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The Top 5 Trends for Data & AI in 2022

Introduction

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AI has become intrinsic to our personal lives – we are often completely unaware of the technology's influence on our daily lives. For enterprises too, tech solutions often come embedded with AI capabilities. Today, an organisation's ability to automate processes and decisions is often dependent more on their desire and appetite for tech adoption, than the technology itself.

In 2022 the key focus for enterprises will be on being able to trust their Data & AI solutions. This will include trust in their IT infrastructure, architecture and AI services; and stretch to being able to participate in trusted data sharing models. Technology vendors will lead this discussion and showcase their solutions in the light of trust.

BUILDING TRUST INTO AI SOLUTIONS

✓ **Accurate & Efficient**
✓ **Ethical**
✓ **Compliant**
✓ **Secure**
✓ **Easy to Use**

Ecosystm Rates the AI & Automation Predicts for 2021
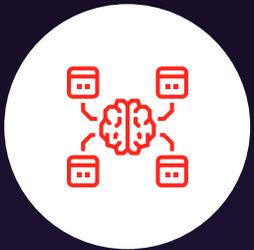
★★★★★
AI Will Move from a Competitive Advantage to a Must-Have

Almost all software platforms/tools have some sort of AI embedded within them. 2021 saw organisations use more of the core AI capabilities of the platforms – and less of data scientists making software smarter.

★★★★☆
AI Will Thrive in Areas where the Cost of Failure is Low

We saw many businesses embrace AI where it is proven to work and when the risk or cost of failure is low. This trend will continue in 2022 (see #4).

★★★☆☆
Technology Providers Will Stop Talking about AI

While many vendors have moved on, some are still in the transition phase as they continue to embed AI in their platforms – or merge existing software with "add-on" AI tools and capabilities.

★★★☆☆
Enterprises Will Seek Hyperautomation Solutions

While the solutions exist to drive hyperautomation, many businesses have yet to embrace them. Sometimes it is lack of data or poor processes; other times it is the lack of an appetite for change.

★☆☆☆☆
Businesses Will Put "Automation Targets" in Place

While the adoption of automation tools has accelerated and many businesses have Automation CoEs, the budget for automation lies mostly with lines of business – and they are not a 100% convinced about benefits.

#1 Hybrid and Multicloud Strategies Will Drive Federated and Distributed AI & Analytics

The pendulum continues to swing between centralised data lakes and warehouses and decentralised or federated systems. Today there are some brilliant systems that makes centralised data management more cost effective and valuable for the business (such as that offered by Snowflake). But as businesses begin or deepen their edge investments, the need to analyse data where it lives will become more important. And therefore, the concept of the centralised data location becomes less relevant.

Hybrid computing, multicloud and even SaaS investments mean that the approach to data management and analysis needs to change. Systems will no longer send all their data to a central store – instead they will share select data with appropriate systems.

Prepare your tech team for these changes – architects will need to redesign systems; IT Operations will need to manage systems where they live; data scientists will need to create algorithms that can run on smaller data sets on the edge.

> In 2022 more businesses will choose to analyse data where it is created and only send selective data to a more centralised environment. To achieve this, businesses will need to rethink their data and tech architectures to ensure they are fit for purpose in a federated world.

Tim Sheedy
PRINCIPAL ADVISOR, CLOUD, AI & CX

#2 Early Adopters Will Build Data Fabric Architectures

As machines and sensors generate terabytes of data at the network edge, savvy organisations will look at ways to catalogue, transport, and integrate the data to extract insights and deliver new digital services. A data fabric architecture ensures that data is discoverable and available for use no matter where it is stored. Current silos will be dismantled to enable data scientists to train their models with data, whether it resides in a call centre's SaaS CRM system or is produced in a dusty mine. Dark data trapped in legacy applications can be combined with fresh insights to provide a complete picture.

The volume of data circulating in organisations makes even scanning of metadata an unwieldly task. Automation and machine learning will be deployed to produce more accurate metadata and suggest related sources for analysis. A metadata knowledge graph will be used to provide context to specialised and citizen data scientists alike.

> Developing a data fabric architecture is as much about cataloguing sources and understanding how data could be integrated as it is about deploying new tools. Once this has been carried out, automation can be applied to scale the process, putting data into the hands of those who need it.

Darian Bird
PRINCIPAL ADVISOR, CLOUD & AI

#3 Spatial Will Differentiate the AI & Analytics Market

While almost infinitely complex, crypto currencies have become accepted by many and as a result one of the less embraced characteristics of data is getting normalised – its unique ability to be infinitely traded as currency. This is not because everyone suddenly understands blockchains but rather because crypto currency has been contextually visualised in digital wallets and has enabled users to see, store and trade value. In doing so, it has achieved what open data could not.

By contrast, even though corporate data has never lacked for a market of buyers, sellers and traders, monetising or even freely sharing information or data remains just a principle for most information-rich organisations. Spatial analytics platforms – including Digital Twins – built on hyperscale data management platforms, provide a new opportunity for organisations and commercial ecosystems to visualise, trade and monetise latent and dormant information and asset data sets. As well as becoming a point of differentiation for traditional AI and Analytics software platforms, adoption will seed the way for end-users to assign financial value to information assets on the balance sheet.

> In 2022, spatial analytics in the form of Digital Twins will provide platforms for markets to trade and create value on existing and deep reserves of corporate and government data, currently locked inside traditionally disparate and siloed organisations and partner networks.

Peter Carr
PRINCIPAL ADVISOR, STRATEGY & TECHNOLOGY ADVISORY

#4 AI Will Show Strong Growth in Internal Functions

AI still remains essentially in the early adopter phase. While its use is expanding exponentially and capabilities are soaring, it can take 2-3 years sometimes for sufficient data to be collected to create an effective model. Every 2-3 years that model becomes 10x more powerful. After a few 10x improvements the technology becomes ready for prime time.

AI enables exponentially more transactions than humans can perform and much of its spectacular success has come from customer facing applications. However, many organisations will find it easier to implement AI in internal or back-end processes. This gives them a chance to use data and AI where there is no direct impact to the customer or their image. If there are complaints from employees about the new AI-powered HR systems, the fallout can be contained – if customers go on social media to complain, the result can be calamitous.

Similarly, production systems which are by nature used more to work with data can be used to trial many technologies. While some organisations have already done this, many more will start taking advantage of this low hanging fruit.

> Away from the spotlight many applications have a better chance of being tested more robustly, resulting in better "trained" models. Almost inadvertently firms are going to find this path to AI success.

Niloy Mukherjee
PRINCIPAL ADVISOR, DIGITAL STRATEGIES & GO-TO-MARKET

#5 The Use of AIOps Will Double

Last year we predicted that AI will excel in areas where the cost of failure is low. But we are also seeing AI excel in processes where the upside of using AI is huge! And AIOps fits both of these profiles. AIOps has very little risk to the business, as most AIOps implementations cannot impact the operation of the technology – they are overlays that analyse data and suggest actions – only automating outcomes where the risk of failure is close to zero. But the upside is significant; businesses will be able to make their monitoring tools "intelligent" – those that do not just operate within pre-set parameters but help to define these parameters, and significantly accelerate root cause analysis.

Tech reliability and availability will continue to be significant focus areas for CIOs and IT Operations teams in the foreseeable future as digital services become more important to customers, employees and partners. Any service that can improve the resiliency of the digital services will see fast adoption; and AIOps solutions are maturing at the right time to ride this wave of growth over the next 3-4 years.

> For over a decade Business Service Management (BSM) promised to help organisations make a link between business services and tech systems and processes. And finally, AIOps is beginning to deliver on this promise.

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