



# Managing Data as a Strategic Asset in Local Government

Experian Discussion Paper



# As data becomes a strategic asset in Local Government, managing its quality has never been so important.

Recently Civica International hosted an event bringing together many Local Government professionals from across Australia and New Zealand. The theme of the conference delivered a thought provoking set of discussions into the changing landscape of Local Government and what this means for councils as they navigate towards 2025. Discussions were supported by research conducted by University Technology Sydney who surveyed more than 250 respondents at 176 local councils across ANZ<sup>1</sup>.

The research highlighted five characteristics that will shape the future citizen and local communities in the next 10 years:

1. Always connected and mobile
2. Living longer and part of multigenerational households
3. Independent and self-serving
4. Demanding and impatient
5. Part of a diverse and increasing population

This, coupled with uncertainty around proposed council amalgamations with the [Fit for Future](#) reform taking shape in NSW, has provided food for thought for Local Government on how they can truly understand the local communities in which they serve. In the same way a private sector organisation has for many years used data management and advanced analytics to derive customer insight and intelligence to drive more profitable interactions, so too will councils in order to serve more efficiently and effectively.

With the changes inevitable, constant budget pressures and increasing demand for services, councils are challenged to operate a more lean, efficient and proactive operation. This will mean using their data as a strategic asset to drive efficiencies and modernise for the future.

## 3 key requirements for managing data as a strategic asset:

### 1. Data Integration

As technology and process modernisation takes place in order to support digital transformation projects, legacy systems will no longer be deemed fit for purpose. The creation of the single view of the citizen becomes imperative in order to understand their preferences and offer relevant services at a time that suits them through online interactions.

The very nature of creating a single view is to bring together data from a variety of systems and data sources. This makes it important to leverage technology that is agnostic to a single application, delivers time-to-value quickly and empowers the business and IT users to collaboratively share repeatable business rules. This collaborative approach is crucial to retaining intellectual property post project implementation. This is especially true in data migration projects, where experts and knowledge often leaves the council once the project is complete.

<sup>1</sup> The Changing Landscape For Local Government



Retaining knowledge of key artifacts such as data dictionary, complex data transformation rules or business rule specifications is crucial to facilitating an ongoing strong data governance practice.

## 2. Data Quality

According to Gartner<sup>2</sup>, 40% of business initiatives fail due to poor data quality – whether this initiative is a data migration project, system implementation or upgrade, having clean and consistent data is the foundation of any successful outcome. It provides a level of trust that the data can be used to make key strategic investment decisions. Whether councils are providing new facilities or seeking state and / or private sector investment, having accurate data is imperative.

Data Quality incorporates a number of technology capabilities, such as:

- **Data Profiling and discovery** which is required to understand the full data landscape and helps define scope and prototype business rules for data transformation. This should be rapid, allow business users to easily identify outliers and data defects without the need for programmatic skills. Business users should be experts in terms of how the data is used operationally in practice and the value it represents.
- **Data Cleansing** against excellent quality datasets and sources of truth such as the official postal and physical data sources for address validation is crucial to ensure rate collection, infringement notice enforcement and spatial analysis. The latter point is critical as the data flows into GIS (Geographic Information Systems) to ensure effective infrastructure / asset planning.

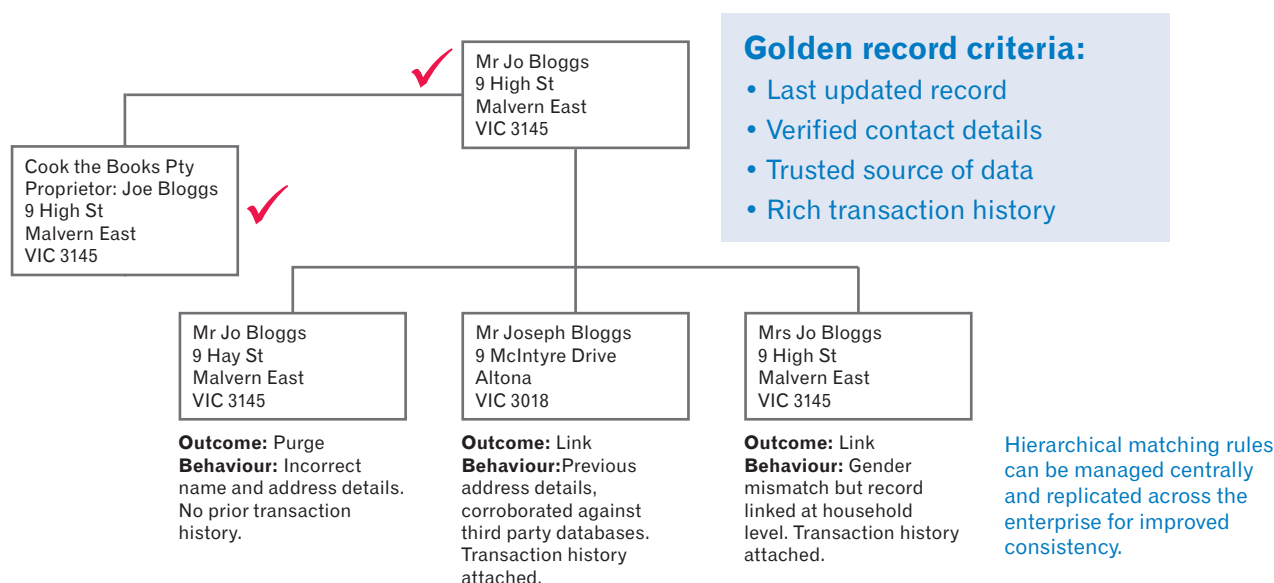
As we enter the world of digital communication, it's important not to rely completely on the citizen to provide and update their contact details correctly. Having technology in place to validate emails – not just a basic syntax check but a real-time ping to the mail exchange server to identify whether the email is valid and deliverable – ensures a smooth customer experience. In the same way, if you operate a telephony facility it is important that telephone numbers are validated using trusted sources and business rules that standardise the format and validates in an automated manner.

- **Data Matching** is a core ingredient in creating a single view of the citizen. Data matching is not just about having technology that enables you to cleanse, normalise and match identical and non-identical records into relational groups, it's about having knowledgeable expertise in place to define what is a “duplicate” in the first place.

The process and technology should support iterative design to reduce false positives / negatives in order to establish the “golden record” based on business rules design. The oldest record with the most history and the trust worthiness / quality of the source records are usual factors that go into these design rules. Finally, it's important to establish user acceptance criteria as part of the matching configuration, preferably upfront in the process.

In many councils, duplicate records are often treated separately, which can be frustrating to the citizen who interacts with the council. This also holds the council back if they wish to undertake sophisticated analytical techniques and truly understand the household composition, e.g. who lives there, what their interests and needs are. In addition, as multi-channel, self-service and personalisation of messaging becomes more important, matching and linking consistency becomes crucial.

A high level example below illustrates that having centralised, consistent management of hierarchical matching rules allows for ease of deployment.



**Depending on purpose of the contact record (eg. rate collection, community message), a different version of the golden record could be returned.**

- **Data remediation and monitoring** should form part of the data governance framework. Due to the complexity of data collection either through digital channels, legacy database updates or simply excel/access database, there will be passive remediation required as data is collected. Bulk remediation technologies aided by consistent business rules help automate this process; however it's also important to incorporate technologies that alert data analysts / stewards to problems that exist outside of this process, essentially facilitating a smooth manual review process. This includes issue management workflow, developing a roster system and assigning data quality issues to people with the correct security clearance to review the data.

Best practice dictates that active remediation, i.e. exposing data validation rules within citizen facing systems at the point of data collection essentially means you are reducing the workload in the back-office and improving the quality of the data as it's collected.

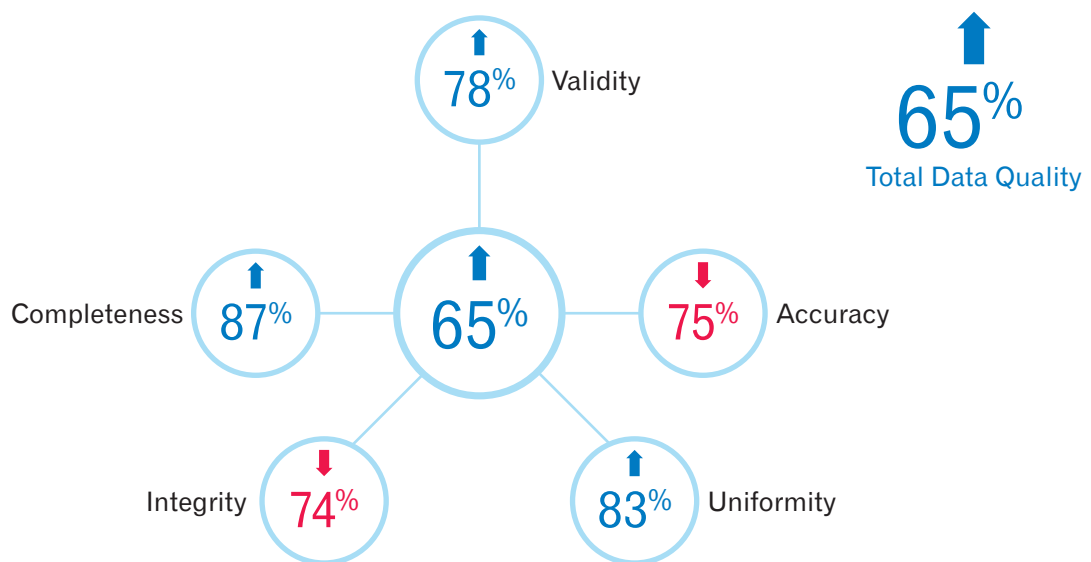


- **Data Quality Dashboard Visualisation** is used to effectively define data quality metrics such as uniqueness, completeness, accuracy in near to real-time across multiple vintages to determine data quality currently and over time.

The below illustrates an example of the types of metrics that should be considered. Dashboards should be available to executives and Data Governance committee members as part of the council's Information Management framework. Furthermore, interactive drill down reports are useful for operational staff to explore individual records within the rolled up metrics.

## Data Quality Dashboard

Profile type:  SME  Residential  Dear Citizen  Inactive  Active



### 3. Data Enrichment

Data enrichment resources are extensive in Local Government. Government statistical data on population size and growth, age classification and movements in population, general Census data and surveys conducted within the community, means the councils are data rich but often information poor.

There needs to be a process in place to organise and prepare data effectively for analysis using data mining and quality assurance technology. Councils need to consider augmenting first party data with third party segmentation attributes at household level for additional citizen insight. This can support a variety of initiatives such as helping the council determine the types of facilities that are required within the local community. For example, if you have young families moving into the local area you may need to invest in child care facilities.

Another scenario is where councils can utilise socio-demographic data to help personalise community events and messaging especially in areas of cultural diversity. It means councils need to be sensitive to a wide range of cultural backgrounds and arrange community events that will resonate but also bring diverse cultures together.

### What's next for the future council?

As Local Government in Australia and New Zealand connect more and more with their citizens, there is an overwhelming challenge for them to utilise the proliferation of data at their disposal to provide relevant and tailored services and communicate effectively through multiple channels, including digital.

With the advent of council amalgamations, achieving a single view of the citizen requires the right data integration, data quality and enrichment strategy. This, harnessed with data governance processes and easy to use data quality technology that makes it easy to consolidate, access and share vital citizen data should be an integral part of the council's overall Information Management framework.

The benefits of managing the quality of data and achieving a single citizen view will allow the modern Local Government to meet the challenges ahead for the next 10 years.



## About the Author



### **Martin Soley**

**Product & Partnership Director, Experian Data Quality A/NZ**

Martin started his career at Ashfield District Council in the UK, working in the Planning, Property and Housing department as a research analyst before moving to Experian UK for 10 years, holding a variety of business and product analyst roles in the field of information management. Martin's experience in data management is broad in nature, ranging from leading highly complex multi-year data migration programs to developing global product go-to-market strategies to support geographical expansion plans. In his current role as Product and Partnership Director, he is responsible for developing the go-to-market product and channel strategy for the region, and helping partners and clients in Australia and New Zealand with their information management and data quality challenges.

### **About Experian Data Quality**

Experian Data Quality has built up exceptional market coverage assisting customers with their unique data quality challenges. We provide a comprehensive toolkit for data quality projects combining our market leading software with a vast scope of reference data assets and services. Our mission is to put our customers in a position to make the right decisions from accurate and reliable data. The size and scope of data management projects varies considerably but the common factor in all ventures is unlocking operational efficiency and improving customer engagement. We see the potential of data. Whether it's in enabling ambulances to be sent to the exact location of an emergency or supporting financial organisations to ensure they remain compliant against regulations – data accuracy makes all the difference to service provision.

**Experian Data Quality**

Level 6, 549 St Kilda Rd

Melbourne VIC 3004

T: 1800 794 775

[info@au.experian.com](mailto:info@au.experian.com)

[www.edq.com/au](http://www.edq.com/au)



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