Cicero
Implementing Data-Driven Strategy

BREAKING THROUGH TO THE NEXT STAGES OF AI MATURITY

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Artificial Intelligence (AI) is complicating roles across the C-suite. Leaders are being pushed to understand how to effectively balance the realities of a complicated emerging tool, against the opportunities of strategic business acceleration. Harnessing the advantages of AI requires a systematic dedication and understanding of framework inadequacies to achieve results. Without a proper examination of challenges that examine the maturity of an organization's platform, determining ROI and tool effectiveness often runs into challenges.

With the AI market expected to reach a value of $190 billion by 2025, it is critical to begin understanding not only the technological foundation for business processes but to explore, experiment, formalize and integrate an AI maturity framework across siloes. There are a number of leading players in the AI space: Intel, Samsung, Facebook, IBM, and Google all have broad ecosystems in place to test and refute AI value propositions. Although the largest players have a foothold in addressing AI challenges, companies of all sizes should begin to take the steps toward AI maturity.

Cicero Group, in conjunction with Davis & Partners, recently developed a baseline structure for organizations to determine individual challenges and subsequent AI maturity. Specifically, the maturity framework examines development milestones that span across five pillars of business organization: business strategy, data science, product & service development, organization & culture and ethics & governance.

AI is enabling organizations to make better decisions, which in turn is helping them to operate more efficiently, produce better products, and provide higher

levels of customer service.

IN PRACTICE: AI MATURITY FRAMEWORK

During a recent gathering, leaders from Cicero Group and Davis & Partners challenged fifty C-suite executives to consider and determine where their organizations landed on the AI maturity spectrum (fig. 1). After discussing AI integration challenges, session participants were asked to assess which phase their organization is currently at within each of the pillars.

This exercise produced several interesting insights (fig. 2):

- Organizations vary in their level of maturity across pillars; for example, they might be in phase three when it comes to data science, but only in phase one or phase two in business strategy.
- Few organizations are willing to state that they are in Phase 4 across all of the pillars.
- The data science pillar shows the highest level of maturity, with most participants falling into phase three.
- The majority of participants believe that their business strategy is in the experimenting phase, indicating that they do not yet have a formalized or integrated approach to their use of AI and data.
- Ethics & governance is lagging behind all other pillars, reflecting a general uncertainty of how to incorporate AI into an organization's values and of how to regulate its use.

Session participants were next asked to categorize their organization into the phase that best represented their organization's overall level of AI maturity, and were then broken out into discussion groups based on maturity to answer the following questions:

- What were the most significant hurdles your organization faced to achieve your current level of AI maturity?
- What advice would you give to others in order to successfully overcome these challenges?
- What are the biggest challenges you face to successfully achieving the next level of AI maturity?

GROUP ONE: BEGINNING MATURITY

Organizations belonging to the first group are all in phase one and focused on the third question, discussing the hurdles that they are trying to overcome as they develop and implement an AI program. Their challenges center on an overall lack of knowledge concerning AI – the organization does not understand how AI can be of benefit and therefore does not build a data strategy.

These organizations often perceive data management/analytics as a cost center instead of a competitive asset. There are few to no C-level champions that will promote the value of AI within the organization and push the cultural shift required to get AI initiatives off the ground. Additionally, their organizations don't have a full understanding of the resource investment that

AI requires, and struggle to build out the necessary capabilities and justify the expenditures involved. Lastly, these organizations must foster data accessibility to break down the compartmentalization of their data, as all AI initiatives demand uninhibited access to data for success.

GROUP TWO: INTERMEDIATE MATURITY

The second discussion group, consisting of organizations in phase two, have successfully addressed many of the challenges faced by those in phase one. They have identified key leaders who will champion the AI cause, developing awareness and delivering quick wins. They have generated clarity on budget and resource needs, and on the timing of initiatives and results. These organizations have cultivated cross-functional teams that promote cooperation across the entire organization and have begun to consolidate and normalize data to build a foundation for their AI work. However, some of the phase one challenges remain.

Although their organizations are more enlightened in general regarding the benefits of AI, there is still uncertainty on specific use cases and how they should be prioritized. Finding and rationalizing the required funding is therefore still a problem, as it is difficult to build a business case when returns are not easily calculated. Even though there are now champions leading the charge, acceptance of and participation in AI initiatives is still not complete. Some additional challenges arise here as well – as AI initiatives begin to take shape, governance and regulation of how AI is to be used becomes an important consideration. AI teams must also manage the expectations of how quickly they can deliver value, as well as developing a shared vision with leadership on what form that value will ultimately take.

GROUP THREE: ADVANCED MATURITY

The third discussion group was comprised of organizations in either phase three or four. These organizations have progressed to the point where AI has an established presence in their data strategy. AI is part of the overall vision, and is relatively widespread, with advocates both up/down and across the organization. Frameworks exist to prioritize AI initiatives, as well as to govern their implementation and use, along with standard operating procedures to ensure compliance and promote best practices. These organizations have matured to the point where they can determine which projects are important, and of those, which are worth allocation of their resources and which others can be "bought" instead.

However, even at the upper levels of AI maturity, challenges persist. These hurdles are largely a product of the organization's prior success; for example, as the value of AI becomes recognized and sought out, organizations must find a way to scale quickly and efficiently to maintain momentum. As a result of greater adoption and need, the prioritization framework must evolve in order to align the different strategies and priorities of corporate, unit, and data strategy. As governance and regulation develops, it must be balanced with enough flexibility to allow for continued innovation. Lastly, as AI initiatives become more sophisticated, the volume and complexity of the data involved requires greater levels of effort in management and accessibility.

CONCLUSION

It is clear from the think tank session that the degree of AI adoption across businesses varies, but understandably, is still not highly mature overall. What is also clear is that AI is not going away, and the importance of a foundational data strategy that shifts how organizations regard and utilize data will only grow as they seek to realize the full potential of AI. As organizations consider implementation and cross-functional strategies, thought partnership and critical thinking become important indicators of success. The baseline phases of maturity paint broad strokes and likewise, make broad assumptions. Taking a deeper dive to inform decisions, create strategy and implement transformation in any AI platform takes time and the expertise of educated partners to effectively grow.

ABOUT THE AUTHORS

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Lawrence Cowan is a Partner at Cicero Group and leads Cicero's Consumer Insights and Analytics Practice. Lawrence has spent the last decade building Cicero's analytics practice where he has experience helping Fortune 500 firms solve real business challenges with data, including attrition, segmentation, sales prioritization, pricing, and customer satisfaction.

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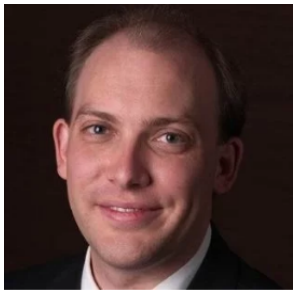


BURKE POWERS
Advisor, Davis & Partners; CEO, Reveal Why

For more than 20 years, Burke has helped companies achieve both short-term sales and long-term branding and reputation. He did this by operationalizing a holistic customer experience program and driving digital transformation, so his clients could understand and adapt to changing customer, market, and competitor dynamics.

ABOUT CICERO GROUP

Cicero Group is a premier management consulting firm focused on implementing data-driven strategies for a broad mix of private, public, and social sector organizations across the globe.

Cicero Group uses data and experience to generate insights, create actionable strategies, and drive transformation with an overarching purpose of helping people create and continuously deliver extraordinary results.

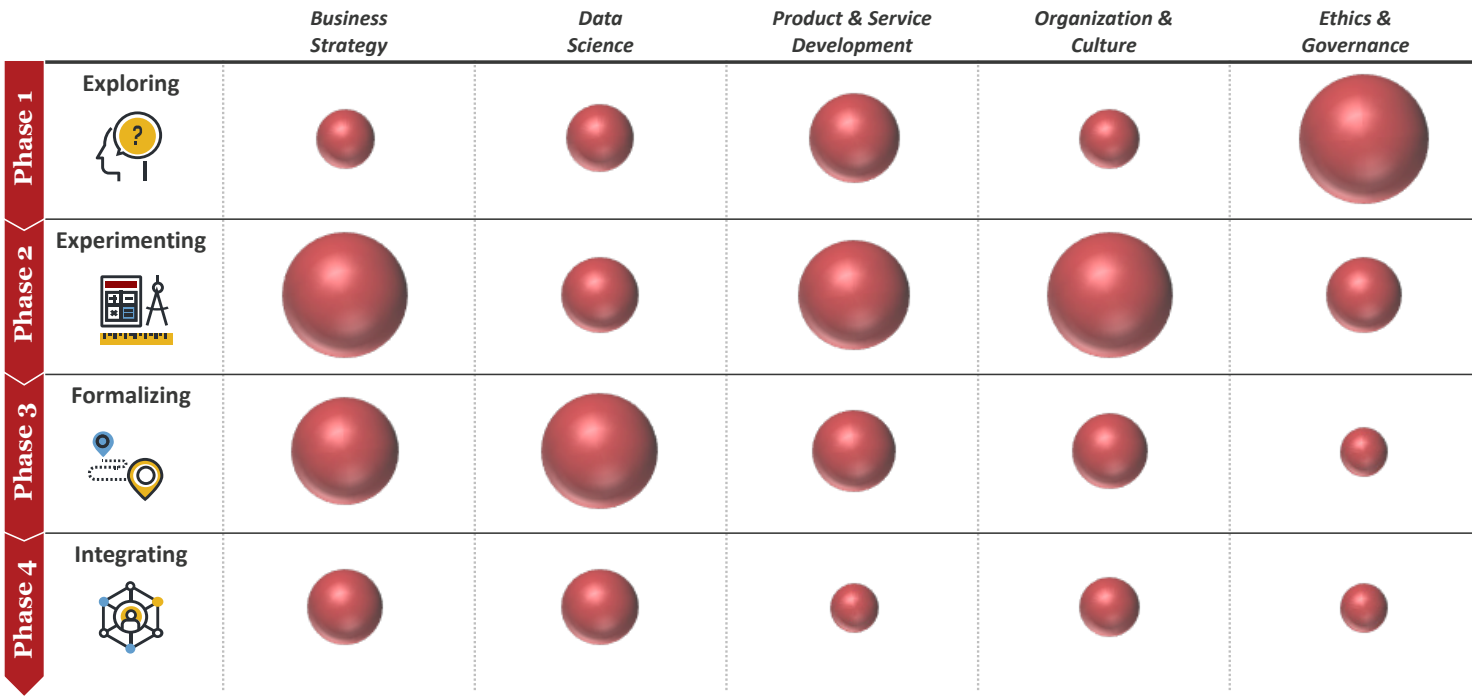
For more information, visit www.cicerogroup.com

FIGURE 1: AI MATURITY FRAMEWORK

		Business Strategy	*Data Science*	*Product & Service Development*	*Organization & Culture*	*Ethics & Governance*
Phase 1	Exploring	Objectives are undefined and no resource or budget has yet been allocated.	Data is siloed, not in accessible, useful form; analytics are largely descriptive and retrospective.	Business cases present, but no development is underway as yet.	Seen as promising but unproven. Not yet seen as a priority at the C-level.	Emerging understanding of AI governance issues but no principles or processes present.
Phase 2	Experimenting	Discrete proofs of concept focus on cost reduction, productivity improvement, and/or Robotic Process Automation (RPA).	Organization has committed to data strategy and is moving from descriptive into predictive analytics.	Organization has begun to use APIs and internal or external resources to perform proofs of concept and pilots.	Organization may have a Chief Data Officer, but data science and AI projects are discrete rather than critical elements of an enduring product, service, or business	Organization has identified and communicated ethical principles for AI and is implementing policies and processes to support them.
Phase 3	Formalizing	An expected part of strategic planning, focused on customer experience.	Data strategy is becoming a core competency, but AI is not yet scaled across the organization.	AI is becoming a critical part of product and service development.	Clear understanding and optimized relationship with data science and AI resources (external services and platforms, a larger ecosystem, or a combination)	AI ethics and governance processes are formalized throughout the business.
Phase 4	Integrating	Integral to agile business and a critical component of digital transformation and competitive advantage.	Organization benefits from a compounding data advantage.	AI is a core development competency across the organization.	Organization has a learning organization mindset; design thinking, and experimentation are valued in the culture.	AI ethics/governance is embedded in corporate practice and customer experience and is part of performance evaluations and incentive programs.

FIGURE 2: SELF-ASSESSED AI MATURITY LEVELS OF SESSION PARTICIPANTS

Bubble size represents frequency of session participants in each level.



MATURITY LEVEL 1: HURDLES

	Hurdles Identified
Leadership	• There are no champions at the C-Suite level to promote the value of AI within the organization and push the cultural shift required to get AI initiatives off the ground • Leaders do not have an overall data strategy or vision of the role that data & AI should play in their organization
Awareness	• The organization thinks of data management and analytics as a cost center, instead of seeing analytics & AI as a competitive asset • There are misconceptions and negative connotations of AI that need to be addressed and dispelled
Governance	• *n/a**
Organization/ Resources	• As AI projects tend to be large in scope and require significant investment, organizations must find ways to build scale so that expenditures can be staggered and benefits can be realized in both the short-term and long-term • Starting an AI group requires building capabilities / a team with unfamiliar talents and skillsets, and there is often a lack of understanding of the level of commitment required
Prioritization	• *n/a**
Data	• Data is predominantly siloed, and it is a challenge to create the data accessibility required to enable AI initiatives

** Note: Hurdles were not identified in categories identified as "n/a" during the short group discussion but would likely be identified in a broader discussion*

MATURITY LEVEL 2: PATH TO MATURITY LEVEL

	Hurdles Identified	Suggestions to overcome hurdles
Leadership	• AI efforts may have limited executive sponsorship in the organization • Leaders may not appreciate needed timing and resource requirements	• Identify key change leaders and develop awareness of capabilities through education and quick-wins • Ensure transparency in resources and timing of initiatives. Outline budget vs. actual timings for projects to better align estimates
Awareness	• Organization does not have awareness of AI capabilities and does not understand possibilities	• Conduct one-on-one discussions with key leaders in company to introduce capabilities and identify their challenges that may benefit from AI. Follow-up with group-specific examples of how AI can help
Governance	• Organization has low risk tolerance and is limited in ability to review models • Organizations may tend to over-govern initial AI efforts to limit risk but can stifle innovation by adding added hurdles	• Engage governance functions to build awareness of capabilities and approach to ensure consistency and compliance • Develop initial governance framework (rather than restrictions) and create proof-of-concept models initially in lower perceived risk areas to build confidence in process and compliance
Organization/ Resources	• AI efforts are often delegated to a small group of resources without any formal organization in place • AI initiatives may struggle with limited participation across key functions of the organization	• Create a phased organization plan that leads actual demand to allow for needed recruitment and ramp-up time. Tie resource needs to anticipated benefit timing. • Engage cross-functional teams in AI initiatives to ensure strong organization-wide perspectives, awareness, and adoption
Prioritization	• Organizations struggled with effective and structured prioritization of initiatives	• Create an initiative prioritization framework. Facilitate leadership prioritization session to transparently create tradeoff decisions. Ensure realistic delivery expectations are established for priority initiatives
Data	• Initial AI efforts struggle with quality and availability of data	• Begin consolidating and normalizing data over time ASAP to build foundation for future initiatives

MATURITY LEVEL 3-4: PATH TO MATURITY LEVEL

	Hurdles Identified	Suggestions to overcome hurdles
Leadership	• Organizational Change Management • Executive Buy-In / Trust	• Involvement & Communication (tools, governance) • Capture both head and heart • Advocates up and sideways • Let the business adopt organically • Vision and strategy • Partnership and enablement
Adoption	• Getting Adopted & Integrated • Demand Management	• Use design thinking in order to get better buy-in and ensure that what is built is what is needed by the end users • Balance urgency, political expediency, and build out of self-service infrastructure to balance demand and increase capability
Regulation	• Regulatory Pressure	• Develop strategy and SOPs to ensure compliance and provide a framework to handle regulatory changes
Organization/ Resources	• Scaling & Hiring Resources • Buy vs. Build	• By prioritizing projects that matter to business leaders, they are more likely to prioritize resources (funding, headcount, etc.) for those projects and defend those resources. • Identify strategically important projects and capabilities and "buy" the others
Prioritization	• Tinkering vs. Use Case	• Create an initiative prioritization framework. Facilitate leadership prioritization sessions to focus on projects that will have an impact. Ensure realistic deployment and adoption expectations are established for priority initiatives
Data	• Understanding Data • Data Readiness	• Taxonomy/Dictionary/Catalog/ Glossary • Findability • DataOps • Governance • Democratizing