(Re)Calibrate Your IT Workforce for AI

AI is becoming more accessible for general use every day. Not only will it be necessary for future organizations – it will be the norm. Assess how organizations are putting these skills into practice now and tap into the strategic direction of the business to derive your AI competency needs.

AI use cases + Strategy = Organizational impact

Define key AI skills

Leverage Info-Tech's AI Competency Library.

Assess Current State

Analyze the AI proficiency gap.

Gap Mitigation Strategies

- *Employee development*
- *Reskilling and upskilling*
- *Hiring*

Desired State

IT AI proficiency level needed to support organizational success.

Our methodology for identifying the competencies needed to support AI implementation

	1. Define Your AI Competency Need	2. Assess the AI Skills Gap	3. Address the AI Skills Gap
Step Activities	1. Analyze your AI business need. 2. Define AI competencies, impact, and proficiency level need.	1. Assess the current AI competency proficiency. 2. Use *AI Competency Gap Analysis* tool to identify skills gaps and prioritize them.	1. Identify gap closure actions in the *AI Competency Gap Analysis* tool.
Key Outputs	• AI competencies identified and defined • Target AI proficiency determined	• AI skills gap determined • Competency gap prioritization based on size of gap and organizational importance.	• An actionable plan to mitigate the AI skills gap in your workforce.

Research benefits

IT benefits

- Reduce time spent defining AI competencies and the target state of workforce needs related to AI skills.
- Reassess the feasibility of executing on your AI strategy, including resourcing and timeline.
- Increase confidence in the IT leader's ability to implement a successful skills development program that is aligned with the organization's AI strategy and use cases and which correlates to successful business outcomes.

Business benefits

- Reduce time and cost spent defining and searching for AI skills in the talent pool.
- Increase the chance of retaining high-quality AI professionals who will be ready to adapt when the next new technology emerges.
- Optimize the quality and effectiveness of AI implementation.

Guided implementation

What does a typical GI on this topic look like?

Session #1: Understand common AI roles, competencies, and your specific objectives and challenges.

Session #2: Assess the current AI competency proficiency level and skill sets. Identify the skills gap.

Session #3: Identify the relationship between current initiatives and capabilities. Initialize the plan of the corresponding initiative for AI skills development.

Session #4: (follow-up call) Touch base to follow through and ensure that benefits have been received.

A guided implementation (GI) is a series of sessions/calls with a Consultant to help implement our best practices in your organization.

A typical GI involves 4 to 6 sessions/calls over 2 to 3 months. It is to be customized …

Step 1: Define the AI competencies

What are AI competencies?

Defining AI competencies is a critical step in understanding your AI workforce needs and alignment with business goals.

Competencies are the collection of knowledge, skills, and attributes an employee requires to do a job well.

What is a competency? It is made up of:

Knowledge

- A body of information that a person possesses, which may be applied directly to the performance of a function.
- Includes but is not limited to facts, events, systems, ideas, theories, methods, procedures, principles, concepts, and cases that result from formal education, training, or personal experience.

Skills

- Demonstrated and observable ability to perform a task with ease and proficiency.
- Often requires equipment, machinery, tools, or automated systems.
- Implies measurable performance.

Attributes

- An individual's demonstrated personality traits.
- Often broader and more abstract than skills or knowledge.
- Includes characteristics like attitude, motivation, ambition, values, and demeanor.

Source: McLean & Company, 2022.

1.1 Identify your AI competencies

Request the *AI Competency Library here >>>*

AI competency library

Leverage this library to help you define your AI competencies.

AI Comptencies

Technical Competencies							
Competency Category	**Competency**	**Definition**	**Level 1: Fundamental Awareness**	**Level 2: Novice**	**Level 3: Intermediate**	**Level 4: Advanced**	**Level 5: Expert**
Data Privacy and Stewardship	Data protection	The ability to ensure the protection of personal and sensitive data by implementing appropriate measures and protocols to protect sensitive information from unauthorized access, use, disclosure, modification, or destruction.	Understands the basic concepts of information security and is aware of potential risks and threats to sensitive information that AI presents.	Identifies sensitive and confidential information accurately. Implements standard security protocols to protect data at a basic level.	Uses advanced tools and techniques for data protection proficiently. Detects vulnerabilities and addresses them properly.	Designs and iplements comprehensive security systems for complex data structures. Successfully trains others and leads initiatives for organizational data security.	Leads organizational stratefy for securing confidential information, innovates new security measures, works with senior management to enhance overall security.
	Sensitive data management	The ability to handle sensitive data in a manner that complies with legal, ethical, and company guidelines. Including understanding what constitutes sensitive data.	Consistently recognizes what constitutes sensitive data and understands at a basic level of the legal and ethical guidelines for handling sensitive data related to AI.	Deals with sensitive data by identifying it and ensuring it is treated with extra caution. Applys company guidelines to protect sensitive data.	Implements legal, ethical, and company guidelines proficiently in handling sensitive data. Educates others on the importance of sensitive data management and basic practices.	Creates, implements, and improves strategies for managing sensitive data effectively. Leads initiatives to enhance the organization's capabiltiy in ethical and legal treatment of sensitive data related to AI.	Handles sensitive data across various complex scenarios at a mastery level. Develops and implements innovative solutions for sensitive data management. Is recognized as a a "go to" person in sensitive data management internally and externally.
	Data stewardship and standards	Overseeing the lifecycle of data, including its quality, integrity privacy, and security. This involves understanding and adhering to relevant data standards, laws, and policies, and promoting a culture of data quality and privacy.	Is aware of the importance of data quality, integrity, privacy, and sensitivity and shows a familiarity with common terms and definitions related to data stewardship	Understands basic principles of data lifecycle management and identifies relevant data standards, laws, and policies. Applies basic practices for ensuring data quality and privacy.	Actively ensures the quality, integrity, privacy, and security of the lifecycle of data. Implements and adheres to relevant standards, laws, and policies effectively. Promotes a culture of data quality and privacy within the organization.	Develops strategies for improving data quality, integrity, privacy, and security. Leads initiatives to enhance data stewardship practices and influences organizational culture to prioritize data stewardship.	Develops data stewardship policies and frameworks that are comprehensive. Innovates solutions for complex challenges in maintaining quality, integrity, privacy, and security.
AI Model Deployment	Model governance	Managing and overseeing AI models throughout their lifecycle. Including understanding the lifecycle of the model, monitoring performance, version management, access control, compliance, and audit documentation.	Shows a basic understanding of the existence of various stages in the AI model lifecycle.	Knows the basic steps involved in managing AI models and can dicuss terminology, concepts, principles, and issues, but lacks experience.	Manages and oversees AI models with supervision. Shows an understanding of version management and compliance requirements.	Manages AI models independently, including monitoring performance of the models, ensures compliance and responds to audit requests with appropriate documentation.	Leads initiatives for model governance, innovates processes for efficiency, ensures optimal performance, compliance, and audit readiness.
	Security	Knowledge of security practices to protect AI models from unauthorized access.	Exhbits a general awareness of the need to protect AI models from unauthorized access but lacks detailed knowledge.	Requires guideance to apply security practices, but is aware of common security practices.	Implements basic secuirty measures to protect AI models under supervision.	Independently implements and oversees security practices to protect AI models form unauthorized access.	Strategizes and innovates solutions to enhance the security of AI models against sophisticated threats.
Data Engineering and Management	Data infrastructure	Methods for gathering, storing, and managing data.	Lacks hands-on experience, but exhibits a basic knowledge of data storage and management concepts.	With guidance can gather and store simple datasets appropriately.	Manages complex datasets independently and understands various storage solutions.	Designs robust methods for large-scale data gathering, storage, and management, anticipating future needs.	Leads the development of methods for data infrastrucutre.
	Data collection and management	Effectively obtain, evaluate, and utilize data from various sources and formats to address complex problems and achive project goals	General awareness of data pipelines and its general purpose. No or minimal experience building and/or maintaining data	Under supervision, assists with building basic data pipelines.	Builds, mantains, and identifies improvements for intermediat-level data pipelines.	Builds complex, efficient, and scalable pipelines independently, and also mentors others.	Recognized as an authority in the field, develops new approaches to data pipeline construction and maintenance.
	Execution	Using engineering principles to establish effective data systems.	The importance of effective data systems is understood but the engineering principles haven't been applied in practice.	With support from more experienced engineers, applies basic engineering principles.	Applies engineering principles effectively to optimize data systems.	Leads projects and applies advanced engineering principles to optimize performance.	Introduces new applications of engineering principles into data systems.

1.2 Define the AI competencies and needs

1. Download the *AI Competency Gap Analysis* tool.
2. Review the competencies listed in Column C. Remove any competencies not relevant to your organization as identified in activity 1.1 and update the corresponding descriptions in Column D.
3. Then, in Column E use the drop-down menu to assign an organizational importance rating of High, Medium, or Low for each competency you identified in Step 1.1. When you are determining your rating, consider:
    - The necessity of a competency to achieve the business objectives and/or support AI use cases. Does it align directly?
    - What will happen if you don't have a competency? What effect will that have?
    - What difference will it make to outcomes if you have or don't have the competency?
    - How much time, energy, and money will it take to get that competency?
4. Finally, in Column H, use the drop-down menu to assign a target proficiency for each competency. Access the *AI Competency Library* for additional identifiers for each level of each competency.

↓ Request the *AI Competency Gap Analysis* tool here >>>

Input

- List of critical competencies from activity 1.1
- AI competencies identified and defined

Output

- Organizational impact rating for each competency
- Target AI proficiency for each competency

Materials

- *AI Competency Library*
- *AI Competency Gap Analysis* tool

Participants

- CIO
- Senior IT leaders

Step 2: Assess the AI skills gap

Uncovering the proficiency gaps reveals whether people have skills aligned to the work that needs to be done.

2.1 Assess current AI skill levels

2.2 Identify and prioritize skills gaps

Request the *AI Competency Gap Analysis* tool here >>>>

Step 3: Address the AI skills gap

Determine next steps and decision points by building a plan to mitigate the AI skills gap.

3.1 Plan the steps to close the skills gap

Hire

Go-to-market for new staff when internal talent is unavailable to fulfill needed core roles and skills.

- Moving through the hiring process, onboarding the new employee, and getting to value **can take months.** Ensure sufficient lead time to get-to-value for needed skills.

Train

Acquiring new skills via training can improve staff performance and add skills for future opportunities.

- Staff need to set aside time for training and get-to-value on new skills needed for a particular initiative.
- Look for high-quality training programs that teach transferrable skills.

Outsource

Ensure you have enough time to effectively plan an outsourcing agreement.

- Outsourcing to acquire skills can be a viable option for even core skills and critical systems. The more critical the systems, the more planning and lead time is required.
- Signing multiple statements of work (SOWs) with the same provider can be an effective way to perforate your outsourcing agreement, providing you have the option to tear off underperforming services.

Contract

Find flex or contract staff when specialized skills are needed urgently.

- Finding a suitable contractor is generally a faster process than hiring new staff, and it presents less risk because it's easier to end the arrangement.
- Contracting is more expensive on an hourly basis than a full-time employee, so contracting usually isn't a good option for meeting ongoing needs.
- Ensure documentation is part of the deliverables.

Explore your options for sourcing skills

Hire

Go-to-market for new staff when internal talent is unavailable to fulfill needed core roles and skills.

- Moving through the hiring process, onboarding the new employee, and getting to value **can take months.** Ensure sufficient lead time to get-to-value for needed skills.

Train

Acquiring new skills via training can improve staff performance and add skills for future opportunities.

- Staff need to set aside time for training and get-to-value on new skills needed for a particular initiative.
- Look for high-quality training programs that teach transferrable skills.

Outsource

Ensure you have enough time to effectively plan an outsourcing agreement.

- Outsourcing to acquire skills can be a viable option for even core skills and critical systems. The more critical the systems, the more planning and lead time is required.
- Signing multiple statements of work (SOWs) with the same provider can be an effective way to perforate your outsourcing agreement, providing you have the option to tear off underperforming services.

Contract

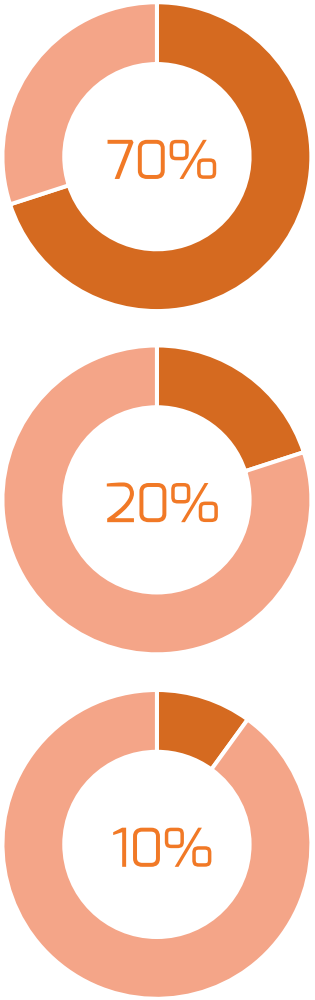
Find flex or contract staff when specialized skills are needed urgently.

- Finding a suitable contractor is generally a faster process than hiring new staff, and it presents less risk because it's easier to end the arrangement.
- Contracting is more expensive on an hourly basis than a full-time employee, so contracting usually isn't a good option for meeting ongoing needs.
- Ensure documentation is part of the deliverables.

Insight

There are many approaches to sourcing skills. Explore all options to ensure the route you pick sets you up to meet strategic objectives without holding up progress.

Apply a blend of learning methods to effectively develop competencies.



Experiential learning Spend ~70% of the development effort in providing challenging on-the-job opportunities.	• Projects • Development moments • Job rotation • Stretch assignment • Training others • Acting assignments
Relational learning Spend ~20% of the development effort on establishing opportunities, such as coaching and mentoring, for people to develop learning relationships with others.	• Mentorship • Social/peer learning • Coaching
Formal learning Spend ~10% of the development effort on formal learning and training programs.	• External classroom training • Internal classroom training • eLearning • University/college course • Conferences

Insight

Adopt a blended learning approach that uses a variety of techniques and methods in conjunction with each other to effectively develop competencies. This will reinforce learning and accommodate different learning styles. See ***Learning Methods Catalog*** for a description of popular experiential, relational, and formal learning methods.

Align talent management practices to support skills integration

With a clear idea of competency requirements and ideas to mitigate the skills gap, talent management programs and processes can help your team foster a learning culture and establish a talent strategy. The links below will direct you to other blueprints to help you.

Workforce Planning	Integrate the AI competencies into your workforce planning to continue to keep your workforce aligned to the future workforce needs.	Integrate the AI skills identified into IT's workforce plan using a strategic toolkit.
Recruitment	In cases where employee development is not feasible, you must focus more on buying or borrowing talent. For example, sourcing and screening must be updated to reflect new approaches and skills.	If you have a recruitment process, assess how to integrate the skills.
Succession Planning	Review current organizational core competencies to determine if they need to be modified. New skills will help inform critical roles and competencies required in succession talent pools.	If no succession plan exists, use the *Build an IT Succession Plan* blueprint.
Employee Development	Employee development plays a huge role in closing the skills gap. Build opportunities to support development of new skills in employees.	*Implement an IT Employee Development Plan* to build the skills employees need in the future.
Employee Performance	Performance measures are often misaligned with the larger strategy or too narrow to provide an accurate picture of employee achievements.	*Set Meaningful Employee Performance Measures* to set effective employee performance measurements.

Appendix:
Individual Competency Assessment Workbook

An optional tool, the *Individual Competency Assessment Workbook* is included with this blueprint to help bridge the high-level workforce plan to individual competencies and career development.

This workbook will help you do the following:

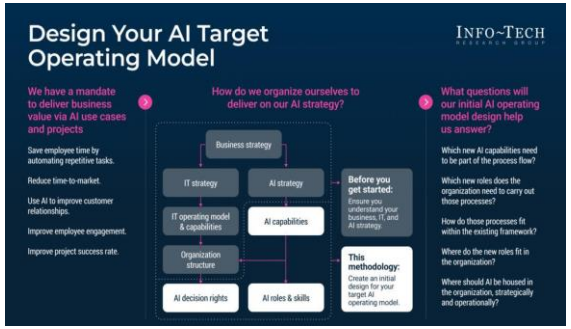
1. Record the future-state roles and current incumbents in your IT department.
2. Define role-related competencies and proficiency requirements.
3. Assess your employees against the competencies required by their role.
4. Compare employees' current proficiencies to other role requirements for succession planning and individual development.

Request *the Individual Competency Assessment Workbook here >>>*

This workbook is best used in conjunction with this blueprint *Implement an IT Employee Development Plan*.

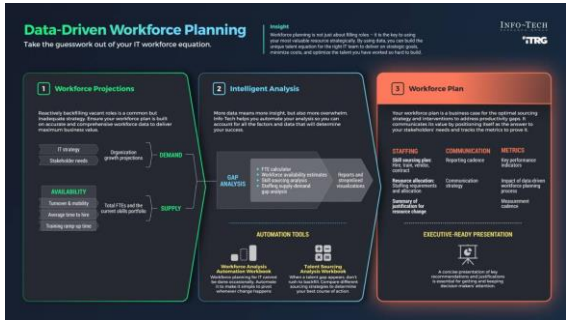
Related BluePrints

Click on the Image, unlock your Request Feature and get immediate access to these and hundreds of other Blueprints >>>



Design Your AI Target Operating Model

- It's not enough to simply create an isolated, siloed AI team. You must understand how AI roles and capabilities will fit in the context of your larger IT and organizational operating model.



Build a Data-Driven Workforce Plan: A Critical CIO Exercise

- Talent shortages, budget cuts, and quickly evolving skill needs are just a few among many barriers faced by IT leaders looking to staff their organization.
- Without adequate time and training, IT is stuck in reactive mode – struggling to fill positions and failing to take advantage of data on workforce efficiency.

Implement an IT Employee Development Plan

- There is a growing gap between the competencies organizations have been focused on developing and what is needed in the future.
- Employees have been left to drive their own development with little direction or support and without the alignment of development to organizational needs.
- The pace of change in today's environment demands new competencies while making others obsolete, and IT is challenged with keeping up with upskilling employees.