



Journey to the Data Economy

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This guide introduces the path to internal and external data sharing, outlining the benefits it can bring to business and government entities...

Introduction

Imagine yourself at the starting line of a triathlon. You have thoroughly prepared for this event and are keen to perform well. Ideally, you would love to go faster than your rivals in order to win your category. However, as the starter's gun fires you realise your swimming goggles have already fogged up, there is a reasonable chance your bike has acquired a puncture on the way to the race, you don't have a spare tire inner tube and the new running shoes are not as worn-in as you would like.

Managing an organisation without all the adequate data about existing and potential customers, citizens, markets and other critical areas is much like being that triathlete with flawed equipment. With no way to accurately view and characterise your audience, most businesses struggle to effectively connect them with the goods and services they require. Data sharing and commercial data exchange (DX) is a powerful process that, when implemented correctly, can illuminate the best path for your business to join the data economy.

This guide introduces the path to internal and external data sharing, outlining the benefits it can bring to business and government entities, and offers a basic primer on how to integrate this activity into an organisation. We will also explore how secure data exchange can turn the data your organisation collects into a new revenue stream, thus joining the rapidly expanding data economy.

Section 1:

Commencing the data journey

Data governance is the essential first step on the route towards DX and participating in the data economy.

During the last few years commercial and government organisations have made a conscious decision to improve their data governance and develop the capability to share their data internally, externally and via commercial data exchange (DX).

Data governance is the essential first step on the route towards DX and participating in the data economy. This is an investigative process that incorporates; discovery, cataloguing, ownership and security.

Assessing the available data within an organisation is a critical part to effective sharing of data. This begins with data discovery, that can be an enlightening exercise for many organisations, as even this initial part of the process can provide significant value. Following discovery, estimating the value of data is necessary, along with ensuring data quality and baseline metadata are encapsulated within datasets.

Organisations will also need to consider ongoing practical implications surrounding data ownership and stewardship. Further, from a security perspective, authorisation management, determining the scope of data sharing, along with any associated constraints and obligations is a requirement.

Section 2:

Internal data sharing

Current trends in the volume and variety of change in data has been challenging for even the most carefully planned data warehouse.

Once there is a framework in place for data governance and the initial datasets are created, focus should turn to the best way to ensure this data is available throughout the organisation.

Many corporate and government organisations store their data in various operational application databases. These applications include; web analytics, marketing, sales, customer service, financial, research and IT. This separation of data makes it difficult to get a complete picture of operations and lowers the value of organisational information through lack of liquidity. This is akin to the triathlete with the fogged goggles as data can't be utilised to guide decision making.

Current trends in the volume and variety of change in data has been challenging for even the most carefully planned data warehouse. Hence, these time consuming and expensive installations have been rendered less effective in serving organisations requirement to make data driven decisions.

However, organisations have established that utilising specifically designed data discovery and governance solutions has significantly improved the ability to access data. Access to this information incorporates a workflow layer to ensure that data is only accessed on a permitted use basis and, once approved, analytics can be performed quickly in secure hosted environments.

Recently a government organisation found they had a significant challenge in sharing valuable datasets within and between state based agencies. Prior to instituting a permitted use framework surrounding internal data sharing, the agencies were unwilling to internally transfer information. Once the guidelines were in place, data flowed more freely, especially for projects that contributed to social good and reduced the cost of providing community services.

This process is equally beneficial in the commercial world. One large bank found their credit card data could provide general insights to the home loan division. However, due to security constraints, this data was not easily accessible within a reasonable timeframe. Implementing internal data sharing has enabled regular timely access to this information as new analytical requirements surface. This improves the liquidity of their data assets and subsequently increases their value.

Further, many organisations see internal data sharing as essential preparation as they consciously move towards external data sharing and commercial data exchange.

Section 3:

External data sharing

Used correctly, external data sharing offers businesses and governments significant productivity improvements and social benefits.

Data exchange is the sharing of data between systems, organisations and individuals. This is frequently seen through projects related to data enrichment, data pooling between organisations within an industry and sharing data between two or more partners.

The data being exchanged between organisations can vary wildly depending on the industry, or insight-seeker's business problem. Though, when projects relate to data enrichment is generally serves to deepen the buyer's knowledge of their customer, citizen or market. It also makes their product, marketing or services activities more personal and relevant.

The applications are extensive, some examples include:

- Flight or other travel data that allows a bank to deliver better customer service, i.e. not cancelling personal credit cards while a customer is overseas.
- Location or GPS data used to inform upgrades to urban infrastructure and public transport that more accurately accommodates peak times and reflects residents' lifestyles.
- Data related to public policy regarding societal health issues, including grocery information to inform the effect of diet on positive health outcomes.
- Consumer preference data, such as that gathered from a major grocer's loyalty program, used by retailers and service providers to identify life-stage propensity, personalised marketing strategies and loyalty offers.
- Fraud prevention through the pooling of non-identified claims data to help identify data triggers and patterns associated with multiple false claims and fraudulent credit card transactions.
- Real-time marketing applications via targeted offers, provided by retailers based on a customer's proximity to its stores.
- More effective media attribution and reporting on ROI – marketers are able to tie media directly to transactional data and compare campaign delivery by location.
- Real-time application of transactional data to support logistics or shipping, the allocation of product and store rollouts.

Used correctly, external data sharing offers businesses and governments significant productivity improvements and social benefits. It can increase accuracy of marketing and communications activities to particular audiences, as well as return on investment (ROI). More importantly, it allows organisations to more effectively provision services and resources based on real, up-to-date data, rather than on guesswork. It's about leveraging information that was previously inaccessible in order to deliver a more effective outcome.

Section 4:

Accessing the data economy

Data are to this century what oil was to the last one: a driver of growth and change.

Thus far, we have discussed some of the advantages internal and external data sharing can offer organisations. In this section, we will explore the advantages DX provides organisations planning to commercialise or sell data.

There have been many references to the power of data in our modern economy. One succinct summary of this phenomenon is outlined below:

Data are to this century what oil was to the last one: a driver of growth and change. Flows of data have created new infrastructure, new businesses, new monopolies, new politics and—crucially—new economics. (ref: [Economist News](#))

More specific to joining the data economy, DX is the sharing of data that offers a buyer valuable business intelligence or other advantages in exchange for payment. This represents the final step in joining the data economy.

Until fairly recently, data was largely seen as an indirect resource for most companies and organisations. It was something departments within a business gathered from their interactions with customers, prospects and other departments. The purpose of this data collection wasn't to generate revenue, but rather to help the organisation better design and market its revenue-generating core goods and services. This internal focus has contributed to organisations ['missing out on the extra demand and activity that attributing value to data could create as a data economy flourishes'](#).

Secure data exchange infrastructure changes this equation by empowering organisations to make their data more “liquid”, expanding its role from a resource for strategic decisions to an asset that generates revenue directly.

Importantly, the benefits of data exchange for organisations go beyond potential revenue generation. Data has the power to change the world for good; to find cures for cancers and other ailments; to better direct social and charity services; and to identify the sustainable generation and delivery of food resources.

The key to making this happen is to secure the supply of data, and appropriate technology infrastructure, to enable non-profit organisations, charities and other worthy causes to derive and apply insights. The secure exchange of data for social good projects is a cause close to our heart at Data Republic.

Organisations interested in these sorts of programs are advised to learn more about [Minerva](#), a Data Republic-affiliated not-for-profit that specialises in these issues.

Section 5:

Secure and ethical DX: Legal and ethical compliance

It's critical that any organisation looking to engage in data exchange complies with all applicable legal, regulatory and consumer privacy standards.

The regulatory and legal standards for buying or selling data via data exchange varies by country, state, industry and the type of information or data being exchanged. It's critical that any organisation looking to engage in data exchange complies with all applicable legal, regulatory and consumer privacy standards.

Australian-based companies must abide by the [Privacy Act](#), which requires that the subjects of data collection give consent for its collection and use, including being sold to third parties. Beyond this, additional regulations may apply, depending on your situation.

It's important to note here that the opportunities data exchange offers do not come without risk. Organisations must effectively manage the governance around data exchanges with external parties to ensure the protection of customer privacy and the ethical application of the insights garnered.

They should carefully consider what information is safe to release from an enterprise perspective and to what types of users. For example, an organisation looking to expand their product line into another industry may be conservative around the exchange of their data to existing players in that industry. A governance framework around data exchange is essential so an organisation can define the function and availability of specific data assets.

Typically, the permitted use of any data is agreed to by all involved parties during a negotiation period, usually prior to any data being exchanged. Adhering to the expectations of the customer should be the first priority when negotiating access to, and use of, data. Poor execution of marketing personalisation can result in a breach of trust between the consumer and the brand, brand damage and legal ramifications.

Alongside customer protection, data security is a key consideration for organisations considering data exchange. What methods are being used to exchange the data? Will you be able to audit and track how the data is manipulated and eventually used? The parties involved need to ensure that the actual exchange happens in a secure manner and that appropriate privacy is maintained.

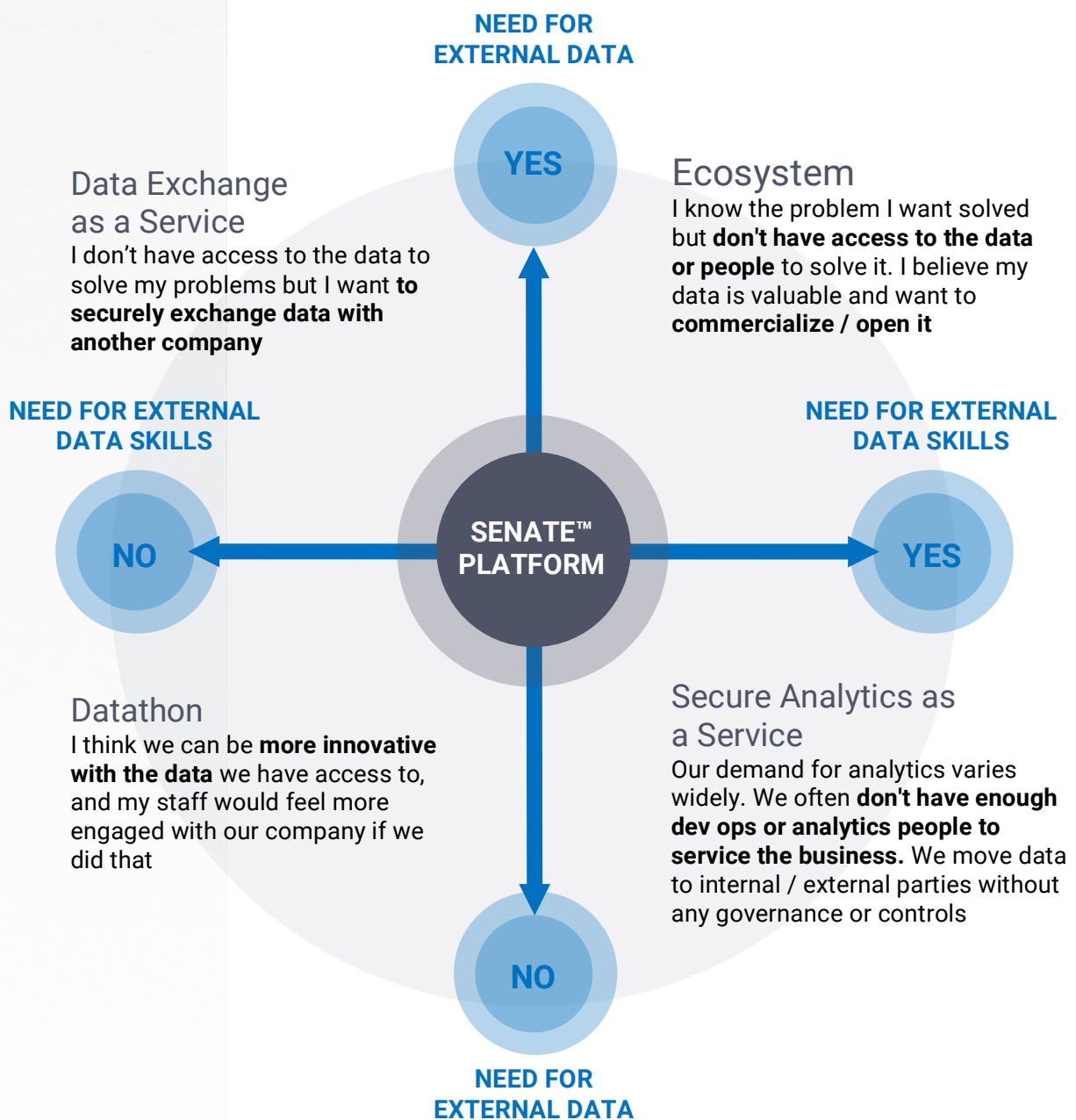
Here at Data Republic, our purpose is centered around delivering world-first secure technology and legal infrastructure, which enables organisations to effectively manage these risks and appropriately govern data exchanges.

Whether you're seriously considering exchanging data with another organisation or you just want to ensure your team is prepared for the emerging data economy via internal or external data sharing, it's a good idea to have a comprehensive data strategy in place that spells out all of the above factors.

Section 6:

Data economy decision process

The journey to internal and external data sharing, along with secure data exchange to create new revenue streams requires action. Though, one challenge is determining where to start this process. The following matrix can assist organisations assess the most appropriate place to start deriving additional value from internal and external data.



Securely sharing data on a permitted use basis opens doors to developing a new revenue stream for corporations or solving global community issues via government open data.

Viewing your data sharing strategy in relation to organisational needs for external data and for external data skills helps to determine starting points on the path to joining the data economy.

If your organisation is data rich, though could be more innovative with this information, hosting a datathon is a perfect starting point to launch your organisation into the data economy. This was recent illustrated in the case of a datathon partnership between Melbourne Business School and the Victorian State Government. Here 60 teams of data scientists managed to [‘identify unique ways to improve health policy and outcomes in Victoria’](#).

Perhaps your organisation has the data needed for all internal analytics requirements. However, keeping up with demand for the appropriate DevOps skills to satisfy internal and external analytics environment requests is a challenge. Secure Analytics as a Service considerably increases an organisation’s capability in rapidly deploying data science environments.

Where your organisation has some of the data needed to make decisions, though needs to complete picture of your audience, market or customer then data exchange as a service is a critical step to transition to the data economy. This may be through the guise of data enrichment or through pooling data with other organisations. Pooling data has been a particularly effective solution in a wide range of industries, from not-for-profit and health, to addressing challenges within financial services with projects including; fraud analytics, compliance, risk management and anti-money laundering.

The final step to joining the data economy occurs when an organisation moves through the various data and commercial preparation processes to commence data commercialisation. Securely sharing data on a permitted use basis opens doors to developing a new revenue stream for corporations or solving global community issues via government open data.

This guide explores the basics of data sharing and commercial data exchange and examines the benefits that buying and selling data can bring to organisations. We've outlined a few of the ethical and regulatory concerns that organisations should consider before getting started and established some of the core concepts to consider when integrating DX into an entity's operations.

This guide is intended only as a simple overview and introduction to data sharing and data exchange. If you'd like to find out more, you can read about our platform at <https://www.datarepublic.com>.

Alternatively, reach out to us directly – we are happy to answer any questions. Data Republic has offices in Australia and the United States and clients all over the world. You can contact us at:

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Non-profit organisations, charities, social welfare organisations and enterprises interested in the value of data for corporate social responsibility can learn more about Minerva – Data Republic's affiliated not-for-profit – at <http://www.minervacollective.org>