Leverage *Artificial Intelligence* in **Project Management**

Agenda:

- AI's Impact on **PROJECT MANAGERS**
- Make **DATA-DRIVEN** decisions
- Build an **AI MODEL**
- Monitor **PROJECT** progress
- Current & emerging **TRENDS**
- How to **PREPARE** Now
- Key **TAKEAWAYS**

Who Am I?

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Maximizing the Value of Your Project Managers and Team Performance

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Managing projects…yesterday vs. today

Do you remember when you used to manage projects In-Person?

Yesterday's FUTURE

...is **TODAY's** Reality

AI's Impact on

Project Managers

AI's Impact on Project Managers

- A lot of project work takes place online

- Work that happens offline can more easily be captured (e.g. via things like chatbots and Internet of Things enabled devices) and brought online

- Once it's been textualized, AI can really add value by curating and gleaning insights

- AI can learn over time and optimize itself

AI's Impact on Project Managers – cont.

- AI can –
  - collect data, analyze it, create workflows, estimate schedules and budgets, allocate resources, prioritize and assign tasks, forecast, and monitor progress
  - Conduct predictive estimating and forecasting (using machine learning to discover the key drivers and trends behind ongoing and dynamic sets of data)
  - Find patterns and correlations between data sets
  - Automate most redundant tasks

AI's Impact on Project Managers – cont.

- STORY – project management consulting firm

- We offered a service where we'd shadow project team members, document what they did step-by-step, so our client could train other people on the team members' roles

- How is that any different today?

- AI shadows you online and documents what you do step-by-step and reports back to upper management

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AI's Impact on Project Managers – cont.

- Remote work (everything can be tracked online in real-time)

- Agile projects (decomposed work); easier for AI to learn and replicate than large, complex projects

- Management and oversight is being offloaded to the cloud

Bottom Line: Rather than having AI adapt to how humans work; over time humans will have to adapt to how AI works
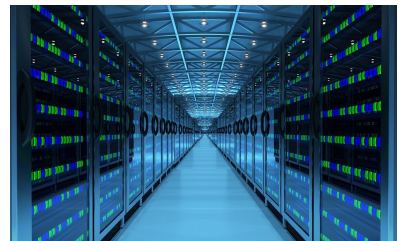
- Think smart cities with smart grids and smart buildings

MAKE **DATA-DRIVEN**

Decisions

Capture Data

- Projects produce data. Terabytes of it.

- Data leaves behind clues

- These clues can be stitched together to uncover patterns

- **There's a challenge:** a lot of data is collected by people – this is highly inefficient

- So, what's a more efficient way to do this?

- …integrate systems via APIs with technology such as the Internet of Things (aka IoT)

Glean Data Insights

- Your data has a story to tell.

- Like a chisel, use AI to carve the story out of your data

- Ask yourself…What's the story behind your data? And how can you carve it out?

- ….use AI to produce a high level of data-driven information called business intelligence (tells a story about what's already occurred, what's currently going on, and what's predicted to happen in the future)

Make Data-Driven Decisions

- <u>HBR</u> found the majority of mgt. decisions will be made by AI

- **Example:** Say a bot notices that a resource is performing tasks at 60% of its target and showing traits similar to a previously failed project.

- It could flag tasks assigned to that resource for review, notify key stakeholders, and request alternative (or additional) resources, so the tasks can be brought back in line with the original plan.

Make Data-Driven Decisions – cont.

- **Cisco Spark** partnered with **Redbooth**, an all-in-one project management and collaboration platform, to extend Cisco Spark's messaging experience, along with enhancing team collaboration and productivity.
- They accomplished this through bot integration.
- These bots continuously monitored an entire team's performance and could even drill down to an individual team member's performance. If the performance was less than expected, the appropriate parties were notified.
- They could also answer questions using natural language.

Make Data-Driven Decisions – cont.
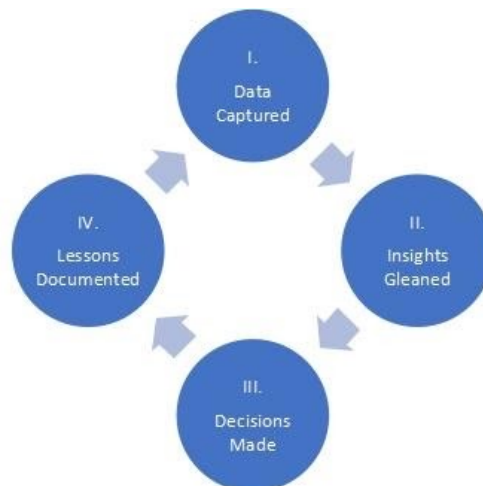
Consider the following data-driven recommendations –

1) Determine which team members are best based on an evaluation of their professional background, experience, and skills
2) Track the amount of time team members spend on tasks, so you can automatically reassign underutilized resources to higher value assignments
3) Monitor progress of existing projects, so you are alerted when you need to take action, and provided suggested next steps
4) Identify future projects with a high probability of success by analyzing them against projects that have been successful in the past

Document Lessons Learned

- As more data gets captured, insights are gleaned, informed decisions are made, and lessons learned are documented.
- Once archived, these lessons learned can be used as inputs into future projects.

…a <u>Virtuous Data Cycle</u> is created
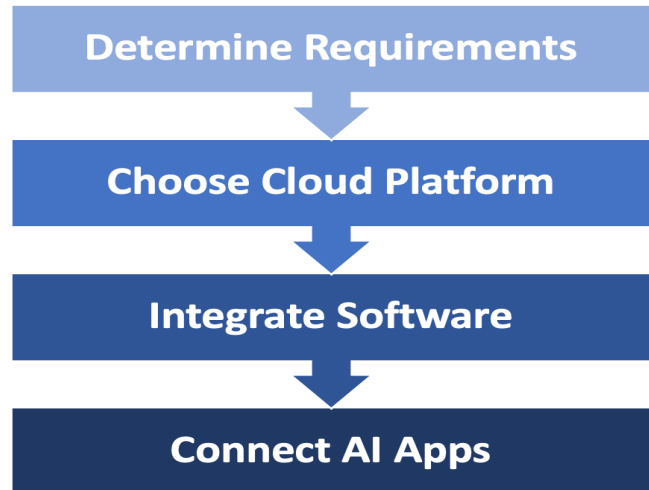
BUILD an **AI MODEL**

Build an AI Project Model

- Before you can manage an AI project, you need to make sure you have an AI Project Model
- Think of an **AI Project Model** as a visual illustration of the key characteristics of your project and how your organization (or team) leverages AI to create value

Build an AI Project Model – cont.

From a technical perspective,

it stacks up like this –

Determine Requirements

Choose Cloud Platform

Integrate Software

Connect AI Apps

Build an AI Project Model – cont.

A practical way to get started is to break the modeling process into 4 stages –

1) Determine your project needs and requirements (e.g. what problems you're trying to solve)

2) Choose an AI-friendly, cloud-based platform

3) Integrate software

4) Connect AI-powered apps via APIs

MONITOR Project Progress

Monitor Project Progress

- According to an <u>Accenture</u> study, managers spend 54% of their time on project management-related administrative tasks.
- AI-powered solutions exist today that can free you from many of these tasks.
- A lot of project work takes place online.
- Work that happens offline can more easily be captured (e.g. via things like chatbots and Internet of Things enabled devices) and brought online.
- Once it's been textualized, AI can really add value by curating and gleaning insights.

Monitor Project Progress – cont.

The question then becomes, "How can I better monitor my project's progress with AI?"

- Today, there's no need to wait for a sprint to be completed (or even your next stand-up meeting) before you're alerted to issues that need to be addressed.
- One of the advantages of using well-known collaboration platforms such as Slack or Microsoft Teams is you have a wide selection of bots to choose from.
- **Example:** There are bots that can track expenses all the way down to the task level and see which ones are using more than their fair share. They can then issue an alert, so you can take a closer look.

Current & Emerging **Trends**

Where We Are Today

- Industries are migrating to AI digital solutions

- AI is making more decisions and even with the decisions they don't make, AI is heavily influencing them

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Where We Are Today – cont.

Take for example, **CVS Health**, the parent company of CVS Pharmacy and Aetna

CVS HealthHUB

They have **HealthHUBs** that offer a variety of tech-enabled health services that are enriched with continuous streams of data collected from health apps on their customers' devices, along with their partners' systems

Where We Are Today – cont.

- Accenture has virtual Scrum Master called myWizard

- It benchmarks automation maturity, identifies opportunities, creates roadmaps, manages the journey and continuously measures the value delivered

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Where We Are Today – cont.

Amazon's Hive Mind

Where We Are Today – cont.

- Amazon employs a network of robots

- These robots are managed and monitored by a 'Hive Mind'

- Imagine in the future, thousands of robots, chatbots, and IoT enabled devices collecting data, communicating with each other, and working in unison to feed data to a hive mind for processing and decision making
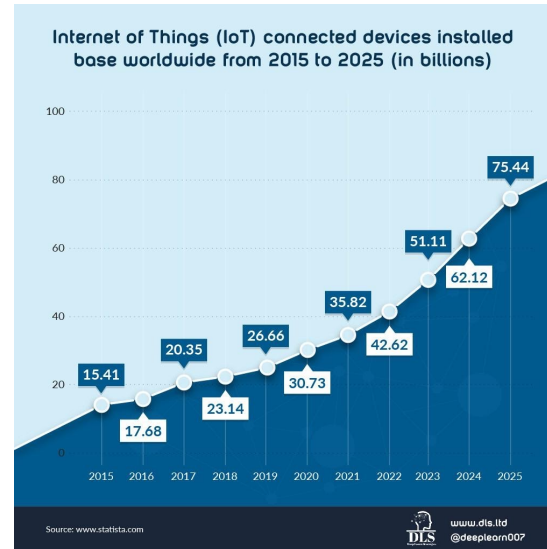

Where We'll Be Tomorrow

- According to McKinsey, by 2024, AI-generated speech will be behind more than 50% of people's interactions with computers

- New data from McKinsey states the number of patients utilizing telehealth rose from 11% in 2010 to 46% in 2020

- Telehealth may eventually account for 20% (or $250B), of U.S. healthcare expenditure in the near future

Where We'll Be Tomorrow

Statista forecast that by 2025 we may reach 75B Internet connected devices

Internet of Things (IoT) connected devices installed base worldwide from 2015 to 2025 (in billions)

15.41, 17.68, 20.35, 23.14, 26.66, 30.73, 35.82, 42.62, 51.11, 62.12, 75.44

Source: www.statista.com

www.dls.ltd
@deeplearn007

Where We'll Be Tomorrow – cont.

- Cloud Network (heavy lifting and data processing), Extended Nodes, and Connected Devices

- Data will be collected and stored locally until it can be transferred to the nodes and eventually offloaded to the cloud

- AI will be embedded at each level thus allowing for some pre-processing; however, the heavy lifting will be done once the data reaches the cloud

Where We'll Be Tomorrow – cont.

- This will result in –
  - Intelligent devices interacting continuously throughout the day
  - AI being able to harness massive amounts of data, determine patterns, and make predictions

How to **Prepare**

How To Prepare

- Mine the gap

- Ask yourself –

  - How routine is my job?

  - Why does AI need me?

  - What is my value-add?

How to Prepare – cont.

Here are 3 ways you can adapt –

 # 1 – Be an Individual Contributor

- Improve technical skills

- Capture large data sets

- Train AI using machine learning

- Be creative (experiment to see what works)

How to Prepare – cont.

 # 2 – Be a Translator

- Solve problems

- Interpret AI-driven insights

- Translate between AI, teams, and upper management

- Help teams communicate in natural language AI understands

How to Prepare – cont.

 # 3 – Move into Upper Management

- Be strategic

- Think holistically

- Solve bigger problems

Key **Takeaways**

Key Takeaways

- Industries will have AI digital and hybrid environments

- Use AI to produce predictable, scalable results

- Leverage AI to extract data, so you can execute faster on ideas

- Be creative and solve problems people don't know exist and offer solutions people don't know they need

Thank You…

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