



## Building Healthy Information Environments

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Most organizations are awash with information yet fail to capitalize on its value. This article describes five disablers that hold organizations back from getting value from their information, and five key enabling actions that create an “information environment” that maximizes the value of this asset.

### ***Disablers: Why have the benefits failed to emerge?***

We have seen the following disablers prowl the corridors and networks...

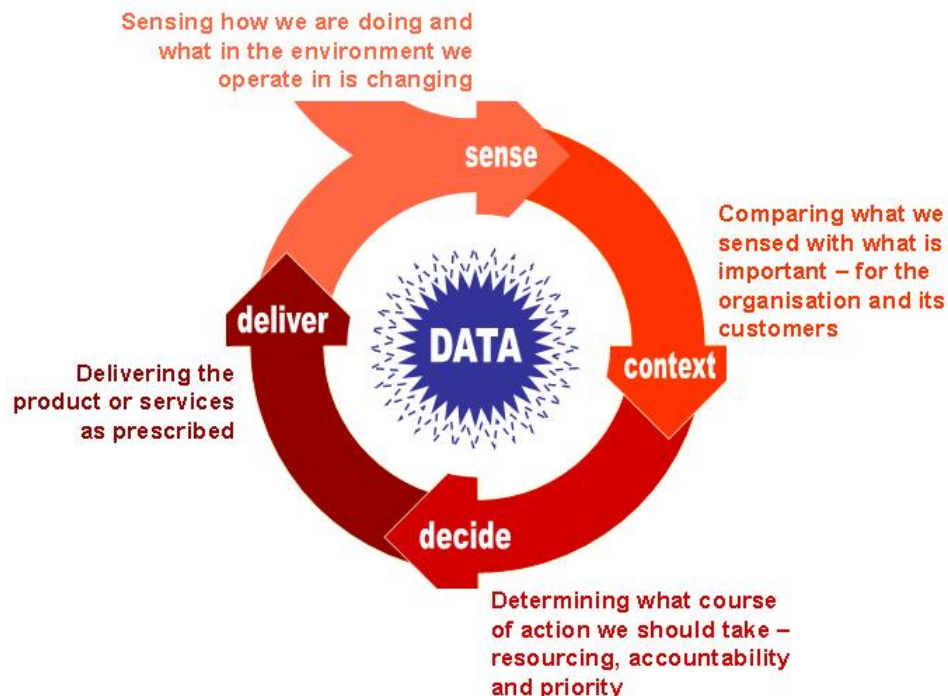
1. KPIs: The wrong KPIs and lack of transparency – leading to a disconnect between overall strategy and goals, and operational actions and accountability.
2. Lack of consistent ways of describing business activities – making it difficult to compare or aggregate operational activities for overall reporting and gaining insights on course changes needed, and making knowledge creation and sharing very difficult.
3. Lack of consistent ways of linking information and data sets making it difficult to gain overall views from a customer perspective or leading to inefficiencies and information accidents in maintaining related information held in different datasets.
4. Documents and data don't mix. Not being able to see a consolidated picture of a service transaction or reoccurring problem as some of it is held as data, and other parts as documents or emails.
5. Toolsets for viewing information don't match the needs of users. Often the power of information emerges in helping people ask the right questions and then gaining insights from the answers. Interfaces that are tuned for transactional use may not have the ease of use or combinations of views needed for people to quickly and accurately grasp the insights.

In this article we will show how the needs and opportunities of strategic, tactical and operational activities must to be clearly understood and catered for to allow information to be the valuable asset it can be. This creates an **information environment** aligned to business goals.

### ***Getting Results – why information matters***

Getting things done requires input from our environment, thinking about what is important and taking action and then repeating these steps - sensing how our action helped or hindered what we were trying to achieve. This “results cycle” can be illustrated as in the model below. The model has relevance for strategic activities (e.g. what should our product base look like), tactical activities (e.g. how do we resource and implement the project) and operational activities (e.g. what does the customer want and how do I facilitate this), as well as personal actions.

We start by sensing that something is required (i.e. a service, product, or business improvement) – either from a new input, own creativity or previous actions we have taken. The “data” from this is tested against our goals and guidelines, we decide based on knowledge, our resource constraints and benefits how to meet the need, and then we execute it.



The power of articulating the results cycle process is that it gets people asking the right questions at each step, and by doing so, guides action to a successful conclusion.

At each step, information can play a vital part – but only if it has (1) been captured in the first place (2) has metadata that links it together so we can grasp patterns and (3) is made available in a timely way through interfaces that help us draw accurate conclusions.

### ***Making information a more valuable asset***

In an organisation, the role of information in results cycles affects outputs particularly strongly in three ways:

- **Transparency.** Providing people at all levels and activities with feedback on results and the business environment to enable them to ask the right questions and focus resources on improvement and opportunities.
- **Interaction.** Being able to readily ‘helicopter out’ from individual transactions, so that overall trends are readily apparent, as is say the total relationship and transactions with a customer or all aspects of a particular service or asset we have.
- **Providing consolidated “information at your fingertips”** views of transactions with customers, asset performance, products, key processes etc, to enable people to make more informed decisions whatever their role.

### ***How do we achieve this? Five enabling actions...***

So, information can be a valuable asset in different ways for strategic, tactical and operational activities. There are disablers that hold back its value. Below we articulate five “enabling actions” you can consider that, between them, get the results cycle working better for everyone in the organisation. Here they are in summary:

#### **1: Apply GRiT<sup>1</sup>**

Testing and making adjustments to the business, so that there is clear alignment between the organization’s goals and data captured, shared and exploited.

#### **2: Tuning the information environment for different roles**

Testing how well the information environment meets the differing needs of people working on strategic, tactical and operational activities.

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<sup>1</sup> GRiT is a registered trademark of Information Leadership Limited

### 3: Results Transparency

Testing the quality, timeliness and relevance of results feedback to people in the business. Making changes and reframing why results reporting is important, so that data is available and presented in ways that lead to actions that improve results.

### 4: Right tools for interaction

Reviewing the needs people in different roles have for creating, sharing and exploiting information. In particular, considering how different views and tool sets can lead to results cycle improvement.

### 5: Business Taxonomy

1-4 won't work unless there is a solid taxonomy that connects overall business goals and results, to well defined functions, activities and services that describe how tasks are undertaken and accountabilities measured. The taxonomy allows data and documents to be filed, found, collated and shared as needed.

### *Enabling Action #1: Apply GRiT*

#### **Alignment of the information environment to business goals and results**

“GRiT” is a deceptively simple model that helps frame the role of information and technology within the organisation. It can be used to test business plans, policies and guidelines, determine how performance is measured and set priorities for IT and IM related initiatives and operations.

GRiT stands for “goals, results, information, and technology”. This spelling shows what informs what (left to right, despite quite a few IT and IM professionals thinking often being right to left with the “I” being an afterthought!).

The logo for GRiT features the letters G, R, i, and T in a bold, sans-serif font. The letter 'i' is lowercase and is enclosed within a white pentagon with a black outline. Small grey circles are positioned between the letters G and R, R and i, and i and T.

To use GRiT start by identifying or ensuring that there is clarity about the **goals** of the organisation – this includes vision, mission, values, statement or intent etc.

Secondly, identify the **results** that would tell us whether we are making progress towards meeting the goals. These results should cover the business overall, and the specific functions and activities where crucial aspects of responsibility have been identified as an outcome of the business strategy. This is where we can get very specific about what we would expect to see, hear and experience if we were meeting, or on track to meet, the goals.

Once we have reached this stage we can then focus on the **information** that we need. Every result from GRiT needs real measurable data on a small number of interlocking success indicators to tell us about the results. Information is also needed to provide the various services. An audit process can identify any gaps that we have. For example, it would be helpful to know specifically which processes or circumstances make up the majority of our customer calls so that we can prioritize opportunities to improve these.

Often, we do not collect the right information at the right level of detail to answer these strategic, tactical or operational questions. This highlights the potential need to make changes to our **technology** or to use our technology differently.

### ***Enabling Action#2:***

#### ***Tuning the information environment for different roles***

While there are many ways to categorize activities within a business, we have chosen a break-out of strategic, tactical and operational, as they have such different data needs.

#### **Strategic: “The Right things...”**

*Key Phrase: ‘Intelligent Questions, Timely Answers’*

If we could know anything about our business what would it be? That is the promise of intelligent use of data. For strategic activities the mantra is “what are the right things?”. For instance:

- What product and service mix do we offer?
- What customer base do we focus on?
- What partner and supplier relationships do we have to deliver?
- What are the ways of allocating responsibilities into functions and activities?
- What should we have core competence in versus contract out?

When the information that we receive through our research is inconvenient, how will we deal with that? If an executive has staked her reputation on a new initiative and the customer feedback is overwhelmingly negative then the temptation to ignore or dismiss the feedback, in the short term, is a powerful one.

In Jim Collin’s book “Good to Great” he discusses a key attribute of great organizations as being the willingness to review the data and take action. Not surprisingly, this is also a prerequisite for effective information management. This willingness includes taking heed of the bad news! In WW2, Winston Churchill set up an intelligence team to simply give him the facts – no interpretation, no spin.

In Levitt and Dubner's irreverent book, about asking the right questions, "Freakonomics", they cite many examples of where a behaviour or linkage between cause and effect is suspected and the analysis of the data proves or disproves it. In particular, we like their thinking on the problem with "conventional wisdom". To quote "conventional wisdom ... must be simple, convenient, comfortable, and comforting – though not necessarily true". That is, hard data, with the right tools and intellect can prove or disprove the so called wisdom.

Often the strategic questions are answered by executives based on their predispositions that have arisen from their previous experiences or capabilities, or on what their Board or Chairman clearly expects. This may be quite valid, but won't it be nice to test this conventional wisdom with the data?

To achieve this we need to bring together the following:

- Open minds on the insights the information may provide and curiosity to start asking questions
- People with the time and capability to do the thinking and analysis, who will drive the results cycle
- The right tools for the analysis, its presentation and resulting dialogue
- The information itself. Often, it is too hard to get a complete picture of the information - however a statistical sample can be a cost effective way of building a model of the whole - for later modeling of 'what if' questions and outcomes.
- Ways of describing the information that allow it to be collated, aggregated and analyzed - this includes #5 below - Business Taxonomy

### **Tactical "...Configured right..."**

*Key Phrase: 'Transparency and Accountability'*

Tactical is the meat in the strategic (the right things...) – operational (...delivered right) sandwich. This is where middle management and project leaders and implementers earn their crust by setting up and then making the adjustments to the day to day operational activities and relationships that deliver the right things.

Their information environment needs to be quite different and firmly focused on transparency, accountability and collaboration. They need the toolsets to plan action and confirm what has been achieved in relation to this. The results cycle thinking is particularly relevant here, in that as they make fine adjustments they need feedback on the impact of these adjustments, relative to what is important.

As an example, consider a services organisation that subcontracts to Councils. We helped them set up an information environment, tuned to the needs of their managers and supervisors. This was designed to give them daily feedback on quality audit results, maintenance tasks undertaken versus scheduled, complaint

reports from the public and customer satisfaction from Council contract managers and the public.

The managers and supervisors can splice and dice the data and set up escalations by team, activity, area and contract. Has this made a difference? Absolutely! Niggles that took months to solve or stayed around like a bad odor were suddenly highlighted in Technicolor. What was acceptable by not being reported and placed inconveniently on desktops every morning becomes unacceptable with the new level of “transparency”. This is also starting to have an impact on strategic reporting and goal setting, as the quality of the information is so much better. Also, strategic meetings no longer get bogged down in the bad odors of the past – the time and effort at this level can be focused on truly strategic outcomes.

In another example in a utility environment, customer power outages were reported monthly – and usually made available to management 2-3 weeks into the new month. The new tactical environment meant that an outage one night was analyzed and displayed in the lunchroom by morning tea time the next working day – with a map of the area and problem and length and impact of the outage. This significantly changed behaviour and got real “what if” thinking going into how to avoid outages and how to manage them better. That is, the results cycle speeded up from once every month to every day and every outage, and at a more relevant level with more data and anecdotal evidence available because of the quicker timeframes.

To achieve this we need to bring together the following:

- Having timely accurate and relevant results measures available
- Task tracking and collaborative workspaces available
- Having people who are tuned to results cycle thinking - are curious about what is happening operationally and willing to act.
- Ways of describing the data that allow it to be collated, aggregated and analyzed - this includes #5 below - Business Taxonomy

### **Operational “...Delivered Right”**

*Key phrase: ‘Information and processes at your Fingertips’*

Operational is where the rubber hits the road. Many organizations are strategically very smart but dumb operationally. This is particularly the case with mergers, acquisitions and senior leadership change, where the new leadership is out of synch and not prepared or predisposed to walk the talk with the operational culture and information environment they are provided with.

In a fast paced operational environment staff must have all the data that they need when and where they want it and in a useful format. It is here that the links between information become vitally important. For example, the connections between core customer data and individual customer transactions or the connections between payroll data and individual employment contracts actually link multiple data sets together.

We have seen many information environments which can only be called “toxic” - the classic case is the orphaned call centre where operators have under powered PCs with small screens and are then asked to learn to use half a dozen different systems and interfaces to bring together a picture of the customer or start a service order. Operating units are either relieved to not have to answer customer calls any more or indignant at having them forcibly removed – thus they don’t give the call centre the knowledge or backup to make the changes that are really needed. The operators spend more time just mastering the screens than actually listening and understanding the customer. This leads to information accidents, poor service, high training costs, high churn rates and the classic Mexican stand-off - those provisioning the information environment are not charged with responsibility for the call centre, and those in the call centre are not empowered (and usually not technically aware of the possibilities) to make their own IT choices.

The connection between data and documents is often the ‘dirty secret’ of information in many businesses. While much information is codified and stored in databases, still more is held in email systems, in people’s in-trays and on hard copy job and contract files. Few businesses are adept at managing , and connecting, their structured information (held in databases); semi-structured information (held in shared drives and document management systems) and their unstructured information (emails, hard copy documents) Expecting good results from knowledge workers while expecting them to operate with one hand tied behind their backs is optimistic at best.

One of the downsides of the failure to connect these information resources is that a lack of trust in data is a significant barrier to its use. If I am not convinced that the data is correct or incomplete then I will create my own data stores – hence the proliferation of Access databases, spreadsheets and the dreaded unstructured shared network drive, even in organizations with EDRMS systems!

To achieve this we need to bring together the following:

- Frontline staff are able to access information they need to do a great job, wherever they are? Have you personally tested this? - if not, consider doing so today
- Having data and documents tied into common “single view of a ... ” to enable people to see the whole picture.
- Having all services clearly articulated by business processes, that tie into the business taxonomy and results measurement.

- Not having data privately owned by individuals or teams
- Having timely accurate and relevant results measures available
- Ways of describing the data that allow it to be collated, aggregated and analyzed - this includes #5 below - Business Taxonomy

### **Enabling Action #3: Results Transparency**

*Getting serious about measuring results - for improvement*

Imagine this. You are playing rugby. Instead of the score being known as it happens, it is being discretely recorded. Two weeks after the game the “results” are available as the number of passes received, injury time and percentage of time spent in each part of the field. Probing further and after much effort you find that your side lost 22-20 after leading for most of the match.

Sounds ridiculous, doesn't it? Yet, that is the predominant way results are captured and made available in the corporate world. After the event, not always relevant, not to the people who can may the results cycle improvements and often not linked to our goals (i.e. winning).

In the sports arena, does direct feedback in real time through good interfaces (i.e. a 20x30m scoreboard in plain sight) make a difference to how teams perform? Absolutely – with results cycle thinking being applied with the ebb and flow of the game. Notice too that the focus is primarily on the result, so it can be altered as the game progresses versus an after the event post-mortem of performance.

Would this type of reporting make a difference in your organisation? Most likely yes, but does your information environment provide for it? Most probably not.

There are three problems that need to be resolved here:

- **Right measures.** Firstly do we know what the right combination of measures is for each activity, so that they get feedback that is helpful to the results cycle.
- **Information descriptors.** Is there a common business taxonomy that describes the performance data in ways that allow it to be aggregated or summarized for tactical or strategic use?
- **Culture.** Is the organizational culture mature enough for individuals to receive feedback on performance that does not spawn interference, blame, politics or subterfuge?

Many organizations don't solve these problems and the value of the information is never realized. Instead, they have a culture of measuring what can easily be

measured and what they want to measure and avoid the inconvenient airing of dirty laundry.

### ***We want to improve, don't we?***

Of course, all the data in the world isn't going to change things if there is no willingness to act. Have you been in organizations where the customer feedback did not support the direction in which the organisation was heading? The customer feedback gets ignored. If people see that nothing happens as a result of all of the data collection and analysis then their commitment to getting it right drops rapidly e.g. "I submitted the same monthly report this month as last month and nobody noticed!"

The way forward here is to

- Set up a Business Taxonomy that explicitly links organizational outputs to actions taken in a way that allows for aggregation.
- Make measuring results not an "extra" but part of the business process.
- Determine whether we are focused on the two or three KPIs per activity that are the strongest indicator of performance or do we have a grab bag of up to 10 that make it difficult to see the wood for the trees? We need to identify each of the services (internal and external) that the organisation provides and for each design the right mix of 3-5 key interlocking measures
- Focus the measures on results needed, with an expectation that people can and will make changes to how they work based on these. This means that the call centre person needs results that they can alter directly (e.g. rings to answer; average caller time for them, and not profit for the business or number of calls taken annually - these can be important measures but they are for other people).

### **Enabling Action #4: Right tools for interaction**

*Right tools for the job*

One of the biggest barriers to better results cycle thinking is the lack of time we all have. People either skip steps, make hasty assumptions or just drop "what if" thinking as being too hard. This is where the right tools for interacting with data are essential. As described above, giving a call centre operator one small screen and six different systems with different interfaces is not the answer. These tools must be specified based on the needs of roles. These can include:

**Web browser** based intranets giving "single view of a ..." presentations of data and documents, consolidated from different systems. Better still, to use a business process management (BPM) approach and have the knowledge base, questions to ask and business process all combined.

**Collaborative workspaces**, such as a well managed SharePoint environment can offer open ways of a team communicating on tasks. This includes creating a total workplace environment that tracks results, tasks, dialogue and documents.

The approach also cuts down on emails thus simplifying records management compliance and easing risks from the difficulty of tracking commitments made by email.

**Data Visualization Tools.** The ability of a business to use its data is often significantly compromised by the poor presentation of this data. Data visualization tools help us to identify and understand patterns of data. Just as any business that provides and maintains assets throughout a geographic area would struggle to remain competitive without GIS so we must get smarter about displaying and understanding data that is not spatially located. How can we display the relationships between the different data sets in a way that will help people achieve insights, see trends and identify opportunities?

To achieve this we need to bring together the following:

- Identify for different roles what their toolset needs are. They will often have a good idea themselves based on their daily frustrations.
- Identifying the small number of core data dimensions that warrant specific views. This could be by branch or geography, by type of customer, product or asset class. This should be determined at a strategic level. Once these are known, determine through showcases what tools and views are most helpful.
- Ways of describing the data that allow it to be collated, aggregated and analyzed - this includes #5 below - Business Taxonomy

### **Enabling Action #5: Business Taxonomy**

*Standard ways of linking strategic, tactical and operational information*

A significant barrier to more effective use of information is the different repositories and different ways of describing information. Asset information may be held in different systems depending on how an organisation has evolved. Employment contracts and payroll information are often stored and recorded separately. Different teams deal with different types of customer enquiries and each has their own system and way of recording customer information.

Business taxonomies describe, in a standard form, the functions, activities and services provided by a business. They can help make the connections between different types and repositories of data.

Our experience is that this process is not for the faint hearted. It exposes the activities undertaken in a business and can be revealing as this is often the first time that the business has been mapped in this way. It is not unusual for the taxonomy to reveal that there were multiple teams with responsibilities for different aspects of an activity – e.g. property maintenance and security for a geographically distributed organisation, or one with many activities. This duplication might or might not be a bad thing. Mapping the business in this way presents opportunities for the 3 'C's to be applied:

- Comparison –what are our service standards and how in each area are we meeting these?
- Consistency – are there common processes or best practices that one area uses that others could adopt?
- Consolidation – can some or all of the tasks be combined to one delivery team and the accountabilities changed?

The Business Taxonomy approach can also provide the backbone for business planning, and internet and intranet structures. The emphasis on the functions, activities and services of the business focuses the mind on the things that the business exists to achieve. Along with the 3 C's, the applications of a well designed taxonomy include:

- Strategic. Linking up with the goals or the mission statement of the business provides a test of the extent to which particular activities support these goals and provide the impetus for asking the question "If this activity does not clearly support any of our business goals then why are we doing it?"
- Relationship Management. For identifying all the key relationships the business has with others and then using this to plan strategically how to manage the relationship better.
- Knowledge Base, that captures and makes available to different audiences knowledge nuggets about each function, activity and service. This can then be applied to cleaning up from a consistency and completeness perspective and gaining real value from intranet and internet sites.
- Strategic Framework, for visualizing and summarizing results and outstanding items in a standard way. This framework can also be a method for driving standard operating procedures, policies or the instigation of risk management, quality assurance , legal compliance etc throughout the organisation - because there is now a way to describe it and see anomalies or progress.

The way forward here is to

- Set up a Business Taxonomy by taking a "top-down" view of functions and activities needed to meet the key business objectives.
- Complement this with a "bottom-up" review of data, documents and information, so that there is a home for everything.
- Validate the taxonomy by sampling a wide range of information and involving people across the organisation
- Apply the taxonomy structure to "un-structured" information - email folders, paper files, electronic shared drives and workspaces and EDRMS

- Apply the taxonomy to how data management systems describe customers, locations, assets, projects, products, services, activities etc so that it is easy to get consolidated views across data sets
- Consider each of the four taxonomy applications above as well as the 3 C's to create value. Include in this effort a review of organizational through to team level KPIs that align with the taxonomy.

### Summary

The sheer amount of data makes it hard enough to just secure, let alone exploit. To really get the value from it needs a partnership approach across the business – led from strategic thinking about the organisation that sees:

- Right data captured
- Aggregated and compared via a business taxonomy
- Made available by the right tools to the different roles and needs people have
- In a culture that welcomes feedback on results, no matter how inconvenient, as a means of driving improvement
- People trained and expected to test “conventional wisdom” with the data and to drive the results cycle

