Data: the new plastic and why we should be cleaning it up.
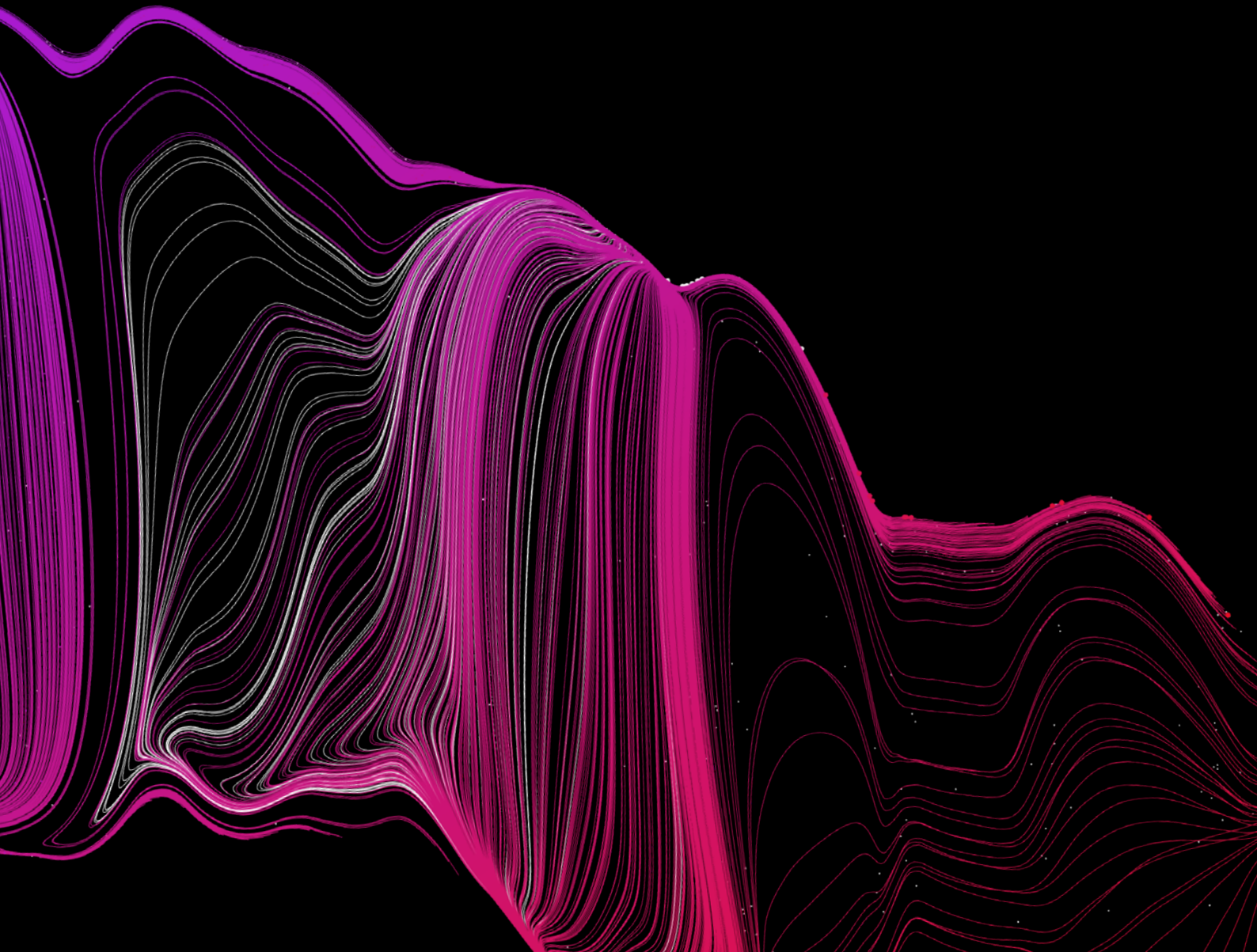
Haydn Jones

Introduction

Data starts out its life as a mere fact, an observation. When you wake up in the morning and the sun is shining, that is a fact. When you walk outside and it is cold or warm, that is a fact. We use these facts to drive decisions. Do I take an umbrella? Do I wear a coat?

Facts transform into data when they are recorded. The aggregation of these recorded facts over time become data sets. Data sets that can be mined to come up with observations, insights and determinations. As data sets grow, it is also then possible to combine similar or sometimes even diverse data sets to allow for even more impactful insight.

And this is the power of data. Not the data itself, but rather what we can glean from that data. The decisions we make based on currently observable facts can be vastly improved by looking at historical trends and a broader set of data than we tend to individually observe.

Not only can we observe and record more data, we now have access to that data on an instantaneous global basis. By combining and analysing these datasets, we can come up with new ideas, improve on existing strategies, and understand the world around us much better.

Alqami works with businesses to better understand where your data is being created, what are the sources and uses of that data, the governance around how that data is monitored and secured, and ultimately develop a holistic data strategy to activate the under-utilised data within your business and uncover new opportunities.

From the moment we wake in the morning our brains are connected to a world of data.

Sight, smell, taste, touch and sound, our brains work apace on making sense of those first, early morning stimuli, sub-consciously organising, prioritising and routing them into our conscious mind, allowing us to be aware, and self-direct. And even before our eyes open, our brains are subconsciously receiving data, ready to interrupt our sleep, as and when we need conscious awareness of our environment to make decisions regarding our welfare. Whilst the mass of typical adult human brain is the same as an average laptop – 1.4kg, or 2% of body's total weight – it has evolved to be far more superior, being about 100,000 times more efficient in processing information.

This natural information is now augmented by an endless supply of electronic data. The first thing most people do when their alarm wakes them is reach for their phone. Whether it is to check the weather, the news, social media or any communication that has been received overnight. These electronic stimuli layer on top of the natural stimuli that are still active as we sleep.

"There are 2.5 quintillion bytes of data created each day at our current pace"

Bernard Marr
Author, Keynote Speaker, Advisor

Data's intrinsic value may be recognised but it its spread far and wide and is often difficult to extract. Additionally, organisations don't always have the hardwired discipline to manage it properly. It is too easy to create and store but often difficult to leverage. But the way data is used distinguishes the good companies from the bad, it creates wealth to benefit society, and drives our economies. The right data can make the difference between life and death, success or failure, or whether a customer comes back. However, it is a neglected corporate asset.

Data is not generally treated as an asset, despite sitting at the heart of what drives enterprise value.

The use of the term data, in the context of computing, started to appear in the 1940s with it being applied to data-processing. By 1954, the term data-base or database, had emerged, meaning a "structured collection of data in a computer". By the 1970s, the term data-entry was coined, as computing technology started to enter the workplace. By the 1980s, the use of the term was commonplace. And now with the exponential adoption of technology, every aspect of human endeavour generates data derived from, or stored by, computing technology. From these humble beginnings the breadth of the use of data as a term is staggering. Structured and unstructured, static and dynamic, qualitative and quantitative, human, machine and animal. Much of the growth of the last 20 years has been driven by exploiting this data to sell more, reduce risk and satisfy the customer. And all of this data is available to be leveraged within novel and highly agile business models.

In 1990, there were 44 million internet users.

As of March 2019, there were estimated to be 4.3 billion or 56% of the planet's population.

And this is just people.
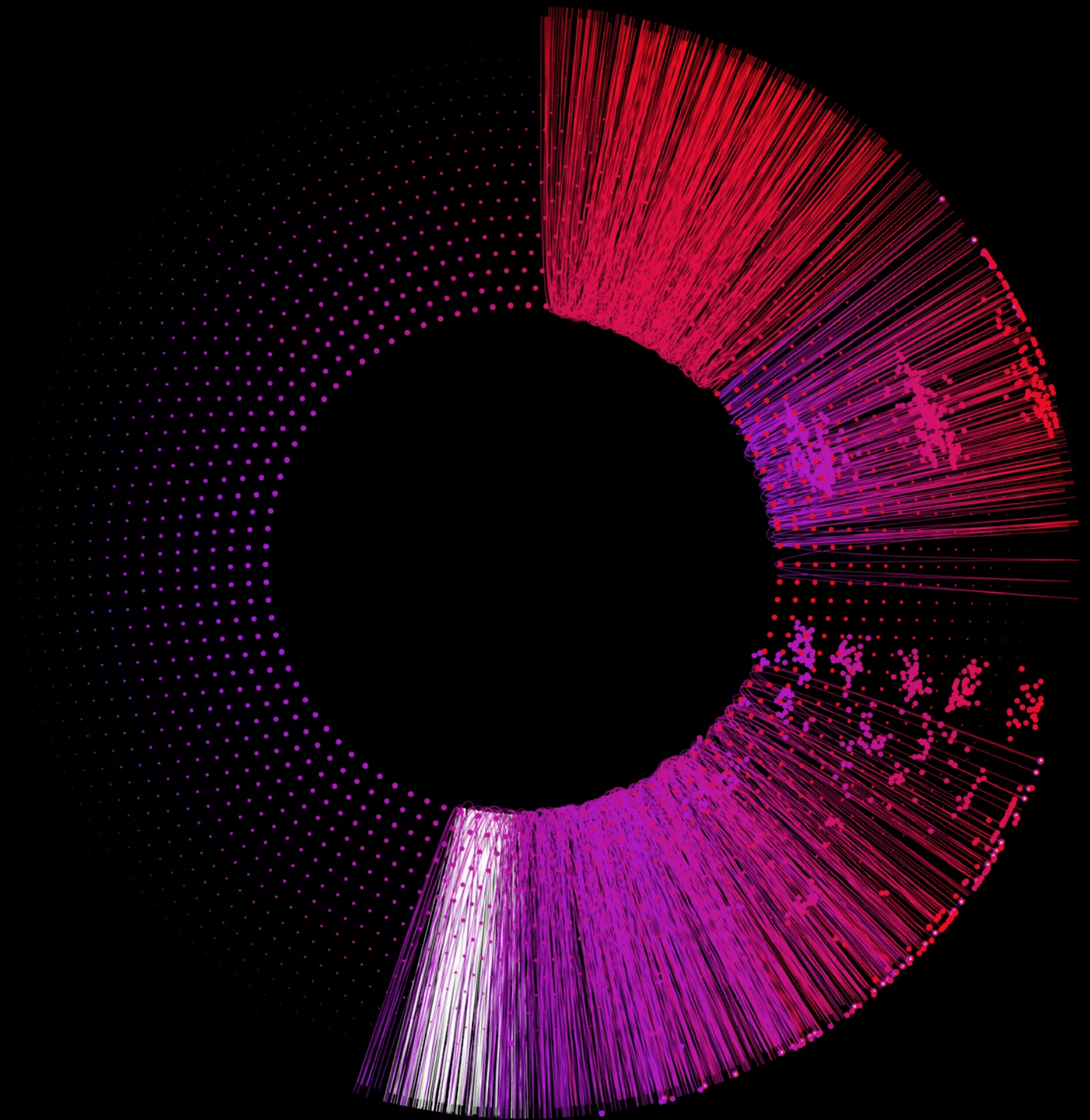
By 2020, it's estimated that there will be some 20 billion devices connected to the internet.

This explosion in the creation of data is being driven by connectivity, storage, processing and the cloud, underpinned by the commoditisation of technology know-how. It is now relatively easy for individuals, anywhere in the world to access insight allowing them to establish more technology which generates even more data.

The future will see a world even more awash with data; the internet of things will allow more devices and machines to be connected; greater penetration of mobile driven connectivity will see greater swathes of the global population coming online and wearables will become ubiquitous.

This tsunami of data will need to be supported by new processing techniques; predictive analytics, machine learning and artificial intelligence will all need to overlay these tiers of data to make sense of it. Advanced visualisation techniques combined with virtual and augmented reality will provide new tools allowing us to navigate this world. Transformational technologies such as blockchain will fundamentally reshape the boundaries between organisations by merging payment, value transfer and settlement.

And the data underpinning the provenance of goods and services in support of sustainable, environmental commerce, which is tied to organisational governance in the pursuit of societal betterment, will become a key economic and political imperative.

Given the ubiquity of data generating and enabling technology, markets will emerge making it easy for data assets to be advertised, traded, and mined on exchange platforms. These will be transported to those entities prepared to pay the highest premium and will cut across sectors, geographies and into supply chains, with cryptography allowing the anonymisation of data, giving the data originators underlying control. The competitive edge associated with the understanding and ownership of classes of data assets will be a differentiator between organisations.

The last twenty years of big data have been about collection; the next twenty years will be about the democratisation of data as an enabler for anyone that needs it.

This proliferation of data and the necessary tooling will, at one level, make the task of matching supply with demand much harder, as it will be a much bigger information space to navigate. However, locating the right data sets and tooling will enable products and services to be exactly matched to suit need, delivering huge organisational efficiencies.

"Big data is like teenage sex: everybody talks about it, nobody really knows how to do it, everyone thinks everyone else is doing it, so everyone claims they are doing it."

James B. Duke
Professor of Psychology and Behavioral Economics at Duke University
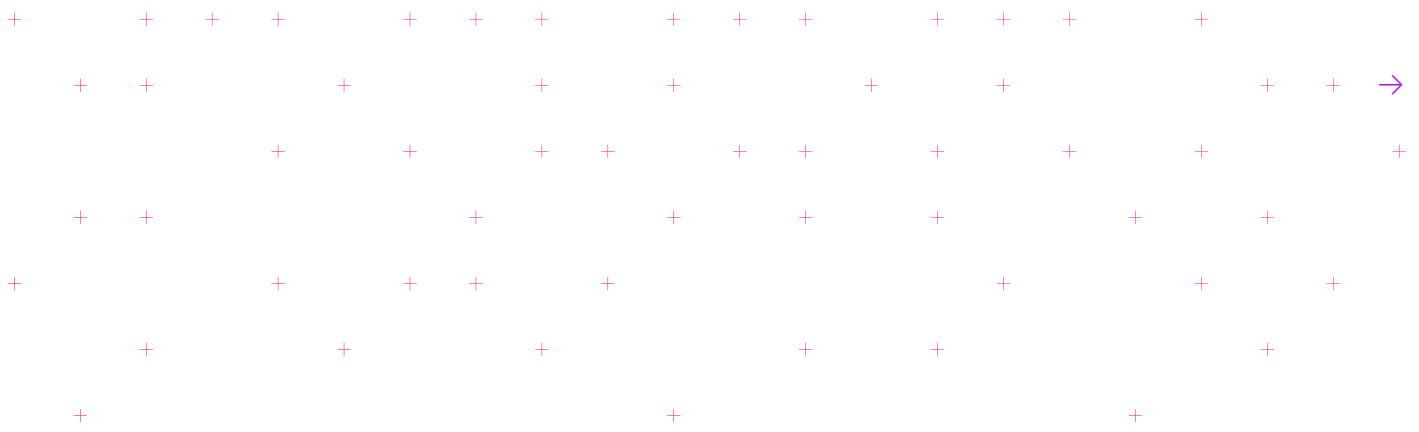
Uber is a company with no significant physical assets; yet its $90bn valuation is derived from the margin opportunity of matching supply with demand, precisely, with no physical inventory overhead. This data driven future will create greater reliance on the identification and pricing of the right data assets, the opportunities associated with combining them with other data assets, their protection, and delivery to the right end users. In the same way that the financialmarkets evolved to manage flows of capital from market to market, supported by a suite of products to manage risk, similar data markets will evolve as the economic value of data is understood and as the global economy sees the opportunity for further consolidation and commoditisation through data application; supply can equal demand through the correct application of data.
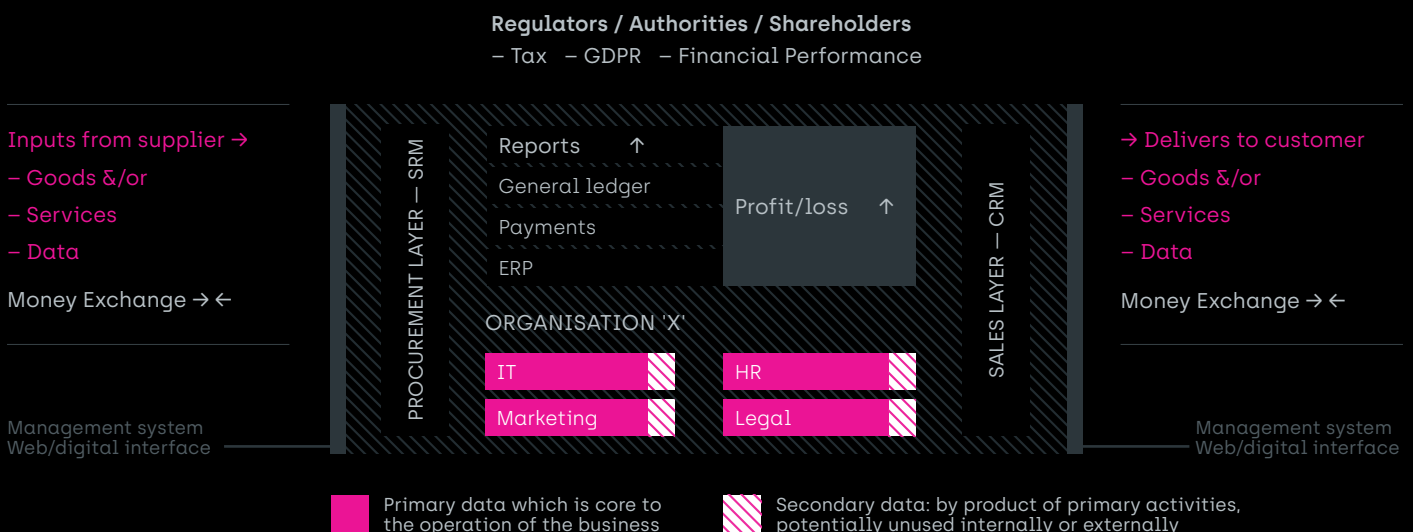
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Currently, data utility is constrained by the frameworks and processes sitting around it. Whole data sets sit neglected, buried deep within IT systems with little other than additional fields being added to augment them periodically. In a perfect world, data should be created once, and once only, and its role in value generation should be understood both as a direct contributor, and by-product of, business activities. Data assets need a strategy and their inter-relationship with the larger, global data ecosystem needs to be understood.

Navigating this new world will be a necessary skill for the fourth industrial revolution. Thinking of data as an asset also raises some interesting questions with the most immediate being valuation. Comparison with other asset classes points to traded markets as the solution. Where valuation models can be developed and market price is traded up or down, depending on either, supply and demand, sentiment, market phase, or information asymmetries.

Having access to these kind of data markets and being able to buy and sell data assets with attributes contributing directly to the activities of a business, opens up the possibility of creating huge operational efficiencies; data is bought as and when it is needed, it is processed as required to provide further analysis, and these insights can then be resold. Where organisations are sitting on large volumes of data generated as a by-product of their primary business activities, referred to as secondary data, these can be packaged together and resold into the marketplace to create new streams of revenue. (Refer to the diagram below)

Data landscape of an organisation

Regulators / Authorities / Shareholders
– Tax   – GDPR   – Financial Performance

Inputs from supplier →
– Goods &/or
– Services
– Data

Money Exchange → ←

Management system
Web/digital interface

PROCUREMENT LAYER — SRM

Reports ↑
General ledger
Payments
ERP

Profit/loss ↑

ORGANISATION 'X'

| IT | | HR | |
| Marketing | | Legal | |

SALES LAYER — CRM

→ Delivers to customer
– Goods &/or
– Services
– Data

Money Exchange → ←

Management system
Web/digital interface

▮ Primary data which is core to the operation of the business

▨ Secondary data: by product of primary activities, potentially unused internally or externally

Similarly, where organisations are seeking specific data sets to explore either a new line of business or because the cost to generate it internally is prohibitive, they need to understand and navigate the data landscape, by sector, asset type, market, regulatory framework and tooling.

Translating data assets into additional revenue is then about identifying the demand side for a particular data source, the tooling, the technical packaging, the legal basis, and an additional support and management layer. These are all capabilities which sit in different functional areas across an organisation.

Alqami's approach is to integrate these different components, making the task of generating value from data assets easier. The same applies to demand. Alqami is establishing itself to have unparalleled understanding of both sides of the data market, providing organisations with the support, tooling and marketplace networks to navigate the future of data.

Data has become a critical pillar of the modern organisation. Today everyone, everywhere, every day comes into contact with data. However, while delivering many benefits, the current data economy has drawbacks that are becoming more apparent by the day.

We are past the point of wondering whether we should be concerned with our data. Companies like Uber serve as leading examples of what can be achieved with a defined data strategy. Alqami is overcoming the limitations of today's incremental and fragmented initiatives. We are already enabling and delivering a new wave of innovation, and creating cohesive data value chains that will build tangible value, stronger economics, and better business outcomes. Contact us to learn more!

Haydn Jones
Chief Executive Officer

Haydn has 20+ years of diverse leadership experience covering technology, equities, treasury, operations, payments and settlements, consulting, sales, enterprise architecture, procurement, strategy, central banking and regulation.

Haydn most recently founded an education business through which he presented courses and training on data activation, digital transformation, and understanding blockchain technology and digital currencies. Most recent delivery has been to financial institutions in China, South Africa, Saudi Arabia, Nigeria and Russia.

Prior to this Haydn was General Manager of the Japanese, global technology company Fujitsu, and has held senior Ops and Tech strategy roles in the Bank of England, A.T. Kearney and Deutsche Bank.

He is a trained Engineer, holding an M.Eng from Manchester University, with English Bar exams and is a Fellow of the Institute of Engineering and Technology. He is an inclusive, driven, highly creative, strategist. He has a broad interest in science and geo-politics. Above all, he is a realist.

Alqami

About Us

Alqami partners with clients across a broad spectrum of industries including finance, technology, retail, FMCG, agriculture and more. We help our clients maximise the value of their data through improving business performance, unlocking new business opportunities, and monetising data that currently is not producing revenue. If you would like to understand how your data can work better for you, by helping you make more informed business decisions and improve the bottom line for your business please get in touch.

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