Standardisation Whitepaper 2020

Is the world ready for global data standardisation?

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Standardisation has helped push progress along and it is easy to find examples of this, both in our current age and in history. The standardisation of processes in the industrial revolution for example, meant rates of production were multiplied many times over. Trains run on standard gauge tracks to deliver goods more efficiently than perhaps any form of road-based transport can. In a similar way, internet content is delivered to us via standard TCP/IP.

Imagine if all financial data could be moved around like trains with pre-defined carriage content on a standard gauge. The question then, is **why can't it?**

The importance of standards

Payments have become a topic of much discussion of late, with the Bank of England recently recommending in the first chapter of its 'Future of Finance' report that payments in the future be simplified but also not leave any demographic behind[1]. One of the points raised to achieve a better future for payments systems is data standardisation. In fact, the report also promotes the adoption of data standards and protocols in Chapter 3 and champions global standards in Chapter 4. From this, it is obvious standards have a major role in how the Bank of England sees financial transactions playing out in future. There are other beneficial consequences of standards. Reporting and statistics become much simpler to collate when data sets are normalised by default. Integration with service providers in the same or other areas of finance become a simpler proposition when a common vocabulary is the starting point. Another interesting facet to data standardisation was raised in a UK FCA (Financial Conduct Authority) review of digital regulatory reporting. The challenge of codifying regulations and their interpretation revealed a hard dependency on data standardisation[2].

The efforts to standardise are to be applauded, but a more global view is needed to truly reduce friction in financial transactions across boundaries in the longer term.

Too many standards?

While there have been efforts made over time to standardise various aspects of financial data, nothing has really been all-encompassing. The result is a long list of standards that all have their own versions and sometimes cover only a narrow scope or specific set of use cases.

The efforts to standardise are to be applauded, but a more global view is needed to truly reduce friction in financial transactions across boundaries in the longer term. In providing a subset of financial data standards that may be familiar, it quickly becomes apparent that there are probably more standards than is helpful, governed by disparate bodies. For example:

IFX

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.
http://www.ifxforum.org/

MISMO

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

LIXI

"…helping standardise the language of lending…".
https://lixi.org.au/

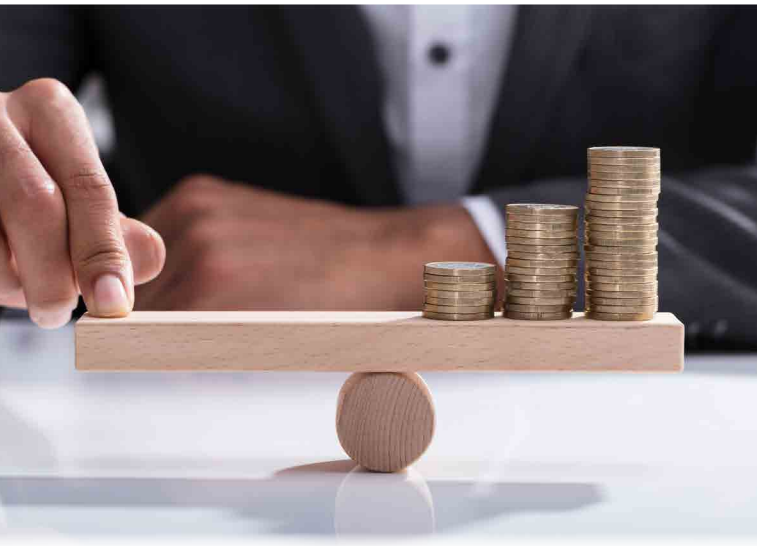
FDX

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

ISO

International Organization for Standardization.
https://www.iso.org/home.html

[1]Huw van Steenis (chair), "Future of finance report" https://www.bankofengland.co.uk/report/2019/future-of-finance (June 2019)
[2]Eddis, Hay and Treacy (contacts), "Digital regulatory reporting: automated compliance still a work in progress" https://www.linklaters.com/en/insights/blogs/fintechlinks/2019/march/digital-regulatory-reporting-automated-compliance-still-a-work-in-progress (March 2019)



Possibility of Balance

How then can a balance be struck between standards created by specific players in a certain area of finance and a global standard (or body that creates standards) that potentially covers many areas of finance? Is this even a valid goal?

The sheer number of financially based specialisations make creating a standard appear daunting at first glance. However, taking a macro view can give a different perspective; one of realising that there are many aspects that are common across most if not all these specialisations. There are financial instruments or products, service providers, customers or account holders, amounts or balances including transactions, assets, liabilities, income and expenses. There are different actions associated with each specialised area of financial transactions, and this may provide a clue as to one approach to standardisation. The data could be standardised across all financial specialisations, but each specialised area could define its own actions within the same framework as the data standard. This approach can be observed in that taken by LIXI, though it currently deals primarily with credit origination. Since credit origination touches on many categories of financial instruments like assets, insurance, income, expenses, liabilities, invoices, payments, contracts, timelines and schedules, it makes an excellent starting point for extrapolating a more general model across financial industries.

Other aspects to consider are the size of a global data standard, what such a broad scope might create and how it can be managed. Each specialisation could contribute to the general financial industry standard but define a subset that is relevant. The actions related to the data could then be unique to the specialised industry or shared where it makes sense, such as for common actions or transactions, transferring value from one party or product to another. To achieve this outcome, an independent body - preferably non-profit to ensure they are neutral in the process - is likely necessary to arbitrate and document any standard.

By providing the flexibility to make use of only specific elements of the standard data set, services can be created that are as simple or as complex as needed for specific outcomes or as specialised as needed by specific categories of financial transactions.

Designing a data standard that can be easily decomposed into relevant components will be key to ensuring it is re-usable. This approach also allows for flexibility and specialised services being made available across all financial markets. By providing the flexibility to make use of only specific elements of the standard data set, services can be created that are as simple or as complex as needed for specific outcomes or as specialised as needed by specific categories of financial transactions.

Focus

A convenient side effect of standardisation is focus. Having multiple representatives from a specialised area provides an opportunity to distil what is common and necessary as the group collectively go through the process of defining a standard. A single standard also has the benefit of removing the need for each integration project to define its own data structures.

With this focus comes an opportunity to devote more effort to innovation within a framework that doesn't add a lot of value if it is proprietary, i.e. the data set. This is one of the driving forces behind Open Banking. There may be a pause while Open Banking either proves or disproves this benefit to innovation, but there are already signs of improved uptake with traditional and challenger banks already including Open Banking features in their internet banking and mobile device offerings[3].

Having both a standardised data model and a standardised API brings further benefit. Developers of software that utilise Open Banking APIs, for example, can create a solution that allows their customers to access all their banking data across multiple banks, without the developer having to engage with any specific bank. Financial institutions can re-architect their systems across both internal and external integration points, to take advantage of standard APIs and data models giving them a more pluggable platform to work with. This is a measurable benefit of standards; they can reduce the engagement required in the implementation cycle, ideally to almost zero. With data and API standards facilitating such repeatable processes, compounded levels of process improvement akin to those seen in the industrial revolution can now be applied to the data revolution.

A convenient side effect of standardisation is focus.

[3]Lucy Warwick-Ching, "Open Banking: the quiet digital revolution one year on". https://www.ft.com/content/a5f0af78-133e-11e9-a581-4ff78404524e (January 2019)

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 non-trivial to answer. Then there are the constant additions and changes that must be managed. But with all such endeavours that humans undertake, where there is a will, there is a way.

In practice, unless all participants realise the value of a standard data set, reaching consensus can prove difficult, particularly in lucrative and highly competitive environments that may also have political and economic implications. Initiatives such as Open Banking can provide a good solution to this conundrum. By pushing the players in a market to define a standard to bring efficiency and transparency, governments are possibly in the strongest position to drive data standardisation. 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, but also increase the level of overhead involved.

Perhaps the most difficult part in this endeavour is taking the first steps, but with Open Banking moving forward, it is possible the first steps have already been taken and a stake placed in the ground.

Data standards that are closely tied to a specific technology seem bound to intertwine their fate with that of the technology.

Technology Agnostic

It would be disingenuous to suggest that technology can be entirely divorced from data standards in the world today. There are technologies at various levels that are necessary to support any data standard, such as TCP/IP underlying all internet traffic. Blockchain has also been a subject of much interest and discussion of late and given its nature, may well be worth exploring as a means of supporting a

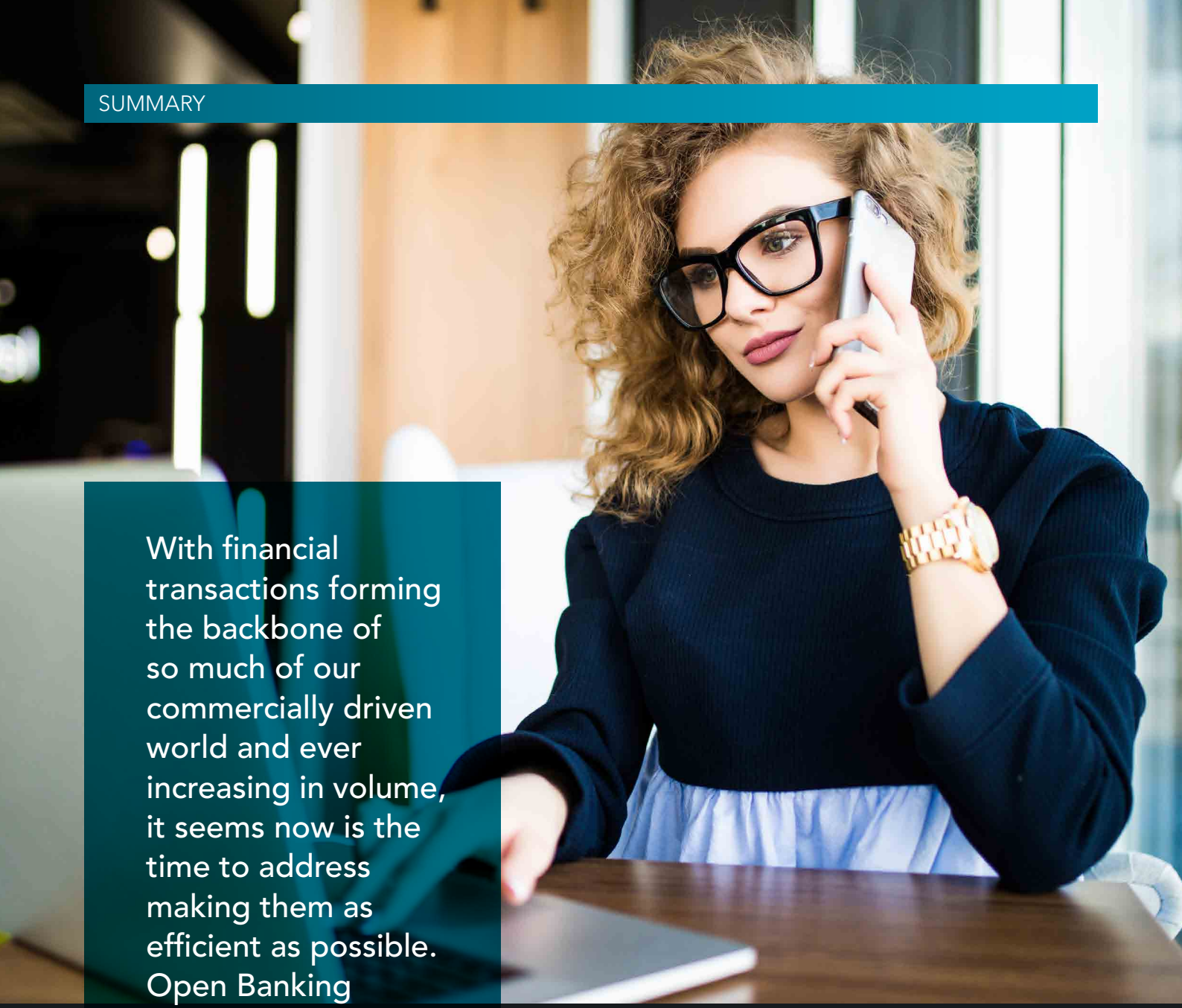
financial data standard, but as with other technologies, not something that should influence a data standard directly.

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 mark-up is required.[4]

It would seem prudent then, to create data standards that are not tied to specific technology as much as is feasible. This position may seem counter to the primary thread of this article - that of settling on a standard data set - however 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.

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

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 we 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**.

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About Sandstone Technology

Before "fintech" was a thing, our founders were dreaming up new ways to transform banking, simplifying the customer journey and the employee experience.

More than 20+ years Sandstone Technology is still leading the charge, innovating and evolving as the industry evolves. Our high client retention rate is our proudest achievement with 40+ financial institutions across Australia, New Zealand, Asia and the United Kingdom placing their trust in our solutions.

From digital banking and digital onboarding to origination and AI-based data analysis, with cloud-based or on-premise deployment, we create flexible, robust, end-to-end solutions using a multi-channel approach that gets our clients to market faster.

Seamless customer experiences start with Sandstone Technology.

Your trusted partner in the banking revolution.

Contact us today for further information or free product demonstration.

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