itx®

ARTIFICIAL INTELLIGENCE: ENHANCING THE CUSTOM SOFTWARE TOOLKIT

ITX's perspective on AI and our approach to adoption



KEY CONCEPTS



ITX remains committed to continually improving our ability to deliver custom software applications effectively and efficiently to our clients. Still in its relative infancy, Artificial Intelligence (AI) is already having a significant impact on both. As both a technology and a concept, AI means different things to different people. So before we present our perspective on AI and our approach to adoption, let us first establish a working definition that will serve as the foundation for the discussion that follows.

AI

KEY
CONCEPTS

Defining ‘Artificial Intelligence’

Our friends at IBM define Artificial Intelligence as:

IBM

> ***…technology that enables computers and machines to simulate human intelligence and problem-solving capabilities.***

At ITX, we think of Artificial Intelligence as having dual functions: AI as a tool, and AI as a generator of raw material. These use cases present an important distinction, because ITX has policies that govern each of these things, but AI presents a unique scenario in which a single technology might represent both. This is important, particularly in the context of client concerns, governance, and adherence to the law. Our tools policy is in place to ensure we are being thoughtful and intentional about putting the needs of our clients and our business before our needs as product teams and individuals. Because an AI tool does not become part of the final product, we are not required to secure permission to use it. However, the same is not true about AI as raw material – e.g., a third-party library, source code, web services, or open-source software. To use such software in a client’s product, we must first obtain client authorization. This document seeks to incorporate longstanding standards and policies like these into the ways we think about and use AI.

In reflecting ITX’s philosophy and position about integrating AI into our product development cycle, it is important for us to keep both the IBM definition and the two AI use cases in the forefront of our minds; the discussion that follows applies to all.

KEY
CONCEPTS

Balancing Opportunity and Risk

The opportunity to integrate AI into our work – from research and design to development and quality assurance – is massive. So too is our responsibility to do so in ways that enhance client value, reduce cost, and mitigate risk.

The media have stirred up conflicting emotions around AI, from unbridled excitement to paralyzing fear, particularly with respect to its impact on future software and the timelines on which it will change the way knowledge work gets done. Many in our industry misunderstand how AI is shifting software development. ITX anticipates progress, steady improvement in measure and transformation in doses. We envision an industry that looks very different in the future from the one we have today, in much the same way that it does now when compared with the software industry of previous decades. Preparing for the future is about balancing opportunity and risk, about learning and growing forward, not about bucking the trends or treating everything that's new as the only thing that matters. Technological progress is almost always additive.

Thus, it is through a growth mindset – characterized by exuberant experimentation, cautious optimism, and careful consideration of risk – that we embark on this latest journey in the ITX mission:



To deliver technology that solves challenging problems so that our clients can move, touch, and inspire the world.

KEY
CONCEPTS

Purpose

Our purpose in sharing ***ITX's Perspective on AI and Our Approach to Adoption*** is to present a clear statement of our current thinking, to instill in our client-partners a sense of confidence in ITX expertise, and to engage our team members with a set of principle-driven rules that will guide their professional growth and work with AI tools.

The conversation around AI integration neither begins nor ends here. If we are to maintain our growth mindset, we must continue to explore and learn. Thus, we invite your feedback.



RULES FOR INTEGRATING AI AT ITX



At ITX, the application of AI tools is all about delivering client and customer value and advancing the practice of the many disciplines we use to produce leading software solutions. AI promises to help us be better product managers, architects, researchers, designers, and engineers while keeping clients and their users at the center of everything we do.

AI

RULES
FOR INTEGRATING AI AT ITX

A Principle-Centered Approach to Integrating AI

ITX's conscious integration of AI tools leans on four key principles:

1. **Empowering People.**
AI amplifies human abilities by reducing time spent on repetitive tasks and freeing team members for creative problem-solving and high-value work.

2. **Responsible Governance.**
Transparency, security, risk mitigation, and ethics guide our AI implementation.

3. **Growing to Perform More Powerfully.**
We embrace AI integration as a journey, continuously adapting and upskilling our team to thrive in this evolving landscape.

4. **Reducing Total Cost, Improving Quality.**
AI-enabled workflows show promise when it comes to reducing total cost and/or improving quality, and we're eager to discover both for our clients.

From these principles we have established a set of rules that serve as behavioral guardrails – i.e., constraints that drive creativity and innovation. Firmly stated but not carved in stone, our rules will generate continuing conversations about AI's fit in ITX workflows. Beginning with client consultation, we will present and describe AI tool application generally – then explain in greater detail the opportunities for improved quality and efficiency as well as risk – leaving the decision about how and when we use AI to our client-partners.

RULES
FOR INTEGRATING AI AT ITX

10 Rules Governing ITX's Approach to AI

At ITX, we strive to deliver all the benefits that AI has to offer while simultaneously limiting their exposure. To achieve this objective, we believe companies like ours need a strong set of guidelines to responsibly inform our behavior. Thus, we have carved out a set of rules that govern ITX's approach to, and application of, AI tools. ITX's 10 Rules apply not only to AI in the generalized IBM definition, but specifically to AI as tool and AI as a generator of raw material.

1. **Values driven, first and always.**
ITX will use AI in ways that are consistent with our Corporate Values.

2. **For humans, by humans, with humans.**
A human decisionmaker will remain in control when integrating AI into ITX workflows.

3. **We drive efficiency and quality to create client value.**
ITX embraces the growth mindset; thus, we will explore any tool that delivers value to our clients and efficiency to our teams.

4. **We abide the law.**
Without exception, we respect the laws and regulations regarding the use of AI within every jurisdiction in which we operate.

5. **Our clients determine their own risk tolerance.**
We prioritize privacy, indemnification, and confidentiality; we advise clients on risk-benefit tradeoffs and respect our clients' risk tolerances; we follow their direction, and we support their decisions regarding new tools or technologies.

6. **We respect intellectual property rights.**
We will work to maintain confidence that we are not violating anyone's intellectual property rights.

7. **We strive to avoid unintended consequences.**
We learn by performing structured experiments in controlled environments and demonstrate client value by sharing our newfound knowledge.

8. **We create client value through the technical disciplines we practice.**
Our Practice Leaders uphold these rules and understand the application of AI within their respective disciplines.

9. **We innovate and manage risk through the technical disciplines we practice.**
Our Practice Leaders pay attention to the industry and actively seek out best practices that account for risks and opportunities.

10. **We understand and apply these AI rules.**
Team members using AI will be trained on these rules and instructed to ask for guidance in any situation that is unclear.

RULES
FOR INTEGRATING AI AT ITX

Governance and Risk Management

By developing these 10 Rules listed above, ITX has established a set of self-imposed constraints that require us to innovate prudently if we are to address our client's challenges and our internal ways of working.

By adhering to these specific rules, ITX can explore AI more deeply and effectively without inviting undue risk. We see judicious governance as a critical component to the process of adopting AI tools to our workflows. Further, we see it as a competitive advantage; while some companies race eagerly to implement the next new thing, our 10 Rules call on us to proceed with a more measured approach.

Many ITX clients report their collaboration with us meaningfully improves the likelihood of product development success – across a broad spectrum of business goals. Part of this success is derived from ITX's effectiveness as a risk mitigator on the software solutions we provide. Rushing headlong into the adoption of new AI-enabled tools, without giving full consideration to their potential impact, is misaligned with the ITX way of doing things.

Finally, it is important to note that governance and risk management require our relentless focus and attention. ITX envisions a future in which many players create and train new large language models. We also anticipate coming regulations that government agencies are sure to enact around AI. Such a future will call on ITX to remain vigilant as we consider these and other oncoming changes. We therefore commit to continually review (and modify, as needed) our Rules for AI integration. Doing so will allow us to explore with our clients the future's opportunities and risks so that they can understand holistically the potential impacts and adjust based on shifting risk profiles.

INVESTING IN AI EXPLORATION



At ITX, we embrace AI integration as a journey, continuously adapting and upskilling our team to thrive in this evolving landscape. Founded on the dual commitment to mitigate client risk and deliver client value, ITX approaches AI from a growth mindset that ignites our passion for learning and growth.

AI

INVESTING
IN AI EXPLORATION

Complicated Problem Spaces Require Research

New technologies, especially those that have the potential to change industries and create new ones, generate numerous questions. For example:

- If we ask developers to use AI to write code, how can we be sure they are not inadvertently violating intellectual property rights based on the ways models are being trained?
- Similarly, how can we avoid injecting code into software that results in security flaws?
- As AI tools become more widely used, how we should monitor today's regulatory environment and prepare for what comes next?
- How can we avoid introducing bias into our work from the initial design phase all the way to the quality assurance testing we perform on the software we create?

Throughout our existence, ITX has learned that the key to delivering the right solution is solving for the right problem. ITX regularly invests in internal research to better understand the challenges we face and to examine emerging technologies and best practices. Our deliberate, methodical approach to understanding new technologies, like AI, is a foundational best practice that allows us to grow more powerfully.

INVESTING
IN AI EXPLORATION

ITX Practice Leaders Showing the Way

“ITX teams have been conducting controlled experiments using AI for years, totaling thousands of hours across the practice areas that reflect the disciplines required to create great software…”

Despite the surge of interest in and adoption of AI in recent years, Artificial Intelligence is not a new concept. Leaning into one of our core Values, Innovation through Experimentation, ITX teams have been conducting controlled experiments using AI for years, totaling thousands of hours across the practice areas that reflect the disciplines required to create great software – project management, product management, architecture, user experience design, security, engineering, and quality assurance.

As described previously, ITX has appointed Practice Leaders to advance each of these core disciplines. These ITX Practice Leaders are charged with identifying and exploring opportunities for AI adoption. For example, our Practice Leaders commissioned experiments in AI to evaluate its value as a new toolset that supports all the technical disciplines required for the delivery of great software products. The learning we derive from these experiments supercharges our ability to dissect and analyze complicated problems and invites human judgment, which we have learned is essential to generating optimal solutions.

“AI supercharges our ability to dissect and analyze complicated problems and invites human judgement, which we have learned is essential to generating optimal solutions.”

INVESTING
IN AI EXPLORATION

External Support from Corporate Partners

The problem space is massive when it comes to the risks and and opportunities associated with AI. This is part of why ITX has partnered with IBM® to provide governance services powered by watsonx™. Having achieved Silver Business Partner status with IBM, ITX is able to help clients deploy watsonx to support not just governance, but also to train, validate, tune, and deploy their own AI models. It is also because IBM confirmed that the standard contractual intellectual property protections for IBM products will apply to IBM-developed watsonx AI models.

ITX also leverages Microsoft™ Copilot as a general solution to meet many of our internal AI needs. This is because Copilot represents a high-quality solution with which to conduct our explorations into AI use cases. Like IBM, Microsoft has committed to indemnifying companies using Copilot against IP infringement claims related to the use of outputs produced by Copilot.

> ***Both Microsoft and IBM commit to indemnifying companies using their Copilot and Granite AIs against IP infringement claims.***

ITX is also actively exploring partnerships with other leading providers of AI tools and technologies, which may provide more specialized capabilities. ITX is committed to partnering with AI tools and technology companies that add value to our clients. Everything starts with business value with a focus on tools and technologies that can provide that value effectively at the lowest cost and risk profile.

ITX'S VISION FOR AN AI-ENABLED FUTURE



As we peer into the future, we use yesterday's experiences to inform our forecasts for what is to come. These same experiences also shape the lens through which we perceive the future. Like the tools and technologies that have come before, AI will elevate the capability of the human problem solver and position us strategically "to see around corners." Its power to analyze vast data sets and predict likely outcomes enhances our ability to anticipate – and prepare for – the future. We hold fast to the notion that humans will remain in control of decisions affecting product solutions, but we also trust that AI tools will improve our vantage point as our future unfolds.

AI

ITX'S VISION

FOR AN AI-ENABLED FUTURE

Supporting Existing Processes Now; Defining New Ones Tomorrow

Mainstream AI tools are still very new in our space; as we explore first-generation uses for these tools and experiment with how they augment current ways of working, we fully anticipate many more generations of applications in which AI plays increasingly meaningful roles. AI's advancement will be evolutionary, not revolutionary.

> ***"AI's advancement will be evolutionary, not revolutionary."***

Where client agreements permit and subject to our rules for integrating AI into our work, ITX teams are already leveraging AI to help perform tasks in our existing workflows. As more (and more sophisticated) tools and systems begin to feature AI-enabled capabilities, we expect the workflows themselves to shift more dramatically. We may be guiding, directing, or piloting it as more of the work traditionally performed by humans gets done by machines.

ITX'S VISION

FOR AN AI-ENABLED FUTURE

How Will AI Advance and How Will ITX Put It to Work?

From the evolution of mobile and the rise of cloud computing to the emergence of new coding languages and libraries, ITX has witnessed many trends throughout our 25+ years in existence. Though some trends fade from memory, others rise to become indelibly linked to the process and practice of producing custom software products. Many software design and development activities have become automated while others continue to rely wholly on the single greatest computing system known to our society: the human brain.

AI will surely change our world. However, like all technologies that have come before, AI will also follow an adoption curve. The almost overnight popularity of ChatGPT shows us the potential is real, but we must realize that AI is still in its infancy. Many new tools will emerge in the coming years, each advancing on the previous. ITX is ready for this evolution.

> ***"Many new tools will emerge in the coming years, each advancing on the previous. ITX is ready for this evolution."***



ITX'S VISION

FOR AN AI-ENABLED FUTURE

How Will AI Advance and How Will ITX Put It to Work?

Core to ITX's philosophy as we move forward is the notion of business value creation. ITX is not interested in changing the ways we work purely because we can. We are intentional in our ongoing efforts to support innovation and pursue higher levels of quality. This means we are committed to providing:

Business-Driven Solutions.

We prioritize practical applications, leveraging AI to solve real-world business problems; we avoid hype-driven initiatives and do not pursue technology trends for their own sake.

Effective Partnerships.

We partner with our clients to bring them the very best solutions not only to drive growth but also to deepen their trust in our problem-solving expertise.

Focused Experimentation.

We conduct targeted trials and structured experiments to give AI investments the best chance to optimize internal processes that enhance quality and deliver quantifiable value.

Commitment to Governance.

We refuse to abandon concerns about privacy, confidentiality, traceability, and indemnification as we embrace what is new and next.

ITX'S VISION

FOR AN AI-ENABLED FUTURE

Sustaining the Human Connection

Even in an uncertain future, clients can expect our expanding services to benefit them, first and foremost. Meanwhile, our work with AI will emphasize making teams more productive and reducing unnecessary redundancies. We see AI as a toolset that will help us identify new and enhance existing ways of working in the coming years.

> ***"Even in an uncertain future, clients can expect our expanding services to benefit them, first and foremost."***

Our deliberate, methodical approach to AI adoption will take us beyond mere task automation; our vision is to deploy AI to create smoother journeys for our clients as we partner with them on their software products. ITX clients can expect outcomes including enhanced client trust, streamlined processes, and ever-improving quality and efficiency.

ITX has always been a partner in learning with our clients. As ITX capabilities evolve, we remain committed to our clients' continuous evolution. We will always leverage our expertise to guide clients strategically, create solutions that generate real business value, and empower them to achieve remarkable outcomes.

> ***"We will always leverage our expertise to guide clients strategically, create solutions that generate real business value, and empower them to achieve remarkable outcomes."***

ABOUT ITX



ITX helps mid- to large-sized companies tackle complex business challenges through custom software product development, delivering solutions that build trust, loyalty, and advocacy among clients and their users. Founded in 1997, the company was recently recognized as a Best Company to Work For in the State of New York. ITX has expanded beyond its roots in Rochester, NY into a team of nearly 300 talented product professionals and technologists throughout the Americas and beyond. Visit itx.com for more.

AI

itx®



+AI

OCTOBER 2024