

In today's asset management world the need for analysis to support complex decisions and strategic planning increases the requirement for good quality information. Data and Processing Advantage's (DPA's) **Julian Schwarzenbach** and Competence Assurance Solutions' (CAS) **Charles Johnson** explore how behaviours can degrade the quality of your data assets.

Origin of the data species



Data errors are the symptoms of underlying problems, the root causes of which are typically poor behaviours and attitudes towards data.

People are the problem

A data "asset" may comprise millions of individual data items, which are continually updated by business activities. If staff are not supplying, updating and correcting data, the immediate impact on the quality of this data asset may be small, but it will cause a long-term, insidious decline.

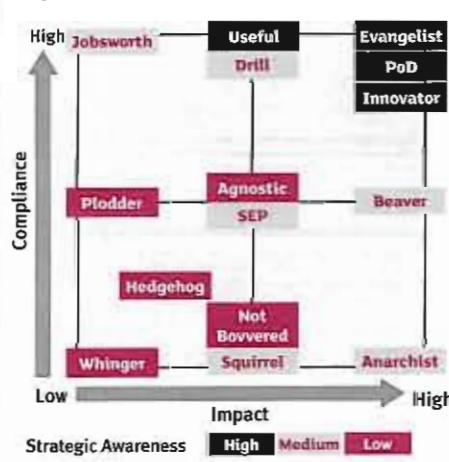
The Data Zoo

By analysing different data behaviours – which are typically influenced by the environment people are working in – we have been able to separate them into discrete behaviour types, which we have called The Data Zoo. Figure 1 illustrates these generic data behaviours plotted against three dimensions:

- Compliance – how well an individual complies with data standards
- Impact – the energy and enthusiasm shown towards data activities
- Strategic awareness – understanding the role of data in achieving strategic objectives.

The Data Zoo's Whinger, for example, would rather complain that the new system and policies are not as good as the old ones and will demotivate colleagues and managers. Meanwhile, the Jobsworth will use any lack of clarity in standards and processes as a reason for not undertaking tasks, even though they can identify where standards need updating. The Data Squirrel will have hoards of paper and electronic data and is liked by their colleagues because they can answer tricky questions using their data, but they don't provide it to corporate data systems.

Figure 1: The Data Zoo



The Data Anarchist is different again: they will put a lot of energy into data activities by creating their own unofficial systems, and will proudly boast that their system is better than the corporate one, but they won't help improve corporate systems.

The Data Evangelist, on the other hand, is a valuable ally who understands the power of data to an organisation and devotes energy and time to convince others of the benefits of good data practices.

Individuals, teams and the organisation

Most individuals work as part of a team and will generally conform to group norms. They tend to adopt the attitudes, behaviours and practices of the group, which helps them develop a sense of belonging and avoid being ostracised by their colleagues.

Being a member of a successful team can increase an individual's motivation and performance. However, if the team exhibits poor behaviours and attitudes, this can subvert otherwise good individuals who end up acquiring the practices and behaviours of the group.

The behaviours of teams within the organisation are influenced by the policies and actions of the organisation as a whole. Good

interfaces between teams will help remove data quality problems. Poor interfaces may encourage the activities of Data Squirrels and Data Anarchists, in particular.

The culture, values and behaviours of an organisation are heavily influenced by the actions of the leaders of the organisation. This is especially significant where data is concerned, for example:

- if decisions are based on little or no analysis of data
- if data quality issues are not challenged as they arise
- if the provenance of data used to inform a decision is not questioned
- where there is over reliance on subjective performance measures
- tolerating the use of local spreadsheet data stores.

These actions are likely to signal to employees that good data behaviours are not valued by the organisation. There are also a number of factors acting across the organisation that tend to discourage good data behaviours:

- lack of recognition of good data behaviours will not encourage staff to improve data
- inappropriate targets that result in short-term productivity gains at the expense of data quality

- poor change management may result in Data Squirrels adding to their data store and Data Anarchists maintaining their systems
- complex project approval processes will encourage Data Anarchists to provide solutions to business needs, rather than the formal IT department
- poor process and task design may result in tasks where the value of the task is not understood by the individual, leading to lower quality data outputs
- tolerance of low-level compliance to data standards and processes may foster a culture of non-compliance, which could spread to regulatory, safety or other critical areas.

People are the solution

As much as people are part of the problem, they are also a vital part of the solution. Improvements in behaviours and attitudes to data that provide sustained improvements in performance include:

- communicating the importance of data
- training to improve data behaviours
- managers demonstrating good approaches to data
- improving relationships between teams to foster cooperative approaches

- identifying and correcting influencers of poor data behaviours
- implementing a governance framework to actively manage data quality.

These activities will help organisations to improve the reliability of data to support business decisions, reduce the number of corrective actions due to data uncertainty and start a process of sustained improvements to its management.

A more detailed explanation of all these data behaviours is available in the White Paper The Data Zoo – How user behaviour affect information quality, available from: www.dpadvantage.co.uk/Data_Zoo.html

Authors' biographies

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