Harnessing data for business transformation with Microsoft Azure OpenAI Service

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What a year for artificial intelligence (AI): OpenAI ChatGPT quickly rose to more than 100 million users and generates 1.8 billion visitors per month.[1] In the past year, the pace of adoption has only quickened. As the journey continues, the focus should remain on responsibly leveraging AI technology while maximizing the power of data. One of the best ways to accomplish this goal is to use the Microsoft Azure OpenAI Service – a secure environment for connecting data and accessing generative AI (GenAI) solutions integrated in the Azure technology platform.

As organizations consider leveraging GenAI, they need to think about how to:

1. Build the right data and AI strategy focused on value drivers
2. Develop a fit-for-purpose AI and data architecture
3. Prioritize meaningful, valuable and attainable use cases
4. Proactively manage the organizational security risks that may arise
5. Set up proper governance, security and management controls so that data is ready for AI
6. Provide governance and logistics deployment

EY survey:

48%

of respondents cited a **lack of confidence in the quality and trustworthiness of data** as a challenge for enterprise-wide AI programs.

With deep capabilities for leading successful business transformations across diverse industry sectors, we provide organizations with the needed tools, approach, framework and experienced professionals for advancing their AI journeys. As organizations rush to implement AI solutions, they must consider that the path forward is not about speed. AI adoption is not a sprint or a race. Success will require a comprehensive understanding of the benefits and risks and implementing an adoption strategy that is tailored to each business.

However, to have confidence that AI systems are structured properly, functioning reliably and accurately, and generating the insights to accelerate business outcomes, they need to be able to trust the data being used. Yet this remains an area of concern; in a recent EY survey, nearly half (**48%**) of the respondents cited a lack of confidence in the quality and trustworthiness of data as a challenge for enterprise-wide AI programs.[2] Let's take a closer look at how organizations can build confidence in their data.

1 "Number of ChatGPT Users, Dec 2023," *Exploding Topics website*, explodingtopics.com/blog/chatgpt-users, December 2023.

2 "How do you teach AI the value of trust?" *EY website*, ey.com/en_us/digital/how-do-you-teach-ai-the-value-of-trust, 8 December 2023.

The power of data in driving AI business value

The initial adoption phase of GenAI mostly involved use cases that were light on organizational data, such as proofs of concept, external research and administrative functions in sales and finance.

However, the full potential of GenAI is realized when integrated with robust data-based services. Businesses can unlock significant GenAI capabilities using platforms such as Microsoft Azure. Microsoft Azure provides easily integrated native services, such as cloud services, cognitive search, image recognition and business intelligence (BI) data analytics. At the heart of these AI-enhanced business functions is the efficient use of data: businesses can expedite software development, accelerate research and

disseminate highly technical knowledge, such as tax and accounting data. The game-changing capability is the natural language search offered by modern AI models. These powerful tools can sift through years of intricate financial data in response to simple queries.

By interconnecting diverse data sets, such as sales, operational, finance and new sources, such as satellite geospatial data, AI creates rich insights that can inform business strategies in unprecedented ways. As such, data becomes the foundational driver around which future GenAI deployments revolve, swiftly moving beyond concept proofs to tap into numerous use cases and their untapped potential.

GenAI will substantially change the traditional approach to data strategy

Data strategy becomes knowledge strategy:

| Data quality | to knowledge curation | | Data integration | to context engineering |

Shaping the data architecture:

| Planning | to data serving | to model implementation |

Adopting an AI-first strategy requires data to be AI ready

Put simply: no industry will be left untouched by GenAI. Its sweeping impact will be felt by companies in two ways.

First, back-office functions that require time-intensive labor and administration will be significantly streamlined. Activities such as legal, HR, marketing, tax preparation and financial planning will all see greater efficiencies and time saving from GenAI's ability to access data and provide instant insights

and outputs, allowing teams to focus on less administrative tasks. Second, core business functions will undergo change, too. In this way, tech companies, for example, that develop software will rapidly accelerate as AI capabilities speed the writing and testing of product code.

The seven characteristics of a data ready estate:

Accessible at scale – High volume of historical data available for exploration and production usage with fast processing

Visible – Ability to understand the data, both technically and in business context, while easily finding data across systems and sources

Recent – Up-to-date data files with reasonable data latency providing the data needed for each use case (real time, batch, etc.)

Open – Multiple file types and formats, from text to image to transactional, while using consistent tools across the platform

Reliable – Consistent data pipelines that minimize breakage, limit the amount of missing data and maintain consistency from one update to the next

Global – Consistency across the global enterprise, from BU to BU and region to region, so that a customer and product mean the same and can be tied together

Trusted and secure – Ability to execute AI use cases responsibly with data that is secured for only those who need it

Considerations for creating an AI-ready data estate

Before organizations can leverage the advantages of GenAI, there are essential preconditions for their data sets, standards and governance. Quality and trustworthiness of data are pillars in the world of technology solutions, and for GenAI, they form the fundamental building blocks. Considering the learning patterns of GenAI tools, the data utilized must be of high quality, reliable and authenticated to deliver consistent and replicable results.

Moreover, accessibility of data in formats beyond its original unstructured form is crucial. For instance, data in the form of images, Excel spreadsheets or PDFs needs to be usable by GenAI models. It's not tenable to expect consistent results from an AI model if it's

trained on one type of data and structure, which is then radically altered or removed altogether. Achieving the real value of GenAI is impossible without this step.

Azure OpenAI offers secure access to OpenAI. Given Azure's popularity as the go-to technology suite for many organizations, we have identified it as the cornerstone of a responsible AI usage framework. Our collaborative efforts with companies across industries focus on six principles when considering an approach to create an AI-ready data foundation: data strategy, data governance, data management, data architecture, data quality, and data risk and compliance.

Data considerations for AI readiness

Cloud-scale data architecture
Curate data to facilitate exploration and rapid prototyping and to support AI solutions as they scale.

Data quality
Validate data to ensure the quality of AI/GenAI solutions.

Data risk and compliance
Create rigorous data maintenance and access controls and policies.

AI-ready data strategy
Build and execute data strategies focused on enabling the rapid development of AI/GenAI solutions.

Data governance
Develop responsible data governance policies that facilitate the use of novel data sources.

Master data management
Create a single source of truth for core data sets.

Knowledge management
Reorganize and integrate organizational information stored in structured, unstructured and novel data sources traditionally outside of data management.

Getting started

As industries grapple with the rapid pace, capabilities, data transformation requirements and ethical considerations of GenAI, EY teams are poised to help organizations harness its vast potential. Experience in AI, automation and machine learning is further strengthened by solid risk mitigation, compliance and data governance proficiency. When paired with Azure OpenAI, businesses can augment efficiency, personalize experiences, help accelerate research and development, and secure a competitive edge.

Together with Microsoft, EY professionals support organizations to redefine business models, enhance efficiency, boost productivity and improve resilience. The goal is not just enabling the use of GenAI but also harnessing the power of data to unlock unprecedented value for businesses.
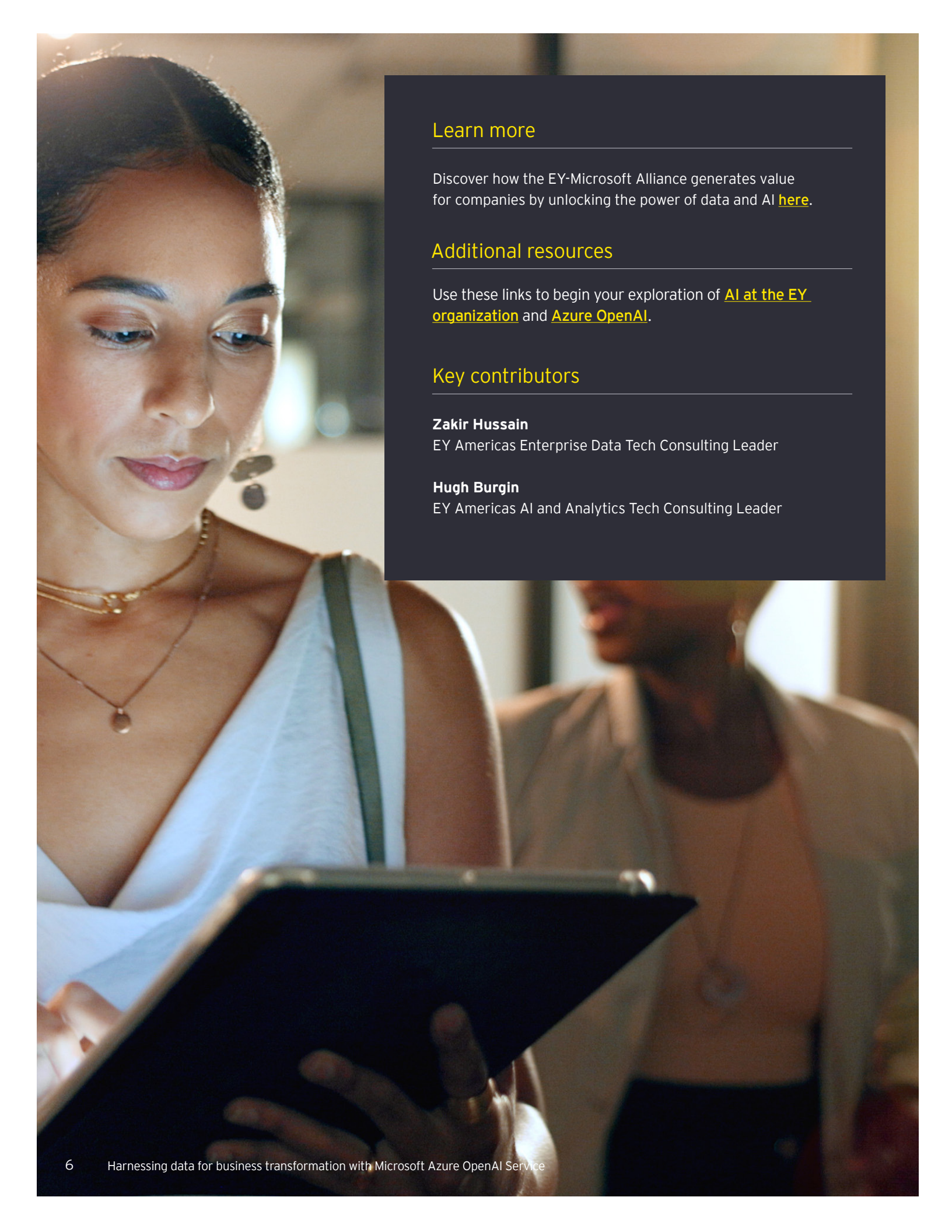
An ideal starting point is the EY Business Transformation with the Azure OpenAI Solution Suite. This solution suite helps organizations determine how Azure OpenAI aligns with their companies' goals and objectives; governance and responsible AI practices; and its impact on the business, use cases and target operating model. Together, EY and Microsoft teams guide organizations on how to effectively utilize Azure OpenAI and seamlessly integrate it into their core technology and information systems. We help organizations leverage Azure OpenAI to define new business models, boost efficiency, increase productivity and enhance resilience.

How EY teams collaborate with companies to unleash the potential of Azure OpenAI and realize powerful business outcomes

1 Help accelerate business process transformation by simplifying the navigation of and applying prebuilt models, thereby accelerating information understanding, synthesis and reporting for business functions, such as finance, accounting and HR, among others

2 Revolutionize how people comprehend policies, processes and vast amounts of information and support more relevant and insightful responses

3 Unlock new and highly complex data sources, such as satellite data, and integrate them with enterprise business data using a user-friendly interface

4 Gain a competitive edge by helping to optimize online sales through comprehensive and enriched product data

The rapid adoption and far-reaching influence of GenAI has ushered in a new era of business automation and efficiency. Yet, harnessing its full potential requires careful and strategic planning, particularly around secure deployment, application of responsible AI practices, and trust building in data quality and usage. The role of data stands out as a decisive factor in realizing GenAI's vast capabilities, reinforcing the need for data sets to be AI ready, backed by sound governance and robust data quality standards.

With the combination of EY professionals' deep experience in business transformations and Azure OpenAI platform, organizations are well-equipped to navigate the challenges and complexities of GenAI adoption. Together, EY and Microsoft teams will not just enable GenAI adoption but, importantly, unlock unprecedented business value.

Learn more

Discover how the EY-Microsoft Alliance generates value for companies by unlocking the power of data and AI here.

Additional resources

Use these links to begin your exploration of AI at the EY organization and Azure OpenAI.

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Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

About the EY-Microsoft alliance

Every day, throughout the world, businesses, governments, and capital markets rely on EY business ingenuity and the power of Microsoft technology to solve the most challenging global issues.

EY and Microsoft teams bring a compelling formula to spark the potential of the cloud and unlock the power of data. We solve our clients' most challenging issues by blending trusted industry expertise with innovative cloud technology. Our strategic relationship draws on decades of success developing visionary solutions that provide lasting value.

Together, we empower organizations to create exceptional experiences that help the world work better and achieve more.

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