

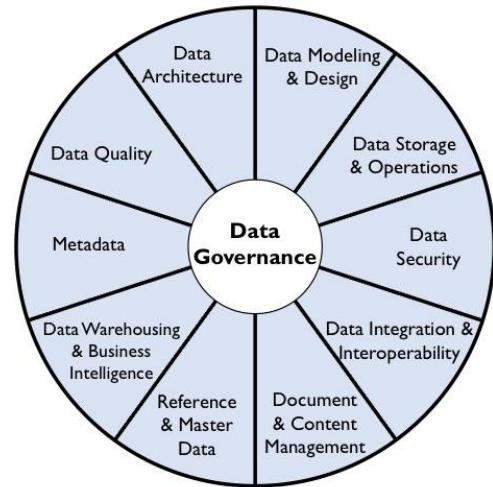
and philosophy towards Data. Ultimately, they set the data parameters for colleagues, and clarify expectations for stakeholders / customers.

Not a blank spreadsheet

There is plenty of best practice guidance on development of Data Principles. The *Data Management Association's (DAMA) Data Management Body of Knowledge (DMBOK)* states that principles "...will guide the organisation into the desired future state". The *DMBOK* specifies a set of Data Management principles – to support organisations "...get value from their data assets" – and specifies the principles of each *DMBOK* Knowledge Area. *The Open Group's Enterprise Architecture Framework (TOGAF)* describes principles as "fundamental truths" that "...should always be documented". *TOGAF* acknowledges that principles may sound like a statement of the obvious or self-evident, but ripostes that this "helps ensure that decisions actually follow the desired outcome".

Many organisations have signed up to the FAIR data principles and reference these in their data policies. The FAIR (Findability, Accessibility, Interoperability, and Reuse of digital assets) principles were originally published in *Scientific Data* in 2016 by stakeholders advocating for open access to data. They are now maintained / promoted by GO FAIR; when researching this article I found numerous organisations worldwide who have chosen to adopt FAIR principles, rather than create their own. Finally, in the *Data Governance* handbook, data guru [John Ladley](#) describes Data Principles as "statements of philosophy" and "...a bill of rights – core beliefs that form the anchor for all policies and behaviours...". John developed eight *Generally Accepted Information Principles (GAIP™)*, as a base from which organisations can develop their own Data Principles.

DAMA DMBOK Knowledge Areas



DAMA International

The Top Ten

Before I go into the results I should clarify:

- This is not a scientific or academic study! I did this research, and wrote this article, purely for my own interest and the interests of practitioners.
- I used *DAMA DMBOK* terminology when choosing names for the coded Data principles.
- When provided, I used organisation's detailed descriptions and / or sub-principles to code the Data Principles. This was necessary as it was not always clear what an organisation meant by the headline Data Principle title, and most organisations covered different areas under a headline Data Principle title.
- Coding by nature is subjective and it's feasible that I may have grouped Data Principles, from different organisations, very differently to others.
- When searching for Data Principles I ignored those that appeared in specific policies such as Open Data Policies, Data Usage Policies or Big Data Policies, in order not to skew the results towards one particular area.
- I am not suggesting that the ten Data Principles cited below are the optimal Data Principles. And I am not suggesting that the Data Principles in Annex Two cover all areas. I am presenting the results of my own research on the basis of what's in the public domain.
- All my research was carried out in English, which is reflected in the fact that 78% of the organisations I found with publicly available Data Principles are from English speaking countries. This may skew the ranking of the Data Principles below, and could mean some important Data Principles are omitted.

So what are the most commonly cited Data Principles? I found 68 organisations (from 12 different countries) who publicise their Data Principles on their websites or in publicly available Data Policies, Data Strategies, Information Policies and Information Strategies. Across all 68 organisations I found 61 unique Data Principles. The most common number of Data Principles cited was six, although some organisations have as few as three and some cite as many as 15 Data Principles.

Table One below shows the ten most commonly cited Data Principles. What I find most interesting is the number of organisations focusing on openness and accountability. While I accept that organisations who choose to publish their own Data Principles are by nature more willing to be open and scrutinised, it is encouraging that these organisations have nevertheless publicly stated these as philosophical beliefs. A small number of organisations even state that one of their Data Principles is to facilitate Data Portability, that is the ability of people to access, move or delete data held about themselves. While I am not suggesting this is hugely progressive in 2020, I do find it remarkable that organisations prioritise this to such an extent that they consider it a fundamental principle.

I am less surprised that Data Principles concerning Privacy and Security are amongst the most commonly cited. Privacy and Security are clearly important but the motivation behind these is likely to be driven by legislation / compliance rather than organisational culture. I find it more encouraging that a large proportion of organisations cite Quality and Business drivers as their Data Principles. Inaccurate or unreliable data is meaningless. And it is inappropriate for any organisation to collect or use data that does not help deliver its strategy or support its customers.

Table One: Ten most commonly cited Data Principles

Data Principle	Number of organisations	Percentage of organisations	Rank
Accessible	44	65%	1
Governance	39	57%	2
Privacy	39	57%	2
Quality	38	56%	4
Business drivers	33	49%	5
Security	29	43%	6
Transparent	28	41%	7
Standardisation	24	35%	8
Published	22	32%	9
Trustworthy	22	32%	9

There is a full list of the 68 organisations (with links to their Data Principles) and 61 Data Principles in the Annexes.

Final thought: data is king, queen and emperor

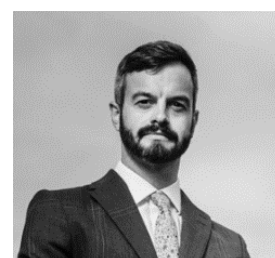
To misquote Eleanor Roosevelt "The future belongs to those who believe in the value of data." Organisations are using the term 'data-driven' more and more and making zillions off the zettabytes of data out there. However, and it's a big however, there is a distinct lack of direction and / or a reluctance to publicise the principles by which organisations manage and use their data. Much of which is about you.

Those who do have transparent Data Principles cover a huge variety of areas. This is encouraging. If everyone had the same Data Principles, it would demonstrate a lack of insight, probity and direction.

I hope you have found this article interesting and useful. I look forward to following progress in this area as more organisations see the intrinsic and financial value of data.

About the author

[Chris Fieldsend](#) is a Data Governance specialist with 20 years' experience supporting organisations to control their data. Chris started his career with Deloitte and has worked on all sides of the fence developing Data Policies / Data Strategies and defining Data Governance Frameworks. Chris's website has several testimonials from executive stakeholders at numerous organisations, including the Met Office, Network Rail and Highways England.



Andy Ford Photography

Annex One: Organisations with easily discoverable and publicly accessible Data Principles

Organisation	Country	Year
Council of Europe Development Bank	Europe	2020
Federal Data Strategy	US	2020
Highways England	UK	2020
Newcastle University	UK	2020
ONS	UK	2020
Passport	US	2020
SSE	UK	2020
American Veterinary Medical Association	US	2019
Belmont Forum	International	2019
EUROCITIES	international	2019
Filtered	UK	2019
Finland's Presidency of the Council of the EU	Finland	2019
Iris	Australia	2019
JRC	Europe	2019
Nordic Environment Finance Corporation	Europe	2019
UK Hydrographic Office	UK	2019
ACTRIS	Europe	2018
Bristol University	UK	2018
Centre for Digital Built Britain (Gemini)	UK	2018
Cornwall Council	UK	2018
Department of Defence	Australia	2018
EPOS	Italian	2018
European Environment Agency	Europe	2018
GL Education Group	UK	2018
International Republican Institute	US	2018
University of Gloucestershire	UK	2018
Capital City of SR Bratislava	Slovakia	2017
Defra	UK	2017
Devon Information Advice and Support	UK	2017
Marine Institute	Ireland	2017
Sunlight Foundation	US	2017
Coventry City Council	UK	2016
INGV	Italian	2016
Ministry of Justice	UK	2016
University of Strathclyde	UK	2016
G20's Anti-corruption Working Group	International	2015
UKRI	UK	2015
Bureau of Meteorology	Australia	2014
Plymouth University	UK	2014

Organisation	Country	Year
Student Data Principles	US	2014
UN	International	2014
Edinburgh Napier University	UK	2013
Public Sector Transparency Board	UK	2012
New Zealand Government	New Zealand	2011
European Space Agency	Europe	2009
Queensland Government	Australia	2009
NASA	US	1993
Arts Council England	UK	Unknown
Black Sea Commission	Turkey	Unknown
Borsa İstanbul	Turkey	Unknown
Central Statistics Office	Ireland	Unknown
Climate and Ocean: Variability, Predictability and Change	International	Unknown
DataStream	Canada	Unknown
Digital Land	UK	Unknown
Digital Society	Netherlands	Unknown
Early Warning System	International	Unknown
HESA	UK	Unknown
Liverpool Hope University	UK	Unknown
National Archives	UK	Unknown
NERC	UK	Unknown
Ofwat	UK	Unknown
Philips	Netherlands	Unknown
Queen Mary, University of London	UK	Unknown
Reading University	UK	Unknown
RED Foundation	UK	Unknown
Societe Generale	France	Unknown
UK Environmental Observation Framework	UK	Unknown
Warwickshire County Council	UK	Unknown

Annex Two: Full list of unique Data Principles found online

Data Principle	Number	Percentage	Rank
Accessible	44	65%	1
Governance	39	57%	2
Privacy	39	57%	2
Quality	38	56%	4
Business drivers	33	49%	5
Security	29	43%	6
Transparent	28	41%	7
Standardisation	24	35%	8
Published	22	32%	9
Trustworthy	22	32%	9
Analysable	21	31%	11
Retention	20	29%	12
Timeliness	20	29%	12
Metadata	20	29%	12
Sharing	18	26%	15
Re-usable	17	25%	16
Maturity	17	25%	16
Interoperable	16	24%	18
Licencing	16	24%	18
Collaboration	15	22%	20
Asset	15	22%	20
Legislation	15	22%	20
Ethical	14	21%	23
Empowering	13	19%	24
Non-discrimination	13	19%	24
Managed	12	18%	26
Discovery	11	16%	27
Disaggregation	11	16%	27
Minimisation	11	16%	27
Free	10	15%	30
Primacy	9	13%	31
Portability	9	13%	31
Citation	7	10%	32
VfM	7	10%	32
Plan	6	9%	34
Open source	5	7%	35
Monitoring	5	7%	35
Definitions	4	6%	37
Unique identifiers	4	6%	37

Data Principle	Number	Percentage	Rank
Classification	4	6%	37
Restrictions	4	6%	37
Public good	4	6%	37
Risk	4	6%	37
Registration	3	4%	41
Digital by default	3	4%	41
Centralised	3	4%	41
Prior access	2	3%	42
Dissemination costs	2	3%	42
Communications	2	3%	42
Resilient	1	1%	43
Permanence	1	1%	43
Inventory	1	1%	43
Persistent URLs	1	1%	43
Derivation	1	1%	43
No prior access	1	1%	43
No registration	1	1%	43
Errors and Omissions	1	1%	43
Federation	1	1%	43
Knowledge capture	1	1%	43
Self-service	1	1%	43
Automate	1	1%	43