyze the gathered data to understand why the process is not performing optimally. This might involve root cause analysis or process mapping.

Brainstorm Solutions: Brainstorm potential solutions or improvements. Consider automation, streamlining steps, or changing the sequence of activities.

Select Best Solution: Evaluate the potential solutions based on feasibility, cost, impact, and ROI. Choose the best one for implementation.

Implement: Implement the chosen solution carefully, ensuring all stakeholders are informed and trained if necessary.

Monitor and Evaluate: Continuously monitor the new process to ensure it's working as intended. Gather feedback and make adjustments as needed.

Document: Document the new process, including procedures, guidelines, and any changes made.

Communicate: Communicate the changes to all relevant stakeholders to ensure smooth adoption and understanding.

⁶ Federal Data Strategy 2020 & 2021 Action Plans-
<https://strategy.data.gov/assets/docs/2020-federal-data-strategy-action-plan.pdf>
<https://strategy.data.gov/assets/docs/2021-Federal-Data-Strategy-Action-Plan.pdf>

Iterate: Regularly review the process for further improvements, incorporating feedback and adapting to changing business needs.

- 2- Using Process Automation (RPA) and Artificial Intelligence (AI) technologies, no-code technology as a tools:

Robotics Process Automation (RPA) and Artificial Intelligence (AI) can significantly improve business processes by automating repetitive tasks, enhancing decision-making, and increasing efficiency.

RPA involves the use of software robots or bots to automate routine, rule-based tasks, such as data entry, form filling, and file management.

RPA can:

- Reduce human error by automating repetitive tasks with high accuracy.
- Increase efficiency by completing tasks faster than humans.
- Improve scalability by handling tasks that are time-consuming for human employees.
- Enhance compliance by ensuring that processes follow predefined rules and regulations consistently.

AAI technologies, such as machine learning, natural language processing, and computer vision, can be applied to business processes to:

- Enable intelligent automation by allowing systems to learn from data and adapt their behavior accordingly.
- Enhance decision-making by analyzing large datasets and identifying patterns or insights that humans may overlook.
- Improve customer interactions through chatbots or virtual assistants that can understand and respond to natural language queries.
- Optimize resource allocation by predicting demand, identifying trends, and recommending optimal strategies.

Combining RPA and AI can create even more powerful solutions:

- RPA bots can be enhanced with AI capabilities, such as machine learning algorithms, to make more intelligent decisions and handle complex tasks.
- AI algorithms can be used to analyze data generated by RPA processes, providing insights for further process optimization and improvement.
- Together, RPA and AI can automate end-to-end processes, from data entry to decision-making, resulting in greater efficiency and productivity.

By leveraging RPA and AI technologies effectively, businesses can streamline their operations, reduce costs, and gain a competitive edge in today's digital landscape.

- 3- Training non-tech team-leader workers to use it.

Training non-tech workers to use new technologies like Robotics Process Automation (RPA) and Artificial Intelligence (AI) involves a strategic approach to ensure successful adoption. By following these steps, its possible to effectively train non-tech workers to use new technologies like RPA and AI, empowering them to contribute to the success of your organization.

Assess Current Skill Levels: Start by assessing the current skill levels of employees regarding technology and related tools. Identify any gaps or areas that need improvement.

Customize Training Programs: Develop customized training programs tailored to the specific needs and skill levels of the employees. Consider their roles, responsibilities, and the technologies they will be using.

Hands-On Workshops and Demos: Provide hands-on workshops and demonstrations to familiarize employees with the new technologies. Allow them to interact with the tools and software in a controlled environment.

Use Simulations and Practice Exercises: Incorporate simulations and practice exercises to reinforce learning and build confidence. Create real-life scenarios that mimic their day-to-day tasks to make the training more relevant.

Provide Comprehensive Documentation: Offer comprehensive documentation, user guides, and tutorials that employees can refer to for additional support. Make these resources easily accessible and searchable.

Encourage Peer Learning: Facilitate peer learning by creating opportunities for employees to collaborate and share their experiences with the new technologies. Encourage teamwork and mentorship.

Offer Ongoing Support: Provide ongoing support and assistance as employees begin to use the new technologies in their work. Establish a helpdesk or support system where employees can seek guidance and troubleshooting.

Monitor Progress and Provide Feedback: Regularly monitor employees' progress and provide constructive feedback to help them improve. Recognize and reward their efforts to motivate continued learning.

Promote Continuous Learning: Emphasize the importance of continuous learning and skill development. Encourage employees to explore additional training opportunities and stay updated on new advancements in technology.

Evaluate Training Effectiveness: Periodically evaluate the effectiveness of the training programs to identify areas for improvement. Ask for feedback from employees and make adjustments as needed.

Applying these three activities together I will encourage a data-driven culture in organizations which will improve accuracy forecasting and simplify the decision-making process, this data will be sourced from basic automation processes based on RPA and AI technology. The primary goal is increasing the competitiveness not only of companies but also of workers through new digital skills. By introducing my methods and techniques, I anticipate a potential growth of the companies' competitiveness, of up to 20%.

PROGRESS TOWARD MY ENDEAVOR

This initial project will be financed in the first stages with own funds coming from savings and it will be requested in the implementation and adjustment stages the cost of some expenses, which will be defined together with the client.

My contributions will lead to significant improvements in productivity and integration within non-tech workers, fostering a data-driven culture and the development of proprietary software solutions.

My ultimate goal is to enhance competitiveness within U.S. companies and empower team-leaders by leveraging their valuable industry experience with innovative and flexible business process implementations, supported by new technology no-code tools. This will enable better data-based decision-making for individuals at all levels within the organization.

Thank you in advance for your time considering my proposal.

Respectfully,

[SIGNATURE]

Oscar Jimenez Montero
System Engineer

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