THE UNCENSORED DATA STRATEGY

No taboo on maximising data value and minimising associated risks

STEP 1: DEFINE THE STRATEGY

Implementing a Data Strategy (DS) should be an organisation-wide initiative as it requires the analysis and improvement of organisation's structures, systems, processes and roles to turn digital data/information/knowledge into assets: sources of strength, growth/improvements and revenues rather than unmanaged commodities. Organisations should develop a specific DS that is embedded in the overall business strategy and aligned with organisation objectives. As for any strategy, it should be adapted to the organisation culture to have a chance to concretised into practical changes and not remain a theoretical recipe.

CURRENT STATE

- My data is a by-product of business processes
- My data only serves primary business uses (reason why the data is acquired)
- It is difficult to find and re-use my data for secondary uses (data analyses)
- My data is of low quality
- I don't have an overview of my data and the conditions under which I can use it
- I don't trust my data, provenance/lineage is not disclosed; I don't make data-driven decisions
- It is difficult to merge my data sets together and/or with external data sets
- My data is defined and understood differently across the organisation
- More data (internal and external to my organisation) keeps being produced and increases the digital complexity I'm evolving in

DESIRED STATE

- Data I produce are assets; business processes are optimised to create high quality data by-design
- My data serves both primary and secondary business uses cases
- My data is FAIR
- I have data assets inventories with full lineage/provenance available in any systems/platforms across the organisation
- I can easily merge my data assets together or with external data sets
- I have a common understanding and representation of my data across the organisation
- My intellectual property (IP) is of higher value and better managed
- More and more business processed can be automated because they are well identified, well described and technologies allows it

DID THE LEADERS DO THEIR JOB?

Declaring to become more digital because just because it is trendy or because the competition is doing it is a false start. Was the decision to become more digital thought-through by executives? **Leaders want transformational change to be easier than it is.** Do they understand the consequences of considering data as assets, especially how this will impact investments and investor relationships? To what extente the organisation considers data/information/knowledge as IP relevant? Is the organisation ready to give away the management of IP to external vendors? What is the incentivization plan to drive employees to harness such a disruptive global change; **leaders forget that those who have to deliver the change still have day jobs.** Do executives understand the difference between data and IT? Do they understand data-citizenship can not be bought? Do they understand the time, effort, scope, cost of such a fundamental business change? Shall the above points be not clearly understood, we suggest you start educating your leaders right now.

CHECK LIST

- [ ] (Long-term) commitment from top management
- [ ] Expectations, accountability, and ownerships (EA&O) clearly communicated
- [ ] EA&O understood and endorsed by Finance, HR and IT
- [ ] Roadmap with explicit tollgates and metrics clearly communicated

STEP 2: IMPLEMENT THE STRATEGY

IT IS NOT ABOUT DATA, IT IS ABOUT CULTURE

Becoming more digital or data-driven is a disruptive change. **Whatever the DS is at its core, it must be adapted to the company culture to have a chance to be applied in reality and not remain a single-use slide deck.** This is where you want to surround yourself with organisation knowledge gate-keepers acquitted with organisation culture. While data experts will explain WHAT to change, the HOW, WHEN and WHOM decision-makers to engage will come from company veterans and change management experts. Believing you'll change a company just because you bring technical data arguments that make sense to data experts (only) is an illusion. Changes, especially disruptive ones, shall be managed differently from one organisation to another.

DON'T BE CHEAP WITH DATA TALENTS

Seek for people with a data gene, business knowledge, experience and passion. Only such business-based profile will increase the success rate in designing and deploying the DS. These profile are rare. Do whatever you can to identify, improve, develop, create, import this combination of skills in your organisation. Many people use the buzz around data/digital to make career with no passion for data whatsoever; these are blockers to digital transformation. Engage business people to trigger their data curiosity, sick for early adopters, data-friendly subject matter experts to be ambassadors of the DS.
Be especially cautious with technology experts who will push you to deliver a technical solution: a tool box, neglecting the content, ending up not fulfilling business needs. The technology road/expertise is the easiest because it can be bought, pushing responsibilities to vendors.

SELECT THE LEAST-WORST TECHNOLOGY

No technology is perfect despite commercial claims. The right technology is not about the tool or the vendor but more about the flexibility and the openness of the solution. An internal team of cutting-edge data experts (i.e. not IT experts) is a must-have to support the following points:

1. **Don't get locked-in**: don't depend only on one technology, one vendor; work with Procurement to decouple data from the technology so that you can change technology/vendor any time
2. **Beware technical success**: Don't deploy an empty technological solution without the right content fitting business needs. True success come from facts: user survey, usage statistics, metrics (see below)
3. **Combine as few technologies as possible**: Beware the FOBO (fear-of-better-option) that will elongate your testing time and push you to make multiple choices. The more solutions, the more difficult the data integration, the messier the data, the more inefficient your business
4. **You need partners not vendors**: co-develop solutions instead of paying for packages that will partial match your needs and that you will underuse. A mix of buy & build is usually the best approach to keep the level of freedom to operate and vendor-independency you need
5. **Don't get fooled by big tech**: Any involvement of an external data/service/technology provider will dilute your IP, complexity your data landscape and reduce your freedom to operate with your data. These have probably more data expertise than you and they'll jump on any weakness to get advantages of your data/metadata.
6. **Don't believe slides, feel tools/data:** Invest more in support/services rather than fancy modules. Have a strong internal data/IT team able to identify over-optimistic claims and go deep into technical discussions.

IT IS ALL ABOUT METADATA

Data is not reliable and often meaningless without the key (metadata) to unlock it (i.e. make sense of it and trust it). If you get the metadata right, you'll get the data right systematically (in the entire organisation) and longitudinally (over time). Metadata should describe data assets and their business context. Essential is to capture and integrate consistently how data assets link to their business context; capture it using metadata templated business investigations. The richer and the more consistent your data assets are described and linked to their business context, the easier and the faster data disambiguation and data unification/aggregation.
Metadata is also key to demonstrate the added value of graph-based data management practices. By capturing upfront business requirements/needs/questions (as part of your knowledge elicitation process), you can transparently show a benefit mapping between the initial problem statement(s) and the solution you propose via linking and cleaning data.

CULTURE-ADJUSTED AGILE

- **Quick wins:** Show quick and concrete successes using skunkworks. Find knowledge gate-keepers, ask them about potential low hanging fruits. Create the expert team that focus and execute on these cases. Keep the end goal in mind: how you will show some money/scope/time savings when deploying the DS. In your metadata layer, perform DS benefit mapping: link initial business needs to solutions your propose and corresponding savings.
- **Center-of-excellence:** Create a team of change agents who don't execute on DS but help early adopters, other teams, individuals to adopt data-centric new ways of working. This team is also the glue between the different roles you identify as key to deploy the DS.
- **Beware fake agile**: Data-centricity brings plasticity to organisational data (the ability to change and adapt in real time), it is the ideal partner to the agile/scrum methodology. Beware of fake agile as the organisation will distort the raw methodology to conform it to the culture. Data is the product and not a by-product.

YOUR COMPETITIVE ADVANTAGE WILL COME FROM ACADEMIA

Start or intensify collaborations with academia. **Vendors enable you to scale up but not differentiate from competition.** To this aim, identify academic experts and develop a unique data-related value based on your core business. Build a dedicated team to interact with academics in order to translate your vision/need into concrete private/public applied R&D. Streamline academic fundamental expertise into a product you co-develop using the agile/scrum methodology. Establish a concrete roadmap with tollgates, short sprints to frequently course-correct the development of the product into business applications.

OPTIMISE AND PERPETUATE YOUR INVESTMENT

Frequent changes in big organisations are one of the most important barrier to performances: it kills momentum, hinders motivations, dilute expertise and blurs priorities. **Should you invest in digital transformation, better making it sustainable as well.** Map out your business and technical capabilities, this will help sustaining ongoing business activities while optimising the technology stack against new or specific business and technical enablers. Plan for significant additional recurrent operational costs: building and maintaining a knowledge center that clarifies and secure your digital IP needs long-term investments and an solid collaboration with HR to retain and rewards talents. Still, most of the knowledge has to do with human's intelligence and not artificial intelligence. The later still remains to deliver on promises made by technology vendors.

AS A DATA STRATEGY LEAD

The most important aspect of your DS is the Data Governance (DG) part: setting "the framework to maximise the value of your data while minimising associated risks". Organisations requiring the most DG are where it is the most difficult to implement. Big organisations are complex and with complexity comes inherent rigidity (reluctance to change) and inefficiency: you need to move an amazing amount of hurdles to have little things concretely implemented. Moreover, people in big organisations have little time left to think about solving concrete business problems; their bandwidth is saturated with bureaucratic, politic, networking, career-centric and self-preservation activities.
Therefore, as the DS lead you must focus on:
1. The "middle F": "Fund, **Focus**, Finish": If you are hired to establish and deploy a DS, you should get some budget. Finishing? It is an illusion as the task is immense and never-ending. Your main mission is to focus, yourself and your team. To do so, you need to ensure psychological safety for your team and protect it from all inefficiencies and uncertainties big organisations excel to create.
2. More important than linking data is **linking people/brains**: team-work is at the heart of organisational success. You can have the best data, the best technology, if people don't connect the data-dots, you have little chances to develop a digital competitive advantage.

STEP 3: MONITOR STRATEGY DEPLOYMENT

FEW METRICS

For primary data use, evaluate the lead time to clean and link data i.e. go through the FAIRification process applying the publicly available FAIR metrics.
For secondary users (data scientists), an important metric is the lead time to
1) find a data product,
2) be confident the product is the right one (based on metadata),
3) access content,
4) use the data without additional data preparation step

Work with procurement to insert data clauses in any new contract for data-related service, technology or asset. Amend existing contracts and enumerate the number of data-friendly contracts.
Measure the lead time to integrate new IT systems: it should be short as data shall not be modelled, integrated and copied to the new system. Instead, links to data shall be provided to and used by new systems.
Publish openly a list of DS-compliant and non-compliant IT systems (e.g. exposing transparently their data content).

Written by Cedric Berger and Stephane Manara - May 2021   Contact: www.linkedin.com/in/cedricberg