

AI in Project Management

Expert views of practical use cases

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Introduction

AI is everywhere - from calculating the best commute routes, to helping prevent banking fraud. And, as Manny Gill, the business head in UK and Ireland for PMI, says “AI is a hot topic right now within conversations about project management.”

In fact, recent research from APM shows that, for project professionals dealing with large amounts of data, almost all of them would turn to AI to help with decision making.

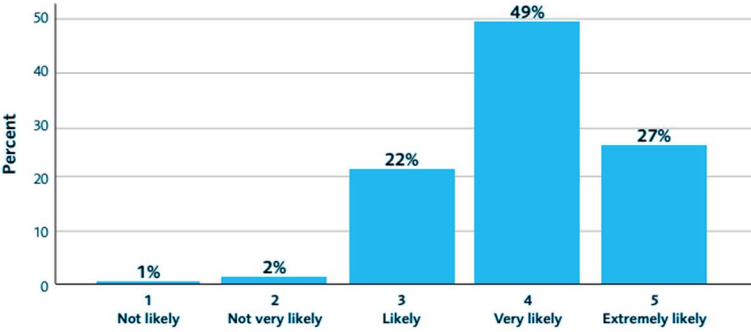


Table 8: How likely would you [be to] use artificial intelligence to help analyse large volumes of data in complex projects to improve decision-making?

(Source: APM, 2022)

So how can AI help project management? What role might it serve within a company? We spoke to a variety of experts, and we’re here to share their thoughts on the benefits and challenges of implementing AI, along with some success stories and best practices.

Benefits of AI in pm

Everyone we spoke to agreed you can split AI into roughly two areas of application: automation and prediction.

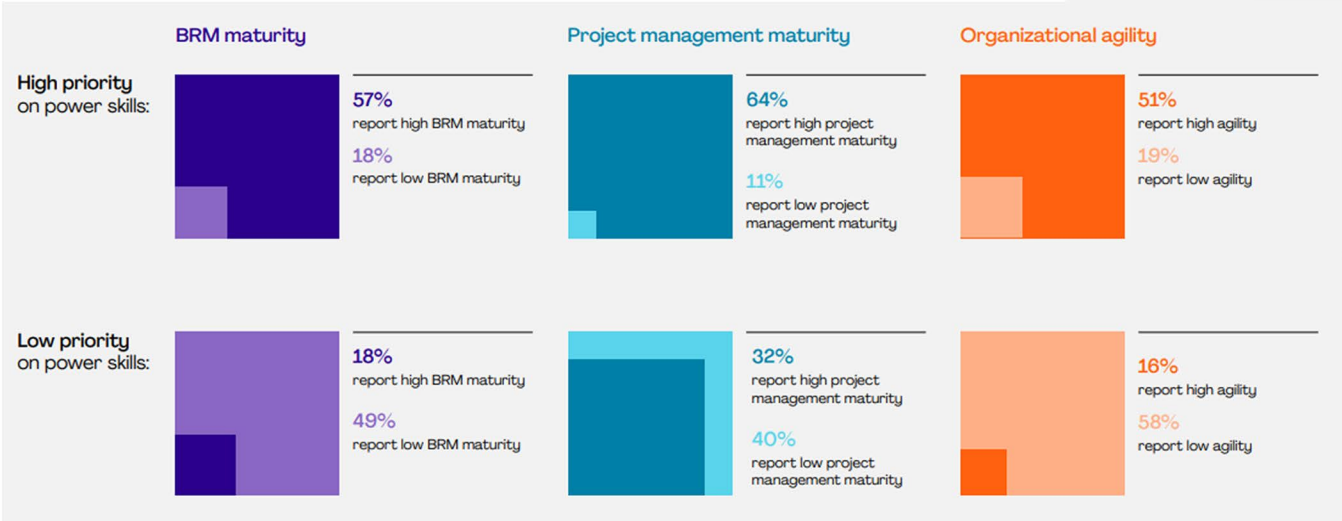
Automation

Using AI for automation is exactly what it sounds like - taking repetitive tasks out of the hands of your team. This can help streamline processes, and improve operational efficiency. However, there’s one major benefit that goes beyond this.

The most recent Pulse of the Profession report from PMI focuses on so-called ‘soft skills’, renamed as ‘power skills’ to better “communicate how significant these skills are” (Gill). Of particular interest to project managers should be the following statistics in **the graph 1.0** below.

We can see that companies who place emphasis on power skills report high levels of project management maturity, as well as organisational agility and BRM (benefits realisation management) maturity. How does this relate to AI? As Bruno Morgante, the global head of PMO at the Adecco Group notes, automation allows “human beings to focus on what we are actually much better than robots, which is being humans.

(Graph 1.0 - PMI, 2023)



Alfonso Bucero, an Executive PM consultant with nearly 40 years of experience, pointed out that this is of particular importance as we continue to handle the changes Covid-19 brought to the business world. He notes, "Because we don't have face to face connection anymore, or at least, this type of connection has decreased over time...I really believe that creativity and innovation is one of the things that has not been cultivated during many years in the past." In his eyes, AI provides an opportunity to repair this, by freeing up time and allowing teams to focus on more creative tasks that require a human touch.

Prediction

Gill told us that he finds it's the "predictive side which is actually more interesting and could potentially reap so much more benefits", and this was echoed by many of the other experts. Kim Essendrup, founder of the Kolme group, highlighted one particular application: the ability to accurately forecast revenue. With AI and predictive analysis, it's possible to "learn from [past] data and give ourselves some confidence on the accuracy of that revenue reporting".

Of course, predicting revenue isn't a new thing, but it's a task that might take a large team days - or even weeks - to work on. With AI, this data can be assessed quickly, efficiently, and in a variety of ways to provide up-to-date reports that you can trust.

Another key benefit Essendrup highlights is "risk planning and mitigation", a thought echoed by Morgante, who states that "based on a set of data, a set of information that we have collected and analysed, [we can] make predictions and adjustments. It is already going to help us to improve our planning, to propose something that is actually a project that we are going to be able to deliver successfully."

By carefully selecting projects with the highest chance of success, and mitigating risks in advance, project managers can "pick the projects that will give you the best bang for your buck to help you move ahead with your strategic priorities as an organisation." (Essendrup).

Challenges and Considerations

Of course, no technology is without its challenges. Dr Ahmad M. Salih, Senior Director of Knowledge Management Projects and Operational Excellence at Khatib Alami, points out that "the two main challenges are knowledge and culture because people are afraid of things that they do not know." Morgante notes "the low level of data literacy that [he sees] in so many organisations" is a major problem.

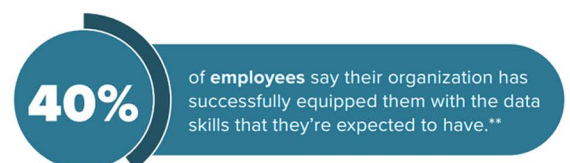
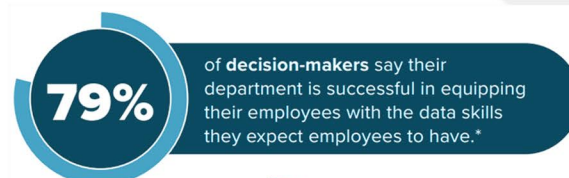
With that in mind, let's take a look at the two main problem areas: data, and people.

Technical and data challenges

Recently, Tableau commissioned Forrester Consulting to explore how companies engage with data literacy, and the results show a clear gap between what leaders assume and the skills their employees actually have

With less than half of employees being offered training on basic data skills, it's unsurprising that many companies have low levels of data literacy

(Source: Tableau, 2022)



*Base: 1,032 director and higher data program decision-makers at global companies with more than 500 employees
**Base: 1,036 employees in all roles with more than years of experience at global companies with more than 500 employees
Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

According to Morgante, “Because of this low data literacy, we might have no data or a low quantity of data. And then when you look into this data, the quality of the data is problematic.” While companies with low data literacy levels might be able to benefit from AI automation, they won’t be able to gain the benefits of predictive AI.

Human considerations

We’ve noted one of the key benefits of AI is its ability to “free up the human resource” (Gill), but this isn’t always clear. Workers may worry that they’re being replaced, or feel daunted by the new skills they need to learn. This is something that needs to be addressed early. As Salih notes, “any strategy that companies try to implement, if they don’t take into consideration the cultural transformation aspect, it will fail.”

It’s not enough to have an engaged IT team either - it should be a company-wide transformation. Gill highlights one way to deal with this: sponsorship, stating “It’s very important to have a member of the executive board to really champion these types of projects.

By ensuring your team has access to training and support, you can stay on top of both these major problems: the lack of data literacy, and a wariness of change. Spend time on digital transformation, and you’ll be in the best position to benefit from AI in your project management.

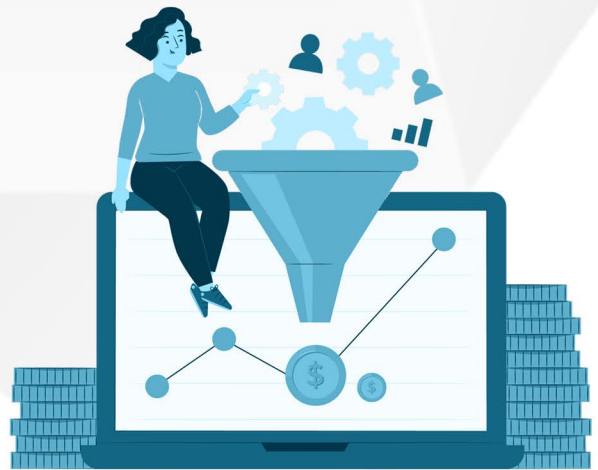
Success Stories

While there are challenges to using AI, the successes can be well worth it. Salih talked about a particularly interesting use case in construction: the ‘digital twin’.

“The digital twin is when you build an environment, you build a building...and you start designing it in BIM [building information modelling]. During construction, you keep the

BIM model, which is the digital twin. And then you start constructing the physical twin. When you finish, you put a lot of IoTs [Internet of Things] devices where they have sensors, and they send back signals to the digital twin. So anything happens with the physical twin, you can know it with the digital twin.”

Having a digital twin during a construction project allows the entire team to work together, without having to all be on site. It’s easy to visualise potential problems, or to respond to sudden changes.



One example of predictive analysis is the work of Rockwell Automation. Focused on industrial manufacturing, they provide AI services to a variety of fields, including oil and gas. Their Model Predictive Control (MPC) uses historical data to draw conclusions about future events, allowing for things like predictive maintenance and early notice of anomalies. When applied to Natural Gas Liquid Fractionation, benefits include an increased production capacity of around 3-5% and increased stability

Best Practice

Do the research

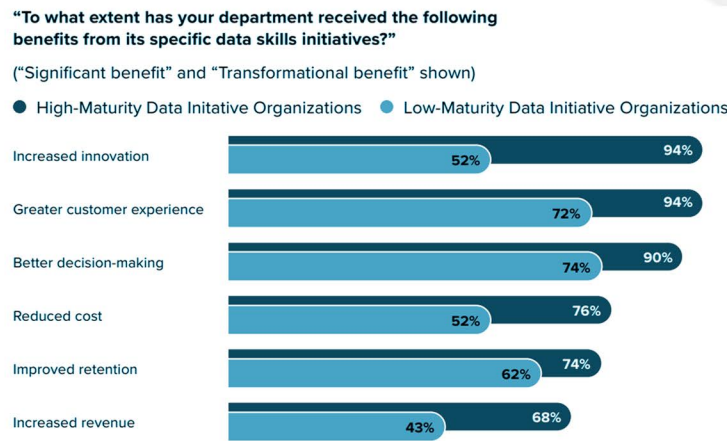
Bill Dow, Director of Enterprise PMO, points out that “We’re still in the very early stages of the

process here.” That means you really need to do the research in order to get the most out of AI - especially if you want to use it for prediction, not just automation.

One element he considers key to look into is ROI. Take the time “to look at what’s the investment, what are the processes, how big is [the] organisation?” and “what am I going to get and what processes and procedures do I have to change to be able to get that ROI quickly?” Understanding where will benefit most from AI, and what exactly you have to do to achieve your goals allows you to have metrics to track, and a clear plan of how to apply it.

Improve data literacy

As we’ve mentioned throughout, data literacy is key to getting the most out of AI. It can also help improve your business in numerous other ways, as shown below:



Base: 1,032 director and higher data program decision-makers at global companies with 500 or more employees
 Source: A commissioned study conducted by Forrester Consulting on behalf of Tableau, a Salesforce company, November 2021

(Source: Tableau, 2022)

Rather than bringing in an entirely new team (and lowering morale among existing staff), take time to train your employees in digital skills. You may end up bringing in some new leads or making use of consultants, but ideally, you want to upskill your existing workforce, not replace them.

Focus on cultural transformation

Once you’ve started work on improving data

literacy, you’ll be in a good place to start transforming your culture. As mentioned, you want buy-in at all levels - from the C-Suite to the staff that’ll be recording data daily. Pick out representatives at every level, and encourage them to act as change-makers. Make it clear that “Artificial Intelligence is not an enemy...and it will always be a helper because our world is changing.” (Bucero).

Tips from the experts

Dr Ahmad M. Salih: “Any change in technology has to come from the top of the company, from the CEO, from the board, and never from IT. Because IT people, they focus on the technology part ...but the overall strategy, it has to come from somebody who looks at the company and the bigger picture. Because in the end, companies are made up of people. And if we don’t take care of how we can transform people, then we will fail.”

Alfonso Bucero: “You need to be aware about what is happening around yourself, what is happening in the market, what are the trends...if you are not able to take into account the tools, the methods and the environment, the social needs from your listing holders and so on, you will be completely lost.”

Bruno Morgante: “These human skills, improving them, focusing on them is going to be incredibly important. AI is going to come. It’s going to be disruptive for a lot of companies in a positive way. You need to be prepared to get it and to have it in a positive way. Otherwise you might be lagging behind and with the speed that all of that is moving, if you are behind, you will stay behind.”

Kim Essendrup: “Make sure you partner with somebody who’s going to be with you on the journey because it’s going to take time. It’s not something where you install a software, you install

a CD to a server, turn it on and now you're done. When you partner with somebody, it's going to be a longer term partnership. It's going to be a very valuable partnership for you, but make sure that you've got that good partner to work with you along the way."

Manny Gill: "I think we are ultimately relying on the quality of the data that we collect. If we want to make data driven decisions and we want to have that, we need to be able to rely on good data quality. I saw an initiative a good few years ago, something that may take you two minutes to save your colleagues further down the line, two hours...It's really important to have that kind of investment across the organisation."

Author



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Lloyd is the CEO of greyfly.ai and leads the company's board and all major strategic initiatives. His

working career started as a planner ahead of leading teams of planners, Project Offices and PMOs. He has 25+ years' experience in programme management and has led full life-cycle, multi-year, major change and transformation projects with a value of £000ms.

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Conclusion

As Morgante says, it's no longer a question of whether AI is coming - it's what you're going to do with it now it's arrived. However, that doesn't mean you have to dive in feet first. Dow recommends "embrace it, but don't go all in yet", and adds "Think about how these are the small steps that we do to change the world, but do it cautiously."

Spending time preparing your organisation is crucial. All the experts we spoke to agree - if you have low data literacy, and aren't prepared to begin cultural transformation within your business, then the project will fail. But, by laying the right foundations, you can make the most of it. And, as Bucero says, you "will have more facility to make better decisions, quickly, effectively, and in a much better way to manage projects and to add value."

greyfly.ai was born when the two founders reunited following a 25 year, post-graduation anniversary, from the London School of Economics (LSE). greyfly.ai has experience in successfully delivering full life-cycle, benefits led, multi-million pound transformation projects. We are approved Government suppliers and preferred suppliers to the BBC for programme management. Our focus is applying AI in Project Management to improve project success and reduce the cost of delivery. We have moved from concept to Minimum Viable Product and have now built the Intelligent Project Prediction (IPP) tool which uses AI to deliver executive intelligence to increase project success and save customers £billions.