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DISCUSSION SUMMARY

**DIGITAL ALCHEMY:
TURNING DATA
INTO GOLD**

This article was written by Roger Camrass, global research director for CIONET and a visiting professor at the University of Surrey, and is based on the conversations during an event on the 13th May 2021 on 'Modern alchemy – turning data into gold', sponsored by DOMO, a leading player in data platforms.

In the rapidly advancing digital era, everyone talks about the central importance and key value of data. But few have found effective ways of monetising such data. In the words of one delegate from financial services, "we are early in this journey". The truth is that digital natives and start-ups have built their entire business models around data. It is thus necessary for incumbents to address this issue quickly if they are to compete effectively with digital newcomers.

Which data are we talking about?

Much of discussion focused on how best to categorise data. No size fits all. Companies such as BT and Network Rail understood the central importance of data in controlling complex networks operations. Telemetry systems are well advanced here in applying preventive maintenance. IT organisations are using data to help monitor service levels and software testing. Anglo America is using sensors to monitor health and safety within its mines, as well as helping to identify new seams of valuable materials.

Others recognised that data could provide vital insights into customer behaviour and is essential to drive decisions relating to new products and customer experiences. Data is also vital at a functional level, especially in sales, HR and finance. What was most apparent from the discussions was the need to carefully segment each data type and apply appropriate processes and controls to each category.

Taking an end-to-end view of data

Data follows a well-trodden path from ingestion, through analytics and finally into the hands of the end user. DOMO has pioneered a coherent set of processes and a supporting cloud-based platform to ensure smooth passage from one end to the other. Amir from DOMO described the various modules involved in this end-to-end process including connections to a multiplicity of sources, mechanisms to clean up and transform incoming data, and tools to help visualise outputs.

One of the biggest challenges according to the delegates was to authentic and standardise data ingestion given the multiplicity of online channels and devices that connect organisations to the outside world. DEFRA illustrated the need to collect weather data to protect animals and crops against adverse conditions. Equally, to use sensors to detect outbreaks of animal epidemics.

Other delegates pointed to the fragmentation of data within organisations, especially due to the extensive use of spread sheets as a means of accessing and manipulating data from legacy systems. Until workflows are fully automated, we can expect such practices to continue to undermine end-to-end data management.

Converting data into value

BT described how operational data has been vital in identifying and repairing network outages during the pandemic. Given our universal dependency on telecommunications links for home working and shopping during the last twelve months, preventive maintenance has intercepted multiple hidden faults and enabled near 100% network up time. BAE mentioned the use of sensors to detect potential areas of engine failure such as fine dust that could interfere with flight patterns and safety.

A medical device manufacturer referred to the growing ability of healthcare organisations such as the NHS to remotely monitor patients and thus identify health issues at their early stages. Wearables will progress this trend rapidly over the next few years helping to save lives and improve life quality.

DOMO referred to its experience with EDP, the leading Portuguese energy company. By using advanced data tools to constantly match the supply and demand of electricity, EDP has become proficient in developing accurate energy forecasts. It uses hedging as a way of generating additional sources of profit based on such forecasts. Other illustrations were drawn from the Software as a Service sector such as Salesforce where data is the backbone of its CRM product. Data analytics can generate new sources of revenue for such firms. In the finance sector, product and customer data become vital in the battle to cross sell services and enhance profitability.

All agreed that data becomes the life blood of emerging ecosystems in finance, healthcare, government and elsewhere. Our ability to share and exploit common data sources accelerates value creation. This is especially true in the media sector where organisations such as BBC and ITV are collaborating to better understand their audiences and provide more relevant products.

Democratisation of data usage

Even today many managers and their staff rely heavily on intuition rather than data to make vital decisions. Much of this is supported by local spreadsheets that reflect personal ways of operating. This is in sharp contrast to digital natives such as DOMO who use data to drive all their commercial decisions. The CEO of DOMO has said that it is perfectly possible to run your company from a mobile phone providing sufficient data is available in near real time.

Traditional organisations are embarking on major change programmes to promote data-driven decision making. Helpful here is the evolution of visual data tools that improve the user interface and encourage staff engagement. Citizen development and the use of low-code and no-code tooling has helped bridge the gap between tradition and modern data-driven methods of management.

Governance is at the heart of effective data management

One of the most interesting and contentious points of discussion was around the governance of corporate data. The big question for many organisations becomes 'who owns our data'. This ranged from the COO and CIO to central data science teams and CMOs. All delegates agreed that data is a business asset and needs oversight from a single corporate function.

IT has a vital but non-exclusive part to play here. IT tools such as data platforms can enable businesses to standardise and integrate data sources as well as providing the essential tools for its manipulation and consumption. However, it must be the businesses who have ultimate responsibility for ownership, especially in a data centric world. Again, much can be learned from digital natives who have organised themselves around their data. In the financial sector, regulation and compliance becomes especially relevant in deciding who controls the data. For example, Deutsche Bank has a central team reporting to the COO who are responsible for compliance.

Organisations need to build data governance into their enterprise architectures and assign appropriate functional responsibilities for operational and commercial data.

What actions are necessary to perform digital alchemy?

The conclusions of the discussions were:

- An integrated platform is necessary to consolidate data from multiple sources and promote end-to-end thinking around value extraction
- Intuitive methods and tools will be necessary to encourage data-driven decision making and overcome cultural obstacles
- Organisations need to segment their data into appropriate categories to make best use of this vital resource



About CIONET

CIONET is the leading community of more than 10,000 digital leaders in 20+ countries across Europe, Asia, and the Americas. Through this global presence CIONET orchestrates peer-to-peer interactions focused on the most important business and technology issues of the day. CIONET members join over a thousand international and regional live and virtual events annually, ranging from roundtables, programs for peer-to-peer exchange of expertise, community networking events, to large international gatherings. Its members testify that CIONET is an impartial and value adding platform that helps them use the wisdom of the (IT) crowd, to acquire expertise, advance their professional development, analyse and solve IT issues, and accelerate beneficial outcomes within their organisation.

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