Revolutionizing Service Transitions with AI: A Paradigm Shift

A Strategic Perspective for Organizations in the Digital Era

Whitepaper by

Anand Krishna Sharma, Vice President, Head of Transition Practice
Kiran Acharya, PRINCE2®, Senior Transition Manager

Mphasis
The Next Applied

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1. Executive Summary

Tooling is one of the most critical aspects of IT services and no major programs are successful without them. Many companies adopt a toolchain policy for their businesses to achieve greater effectiveness, higher productivity and better quality, leading to enhanced business results. A toolchain can complete complex tasks or deliver products using a set of tools simultaneously.

Transition programs are crucial for the adoption of best-of-breed IT services, helping customers to achieve their business goals. However, they also bring significant risks due to the shake-up and amount of change involved. Transitions can be challenging, time-consuming and costly in complex and dynamic environments.

CIOs of most companies work with services vendors and partners to collaboratively adopt tools and processes that help reduce risks in transition programs and ensure smooth continuation of IT services.

Artificial Intelligence (AI) at present, is transforming the way organizations operate, innovate and compete in the digital era. AI refers to the ability of machines to perform tasks that normally require human intelligence, such as perception, reasoning, learning, decision-making and problem-solving.

With the advancement of Artificial Intelligence (AI) technologies, transition can now be made less risky, faster and more effective. AI can help automate tasks, analyze data, provide insights and augment human capabilities in the transition process.

In this white paper, we will explore unique challenges in service transitions and how AI tools can help resolve such challenges, while achieving higher efficiency levels, agility and competitiveness, and enable the creation of transformative roadmaps and business models for the future.

> Artificial intelligence and Generative AI may be the most important technology of any lifetime.
>
> **CEO and Co-founder, leading product-based company**

2. Unique Challenges in Transitions

While transition challenges can be multifold, ranging from non-cooperating incumbent service providers to legal or policy-related issues, changing business priorities or even inconsistencies in handling major changes, we can summarize transition challenges into three broad categories. Each of these is caused due to various factors. Their impact on transition, as well as overall service delivery at large, also varies depending on the circumstances, the gravity of impacting factors and competence in handling such programs.

Hostility Leading to Reduced Effectiveness

- Leads to burnout in view of the heavy lifting needed on the part of the incoming service provider and the possibility of pronounced gaps in knowledge or experience impacting steady-state performance

Increased Transition Bubble Cost

- In view of SME delays, changes or inadequate knowledge tranfer

Risk to Ongoing Service Delivery

- Due to the lack of effectiveness in the transition process leading to reduced service delivery quality

Hostility in transition and non-cooperation of incumbent service providers is common and the impact of that will overburden the incoming service provider in self-discovery of knowledge of critical applications, processes while holding the fort to ensure undisrupted service provision.

Many factors can lead to increased costs of transition such as increased resource costs, need for additional tools, legal requirements, etc., but many of them can be anticipated and mitigation can be planned to avoid such issues. Identifying and understanding risks and blockers to transition early in the game is the key to successful transitions.

Quality of service delivery will take a beating if the quality of knowledge transfer or effectiveness in learning during the shadow support phases are not effective. Identifying possible pitfalls early, bringing in the right checks and balances, right tooling and risk management would help iron out many of these issues.

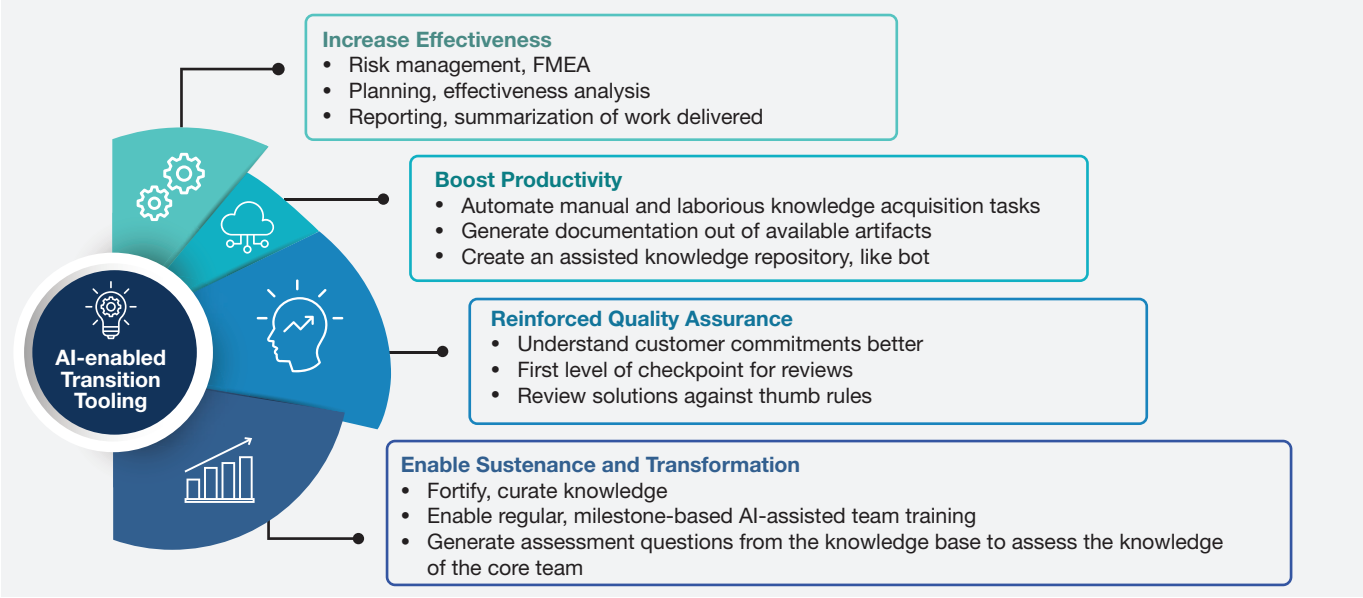
In one of the recent transitions we ran for a US-based client, we faced a similar burnout challenge due to a hostile environment. This warranted us to explore tools and techniques that could help us fare better and ensure a smooth transition. Given the excitement around AI tools in the market, we started reviewing the features of Generative AI that could help us in this direction. We conducted a few pilot implementations to start with to analyze the benefits derived from the usage of tools. The results were encouraging, practical and effective for handling transition challenges.

3. How Can AI Help Resolve Transition Issues?

AI tools come with a varied set of features that can be leveraged to address many of the challenges mentioned above. The diagram below provides a view of how AI tools can help in specific areas of risk management, governance, productivity, etc. AI tools not only help in resolving issues and addressing transition challenges but can be used as a tool to further plan and transform services for the greater benefit.

Furthermore, AI features in general help in understanding customer commitments better, serving as the first level of checkpoint for reviews, and reviewing solutions against established thumb rules. It enables better risk management, FMEA planning, effectiveness analysis and the reporting and summarization of work delivered. Overall, AI tooling is an indispensable tool in handling large, complex transition programs and it would be necessary to arrive at a comprehensive approach to leverage AI for boosting productivity, sustaining transformation, increasing effectiveness and reinforcing quality assurance, which in turn saves effort and increases the effectiveness of transitions.

A structured exercise to breakdown the challenges faced and map them to specific AI tool features can be extremely useful in running a risk-averse transition.

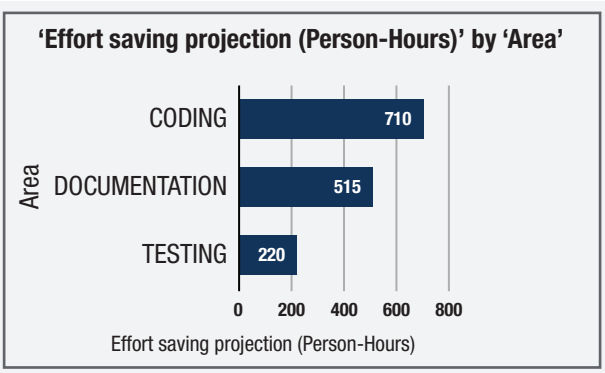


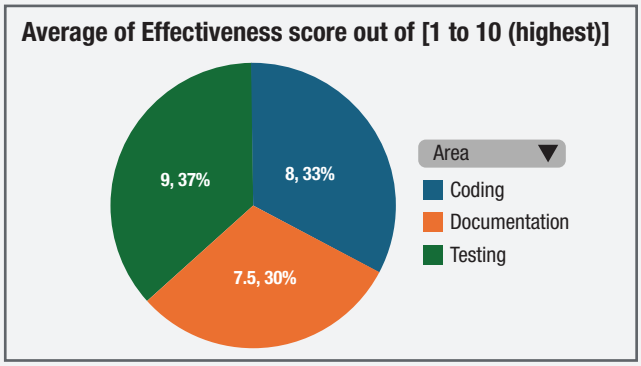
4. AI Tool Pilots and Benefit Realization

Mphasis, with its benchmark of leveraging the best for its clients, made an initial attempt to run AI tool pilots in active transitions and assess the value realized for customers. Results were encouraging and that led us to explore additional features of AI tools that can be relevant to the transition context. Keeping in mind data privacy challenges, biases and pitfalls in leveraging AI tools, we did a thorough testing with sanitized data to verify the sanctity of AI tool output and areas and phases in transition where these tools can be leveraged. The case studies below provide a snapshot of benefits passed on to our customers.

4.1 Pilot #1 – Diversified Financial Solution Company

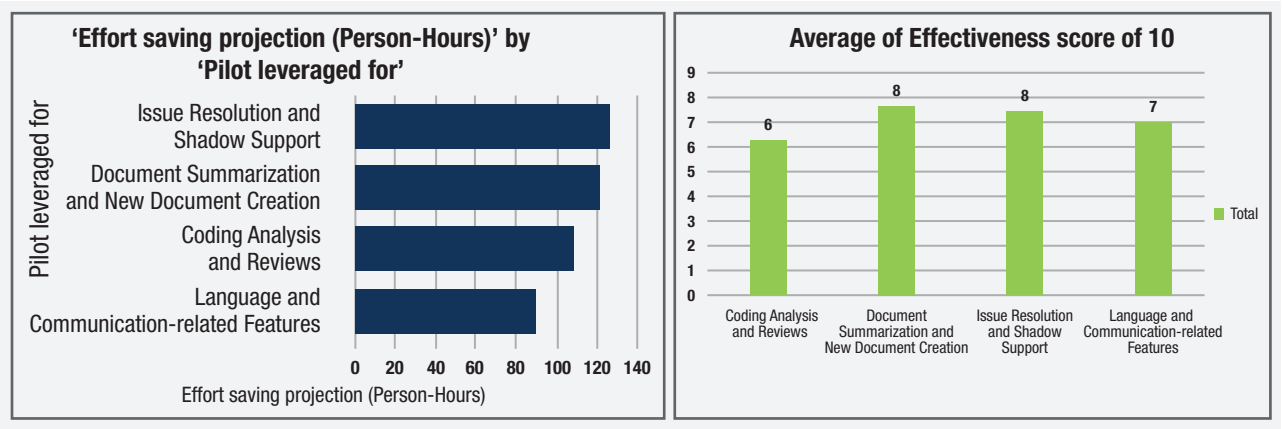
Customer	Scope and Challenges	Approach	Outcome and Benefits
• A major holding company for financial services businesses; provides a comprehensive suite of financial solutions across Loans, Investments, Insurance and Payments. With over 50,000 employees, the businesses have a nationwide reach with over 1,505 branches and more than 200,000 agents/channel partners along with several bank partners.	• **Scope:** The scope includes the transition of backend services to Java microservices and frontend code to Flutter, including UI-related tasks. • **Challenges:** Initial concerns regarding data security and privacy with AI, understanding complex proprietary code, identifying each endpoint in thousands of lines of code, time constraints and knowledge gaps due to lack of proper documentation.	• **AI Utilization:** AI was utilized to analyze business logic, list endpoints, classify input and output variables and assist the QA team in creating test cases. • **Incident Analysis and Documentation:** The AI tool was leveraged to generate a mapping between common issues and resolutions, and to create documentation from shadow support session transcripts.	• **Outcomes:** Improvements were observed, such as time and effort savings for SMEs, coding error identification and documentation assistance, enhancing transition effectiveness. • **Benefits:** Savings of ~62% of documentation effort and 16% of overall KT effort during hostile situations, by improving efficiency and giving more time for focused learning effort.





4.2 Pilot #2 – One of the Largest Entertainment Companies

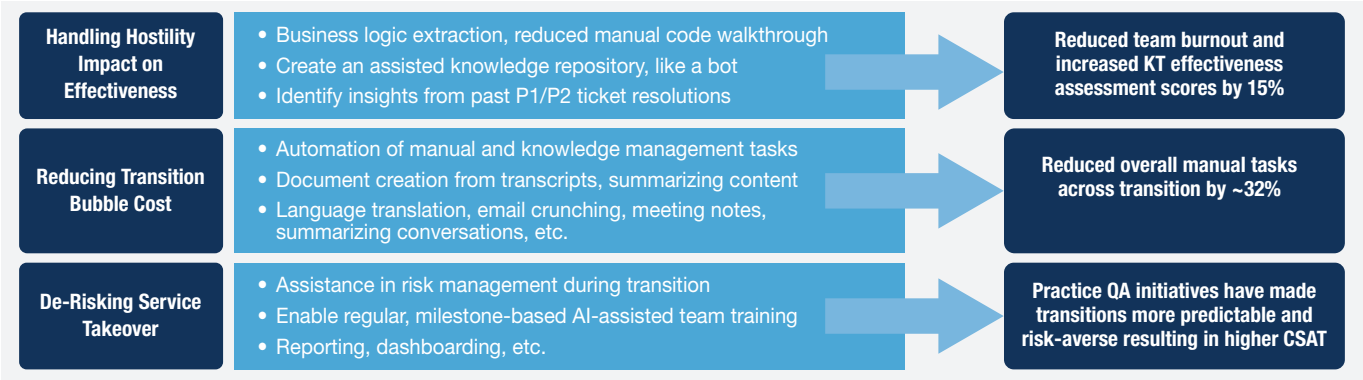
Customer	Scope and Challenges	Approach	Outcome and Benefits
• One of the largest companies in the Entertainment Industry, having over 140 attractions across 20 countries. A global leader in branded entertainment destinations creating memorable, immersive brand experiences for over 60 million guests every year.	• **Scope:** Transition of L2 and L3 support for Six Business Tracks Data from the incumbent vendor. • **Challenges:** Lack of support from the incumbent team (hostility), outdated documentation, early exit of incumbent, access issues, multiple ITSM tools.	• **AI Utilization:** AI was utilized for document summarization, issue resolution, code analysis, language and communication. • **Incident Analysis:** Incident analysis was performed using AI, to extract insights from ticket data and to create documentation from shadow support session transcripts.	• **Outcomes:** Effectiveness improvements were observed, along with time and effort savings for SMEs, extracting critical information and documentation assistance, enhancing transition effectiveness. • **Benefits:** Savings of ~30.4% of additional KT effort during hostile situations, reducing manual effort and increasing effectiveness.



Dissecting the Results of Pilots

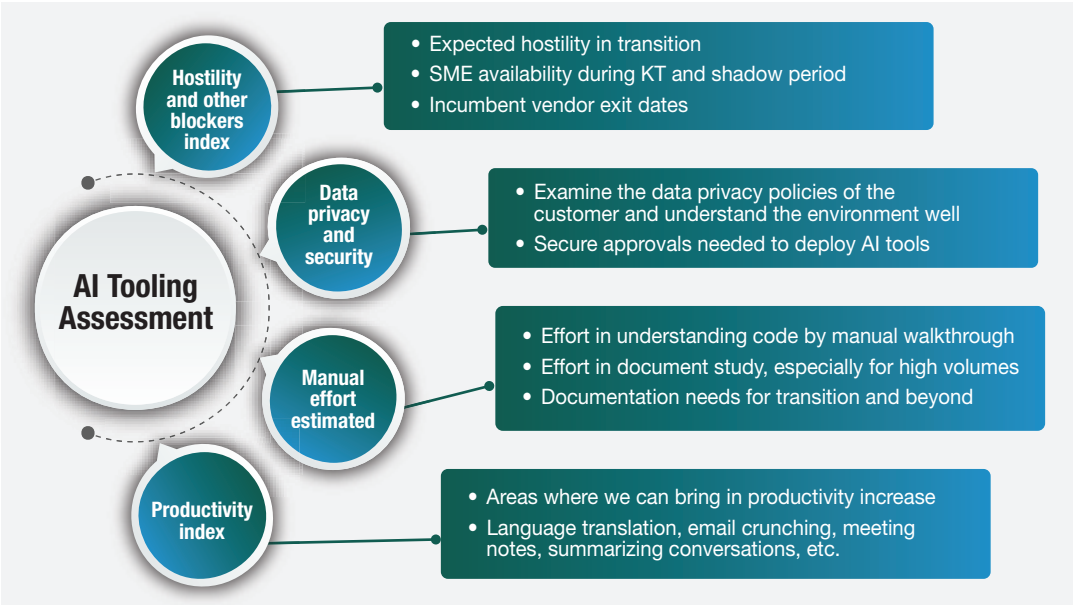
The document highlights the substantial improvements in productivity and efficiency achieved by effectively utilizing AI tools. AI can be used in Planning, Risk Management, Creating Assisted Knowledge Repositories, Reporting, etc. These help in time and effort savings for SMEs, cleanup the code, access to critical information with minimal effort, speedy documentation, improved transition effectiveness and effective navigation of hostile situations. The findings are summarized by mapping typical transition challenges to the results obtained from leveraging AI tools in live transitions.

The below picture depicts how the key issues can be addressed using AI and the benefits derived.



5. Best Practices for Successful AI Implementation

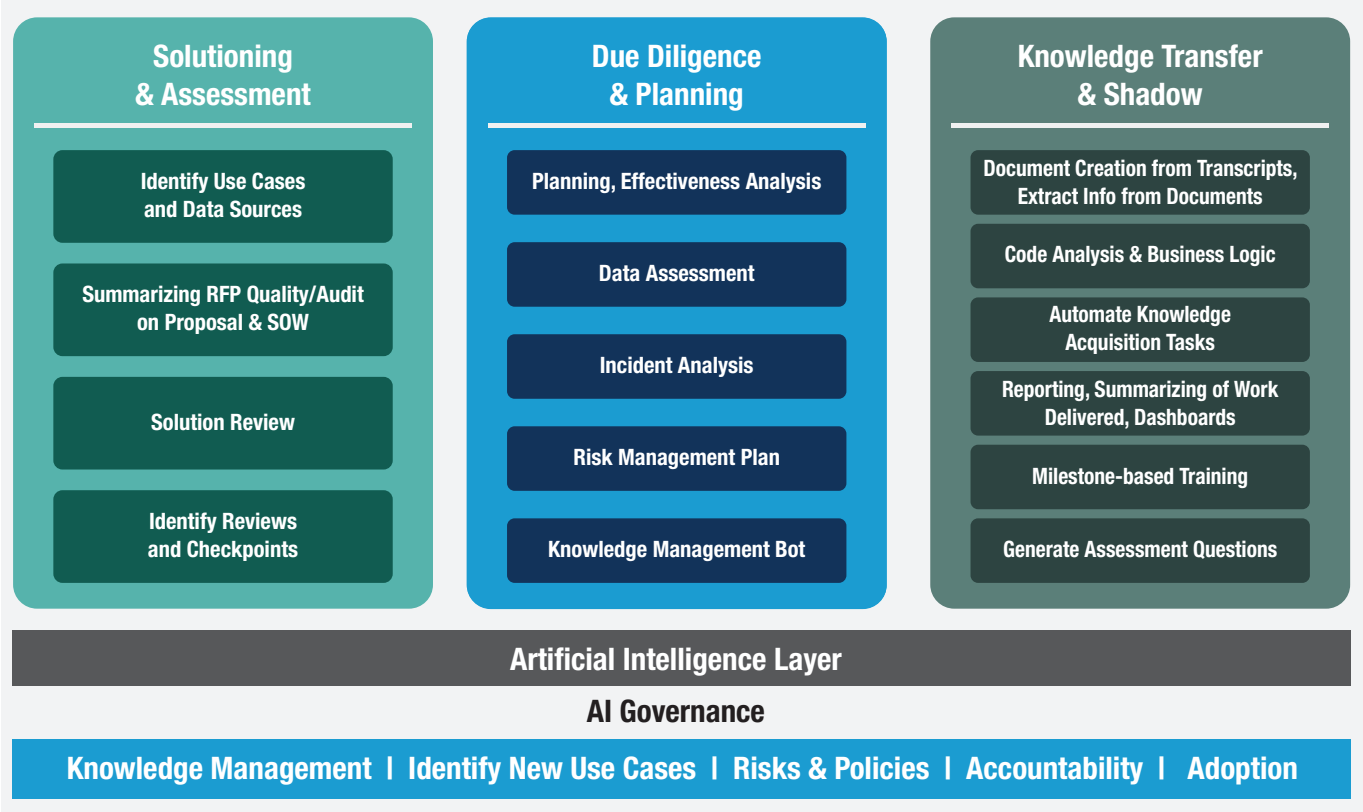
After multiple pilot implementations, we figured out that we would need a structured assessment framework to assess the need for AI tools and would need to plan out the deployment, access and usage of the same during the transition. That would help realize defined benefits and leverage the output from such tools consistently. The picture below depicts as to what are the key areas of assessment we perform during due diligence in deploying AI tools.



Mphasis has now standardized the process of assessing and leveraging AI tools. During the initial due diligence phase, before the transition is kicked off, a detailed assessment is made to figure out the tool needs in transition, expected manual effort, fitment to purpose and based on that, the choice of AI tool, licensing, approach and desired output will be determined as depicted below supported by strong governance.

Some of the best practices and recommendations for successful AI implementation in transitions, based on the experience and expertise of industry experts and practitioners, are covered in the following topics:

- **Assessing AI Readiness and Feasibility:** It is crucial to evaluate its readiness and feasibility from both technical and business perspectives. Key considerations include identifying the problem or opportunity, expected outcomes and benefits, potential risks and challenges, data sources and quality, and ethical and legal implications. Assessing the level of AI that can be implemented for transition and client areas is crucial.
- **Transition AI Framework:** Using a well-defined transition framework will help define the AI roadmap in the transition journey. Identifying areas of AI implementation is imperative. Usage of AI in different phases of transition will not only help bring effectiveness but will also help ensure reduced dependency and controlled costs.



- **Dipstick Analysis to Measure Value from AI Tools:** It is vital to manage and monitor the AI solution's performance and impact. A periodic dipstick analysis will need to be performed by tracking key parameters, collecting, and analyzing user feedback, auditing the AI solution's behavior and regularly reviewing and updating the solution based on new data and insights.
- **Adoption and Usage:** To ensure the long-term success of AI, fostering a culture of early adoption and collaboration is important. A periodic assessment of the latest developments in AI space will help us get the best value from AI tools. Staff can be incentivized to encourage the use of the tool to boost productivity. This can be achieved by promoting a learning and growth mindset, encouraging creativity, facilitating a collaborative environment.
- **Ensure Privacy, Security and Compliance:** It is equally important to ensure privacy, security and compliance when using AI tools. Data should be handled with care, adhering to privacy regulations, using permitted data, incorporating multiple protections and not using AI interactions to train foundation LLMs. Compliance with GDPR and the EU Data Boundary is required, and data from AI interactions should be stored securely and accessed only by compliance administrators.
- **Code of Conduct:** The emphasis should be on ethical use, transparency, bias and fairness, and continuous learning and improvement. AI tools should be used responsibly, maintaining transparency with stakeholders, ensuring AI-generated content is free from bias and staying updated with best practices and latest through ongoing training.

6. Guidelines for AI Adoption in Transitions

AI adoption needs upfront planning, investment and adoption policy for organizations to leverage the best from AI tools. Some aspects that need to be addressed are:

- **Strategic Investment**: Organizations need to invest in suitable license model for the AI tool, identify key resources and work towards effective license management. Other options like floating licenses can also be explored. Organizations should invest in developing awareness of the AI architecture, working model which can help understand the ROI and expectations from AI.
- **Data Management, Governance and Integration**: Data input quality will impact AI effectiveness. Implementing robust data governance and management can address this. AI output, while sometimes inaccurate or inappropriate, can be effectively managed with human oversight and careful complimentary review. AI integration is limited and may not seamlessly work with diverse software and data systems, posing challenges for businesses.
- **Privacy, Security and Compliance**: Confidential data stored in public channels can be read by AI and exposed across the enterprise. AI connects Large Language Models (LLMs) to your organizational data, such as emails, chats and documents. Organizations need to have strong data protection practices and security to ensure compliance and safeguard sensitive information. This will be an essential check to perform during the due diligence phase which will help to address any concerns customers may have. It is also important to select the right AI tool which will address these issues.
- **Prompt Engineering and Human-AI Collaboration**: Prompt Engineering is critical in leveraging the best from AI tools. Prompts must be specific, clear and contextual. Effective human-AI collaboration and adoption requires clear definitions of roles, responsibilities, expectations, communication and feedback mechanisms. These can be effectively addressed through bootcamp sessions which can help customers to understand the benefits, usage of AI tools, how to access, make aware of pitfalls and challenges, ensure active participation and how they can leverage AI tools in their day-to-day transactions.

7. Future Possibilities and Considerations

AI is constantly evolving and improving, and it is expected to have more impact and influence on transition in the future. Over the period, new enhancements and developments in the AI areas can be assessed and incorporated into transition AI solutions.

AI tools can be integrated with other platforms and applications like ITMS and knowledge portals to extract homogeneous information which can be used for further analysis and deep knowledge insights. This will further help to increase the effectiveness of transition and knowledge management, during and post transitions.

Another area to explore is to utilize AI to quickly onboard new staff, during and post-transition to gain the required knowledge for their role and come up to speed quickly. Curated knowledge can be fed into the bots using AI to provide menu options based on domain and technology. Based on the selection, it can give customized and well-structured training plans with links to documents, videos, recordings and conduct assessments at periodic intervals.

Further, AI tools can be leveraged in software development to enhance knowledge of existing complex legacy code by generating data flow diagrams, butterfly graphs, dependency charts, etc. It can also be useful to do some bug fixes and generate new complex code.

Training and skill development are integral parts of any organization. Key staff should be identified and trained in using the AI tools, especially in prompt engineering. Collaboration within teams and support from experts will further help the AI journey progression. It is also important to document and share learnings and findings between different teams within the organization. Lastly, it will be crucial to conduct training and interactions with the service providers which can help gain insight into the latest and greatest in the AI world.

> “It is difficult to think of a major industry that AI will not transform. This includes healthcare, education, transportation, retail, communications and agriculture. There are surprisingly clear paths for AI to make a big difference in all these industries.”
>
> **Andrew Ng**
> *Computer Scientist and Global Leader in AI*

8. Conclusion

An emerging trend in outsourcing is that companies are looking for value beyond just cost savings to achieve business transformation. Maturing outsourcing industry puts more focus on transition excellence as a key criterion in choosing a supplier, who would leverage the best in the IT ecosystem to the advantage of its customers.
In this white paper, we have seen how AI can be a powerful tool for enhancing the transition process by providing a range of features and benefits, such as increased efficiency, improved decision-making, enhanced knowledge transfer, reduced dependency and improved quality.

An exciting journey with lots to explore lies ahead of us.

About Mphasis

Mphasis' purpose is to be the *"Driver in the Driverless Car"* for Global Enterprises by applying next-generation design, architecture and engineering services, to deliver scalable and sustainable software and technology solutions. Customer centricity is foundational to Mphasis, and is reflected in the Mphasis' Front2Back™ Transformation approach. Front2Back™ uses the exponential power of cloud and cognitive to provide hyper-personalized ($C = X2C^{2}_{TM} = 1$) digital experience to clients and their end customers. Mphasis' Service Transformation approach helps 'shrink the core' through the application of digital technologies across legacy environments within an enterprise, enabling businesses to stay ahead in a changing world. Mphasis' core reference architectures and tools, speed and innovation with domain expertise and specialization, combined with an integrated sustainability and purpose-led approach across its operations and solutions are key to building strong relationships with marquee clients. Click here to know more. (BSE: 526299; NSE: MPHASIS)

For more information, contact: marketinginfo.m@mphasis.com

USA
Mphasis Corporation
41 Madison Avenue
35th Floor, New York
New York 10010, USA
Tel: +1 (212) 686 6655

UK
Mphasis UK Limited
1 Ropemaker Street, London
EC2Y 9HT, United Kingdom
T : +44 020 7153 1327

INDIA
Mphasis Limited
Bagmane World Technology Center
Marathahalli Ring Road
Doddanakundhi Village, Mahadevapura
Bangalore 560 048, India
Tel.: +91 80 3352 5000

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