



Data-Driven Decision Making

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Making the right decisions is key for leaders and organizations in today’s connected, globalized, and rapidly-changing world. Its uncertainty brings new risks, but also new opportunities. Technology has become ubiquitous. We live in the Information Age characterized by the advent of the Internet and the proliferation of Data. Computers and IT have become indispensable for organizations of all sectors and sizes. Some of the most complex challenges facing leaders today are related to technology convergence, cyber security, and data (Fig 1).

An effective decision maker must be able to distinguish between truly revolutionizing technologies vs. new sophisticated gadgets, in order to harness technology as a mean towards an end, and not pursue it as an end in itself. Leaders must figure out how to use new technologies (e.g. Artificial Intelligence, Machine Learning, Quantum Computing, blockchain) to make their organizations more competitive. They need to get the right tools and methods (e.g. analytics, dashboards, simulations) for themselves and their teams to do their job bet-

ter. And they must accomplish all that while saving time, money, and resources.

In the Wild West of the Cyber Space where there are few rules or boundaries, new technologies are double-edged swords. Cyber security is the security of networked information systems and data. It is part of Risk Management (Fig 2). A proactive mindset and risk preparedness are essential to develop strong resilience, given the increased uncertainty about the nature, intensity, and duration of future threats. Resilience is the enduring ability to prevent and/or overcome disruptive challenges (e.g. cyberattacks, loss of exploitable data, systems impaired/disabled, natural disasters). It requires identifying what assets, functions, and data are most critical to protect. There is no zero-risk or 100% guarantee. Effective resilience requires a comprehensive approach and multi-disciplinary skills. It requires to identify and practice potential scenarios to be prepared and mitigate risks.

To make good decisions, leaders need to look at the big picture with its three pillars: Vision, Technology, People. They must have an enterprise-wide vi-

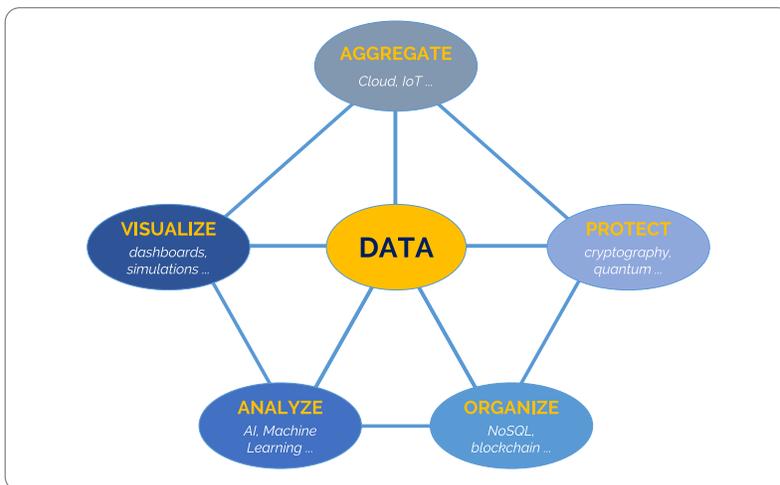


Fig. 1: Data and Technology Convergence.



Fig. 2: From Cyber Security to Resilience.

sion and cross-functional strategies. They must have systems and tools that are most appropriate for their organization. They need their teams to work together well and innovate, across functions and hierarchy levels. Technology only helps if there is a vision and people to implement it. Knowing how to connect the dots, define a vision, choose the right priorities, and focus on what matters is critical for success.

To make good decisions, a leader needs to be able to access relevant data, analyze it, and extract useful insights in a timely way (Fig. 3). IT and analytical tools tend to be most efficient and convenient to use if they are custom-built for specific applications. A single custom tool to aggregate, analyze, and visualize key information from different data sources and formats can go a long way to save time and resources, while improving the quality of decisions. Custom solutions do not need to take forever to build or be prohibitively expensive. Expensive and insecure proprietary solutions can often be replaced with custom open-source versions that are both cheaper and more secure.

Whereas the trend in recent decades has been towards specialization, it is now becoming essential to develop multi-disciplinary knowledge. Training, learning, and expanding one's horizons must be continuous throughout a life and career. Leaders need to have versatile experts who master a wide range of topics (technical, operational/business, strategic)

and can deliver results quickly, in different environments.

Technology cannot replace human reasoning. Decisions are made by people. Organizations are made of people. To make good decisions, one must also be good at inter-personal skills and relationships. In this context, leaders need to leverage the cutting-edge from cognitive science, behavioral economics, and psychology to overcome cognitive biases that affect every human being, in order to be more rational and be able to work productively with people of all personalities and temperaments.

There is a key ingredient to become an accomplished leader, decision maker, and human being, that money or power cannot buy, and that can only be acquired through conscious effort - it's called character. Human-driven technology is a key to help solve today's global challenges, but cannot replace the fundamentally human ability to think and act.

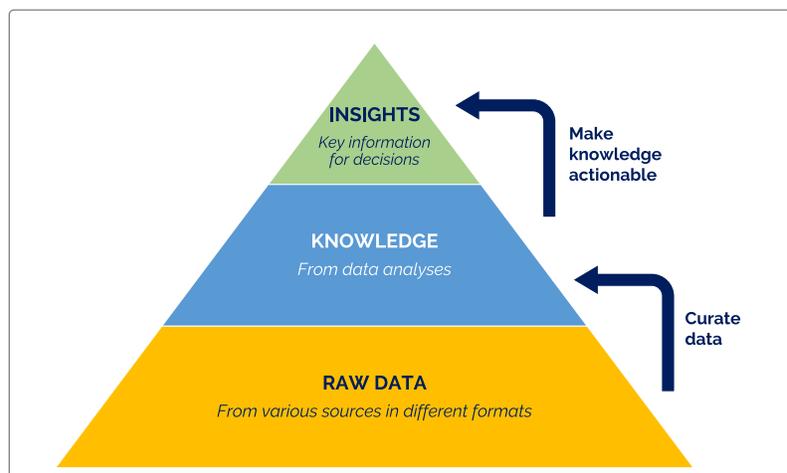


Fig. 3: Converting Data into Insights.

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