

Lessons Learned in the Wild West of AI Projects

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The world of Artificial Intelligence (AI) is brimming with exciting possibilities. From self-driving cars to medical diagnosis tools, AI promises to revolutionize our lives and work. However, navigating the uncharted territory of AI projects can be daunting for managers. Unlike traditional software development, AI projects are inherently iterative and require a different approach. Here, we'll delve into some “key lessons” (obviously not exhaustive!) learned from the trenches of AI project management, equipping you with the knowledge to tame the *Wild West* of AI.

Data is King (and Queen)

The adage "garbage in, garbage out" rings especially true in AI. The success of your project hinges on the quality and quantity of your data. Invest time ensuring your data is clean, representative of the real world, and properly labelled. Consider partnering with data scientists early on to define data collection strategies and quality checks. Remember, you can't polish a turd, so prioritize data quality from the get-go ([1]).

Start Small, Iterate Often

AI projects are rarely linear! Don't get bogged down trying to build the perfect AI model from the outset. Embrace an iterative approach, starting with a Minimum Viable Product (MVP) and feeding it real-world data to learn and improve. This allows you to identify potential issues early, course-correct, and get valuable user feedback before investing heavily in a complex system ([2]).

The Human Touch is Irreplaceable

While AI excels at crunching numbers and finding patterns, it lacks the human touch. *Don't underestimate the importance of human expertise in the loop.* Data scientists, domain experts, and even end-users should be involved throughout the development process to provide guidance and ensure the AI is aligned with your project's goals.

Embrace Explainability (XAI)

AI models can be complex black boxes, making understanding how they arrive at their decisions is difficult. This lack of explainability (XAI) can be a major hurdle, especially in areas like healthcare. Invest in XAI techniques that provide insights into the model's reasoning, allowing you to debug errors and build trust with users ([3] - Amodei, D., et al. Concrete problems in AI safety. arXiv:1606.06565 (2016)).

Manage Expectations (Realistically)

AI is powerful, but it's not magic. Set realistic expectations for what your AI project can achieve. Avoid overhyping its capabilities and clearly communicate limitations and potential biases. Transparency is key to building user confidence and avoiding disappointment down the line.

Embrace Upskilling and Collaboration

The field of AI is constantly evolving. Encourage your team to continuously learn and upskill themselves in data science and machine learning. Foster collaboration between data scientists, engineers, and project managers to ensure seamless integration and communication between different skill sets.

Ethical Considerations

AI projects raise critical ethical questions about bias, fairness, and privacy. Proactively address these concerns by incorporating ethical considerations into the project lifecycle. Develop clear guidelines for data collection and usage and ensure your AI model doesn't perpetuate existing societal biases. Partner with ethicists if necessary ([4](link is external) - Brundage, M., et al. The malicious use of artificial intelligence: Forecasting, prevention, and mitigation. arXiv preprint arXiv:1802.07228 (2018)).

Looking Forward

By following these lessons, you'll be well-equipped to navigate the exciting yet challenging landscape of AI projects. Remember, success hinges on a combination of solid planning, data-centricity, an iterative approach, and a willingness to learn and adapt. So, saddle up, embrace the unknown, and get ready to unlock AI's transformative potential for your organization.

About the author:

Dr. Nihad Bassis is a global expert in Management of Innovation and Technology leading Business and Solution Architecture Projects for over 20 years in the fields of Digital Transformation, Smart Mobility, Smart Homes, IoT, UAV and Artificial Intelligence (NLP, RPA, Quality, Compliance & Regulations). During his professional career, Dr. Bassis held positions at organizations such as Desjardins Bank (Canada), Ministry of Justice (Canada), Alten Inc. (France), United Nations, UNESCO, UNODC, IFX Corporation, Cofomo Development Inc. (Canada), Ministry of Foreign Affairs (Brazil). His deep well of knowledge and experience earned him a singular distinction: participation in international committees shaping international standards for Software Engineering, Technological Innovation, Project Management and Artificial Intelligence. He lent his expertise to renowned institutions like ISO, IEEC, IEEE, SCC, and ABNT.

Key sources:

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