Data Standards

The Importance of Data Standards

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Since the beginning of the industrial revolution, we have seen the impact of standardisation across multiple industries. The significance standardisation plays in the way we operate our businesses, run our lives and interact as a society cannot be underestimated.

However, when we look at data standards and the impact they have on operability, we open ourselves up to a multi-faceted view of what should or could be done.

STANDARDS

The Importance of Standards

There is no denying that standards play a major role in how banks and financial institutions run their organisations and offer a wide range of benefits. Reporting and analytic capabilities become much easier to collate when data sets are normalised by default, as an example.

Third party integrations with other technologies that have a direct impact on business operations become easier when there is commonality to the integration data sets. With regulatory compliance now front and centre to all financial institutions reporting requirements, standardisation plays a critical role in a banks level of compliancy.

But how does this play out in the global economy?

One of the issues we face is that there are multiple organisations chasing standardisation across regions, with specific use cases. What is needed is a truly global approach to data standardisation across industry, use cases and geographies.

While significant effort has been put into standardising various aspects of financial data, nothing has been all-encompassing.
wThe result? A list of standards that all have their own versions and quite often only cover a narrow scope of the financial ecosystem, or a specific set of use cases.
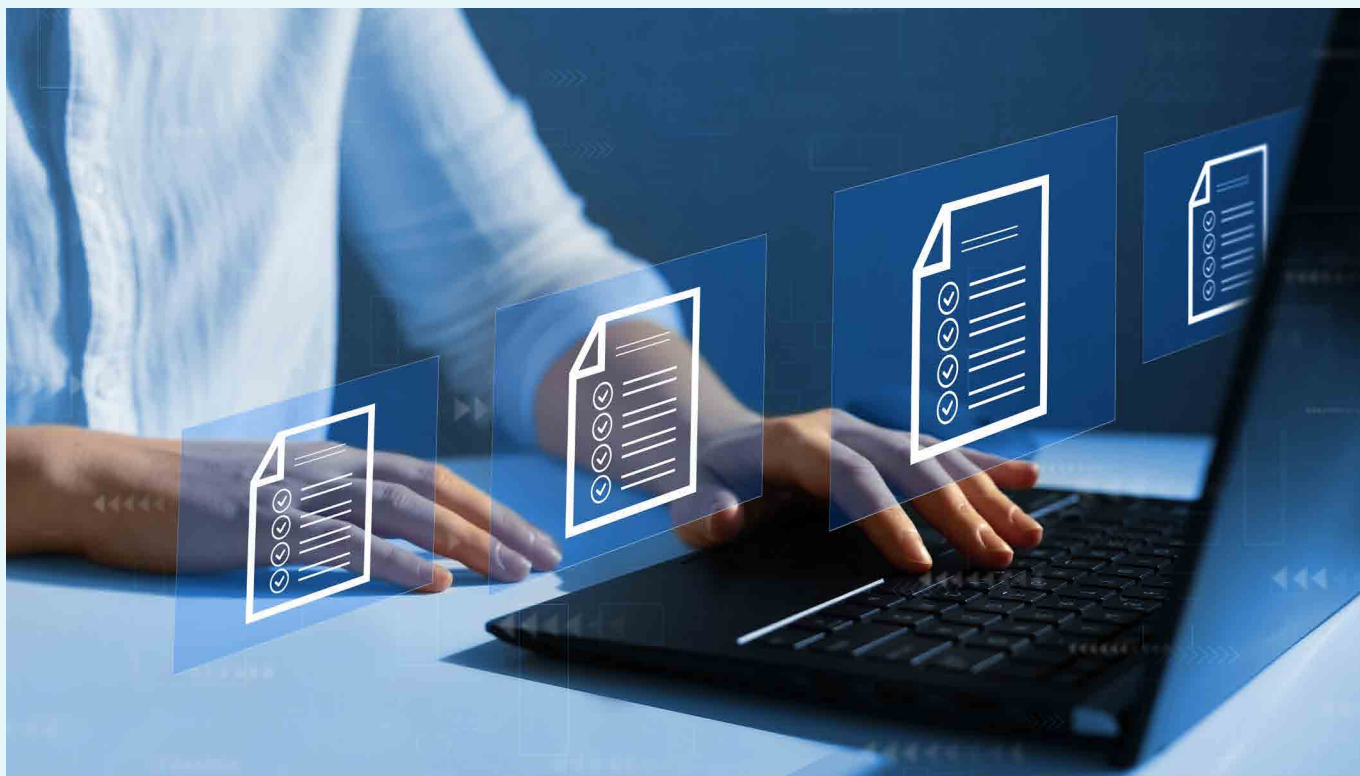
Examples of the various bodies impacting the standardisation of data sharing and development of professional standards include:

IFX I http://www.ifxforum.org/
A data standard "specifically designed for banks by banks and bank partners" is heavily involved in Open Banking in the US yet is not referenced in Open Banking in the UK or Australia.

MISMO I http://www.mismo.org/
This is the "Language of Lending", except if you're in Australia or New Zealand.

LIXI I https://lixi.org.au
Helping standardise the language of lending with specific use cases for the Australian market.

FDX I https://financialdataexchange.org/
A member-based organisation with goals like those of Open Banking.

ISO I https://www.iso.org/home.html
International Organization for Standardization. Global standards for trusted goods and services standards define what good looks like, setting consistent benchmarks for businesses and consumers alike – ensuring reliability, building trust, and simplifying choices.

FIBO I https://spec.edmcouncil.org/fibo/
Financial Industry Business Ontology (FIBO) defines the sets of things that are of interest in financial business applications and the ways that those things can relate to one another. In this way, FIBO can give meaning to any data (e.g., spreadsheets, relational databases, XML documents) that describe the business of finance.

BIAN I https://bian.org/
The Banking Industry Architecture Network is created to establish, promote and provide a common framework for banking interoperability issues and to become and to be recognized as a world-class reference point for interoperability in the banking industry.

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CHALLENGES

The sheer scope of a single financial data standard provides a significant challenge. Questions such as who oversees the global standard and how you bring all the necessary parties to bear on creating such a standard are difficult to answer.

As Shane Rigby, CEO of LIXI comments, he sees four main interrelated reasons that make global data standards challenging to develop, maintain, and to have them broadly adopted.

1 > **Sustainability**

2 > **Critical Mass for Adoption and Balancing Complexity**

3 > **Optimum Level of Complexity**

4 > **Ongoing Change Management**

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1 Sustainability

The ongoing development and maintenance of standards need to be sustainable. There needs to be a community of participants that are incentivised to continually evolve the standards through raising and analysing requirements, proposing, discussing and testing updates, and issuing new versions of the standards.

Initiatives such as Open Banking can provide a good solution to this conundrum. By pushing the players in a market to definea standard to bring efficiency and transparency, governments are possibly in the strongest position to drive datastandardization. This leaves the practical creation of the standard.

Internationally recognised and experienced bodies such as ISO are best placed to practically drive the creation of standards forward, though working with other bodies that deal with data transmission, such as W3C, could prove beneficial, however would also see an increase in the overall overhead involved.

Even once a standard is largely 'finalised', the community needs to continue to maintain the platforms used to manage the standards, apply software patches, and test and update change management processes. Even the underlying format specifications (such as JSON Schema) change over time

and may require standards based on them to be updated.

Data standards that are closely tied to a specific technology seem bound to intertwine their fate with that of the technology. In the early 2000s, XML was a widely used messaging format that has been superseded by JSON for many use cases. The SOAP protocol was built around XML and with the reduction of interest in XML, so too has the interest in SOAP waned, though XML and SOAP will likely remain in use in specific use cases where document market-up is required.[1] It would then seem prudent to create data standards that are not tied to specific technology as much as feasible. It may be better to define a data standard within a technology-agnostic framework with a goal of providing tools that can transform the standard to a specific technology or format, or transform between different technologies and formats as they shift and evolve over time.

Critical Mass

2

The paradox of voluntary standards is that there needs a significant community of adopters to overcome the fear of being the first. The more use cases for which a participant can adopt the standard increases the value they can derive from the standard. This 'Chicken and the Egg' problem takes significant effort to overcome.

An in-market use case is provided in how LIXI discovered that by not just focussing on the lodgement of mortgages within the Australian market, lenders are much more likely to adopt the standards across multiple functions. Other processes supported by these standards, such as valuations, insurance issuance, core banking integrations and so on, all increase the value that a lender (and the supporting ecosystem) can derive from using the standards.

Complexity Optimisation

3

Global standards face significant challenges in facilitating business under different accounting and legal frameworks, with different reporting requirements under different regulators. A bank operating solely in Europe is unlikely to care about the prudential requirements of an Australian Regulator that apply to an Australian bank. Yet a truly global standard would require each banking regions requirements to be incorporated. In many cases the complexity that this would introduce is outweighed by
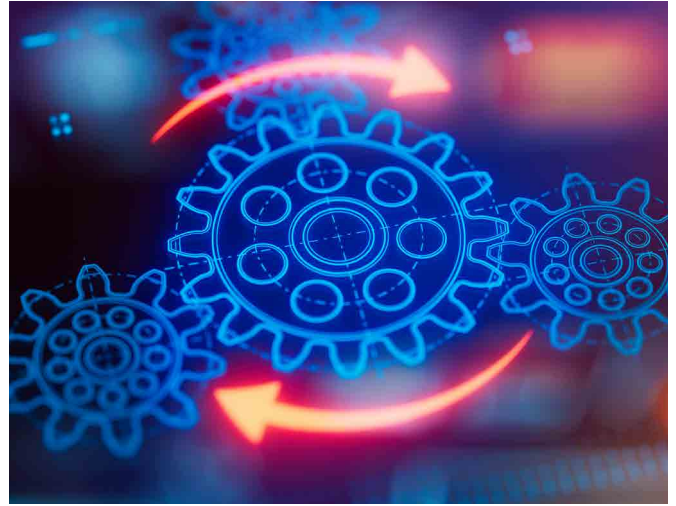
the cost of maintaining different standards for different jurisdictions.

Change Management

4

A challenge in maintaining data standards that represent large and complex data sets is in evolving and ensuring all users adopt these updates. An underlying problem is the conflict of users' desires - each user wants changes that they need to be implemented quickly but then wants the standards to be frozen. If the version of the standard in use is mandated by regulation (for example, the Consumer Data Right in Australia), then there is industry resistance to change due to the implementation cost. If the version used is voluntary, the industry tends to diverge resulting in many different versions in active use.

SUMMARY

With financial transactions forming the backbone of so much of our commercially driven world and ever increasing in volume, it seems now is the time to address making them as efficient as possible.

Open Banking has provided a study of enforcing standards that can now critique and learn from, and previously created standards provide an abundance of experience as to what works and what does not.

By combining this knowledge and experience, it is surely possible and bordering on necessary to create standards to carry financial transactions into a more streamlined future.

1Lizzie DeYoung, "An analysis of XML and JSON" https://www.cs.tufts.edu/comp/150IDS/final_papers/lizzied.3/FinalReport.html (2015)

About Sandstone

For over 25 years Sandstone Technology has been innovating and evolving financial solutions for some of the world's largest banks and financial institutions. With operations across Australia, the Philippines and the United Kingdom, Sandstone Technology have helped banking organisations across retail, consumer and business banking meet their growth ambitions and uplift their customer and banking staff experiences. From digital banking, digital onboarding and loan origination, our scalable, robust, end-to-end solutions use a multi-channel approach that help our customers get to market faster.

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