Data's Story: An Enterprise Asset in the Digital Backbone

by Gustav Toppenberg

Unlocking the value from information and data to gain a competitive advantage is top of mind for any CEO fighting for market share against an ever-changing competitive landscape or one looking to create an edge in a new market with untapped potential. The abundance of data sources available to tap can be both a blessing and a curse if the identification, ingestion, management, and use of the data are not well planned.

The seemingly endless and ever-growing ecosystem of big data pundits, providers, and users may have lost sight of the true value of data. Data in and of itself carries little to no value for organizations that intend to derive an advantage from it. Organizations can, however, derive value from evidence-based decision making based on a strong foundation of quality data. The distinction may seem insignificant to the naked eye, but its importance cannot be overestimated.

An earlier *Executive Update* provided a working definition of "digital backbone." This *Update* focuses our attention on the creation of a digital backbone. The existence of a digital backbone in an organization means that anyone aspiring and planning to transform different parts of the enterprise can leverage the digital backbone in a consistent and sustainable way, ensuring that each transformation effort connects and leverages a common platform. Digital transformation leaders are starting to realize that a powerful digital services backbone to facilitate rapid innovation and responsiveness is key to successfully executing on a digital strategy.

"Digital transformation," "cloud," and other industry terms continue to become saturated and distorted in their meaning when overused or used out of proper context. Here, I've chosen to define digital transformation as the use of technology to radically improve the performance or reach of enterprises. In many cases, digital transformation is undertaken to create a competitive advantage, which in today's business environment can at best be considered a transient advantage because sustaining anything for a long period of time is highly unlikely. This is where the role of data is critical, with data that is "fit

for purpose" and provided to decision makers at the right time increasing the chances of a transformation effort succeeding in its goals. Transient advantage is a business strategy that accepts that competitive advantages are often short-lived. It focuses on innovation strategies that continually build new advantages. Instead of building an advantage and defending it, a transient strategy focuses on the velocity of competitive advantage.

Organizations pursue digital transformation efforts for many reasons, including customer capture, revenue growth, workforce optimization, risk/compliance/regulation, and operational efficiencies. From my industry perch in financial services and previously high-tech, I have seen transformation efforts launched from many points within an organization (e.g., marketing, supply chain, IT, finance, HR), and each effort is likely disconnected from others, intended to also create a competitive advantage or exploit an opportunity.

Distinct and unrelated as they may seem, it's highly likely that they are impacting each other's ability to succeed, while it is highly unlikely that they are leveraging each other's competencies. Establishing and nurturing a digital backbone that transformation efforts could leverage is the true advantage. Allowing each transformation effort to leverage the backbone allows all efforts to utilize the existing technology toolchain, methodologies/approaches, skills, and talents, which have been pressure-tested and refined through similar previous efforts. The digital backbone is evidence of a learning organization.

The Value of Data in Evidence-Based Decision Making

To be effective, the digital backbone needs to contain a set of technology and infrastructure components that allows those involved in transformation efforts to work efficiently. It is therefore critical that change leaders and implementers set up a toolchain and infrastructure that enables the transformation teams to consume these as "off-the-shelf" technology offerings instead of standing up their own infrastructure and applications. For example, the digital backbone team can offer licenses and access to standard visualization and analytics applications hosted on a private or public cloud; this would ensure that the transformation teams are not extracting data and creating their own data lakes hosted separately from the digital backbone.

Data is one of the most critical components of consumable products for transformation teams. To make it as consumable as possible, it is important that the team managing and nurturing the digital backbone understand the context in which data is being used. Starting with the use case and the evidence needed to make better decisions is a more suitable approach to understanding what data is needed. However, most business intelligence and big data teams start with where they are most comfortable — the data sources — and provide general access to the data. In this scenario, the data teams unintentionally flood consumers of data with an overwhelming amount of data, which likely leads to the consumers of data amassing large quantities of data. The chance, however, that all data consumed is potentially useful is relatively low. This situation causes the transformation teams to extract what they need and sequester the data outside the

purview of the data team only to create a rogue data warehouse that they can control away from the digital backbone. Much like enterprise architects, managers of the digital backbone need to start with the consumer in mind and the consumer's use cases, curating the data with the end users and their desired ability to make evidence-based decisions in mind.

Based on my experience as a practitioner and an academic researcher, I have assembled four guiding principles, focusing specifically on data and evidence-based decision making, for leaders planning to build a digital backbone.

1. Focus on the Story

The value of data is insignificant if not tied to a story that influences the decision makers and evokes a response of urgency and necessity. Understanding the needs of the consumer of the data helps the team manage the data as part of the digital backbone. Each digital transformation effort will likely have different stories to tell and therefore needs to leverage different data. However, there is also a likelihood that different efforts may require the same type of data sets or specific data points; this is the critical value of the digital backbone. When multiple efforts leverage the same data, sourced from the digital backbone instead of from separate sources not managed by the digital backbone team, their stories remain connected, providing the benefit that ensures the decision makers across multiple transformation efforts see the interdependencies and connections between the initiatives. Since the data is sourced from the same place, the decisions are connected and must consider the impacts on other transformation efforts.

Helping consumers focus on the story ensures that they concentrate on their information needs that lead them to the narrative they intend instead of building a possibly irrelevant narrative from the available data. In turn, this defines the kinds of analysis that needs to be performed on the data at hand. This starts to define how the teams are going to derive the specific information from the data they have available to them. The digital backbone team, with its centrally managed and controlled data, can help the digital transformation teams focus on what's important: that the starting point for thinking about the business problem or opportunity to exploit is the story and its communication goals, not the data. The data is purely instrumental to the communication you want to support.

2. Curate the Data Based on Usage Patterns

Understanding the usage patterns of different teams leveraging data to support the construction of stories, as mentioned above, gives the digital backbone team an idea of what data is being consumed regularly and what data is less likely or highly unlikely to be used by digital transformation teams. Understanding the patterns of data usage can give the digital backbone team an indication of where to focus its efforts since the data most often consumed is likely the data that is most critical to the health of the enterprise and would therefore require further curation and management. Conversely, data that is less often used or

seldom used can be tagged and managed accordingly or archived as appropriate to keep the digital backbone data repository as user-friendly and responsive as possible.

3. Immerse Yourself in Use Cases

The pace of digital transformation efforts and the ability to exploit an opportunity are likely linked to the ability to harvest good, quality data from reliable internal and external sources. This is the value proposition for managing data as part of the digital backbone instead of in disparate systems and teams. The changing needs of consumers for new and varied data can become a bottleneck for the digital backbone team if team members are not immersed in the use cases and stories for whose reinforcement the data is needed. Ensuring that the data team spends time as advisors engaging with the consumers of the data can help guarantee that data managed and ingested into the digital backbone repository is continuously fit for purpose and reflective of the needs and current/future demands of the consumers. This approach helps ensure that consumers can get the data they need and preclude going to other sources outside the digital backbone repository.

4. Have Data Consumers Focus on Data, Not Source

Thinking as an architect and considering that value is not in the data itself but rather the evidence-based decisions that data enables, it is also important to ensure that the consumer of data focuses on the specific use of the data, not the source. In the absence of the digital backbone and the ability to consume data from a central source, the digital transformation teams would be left to source their data from multiple places within and outside the organization. I refer to this consumption model as the "data swamp" — a place where the consumer is left to pull from multiple sources and conduct data cleansing and integration on their own. In this case, you can think of the digital backbone data repository as the "data lagoon," where curated data is managed against the usage patterns and needs of the consumer. Keeping the attention of the consumer on the data and not on the source or provider of the data ensures that while the data points consumed remain the same, you can rearchitect the source of records the data resides in or merge the data together without any potential impact to the consumer.

Summary

Critical to the survival of any company is the exploitation of opportunities to establish a transient competitive advantage across the efforts of a digital transformation initiative. The role of data as an enterprise asset cannot be overestimated when it comes to enabling evidence-based decision making and storytelling. The abundance of data made available to digital transformation teams can be an enabler if managed correctly or a hindrance to teams if done poorly. Including a data management strategy as part of your digital backbone and as a directive for digital transformation teams to consume from one common repository can heighten the likelihood of a successful transformation effort. This strategy continues to

enrich and improve data managed by the digital backbone team for future uses. Following the four guiding principles in this *Update* can help leaders of digital backbone teams start on the journey and build a data repository with the consumer and story in mind.

About the Author

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