APM
Association for
Project Management

Developing Project Data Analytics Skills

Executive summary

In 2022, the Association for Project Management (APM) collaborated with the Major Projects Association and the Project Data Analytics Taskforce to publish *Getting Started in Project Data*, which defined project data analytics, its advantages, and how all professionals can use it tactically, operationally and strategically.

Getting Started in Project Data and Analytics Skills is a complementary guide outlining the skills needed to benefit from the use of data in project delivery. The guide has been developed by specialists and project practitioners from the public and private sectors, and represents the most recent thinking on future skills in a user-friendly and practical form.

The importance of data and analytics has never been more evident. As organisations face new and evolving challenges, they require a deeper understanding of their operations to make informed decisions that will drive success.

Data and analytics provide opportunities for organisations to gain insights into their projects that were previously inaccessible. Using analytics tools, organisations can identify trends, anticipate potential issues, and develop solutions that will enable them to deliver projects more efficiently.

Moreover, the ability to collect and analyse data is essential for organisations to remain competitive in today's business environment. With the explosion of digital technology and the rise of big data, organisations that fail to adopt data-driven approaches risk being left behind. Data and analytics have also become increasingly important in addressing global challenges, such as climate change, social inequality and economic uncertainty. By using data and analytics tools to gain insights into these complex issues, organisations can develop strategies that will lead to more sustainable and equitable outcomes.

Your organisation may already possess some of the skills outlined in the framework. However, some may need development. This guide was created to support your journey towards data-driven project delivery, leading to greater project success. It enables us to tackle the social, economic and environmental challenges we face today through deeper and more comprehensive insights. The goal is that project data analytics will be embraced by mainstream standards, including the *APM Body of Knowledge* and *APM Competence Framework*, reflected in its qualifications and chartered standard. A generation of data-literate professionals can be cultivated with the help of this guide. It is an essential stage in the journey towards achieving this goal.

Acknowledgements

Developing Project Data Analytics Skills has been developed in partnership with the Project Data Analytics Skills Taskforce using the skills and experience of project professionals across all sectors.

Project sponsor: Sue Simmonite, APM Board member

Editorial panel: Andy Murray, Major Projects Association
James Garner, PDA Taskforce.

We would also like to thank Simon Davies and Kevin Newton for their additional contributions to the guide.

PDA Skills Task Force

James Garner (chair)
Graham Cantillon
Alex Coles
Roxanne Gimbrel
Jo Jolly
Donnie MacNicol
Tristan Mobbs
Martin Paver
Alan Perkins
Victoria Perkins
William Shepherdson
Nick Stepanov
Alan Stitt
Alessandro Zurlo

APM Data Advisory Group

John McGlynn (chair)
Fahad Aleem
Professor Adam Boddison OBE
Mark Bradley
Helen Campbell
Paul Chapman
James Dowle
Greg Lawton
Milla Mazilu
Dr Eleni Papadonikolaki
Gareth Parkes
Victoria Stockwell

Introduction

We are in the fourth industrial revolution, where digital disruption is transforming project delivery. From cutting-edge cyber security to data analytics, a vast ecosystem of digital influences is turning us into data citizens that demand new digital skills.

Data analytics and artificial intelligence can fundamentally change how we work. Large language models (LLMs) such as ChatGPT could soon provide answers to anything we ask, replacing project reporting. Machine learning could give us deep insights about project performance we've never had before.

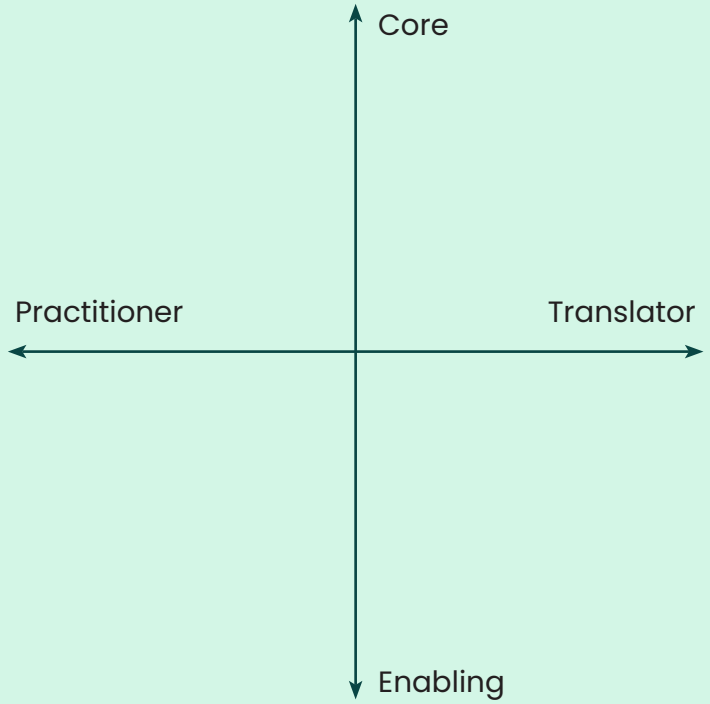
Traditional ways of working are being replaced by a new wave of digital transformation driven by an ever-increasing number of digital products and solutions. This has led to the emergence of new project roles and delivery models, creating exciting new opportunities in the field.

How do we prepare for, and embrace, these emerging technologies? To remain competitive, we need to develop new data skills to meet these demands. Visionary leadership is critical, with business and government leaders needing dynamic and agile solutions to stay ahead of the curve. Training organisations must think differently to keep pace with these rapid changes.

The days when project delivery decisions were based on intuition have passed, making project delivery more of a science than an art. A data-driven approach will give us greater visibility of each project's societal benefits, increased value for money, higher social value, lower environmental impact, enhanced productivity and better consumer experiences. The path to success in this new era lies in our ability to harness the power of data and analytics, leveraging them to drive transformation and growth in our work.

The skills gap

In today's fast-paced world it is essential to address the growing demand for data skills for all project professionals. This is particularly challenging in a diverse project workforce that includes both digital natives and digital migrants. Organisations can use frameworks like SFIA, DigComp Framework and the Digital, Data and Technology Profession Capability Framework (DDaT) to assess and develop digital competences, helping to understand their maturity and support the planning to increase data skills to meet evolving needs.



This requires digital leaders and enthusiastic team members who can drive the digital evolution by developing new processes and embedding new technologies as business as usual.

Organisations will approach this differently, but need to answer some key questions:

- Is project data analytics core to a role or an enabling activity?
- Do we need data practitioners or translators?
- How are existing roles affected by a data-led approach?
- What corporate support is available and how responsive is it?

We need to continually scan the horizon for solutions to increase project success. Digital transformation is the integration of culture, platforms, technologies and processes to create synergistic benefits.

This guide identifies the skills that support this, creating a solid foundation for organisations to achieve project success in a digital era.

Data-driven project delivery manifesto

- Use data analytics to bust project management myths.
- All projects are data designed and enabled.
- Pool data to maximise insights.
- Collaborate on open-source data analytics solutions to tackle priority challenges.
- Reskill for a digital and data-enabled world.
- Data analytics is codified in all aspects of project delivery best practice and culture.

A Manifesto for Data-Driven Projects has been developed by the PDA Taskforce and outlines six key principles of data-driven project delivery.

Scale and complexity

The implementation of project data analytics will vary by organisation. Large organisations will create their own data ecosystems and tools where smaller organisations may prefer to buy data and integrate open-source or off-the-shelf tools into their work.

Either way, when we look at project, programme and portfolio delivery, collecting and standardising data from the bottom up is critical. The true value that project professionals offer is the ability to define the key performance indicators (KPIs) that measure project scope, benefits and performance. These allow us to understand the data we need to help us plan, monitor and control the delivery of desired outcomes.

This takes place in a system architecture that must be secure, ethically collated and automated to provide the necessary insights. To ensure success, project professionals must understand the role of specialists, such as information systems and information management managers, data security, data engineers, data scientists and data analysts. The integration of these functions will be a key challenge.

Warwick University's 2022 report on project data analytics identified several barriers to implementation, including the development of skills and standards. *Getting Started in Project Data,* published by the Association for Project Management, advocated an incremental approach where organisations learn as they deploy these capabilities.

To effectively manage their portfolio, businesses must progress a digital skills strategy that aligns with this approach – helping ensure their project professionals possess the necessary digital and data skills that drive towards project success.

The skills framework

The skills framework is aimed at supporting any project professional looking to enhance their understanding and application of project data analysis.

It defines 11 skills with key indicators to help professionals understand which of them they already have and which they need to develop.

Each skill will be applied differently depending on the role and project environment. To help, we have developed four typical personas as a starting point to understand the goals, motivations and challenges that different professionals will have in different project areas.

These skills complement essential project management competencies, such as continuous improvement, stakeholder engagement, persuasion and influence, which already feature in established frameworks such as the *APM Competence Framework*.

How to use this framework

This guide is a valuable tool for assessing and developing the data analysis skills for you and your team. Following these steps will support your assessment and development process:

Step 1 – Develop an understanding of how data analytics can help your organisational and project goals. Consider your organisation's current level of maturity in this area.

Step 2 – Review the skills that align most closely with your goals or your team's goals. This may include skills related to data collection and analysis, gaining deeper insights, communicating effectively or making more objective decisions.

Step 3 – Identify the profiles of the team members you want to assess and consider their current skills, challenges and goals for improving their data analysis skills. The personas within the framework can help identify common areas to focus on.

Step 4 – Use the indicators provided within the framework to understand the skills that you and your team already have and any skills gaps that need to be addressed. Develop a targeted plan to close these gaps and enhance your team's data analysis capabilities.

Step 5 – Project data analytics is constantly evolving, so regularly review and update your development plan.

These steps will help you and your team develop the data analysis skills you need to achieve your organisational and project goals.

Skill name: Databases and datasets

What it is

The ability to extract clean and structured data to create robust and appropriate datasets suitable for their intended use. To query databases and organise data to show relationships between datasets via common fields or keys.

Why it matters

A single source of the truth which is trusted by all enables accurate and relevant insights to be gained.

Skill definition indicators

I understand the organisation's data construct and relationships

I can identify and rectify errors or issues with datasets

I can understand the data itself

I can understand broader business context and processes

I can use numerical skills and logical reasoning

I can work in a structured and organised way with data

I can understand data governance requirements

I can propose solutions to improve data quality

Skill name: Data analytics

What it is

The ability to understand how data is collected, prepared, explored, validated and visualised, and the ability to examine information embedded in related datasets.

Why it matters

Accurate data-driven decision making provides advantages to projects. A clear understanding of the analytics ensures results are meaningful and provide useful insights. These techniques allow organisations to extract patterns, trends and relationships that can be used to inform and guide decision making.

Skill definition indicators

I understand data items and the potential benefits the information may provide

I can review, cross-check and identify errors in data

I can describe the desired insight required and why

I understand the relationship between organisational processes, information and data

I understand how to define the valuable information that allows users to focus on the best data

Skill name: Analysis models

What it is

Data analysis models determine how the data is exposed to the end user. The skill is in the ability to understand analysis models, and the ability to read the output and derive an outcome or conclusion.

Why it matters

Data analysis is an important process in supporting decisions based on data. Data analysis is essential as it helps organisations understand customers better, improve project delivery and support problem-solving strategies.

Skill definition indicators

I have an understanding of the common analysis models used in the project environment

I understand how modelling could be utilised within a project organisation

I understand how to read the outcome of common models to improve decision making and/or problem solving

I understand the relationship between the intended outcomes, the organisation and its strategies

Skill name: Data ethics and security

What it is

Data ethics and security is the ability to consider the ethical implications of data work, understanding the sensitivity and security of data and the ability to use the data in the right way at the right time with the right controls; measurements, governance and assurance.

Why it matters

- Statutory compliance (GDPR)
- Sovereign sensitivity (intellectual property, process and technology)
- Human impact
- Organisational risk
- Exposure to legal implications of inappropriate use

Skill definition indicators

I can understand the bias that can exist in the data I work with, for example, sample size failures, data sources, quantity of information

I know the relevant legislation/standards/laws for the data I'm working with, for example, GDPR / IP / data classification

I can consider the impact of my analysis on society and groups of people

I can critique data use and advise appropriate practice

I can define the security user profiles on project data for different commercial, corporate IP and security classifications

Skill name: Data integrity and value

What it is

An understanding of the integrity and lineage of data. Its maintenance, assurance, accuracy and consistency throughout its lifecycle with the aim of ensuring that insights derived from the data are robust and defensible.

Why it matters

Understanding the shortcomings in the data and how it can be improved will ensure analysis and insights are used appropriately.

Skill definition indicators

I understand and apply the principles of data integrity, lineage and quality frameworks

I understand the implications and ethics of the decisions I make or influence from imprecise data

I know how to validate and assess data or understand its principles

I understand how to reflect how third-party objectives are influencing insights and data pipelines

I understand the data I am given and the data I haven't been given, and the impact on any conclusions

Skill name: Statistical modelling and forecasting

What it is

The process of using statistical methods to analyse data and make forecasts about future events or trends. This involves the development of mathematical models to represent the relationships between variables in a dataset.

Why it matters

The models are based on statistical algorithms and techniques, and are used to describe the relationships between variables, make predictions and test hypotheses. Creating insights from data helps to the tell the story of the project and predict potential future outcomes.

Skill definition indicators

I can apply numeracy skills, particularly in statistical analysis

I can use relevant technology to undertake this analysis

I can understand the difference between structured and unstructured data, and data relationships

I can qualitatively explain and justify my analysis

I am aware of and can communicate the limitations or assumptions in my model/forecast

I can use appropriate measures to evaluate my analysis (accuracy, precision, etc.)

I can apply statistical modelling and forecasting in project scenarios

Skill name: Strategic thinking

What it is

A cognitive process that involves evaluating information, exploring possibilities and considering alternatives to make effective and informed decisions. It is a forward-looking approach that helps individuals and organisations to develop and implement long-term plans and strategies.

Why it matters

Strategic thinking is important for organisations because it helps them to stay competitive and achieve their goals. By taking a long-term perspective and considering all the factors that may impact the success of a plan or strategy, strategic thinkers are better equipped to make informed decisions and respond to changes in the environment.

Skill definition indicators

I can map the approach taken to the organisation's strategic goals

I can create a short-term/long-term capability map

I can demonstrate benefits in line with organisational targets

I can set a strategy to meet organisational requirements

I can set targets to monitor and control achievement

I can set strategic goals

Skill name: Systems thinking and root cause analysis

What it is

Systems thinking is an approach to problem solving that views complex problems as interconnected systems of interrelated elements, rather than as isolated events or individual components.

Root cause analysis is a problem-solving method that involves identifying the underlying cause of a problem, rather than just its symptoms.

Why it matters

Systems thinking and root cause analysis emphasises the relationships between different elements in a system and how changes in one part can impact other parts.

Skill definition indicators

I can identify the sources of project data and information

I can map information into an area of analysis and identify root causes of incidents or risks

I can design input/transformation/output analysis and feedback loops, to provide insight and give benefits to the project

I can assess and overcome obstacles and think unilaterally

I can think logically, i.e. using Boolean logic

Skill name: Critical thinking

What it is

The ability to ask challenging ‘So what?’ questions. To bring the project and what it is trying to achieve to life through quantified and qualified metrics.

Why it matters

Critical thinking helps to develop a deep understanding of a problem considering the data available, its quality, the standards used in its development, and the linkages and relationships with other datasets.

Skill definition indicators

I can break down the scope of a project’s information

I can identify, through gap analysis, areas of improvement to support better data governance

I can challenge, effectively, areas of inconsistency and standardisation on a project

I can take calculated risk based on data-driven decisions

I can be solutions-based using reasoning and logical analysis

I can explain why a change is material or a minor fluctuation

I can explain and quantify uncertainties in a forecast

Skill name: Business intelligence analysis

What it is

Business intelligence (BI) analysis is the use of various methods, techniques and tools to gather, store, process and analyse business data. The aim is to convert data into actionable information that can support and enhance business strategy, improve operations and improve benefits.

Why it matters

A deep understanding of business needs by technical teams will ensure all options are considered, the best investment routes are selected and needs are effectively addressed.

Skill definition indicators

I know the principles of balanced scorecard and KPI best practice

I can translate business requirements into detailed requirements for data capture and analysis

I can do scenario-based analysis incorporating constraints

I understand how systems are interconnected, and how data can be extracted, governed and analysed to deliver benefits

I understand business data types, their properties and their relationships with each other (their ontology)

Skill name: Visualisation and storytelling

What it is

Data is collected, stored and processed to produce and validate outcomes or results – for example, to validate a theory, test claims, or deepen knowledge of a topic or problem. Visualisation complements this by representing information in a format suitable for the end user. Storytelling is a skill which presents the findings as a narrative.

Why it matters

Data needs to be understandable and accessible. Effective visualisation and storytelling helps users comprehend the insights that data offers to ensure effective action can be taken.

Skill definition indicators

I understand how to present data visually in a clear and easy-to-understand way

I can inform stakeholders of the context in which the data has been collected and presented

I can use the data to present a strong narrative

I can tailor presentations to different stakeholders

I can present data in a way which encourages effective action

Personas

All projects can benefit from using project data effectively, but how skills are applied will depend on your project and your role within it. In some smaller projects you might be the data expert in the team, but in more complex projects there may be specialists or experts you can work with.

To help guide you through the framework, we have divided the community into four types: citizens, consumers, analysts and data scientists. These are represented by four fictional characters or *personas*.

These personas have different skill levels, interests and motivations for using data.

Over the next few pages, we will introduce you to the personas, their roles within a project and their likely interests in project data.

- Nathan – A project professional who recently started his career. He is very keen to develop his skills and progress his career, and has a keen interest in offering a fresh perspective on the work being done.
- Saadia – a project leader who is looking for a strategic view of their projects and wants to use data to help identify areas for improvement and avoid common mistakes.
- Petra – an experienced project professional who wants to incorporate a data-driven approach into their projects without having to completely relearn their project delivery.
- Deon – A data specialist working in a project environment. They have a deep interest in data analytics and are keen to develop their skills to help incorporate advanced data analytics in all areas of project delivery.

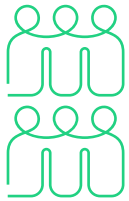
There are many specific roles within project data analytics. These four broad personas can act as a starting point when assessing specific skills needed in your organisation to get the most from project data analytics.

Nathan

Data citizens

We are all data citizens who understand the value of data, and use it responsibly and ethically

Saadia



Data consumers

Many of us use data to make decisions. We need the confidence to interpret and use data appropriately and be self-sufficient

Petra

Data analysts

Some of us understand, analyse data, and visualise data to present actionable insight to decision makers

Deon

Data scientists

A few of us can use mathematical and statistical methods and advanced predictive techniques to help solve complex business problems

Early career

User persona name: Nathan

Role:

Early in their career and new in post, learning both the profession and their organisation. Working as part of a multi-skilled project team

Job titles: Project Management/Control Apprentice, Graduate, Postgraduate

Demographic:

New to the profession and/or role

Limited knowledge of the organisation

Appetite to learn and demonstrate their value

Brings diversity into the data analytics perspective

Emerging confidence in the use of technology and analytical ways of reporting

Ideal future day:

Understands their role, why it exists and how to achieve their objectives

Adds value while learning

Adds diversity by providing an alternative view of the project

Feels valued and contributes to the project success

An opportunity to try new skills, explore and analyse potential data insights

Goals:

Understand the business and how they can add value

Be more data literate, understand what information they need and use in relation to their project

Demonstrate and develop capability in the project profession, and be seen to be delivering or achieving success

Be confident in the data they're using

Needs & challenges:

Limited business acumen

Understanding data structures and relationships

Their potential to innovate may require channelling

Senior leader

User persona name: Saadia

Role:

Director focussing on change management and benefit realisation in major programmes

Job titles: Project Sponsor, Project Director, Head of Projects, Programme Manager

Demographic:

Senior professional

Highly experienced

Passionate about helping employees maximise their potential

Ideal future day:

Fewer and more decision-focused meetings

Effective communication of data that improves learning and reduces repeated mistakes

Information which is intuitive, objective, thorough and visual with recommendations/ predictions

Data which can be trusted to allow quality time exploring observations and options

Consistency in reporting styles, less changeability, and the ability to compare and contrast different datasets

Well-defined KPIs with consistent use across projects

Confident decision making based on insight

Goals:

Guide and support teams

Be objective and data focused

Work with live or near real-time data

Focus on project delivery success

Needs & challenges:

Visibility of projects, related data and predicted outcomes

Reduce reliance on subjective decision making

Meeting efficiency and the use of static information

Reduce repeated mistakes

Project professional

User persona name: Petra

Role:

Project manager co-ordinating a delivery team, consisting of data specialists and sponsors to deliver project goals

Job titles: Project Manager, Project Leader, Project Professional, PMO Manager, Commercial Manager, Cost/ Risk/Planning Manager

Demographic:

Experienced and qualified but struggles to find time to consider different ways of working

Strong track record of success

Recognises growing focus on data analytics

Increasingly confident in using technology and analytical ways of reporting

Ideal future day:

An inclusive leader who recognises the value of diversity in their team and variety of skills available

Likes easy access to live or near real-time data presented via intuitive dashboards

Data-based decisions for facts to allow for time to be spent on pre-emptive or predictive measures

Wants to help their team and clients add value to their programme or project

Goals:

Be more data-literate, systems thinking, objective and up to date

Maintain their status as a project professional and be seen to be successful

Be confident in the data they are using

Needs & challenges:

Incomplete datasets and unreliable data

Finds interpretation difficult

Is change-fatigued and doesn't want to be a 'data nerd'

Has multiple unconnected data sources

Is used to working in a siloed traditional project environment

Data specialist

User persona name: Deon

Role:

Technology developer, data engineer, data scientist, data analyst

Job titles: Developer, Reporting Engineer, Data Scientist, Data Analyst, Insight Manager

Demographic:

Data science graduate / apprentice

Interest in data, machine learning and data manipulation

Part of a technical community

Technology-literate

Detailed, organised, hands-on

Ideal future day:

Focused on technical work and maintenance – coding, technology, integration

Space to develop solutions that complement management demands

Accessible data which is secure, high quality and available

Reliable technology

Common data standards and language, and fewer federated toolsets

Having an engaged customer that provides specific, measurable, achievable, realistic, time-based (SMART) requirements

Goals:

Seamless, safe, secure, structured, available high-quality data

Innovate and explore

Reduce uncertainty and risk

Benefit society

Needs & challenges:

Availability of data quality, security, accessibility and other business restrictions

Reliable technology

Organisational politics and governance

Lack of a support structure or mentors with relevant skills

Competent managers to exploit their capabilities

Building capability

Getting Started in Project Data explored two approaches to starting the journey of using data analytics for project delivery – tactical and strategic. The emphasis of the guidance, though, is one of 'don't delay'. Data analytics and the wider use of AI is becoming increasingly pervasive, and there is a real danger that individuals, projects and organisations will miss out on opportunities to improve and may get left behind.

The *Manifesto for Data-Driven Projects* includes six pledges for individuals, projects and organisations to progress the adoption of data analytics in projects. One of those pledges is to reskill for a data- and digital-enabled world. This guide has helped to start that process.

Reskilling should be seen as just the start of the journey to build capability in project data analytics. Its increased use will change the roles we have in project management. Some existing roles will need redefining to include data analytics responsibilities and competencies. Some roles may disappear and new ones are likely to emerge. Increasing skills in project data analytics will increase curiosity, appetite and confidence to challenge how projects are set up and delivered.

With such a rapid pace of change, individuals should look beyond their environment to see how data analytics is being applied elsewhere, and consider the opportunities to apply it to their work in a similar way. Participating in meet-ups and hackathons is a great way to test your ideas and be exposed to new ones.

Projects should have a digital and data management strategy by considering, "What data does the project need, where will it come from, how will it be used, how will it be kept safe and, importantly, what happens to it after the project completes?"

Organisations should understand their data maturity using models such as the *Government's Data Maturity Assessment* and develop plans to improve it so that the project environment becomes an enabler rather than an anchor for its projects.

Glossary

Artificial Intelligence (AI)

Artificial Intelligence (AI) is technology with the capability to advise on or even make project decisions.

Automation

The process of removing humans from routine analysis and processing with the intention of releasing capability for higher value-adding activities.

Big data

The collection, storage and analysis of vast, complex datasets that are too large to be effectively analysed using traditional data processing methods. Big Data is used to reveal valuable insights and patterns.

Boolean logic

A branch of mathematics and computer science using values (true or false) and expressions (AND, OR, NOT) to analyse logical expressions and aid decision-making.

Centre for Digital Built Britain

Skills and competency framework supporting the development and adoption of the Information Management Framework (IMF) and the National Digital Twin.

https://www.cdbb.cam.ac.uk/files/010321cdbb_skills_capability_framework_vfinal.pdf

ChatGPT

A conversational Artificial Intelligence model developed by OpenAI, designed to generate human-like text responses in natural language conversations.

https://chat.openai.com/

Data analytics

The process of using data to enable effective decisions or efficiently automate tasks.

Data maturity

The level of readiness and capability an organisation has in effectively managing, analysing, and deriving value from its data assets.

DigComp Framework

A framework developed by the European Union for framing digital skills policy and developing and measuring digital competence.

https://joint-research-centre.ec.europa.eu/digcomp/digcomp-framework_en

Digital, Data and Technology Profession Capability Framework (DDaT)

A capability framework developed by UK Government that describes job roles in the digital, data and technology (DDaT) profession, providing details of the skills needed to work at each role level.

https://www.gov.uk/government/collections/digital-data-and-technology-profession-capability-framework

Data Maturity Assessment for Government

The Data Maturity Assessment for Government helps UK public sector organisations measure, improve and maintain the health and strength of their data ecosystems.

Generative AI

Artificial intelligence that can create new content, like text, images, or music, by learning from existing data and generating similar, often novel, outputs.

Intellectual property (IP)

Legal rights that protect creations of the mind, such as inventions, artistic works, literary works, and brand names, from unauthorised use or reproduction.

Large language models (LLMs)

Advanced artificial intelligence systems designed to understand and generate human-like text at a scale and complexity that allows them to understand natural language, translation and respond in various languages and across many domains.

Machine learning

Intelligent processing that involves computer algorithms that 'learn from doing'. Machine learning trains systems to progressively identify the characteristics of items and patterns of data to provide insights and aid decision-making.

Ontology

A formal and structured representation of knowledge that defines concepts, their properties, and the relationships between them within a specific domain.

Project data analytics

The use of past and current project data to enable effective decisions on project initiation, delivery and efficient automation of project tasks.

Skills Framework for the Information Age (SFIA)

A framework that defines and categorises the skills and competencies required for roles in the information technology and digital industries.

https://sfia-online.org/en

Association for Project Management
Ibis House, Regent Park
Summerleys Road
Princes Risborough
Bucks HP27 9LE
0845 458 1944
apm.org.uk