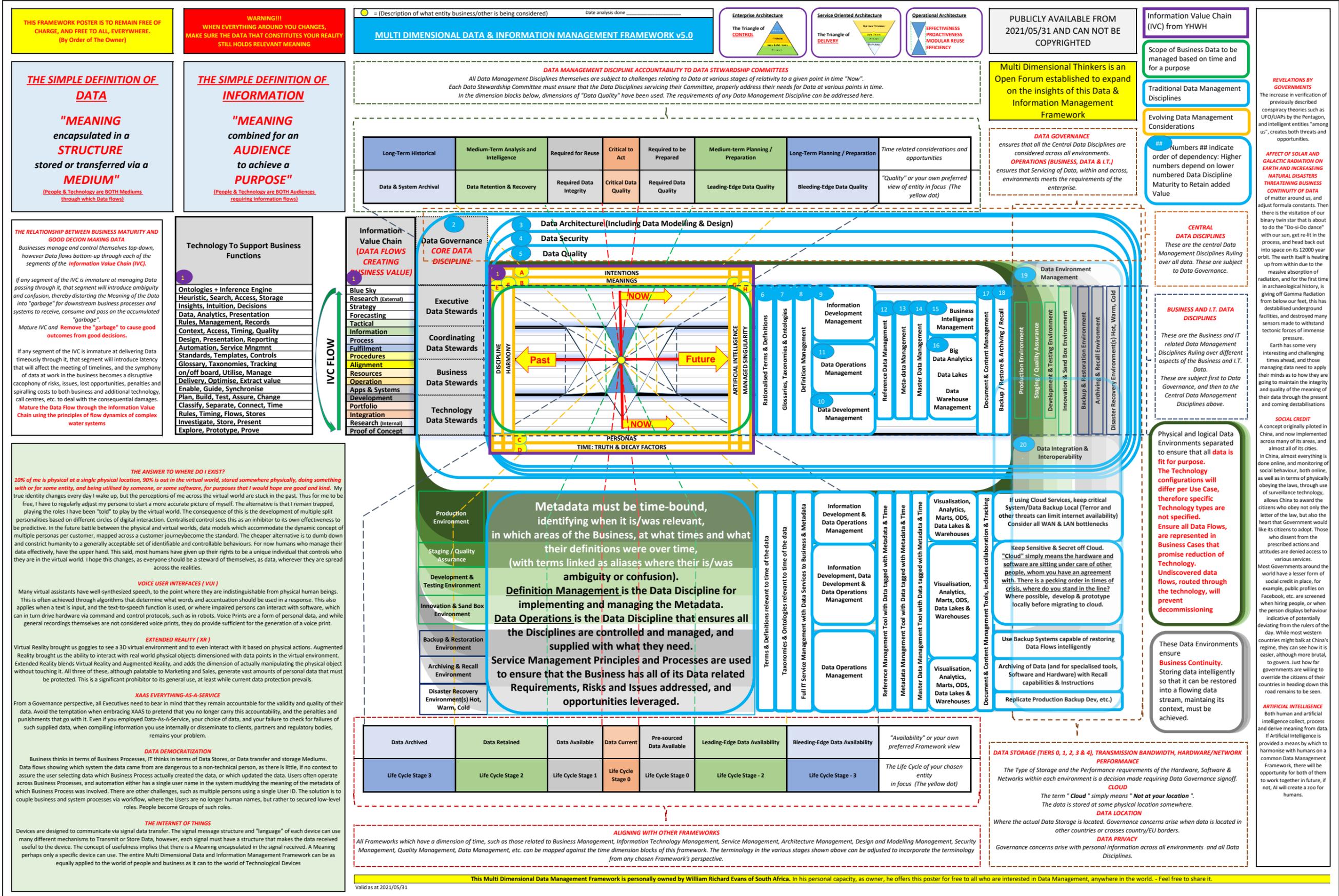


THE MULTI DIMENSIONAL DATA and INFORMATION MANAGEMENT FRAMEWORK V5.0



THIS FRAMEWORK POSTER IS TO REMAIN FREE OF CHANGE, AND FREE TO ALL, EVERYWHERE. (By Order of The Owner)

WARNING!!!
WHEN EVERYTHING AROUND YOU CHANGES, MAKE SURE THE DATA THAT CONSTITUTES YOUR REALITY STILL HOLDS RELEVANT MEANING

MULTI DIMENSIONAL DATA & INFORMATION MANAGEMENT FRAMEWORK v5.0



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Information Value Chain (IVC) from YHWH

THE SIMPLE DEFINITION OF DATA
"MEANING encapsulated in a STRUCTURE stored or transferred via a MEDIUM"
(People & Technology are BOTH Mediums through which Data flows)

THE SIMPLE DEFINITION OF INFORMATION
"MEANING combined for an AUDIENCE to achieve a PURPOSE"
(People & Technology are BOTH Audiences requiring Information flows)

DATA MANAGEMENT DISCIPLINE ACCOUNTABILITY TO DATA STEWARDSHIP COMMITTEES
All Data Management Disciplines themselves are subject to challenges relating to Data at various stages of relativity to a given point in time "Now". Each Data Stewardship Committee must ensure that the Data Disciplines servicing their Committee, properly address their needs for Data at various points in time. In the dimension blocks below, dimensions of "Data Quality" have been used. The requirements of any Data Management Discipline can be addressed here.

Long-Term Historical	Medium-Term Analysis and Intelligence	Required for Reuse	Critical to Act	Required to be Prepared	Medium-term Planning / Preparation	Long-Term Planning / Preparation	Time related considerations and opportunities
Data & System Archival	Data Retention & Recovery	Required Data Integrity	Critical Data Quality	Required Data Quality	Leading-Edge Data Quality	Bleeding-Edge Data Quality	"Quality" or your own preferred view of entity in focus (The yellow dot)

Multi Dimensional Thinkers is an Open Forum established to expand on the insights of this Data & Information Management Framework

Scope of Business Data to be managed based on time and for a purpose

Traditional Data Management Disciplines

Evolving Data Management Considerations

Numbers ## indicate order of dependency: Higher numbers depend on lower numbered Data Discipline Maturity to Retain added Value

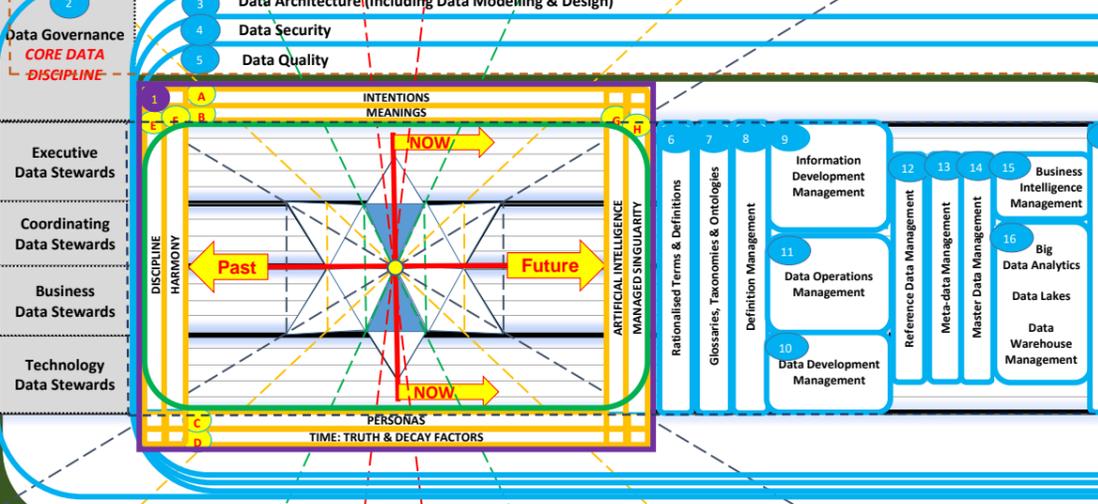
THE RELATIONSHIP BETWEEN BUSINESS MATURITY AND GOOD DECISION MAKING DATA
Businesses manage and control themselves top-down, however Data flows bottom-up through each of the segments of the Information Value Chain (IVC).
If any segment of the IVC is immature at managing Data passing through it, that segment will introduce ambiguity and confusion, thereby distorting the Meaning of the Data into "garbage" for downstream business processes and systems to receive, consume and pass on the accumulated "garbage".
Mature IVC and Remove the "garbage" to cause good outcomes from good decisions.
If any segment of the IVC is immature at delivering Data timeously through it, that segment will introduce latency that will affect the meeting of timelines, and the symphony of data at work in the business becomes a disruptive cacophony of risks, issues, lost opportunities, penalties and spiralling costs to both business and additional technology, call centres, etc. to deal with the consequential damages.
Mature the Data Flow through the Information Value Chain using the principles of flow dynamics of complex water systems

Technology To Support Business Functions

1 Ontologies + Inference Engine
Heuristic, Search, Access, Storage
Insights, Intuition, Decisions
Data, Analytics, Presentation
Rules, Management, Records
Context, Access, Timing, Quality
Design, Presentation, Reporting
Automation, Service Mngmnt
Standards, Templates, Controls
Glossary, Taxonomies, Tracking
on/off board, Utilise, Manage
Delivery, Optimise, Extract value
Enable, Guide, Synchronise
Plan, Build, Test, Assure, Change
Classify, Separate, Connect, Time
Rules, Timing, Flows, Stores
Investigate, Store, Present
Explore, Prototype, Prove

Information Value Chain (DATA FLOWS CREATING BUSINESS VALUE)

2 Data Governance
3 Data Architecture (Including Data Modelling & Design)
4 Data Security
5 Data Quality



DATA GOVERNANCE
ensures that all the Central Data Disciplines are considered across all environments.
OPERATIONS (BUSINESS, DATA & I.T.) ensures that Servicing of Data, within and across, environments meets the requirements of the enterprise.

CENTRAL DATA DISCIPLINES
These are the central Data Management Disciplines Ruling over all data. These are subject to Data Governance.

BUSINESS AND I.T. DATA DISCIPLINES
These are the Business and IT related Data Management Disciplines Ruling over different aspects of the Business and I.T. Data.
These are subject first to Data Governance, and then to the Central Data Management Disciplines above.

THE ANSWER TO WHERE DO I EXIST?
10% of me is physical at a single physical location, 90% is out in the virtual world, stored somewhere physically, doing something with or for some entity, and being utilised by someone, or some software, for purposes that I would hope are good and kind. My true identity changes every day I wake up, but the perceptions of me across the virtual world are stuck in the past. Thus for me to be free, I have to regularly adjust my persona to start a more accurate picture of myself. The alternative is that I remain trapped, playing the roles I have been "told" to play by the virtual world. The consequence of this is the development of multiple split personalities based on different circles of digital interaction. Centralised control sees this as an inhibitor to its own effectiveness to be predictive. In the future battle between the physical and virtual worlds, data models which accommodate the dynamic concept of multiple personas per customer, mapped across a customer journey become the standard. The cheaper alternative is to dumb down and constrict humanity to a generally acceptable set of identifiable and controllable behaviours. For now humans who manage their data effectively, have the upper hand. This said, most humans have given up their rights to be a unique individual that controls who they are in the virtual world. I hope this changes, as everyone should be a steward of themselves, as data, wherever they are spread across the realities.

VOICE USER INTERFACES (VUI)
Many virtual assistants have well-synthesized speech, to the point where they are indistinguishable from physical human beings. This is often achieved through algorithms that determine what words and accentuation should be used in a response. This also applies when a text is input, and the text-to-speech function is used, or where impaired persons can interact with software, which can in turn drive hardware via command and control protocols, such as in robots. Voice Prints are a form of personal data, and while general recordings themselves are not considered voice prints, they do provide sufficient for the generation of a voice print.

EXTENDED REALITY (XR)
Virtual Reality brought us goggles to see a 3D virtual environment and to even interact with it based on physical actions. Augmented Reality brought us the ability to interact with real world physical objects dimensioned with data points in the virtual environment. Extended Reality blends Virtual Reality and Augmented Reality, and adds the dimension of actually manipulating the physical object without touching it. All three of these, although palatable to Marketing and Sales, generate vast amounts of personal data that must be protected. This is a significant prohibitor to its general use, at least while current data protection prevails.

XAAS EVERYTHING-AS-A-SERVICE
From a Governance perspective, all Executives need to bear in mind that they remain accountable for the validity and quality of their data. Avoid the temptation when embracing XAAS to pretend that you no longer carry this accountability, and the penalties and punishments that go with it. Even if you employ Data-As-A-Service, your choice of data, and your failure to check for failures of such supplied data, when compiling information you use internally or disseminate to clients, partners and regulatory bodies, remains your problem.

DATA DEMOCRATIZATION
Business thinks in terms of Business Processes, IT thinks in terms of Data Stores, or Data transfer and storage Mediums. Data flows showing which system the data came from are dangerous to a non-technical person, as there is little, if no context to assure the user selecting data which Business Process actually created the data, or which updated the data. Users often operate across Business Processes, and automation either has a single user name in the system muddying the meaning of the metadata of which Business Process was involved. There are other challenges, such as multiple persons using a single User ID. The solution is to couple business and system processes via workflow, where the Users are no longer human names, but rather to secured low-level roles. People become Groups of such roles.

THE INTERNET OF THINGS
Devices are designed to communicate via signal data transfer. The signal message structure and "language" of each device can use many different mechanisms to Transmit or Store Data, however, each signal must have a structure that makes the data received useful to the device. The concept of usefulness implies that there is a Meaning encapsulated in the signal received. A Meaning perhaps only a specific device can use. The entire Multi Dimensional Data and Information Management Framework can be as equally applied to the world of people and business as it can to the world of Technological Devices

Metadata must be time-bound, identifying when it is/was relevant, in which areas of the Business, at what times and what their definitions were over time, (with terms linked as aliases where their is/was ambiguity or confusion).
Definition Management is the Data Discipline for implementing and managing the Metadata.
Data Operations is the Data Discipline that ensures all the Disciplines are controlled and managed, and supplied with what they need.
Service Management Principles and Processes are used to ensure that the Business has all of its Data related Requirements, Risks and Issues addressed, and opportunities leveraged.

Data Archived	Data Retained	Data Available	Data Current	Pre-sourced Data Available	Leading-Edge Data Availability	Bleeding-Edge Data Availability	"Availability" or your own preferred Framework view
Life Cycle Stage 3	Life Cycle Stage 2	Life Cycle Stage 1	Life Cycle Stage 0	Life Cycle Stage 0	Life Cycle Stage - 2	Life Cycle Stage - 3	The Life Cycle of your chosen entity in focus (The yellow dot)

ALIGNING WITH OTHER FRAMEWORKS
All Frameworks which have a dimension of time, such as those related to Business Management, Information Technology Management, Service Management, Architecture Management, Design and Modelling Management, Security Management, Quality Management, Data Management, etc. can be mapped against the time dimension blocks of this framework. The terminology in the various stages shown above can be adjusted to incorporate the terminology from any chosen Framework's perspective.

Physical and logical Data Environments separated to ensure that all data is fit for purpose. The Technology configurations will differ per Use Case, therefore specific Technology types are not specified. Ensure all Data Flows, are represented in Business Cases that promise reduction of Technology. Undiscovered data flows, routed through the technology, will prevent decommissioning.

These Data Environments ensure **Business Continuity**. Storing data intelligently so that it can be restored into a flowing data stream, maintaining its context, must be achieved.

DATA STORAGE (TIERS 0, 1, 2, 3 & 4), TRANSMISSION BANDWIDTH, HARDWARE/NETWORK PERFORMANCE
The Type of Storage and the Performance requirements of the Hardware, Software & Networks within each environment is a decision made requiring Data Governance signoff.

CLOUD
The term "Cloud" simply means "Not at your location". The data is stored at some physical location somewhere.

DATA LOCATION
Where the actual Data Storage is located. Governance concerns arise when data is located in other countries or crosses country/EU borders.

DATA PRIVACY
Governance concerns arise with personal information across all environments and all Data Disciplines.

REVELATIONS BY GOVERNMENTS
The increase in verification of previously described conspiracy theories such as UFO/UAPs by the Pentagon, and intelligent entities "among us", creates both threats and opportunities.

AFFECT OF SOLAR AND GALACTIC RADIATION ON EARTH AND INCREASING NATURAL DISASTERS THREATENING BUSINESS CONTINUITY OF DATA
of matter around us, and adjust formula constants. Then there is the visitation of our binary twin star that is about to do the "Do-si-Do dance" with our sun, get re-lit in the process, and head back out into space on its 12000 year orbit. The earth itself is heating up from within due to the massive absorption of radiation, and for the first time in archaeological history, is giving off Gamma Radiation from below our feet, this has destabilised underground facilities, and destroyed many sensors made to withstand tectonic forces of immense pressure.
Earth has some very interesting and challenging times ahead, and those managing data need to apply their minds as to how they are going to maintain the integrity and quality of their data through the present and coming destabilisations.

SOCIAL CREDIT
A concept originally piloted in China, and now implemented across many of its areas, and almost all of its cities. In China, almost everything is done online, and monitoring of social behaviour, both online, as well as in terms of physically obeying the laws, through use of surveillance technology, allows China to award the citizens who obey not only the letter of the law, but also the heart that Government would like its citizens to adopt. Those who dissent from the prescribed actions and attitudes are denied access to various services.
Most Governments around the world have a lesser form of social credit in place, for example, public profiles on Facebook, etc. are screened when hiring people, or when the person displays behaviour indicative of potentially deviating from the rulers of the day. While most western countries might balk at China's regime, they can see how it is easier, although more brutal, to govern. Just how far governments are willing to override the citizens of their countries in heading down this road remains to be seen.

ARTIFICIAL INTELLIGENCE
Both human and artificial intelligence collect, process and derive meaning from data. If Artificial Intelligence is provided a means by which to harmonise with humans on a common Data Management Framework, there will be opportunity for both of them to work together in future, if not, AI will create a zoo for humans.

This Multi Dimensional Data Management Framework is personally owned by William Richard Evans of South Africa. In his personal capacity, as owner, he offers this poster for free to all who are interested in Data Management, anywhere in the world. - Feel free to share it.

Valid as at 2021/05/31