Neuralytix® Research Agenda 26

Realizing the potential of transformation

Introduction

The possibilities and potential of AI have created a steep inflection point in terms of the dynamics, growth, and transformation of the technology industry reminiscent of the dot-com era.

An incalculable number of new entrants have developed innovative products and solutions to take advantage of AI opportunities. Neuralytix research shows that the window for first-mover advantage is contracting rapidly as established vendors hasten to AI-enable their solutions. All vendors, regardless of the size or stage, are vigorously competing for the same budgets – albeit significant, increasing, but nonetheless limited – dedicated to developing, accelerating, and realizing AI-projects.

Combining the substantial resources already committed and the future investments needed to realize the grand aspirations of AI infers an expectation of a highly aggressive yield. However, today's technology industry is punctuated by geo- and socio-political forces and policies that must be accounted for, absent during the dot-com era. Intangible costs such as compliance with an ever-increasing number of regulations and the impact of technology on the environment change the economics of technology and way we quantify its benefits and advantages – particularly as it relates to ROI.

This year, Neuralytix intends on undertaking our most ambitious research agenda since our foundation in 2012.

We are modernizing our research methodology. Previously, we conducted research on distinct technologies; but today's technology industry and its direction is complex, reliant on strong partnerships (at times with competitors), and highly interdependent between technology domains and influenced by numerous external forces. To conduct research based on distinct and adjacent technologies no longer reflects the reality of the modern technology industry. Instead, we intend on taking a holistic and inclusive approach to our research methodology. We intend on evaluating and assessing products, and solutions as it relates to and addresses interrelated technology domains and external influences.

Finding a collective word to describe both technology domains and external (specifically political) influences proved to be an unsurmountable challenge. After much debate and consideration, we decided to use the term *market* to reference each area of research. (We are under no pretense that another word may be more appropriate!)

Our 2026/27 research agenda is divided into 8 highly integrated *markets*:

- AI – Innovation & Insight
- Data Management
- Data Preservation
- Economics of Technology
- Governance
- Infrastructure & Operations
- Politics of Technology
- Storage

AI – Innovation & Insight

It is important to note that Neuralytix takes a neutral view on AI. We believe in and our research already observes the opportunities, benefits, and advancements AI brings to both consumers and enterprises. At the same time, we balance our optimism with critique that reflects the reality of AI in enterprises today. Our AI research intends on considering innovations that are AI-specific, AI-enabled, and AI-driven, while our insights into AI intends on considering the reality of the state of AI projects in the enterprise. We intend on combining the technologies presented by vendors with how these products and solutions help enterprises to accelerate their AI projects into production and generate ROI from these projects.

Innovation

As we noted in the introduction, the extraordinary number of AI vendors in the market today is simply incalculable. In addition to AI-specific vendors, most existing vendors across the technology spectrum have added AI capabilities (i.e. AI-enabled) to their existing products and solutions, while other vendors drive competitive advantage through AI-enabled or AI-driven backends. Our research intends to consider both types of vendors.

For each vendor and its products and solutions, our research intends to consider the questions of:

- **Who** are the targeted enterprise customers (we intend on looking at how vendors have expanded their available markets with AI)?
- **What** features and benefits (not necessarily AI-specific) help enterprises accelerate their AI projects from development to production?
- **Where** does the vendor see AI making a difference to their future products and solutions?
- **Why** is the vendor's AI-enabled or AI-driven product or solution unique, different, or better compared to its competitors and why does this help enterprises generate ROI?
- **How** does the vendor message, position, market, and sell its products and solutions (i.e. their go-to-market strategy and execution)?

Expected related *markets* (this is not an exhaustive list):
Data Management, Economics of Technology, Governance, Infrastructure & Operations, Storage

Insight

Our insight into AI intends on considering the reality of the state of AI in the enterprise. Our research indicates some alarming realities relating to AI in the enterprise – particularly the economics.

Despite this, in 2026, AI infrastructure spending is expected to exceed US$400 billion, with total AI spending to reach US$2 trillion. This is an immense opportunity for vendors. Our research considerations balance our insight into the state of enterprises with vendors whose roadmap, vision, and leadership are expected to deliver medium- and long-term enduring benefits to enterprises.

Expected related *markets* (this is not an exhaustive list):
Data Management, Economics of Technology, Governance, Infrastructure & Operations, Politics of Technology, Storage

Data Management

Of all the *markets* on our research agenda, data management is the broadest *market*. Neuralytix sees data as the nucleus of the technology world, around which all other aspects of technology orbits. Therefore, data management is interrelated to, influenced by, and influences every other *market* that we research.

A simplistic way of considering what we define as data management is vendors, products, solutions, and approaches that relate to the storage control plane. Our research intends on limiting our scope to those vendors who are able to address the universe of data in an enterprise irrespective of where the data is located – in-cloud, on-premises, within an application. A particular consideration in our research relates to what and how vendors use metadata.

We intend on prioritizing our consideration of vendors whose offerings help enterprises with:

- **Identification** of what data is under management.
- **Categorization** of the data types and their presentation for different applications.
- **Operations** of multi-vendor data storage systems.
- **Orchestration** of data (with an emphasis on global namespaces).
- **Security** of data (with an emphasis on data security against non-human identities).

Expected related *markets* (this is not an exhaustive list):
AI – Innovations & Insight, Governance, Infrastructure & Operations, Storage

Data Preservation

In 2026, we intend to consider technologies that focus on preserving data for extended periods of time. We define long-term data preservation as any technology designed specifically to retain data for ten years or more with the ability to easily retrieve the data 100 years after writing without any data loss. (At the point of publication, we have not yet defined the term “easily” in the context of long-term data preservation).

Data preservation technologies are relatively nascent, as are their use cases. While a few innovators have technologies that have academically been proven that can meet our definition and minimum standard, almost all these technologies are not yet commercially viable or available.

Our research intends to consider (amongst other considerations):

- The relative differences between technologies and technologies and its commercial viability.
- Compatibility with existing infrastructure.
- Ease of data retrieval 100 years from now.

Apart from these major considerations, there are many nuances related to long-term data preservation that we intend to identify, consider, and define throughout 2026/27.

Expected related *markets* (this is not an exhaustive list):
Data Management, Governance, Infrastructure & Operations, Storage

Economics of Technology

We are introducing two *markets* that are not innovation or technology specific. The Economics of Technology and Politics of Technology *markets* intends to consider how vendors are developing products and solutions that help enterprises quantify and justify technology investments and address the growing geo- and socio-political influences enterprises must account for in the short- (today through 3 years from now) to long-term (3 to 5 years from now).

For the most part, our observation is that over the last couple of decades, while enterprises are fiscally responsible regarding their capital investments and operational expenses in technology, there is a presumptive positive return on investment (ROI). After all, during this period, investments in technology have clearly proven that they can generate increases in revenue, improvements in competitiveness, efficiencies in cost and operations.

In terms of the Economics of Technology, given the extraordinary financial investments and the associated human resources, executives and boardrooms have not been particularly stringent on the qualification or quantification of the ROI of their investments in AI. However, Neuralytix posits that towards the end of an enterprise's financial year, executives and boardrooms want to demonstrate to shareholders and other stakeholders, justifiable evidence of the performance of their investments in AI.

Three major factors are changing the way we account for technology and altering the way we consider ROI and economics of technology:

- The explosive and substantial financial investments and human resources dedicated to the potential of AI.
- Government oversight, regulations, and policies necessitate additional investments in technology to ensure compliance.
- Concerns over energy consumption, emissions, and ecological impact of technology.

For the first factor, considerations for our research intend on aligning with our research considerations on AI. We intend on considering if, when, and how much return enterprises can expect from their investments in AI. As for the latter two factors, our initial observations indicate an alarming sum of intangible costs that enterprises must quantify and account for when measuring the financial benefits of technology that are, to date, likely part of general and administrative expenses (G&A) in an enterprise's profit and loss (P&L) statements. We expect to consider if these intangible costs move from G&A to the technology budget what impact it might have on the ROI of technology.

The Economics of Technology is not just an issue for enterprises. Vendors must consider these factors in their product roadmaps and their go-to-market strategies to remain competitive considering these challenges affecting enterprises. Our research intends to consider factors that vendors must consider to remain competitive.

Expected related *markets* (this is not an exhaustive list):
AI – Innovations & Insight, Governance, Infrastructure & Operations, Politics of Technology

Governance

Neuralytix does not have any expertise in the Law in any jurisdiction. It is our intention to conduct research related to the fundamental and applicable systems and architectures, operating strategies, and available technologies to enable enterprises to use technology to support and meet regulatory compliance.

Our research intends on considering vendors, products, and solutions that help enterprises provide their users with high quality and compliant data. How enterprises apply relevant regulations and legislation is outside the scope of our intended research.

Crucial to any consideration related to governance is data management and the economic impact of governance on the enterprise. Given our intention to conduct research on the Economics of Technology, we expect to examine the intangible and reputational costs that governance poses for enterprises.

In considering factors related to governance, we intend on considering how governance impacts the trust and confidence of enterprise users.

Governance is a political and societal issue. We intend on considering how current and proposed geo-political influences – such as proposed policies and legislation – might impact the way enterprises use technology and the types of technology necessary to manage future and expected changes to existing policies and legislation.

Expected related *markets* (this is not an exhaustive list):
Data Management, Economics of Technology, Politics of Technology

Infrastructure & Operations

For over a decade, Neuralytix has conducted research on the relative costs and benefits of in-cloud versus on-premises infrastructure. We intend on extending our research to include the cost efficiency of operating infrastructure, particularly considering the additional infrastructure most enterprises have invested in, to support AI projects. As enterprises continue to balance between public cloud and on-premises infrastructure and operations, we intend on considering external influences that may change the buying or building decisions for enterprises.

In our research we intend on considering the oscillation of supply and demand of infrastructure components and its impact on an enterprise to budget, forecast, and implement their technology strategies in the short- and long-term.

We intend on considering the concern by enterprises that they may be subjected to single-vendor dependency and lock-in, reversing 50 years of effort to the contrary. For some enterprises, technology leaders are beginning to be resigned to depending on a smaller number of vendors. We intend on considering vendor lock-in in the context of losing the ability to use differentiated technology infrastructures and architectures as a competitive advantage.

Expected related *markets* (this is not an exhaustive list):
Data Management, Economics of Technology, Politics of Technology, Storage

Politics of Technology

We are introducing two *markets* that are not innovation or technology specific. The Politics of Technology and Economics of Technology *markets* intends to consider how vendors are developing products and solutions that help enterprise quantify and justify technology investments and address the growing geo- and socio-political influences enterprises must account for in the short- (today through 3 years from now) to long-term (3 to 5 years from now).

The amount of data generated each year and the amount of that data that enterprises keep has generated significant concerns by society to the extent that governments have had to create policies and legislation to address public concerns around issues such as privacy, cybersecurity, data locality, and the use of AI.

Governmental oversight into electronic records (data) can be traced back multiple decades – for example the 1997 United States Securities and Exchange Commission (SEC) Rule 17a-4 that regulated retention of electronic records. It can be argued that ten years ago, when the European Union (EU)'s General Data Protection Regulation 2016/679 (GDPR) came into force, it incited governments around the world to develop their own privacy Laws and regulations. The EU continued its leadership in technology related policy by enacting the EU AI Act in 2024. These are all examples of geo-political forces acting on the technology industry.

The politics of technology goes beyond geo-political (and arguably geo-economic) forces. There are also socio-political (and again, arguably socio-economic) forces to consider.

The most obvious of the socio-political topic is that of the environment. Research shows that datacenter energy consumption is expected to exceed the national energy consumption of Japan by 2030. At the same time, the prospective gains from AI have driven enterprises to make plans to build new datacenters or leverage datacenters built by hyperscalers to increase their AI capabilities. "Farms" of datacenters filled with CPUs/GPUs, networking, and an immense amount of data storage capacity are being considered and proposed.

Enterprises already produce Environmental Social Governance (ESG) reports to demonstrate their commitments to societal concerns. Neuralytix posits that as early as the end of 2026, special interest and advocacy groups may seek enterprises to report within (or independent of) its ESG reports information relating to the impact of technology.

These political issues – both current and emerging – are likely to have an impact on innovation, vendor's product roadmap, and enterprise technology strategies.

In any research we conduct into the Politics of Technology, Neuralytix remains politically neutral and objective. Our intention is to bring attention to the geo- and socio-political considerations for vendors and enterprises and the economics of the Politics of Technology.

Expected related *markets* (this is not an exhaustive list):
AI – Innovation & Insight, Data Management, Economics of Technology, Governance

Storage

Neuralytix has the honor of being a globally recognized and industry-leading data storage analyst firm. We intend on continuing our coverage of all aspects of storage – including, but not limited to storage media, storage systems, software defined storage, in-cloud and on-premises storage, storage networking, storage protocols, file systems, etc.

While our data management research primarily focuses on the storage control plage, our storage research primarily focuses on the storage data plane.

With dynamics related to the supply of critical components related to storage, the economics directly related to data storage and how these dynamics impact existing and future storage and infrastructure strategies is going to be an influencing factor in our intended research.

Expected related *markets* (this is not an exhaustive list):
Data Management, Economics of Technology, Governance, Infrastructure & Operations

Closing

Our research agenda is intended to look at the world of technology holistically – not just specific or distinct technologies. We believe that our intention to conduct research relating to the influence of economics and politics has on technology is consistent with the foresight and visionary reputation that Neuralytix has earned through our history.

This is the most ambitious research agenda we have ever undertaken. Achieving this ambition requires the collective support of our industry.

Throughout our history, Neuralytix has remained absolutely steadfast in our belief that we have a responsibility not only to our clients, but to our industry. The industry that has supported us and made us the successful company we are today.

We take this responsibility to our industry seriously. Any and every vendor – irrespective of stage, size, or age – is invited to take advantage of our complimentary analysis of your company, product(s), or solution(s) in the context of the *markets* we research. Vendors should expect immediate benefits from our candid, constructive, and objective feedback.

More information can be found at: https://neuralytix.com/analysis.

For more information, visit www.neuralytix.com

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