INFORMATION ACCEPTANCE AND INFORMATION OVERLOAD: TOWARDS INFORMATION REFUSAL?

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I have an information for you, are you interested? Are you curious? Of course you are, everybody is. For centuries, we have been taking for granted that information is "a good thing". One information is good, two informations are better. This is what can be called the progress paradigm for information (Frion, 2009a).

In competitive intelligence (CI) activities, maybe more than in any other activity, information is valuable. Throughout professional experience in CI since 1996, and throughout CI literature, the progress paradigm for information is real. Our information practices are based on this progress paradigm, our management too. This tacit acceptance of information is now challenged by Information Overload (IO). In this article we investigate and question this paradigm. Are we still in the progress paradigm with information if we suffer from information overload?

What are our options against information overload? Are we going to keep on accepting or tolerating information in an information overload situation? Are we going to start avoiding information? Isn't it time to imagine a more radical approach: a Methodological Information Refusal (MIR)?

Current information management-based on experience-is mainly a treating process. Many authors consider that interpretation is a critical element (i.e. Daft & Weick, 2001) such as in illustration 1.

Illustration 1: Basis for a model of organizational interpretation (Daft & Weick, 2001, p. 245)
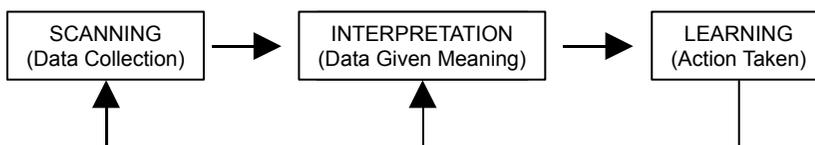
This simplified refinery model is out of breath. Organization made with this model does offer a satisfying answer to the overload of data we experience in the 21st century. Human-computer interaction has not solved this problem either. Adding data in the system often brings indecision. We need another "information" management model and a new individual competence.

THE ACTUAL INFORMATION PARADIGM

A paradigm is a tacit conceptual framework, a set of rules and dominant ideas, an example to follow. There is no alternative. A change of paradigm is a revolution. Identifying a paradigm is not suggested to make friends. Being aware of a paradigm is already questioning it and restricting it to some needs and uses in context.

The progress paradigm for information is as follows: we tend to accept information even thought we don't know what it is all about. For instance, we follow the news everyday with no agenda beforehand, like a ritual based on luck for want of anything better. To this respect it is difficult to distinguish curiosity from distraction. Is it still professional to spend a substantial proportion of our time reading data that are mostly not used? Isn't it the point of environmental scanning: watching if anything has changed, hoping nothing has? We feel happy to gather the maximum variety of information and we try and make sense of it collectively in order to turn it into actionable knowledge. We mainly process existing data and information. We believe it is necessary to go through available prior knowledge (Frion, 2009b). We believe information is neutral and its processing will provide us with bits and pieces of a puzzle showing the big picture of the environment. We believe that foreknowledge is a must and that information prevents us from blindness, hermitage, ignorance and indecision. Scanning the available information would lower uncertainty, ambiguity, equivocallity, anxiety and risk.

A MODERN PARADOX: INFORMATION OVERLOAD AND LACK OF INFORMATION

There is a paradox of perceived information overload and lack of information (Blanco, Caron-Fasan, Lesca, 2003). Let's concentrate on the first side of the coin for the time being. In this article the words data, information, knowledge are used with no real distinction because the progress paradigm appears with both of them (with different specificities).

We are starting to have too much information. Nothing new under the sun will you say? For sure, information overload has been experienced at all ages throughout history, but we are supposed to be in the information age and Internet, for instance, is making our lives particularly difficult with IO. Many scientific authors (Miller, 1962; Miller, 1980; Edmuns & Morris, 2000; Eppler & Mengis, 2004; Savolainen, 2007; Jonhson, 2009), ministerial members

(Bouyeure, 2009, p.2), journalists (Muzet, 2006; Naish, 2007) and practitioners (Wurman, 1990; Taleb, 2005) talk about this situation. First, available information does not prevent us from blind spots. Second the information we need can be absent of the asymmetrical market of information. Third, starting by processing existing data will limit creativity to resource-based creativity and will exclude pure creativity as not professional.

In order to study information overload in an exploratory study, we consulted the largest competitive intelligence publications from 1996 until 2008 included from the Society of Competitive Intelligence Professionals. Four publications have been reviewed and we went through the available material to date (1231 documents used. 256 other articles could not be accessed from Scip & Wiley's databases):
−   Journal of Competitive Intelligence and Management from Scip and Wiley's websites (Jcim);
−   Competitive Intelligence Magazine (Cir);
−   Competitive Intelligence Review (Cir);
    and Scip Online (So).
We identified various articles concerned with information overload (see table 1).

	Cir	Jcim	So	Cim	Total or % mean
1- Total number of available articles	334	60	124	713	1231
2- Number of available articles including explicitly information overload	22	7	34	25	88
%	6.6 %	11.6 %	27.4 %	3.5 %	7.1%
3- Number of available articles including the exact phrase information overload	14	7	31	23	75
%	4.2 %	11.6 %	25 %	3.2 %	6.1 %
4 - Number of available articles including one or several IO concern(s) except the exact phrase information overload and except variants	63	13	72	80	228
%	18.7 %	21.6 %	58 %	11.2 %	18.5 %
5 - Number of available articles including one or several IO concern(s): 2 + 4	85	20	106	105	316
Maximum % (Number of available articles including one or several IO concern(s))	25.4 %	33.3 %	85.4 %	14.7 %	25.7 %*
6 - Number of titles that include an information overload explicit concern	0	0	/	1	1

Table 1: Appearance of information overload in Scip literature between 1996 and 2008 (included).
* Some double counting may appear.

Results and analysis
– 18.5% of the Scip publications include a reference to IO.
– 7.1% of Scip publications include an explicit reference to IO.

Desouza (Desouza, 2001) is quoting a study that covers information overload. "According to a study by Gartner Group (2000), the amount of data collected by an organization doubles every year. Knowledge workers analyze only 5% of this data. Knowledge workers spend 60% of their time searching for important relationships in the data, 20% analyzing the discovered relationships, and only 10% on doing something with the analysis (i.e., making decisions, implementing strategies and plans, etc.). Information overload reduces decision-making capability by 50%."
Information overload is frequently referred to as a general concern like changing technology and increasing levels of competition (Miller & Viver, 2004). It is never put forward as a critical matter.
Information overload is defined in these articles as: the existence of more information than can be effectively absorbed or processed by an individual. Colloquially known as info glut (Prior, 1998), What's "overload" you ask? According to many open-ended asset-building responses, its universal symbol is the weekly corporate ritual known as an "FYI"- a parade of stapled news clips with a limited perspective and an endless circulation label (Solomon, 1996).
Information Overload is an issue in Competitive Intelligence. Nevertheless, in many cases, information overload is used only once in a paper as part of the environment of the firm and not as a cornerstone of the information management.

IO is usually put forward to suggest two things:
– first information is hidden and people need to make efforts in looking for information, in the "ocean of events" (Weick, 2001, p. 244);
– second, data needs to be interpreted (Weick, 2001, p. 244), analyzed and turned into information, information into knowledge, knowledge into intelligence (Miller, 1999).

Most authors take information overload as if there were not too much information. Indeed, the only suggestion to avoid IO, is to work on gathering information and its management (Desouza, 2001). In other words: accept it and process it. It is traditionally suggested as an occidental evidence that we can process information with time and efforts or with filters (with intelligent tools, selection of access and people sources, collective sense-making, etc.). Another way is to tolerate it and limit ourselves to a few access and people sources (weeding through Internet content, specifically the web, takes time and efforts, Lisse, 1998) or to use filters (Lackman, Saban & Lanasa, 2000). Still, this is once again an information favoring approach. We think and complain about

information overload as a potential "bad thing". Some practitioners even consider that information is toxic (Taleb, 2005, pp. Xv, 59, 60, 224). Still, we act as if information was a "good thing". To this respect, our methods do not match our needs. For instance, no reference has been found in the material that was clearly and methodologically refusing information. Our micro-vision of information is favorable to information (every little bit helps) and our macro-vision is less favorable to information (20% of the Scip publication complain about information overload).

Last but not least, McGonagle presents the acknowledged fact concerning the Key Intelligence Topics (KIT) that "in practice KIT-interview projects always generate far too many KITs for the CI group to undertake" (quoting Francis & Herring in 1999). Given an overload at the start, it is unlikely that the CI function will ever be able to add other options to its process, so it is trapped in a subservient, passive mode, by the KIT process (McGonagle, 2007).

Over the material from Cir, Jcim and Cim (excluding Scip Online with no title index), only two titles mention explicitly the IO topic (McGonagle, 1997; Bonnie Hohhof. 2003) in a one page contribution each. The number of titles of articles that implicitly mention the IO topic in these three publications is close to the zero level. Information overload seems to be taken for granted but not studied.

VOCABULARY ABOUT INFORMATION OVERLOAD

The information overload reality and concept come in different flavors: information (input) overload, cognitive overload, content overload, too much information, overwhelmed with information, overinformation, abundance of information, massive information flow, huge amount of data collected, information explosion, deluge of information, infoglut, infosmog, data smog, information surplus, myriad of informations, paper mountain, non-stop avalanche of information, a welter of information, clutter, etc. Many articles include at least one of the following words or expressions: information overload (101), overwhelmed by information (50), huge amounts of data (35), abundance of information (17), mountains of information (17), massive information flow (12), information explosion (7), deluge of information (7), information glut (6) and info smog (3).

Of course there are various expressions like huge amounts of information, massive information flow, deluge of information, that do not strictly consider the large volume of information as too much. In French we find the words infobésité (infobesity), surinformation (overinformation), surcharge informationnelle (informational overload), info pollution, etc. In Spanish we find the word infoxication.

THE OTHER SIDE OF THE COIN

We have too much information in general and we also lack information in specific strategic questioning. And from this paradoxical situation, most CI professionals and CI academics seem to ignore the information overload side and seem to focus on what the author calls the luck model.

A caricature of the luck model would be an all-you-can-eat restaurant where they serve you information. You choose the restaurant (targeted approach) but you don't really choose the information which is served and you scan the menu (filtering approach). This approach becomes an all-you-can-gather information system. This material largely "chosen at random" is processed and if you are lucky you find nuggets. This reference to nuggets is frequent in CI literature (39 references in the Scip publications studied, such as Miller, 1999).

WHAT DO WE DO WITH INFORMATION OVERLOAD?

With information overload, suggestions are presented to cope defensively with it:

– more process (technology will sort it out according to Porter & Millary, 1996 for instance) and Information Acceptance;
– human expertise: scanning (Aguilar, 1967), analyzing (Bulinge, 2002) sense-making (Daft & Weick, 2001) and Information Tolerance;

rather than to fight offensively:

– there is no such thing as information overload (IO is rejected as non existent) and only some information is processed and targeted (Clark, 2003) and Information Avoidance;
– to wean someone away from information (Frion, 2009a) and Methodological Information Refusal.

There is a general consensus for using the old good tools to approach this new situation: we treat information. We focus (Neugarten, 2008), we process, we filter (Lesca, 2005), we analyze (Bulinge, 2002), we make sense (Dervin, 2003; Weick, 2001), we use new softwares (Porter & Millary, 1996), etc. individually and collectively. So doing, we act as in an information acceptance position or as in an information tolerance position. Often we accept any piece of information/data and we try and sort out the information from the info-trash.

Human practice expertise is also often put forward, not as a blinded acceptance of information, rather as a tolerance of information, that will be refined through collective sense-making activities (see Dervin, Lesca or Weick for instance).

Another elegant way to avoid information is pretending IO is not for real (read Tidline, 1999). Why, there is no such thing as information overload! What is real would be our deficient skills to process information. Do we all agree with the information overload definition as too much information in a period of time? The reference to "a period of time" is important. We are not overloaded with information at all times.

A POSSIBLE FUTURE INFORMATION PARADIGM

Apart from information acceptance and information tolerance, which are information favoring, what could help us escape this redundancy age and comments age? Where are the information age and knowledge age?

The avoidance of information is well known in medical sciences (Jonhson, 1997). Indeed, some patients prefer not to be informed about their disease than to be informed. They avoid discomforting information. It is clear that we sometimes behave in such a way in companies too.

Information refusal is based on the appreciation that the signal-to-noise ratio is low and therefore, environment scanning is often more a waste of time than a nugget discovery.

Illustration 2: A new continuum to replace the simplistic progress paradigm

Noise
and

Acceptance
Tolerance
Avoidance
Refusal

Decision
and
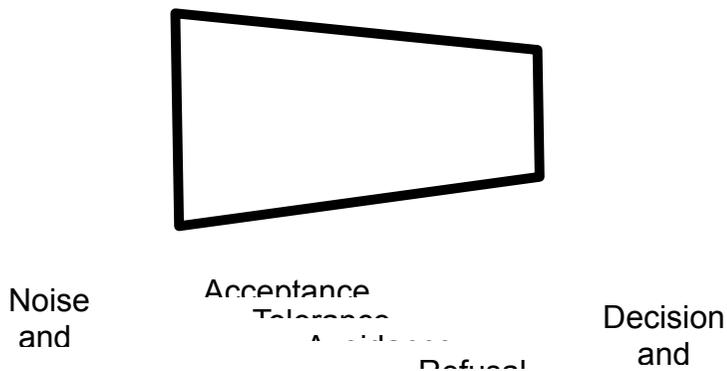
Instead of doing more information processing, see illustration 2 another approach is now suggested.

THE METHODOLOGICAL INFORMATION REFUSAL

The Methodological Information Refusal is the opposite to the information acceptance approach. Pushed information is refused, not to become an hermit, rather to start thinking by itself and not suffer from the first information bias (the first information is believed to be rather relevant and stays longer in mind). With the Methodological Information Refusal approach, after a real strategic questioning on projects, wills, needs, etc. it is time to go and seek information that will really fill the information gaps. This approach prevents from consulting available data and suggests to imagine and invent the really useful information.

This approach is particularly seen in small companies, where refusing data can be a pragmatic way to face information overload.

In real life, we should not separate information from reflexion (Frion, 2009b). However we have to notice that environmental scanning in companies is generally devoted to distinct groups of people: some get the available information and some others try and make the most of it.

A person who methodologically refuses information is not an idiot. He is humble because he knows that in a project the human contribution is decisive. He tries to know himself better and reckons that he can not acquire and process all the available information. He knows he is limited in his personal resources and he is trying to face the information processing and the strategic questioning on the go, giving a methodological order advantage to his projects, his strategies, his dreams. He doesn't want the available information to dictate his behavior and the decision making. He doesn't want to waste his time processing unrequested information (he is fighting against this situation).

Information refusal is more a philosophy and a guiding approach than a checklist to follow. Nowadays a refusal is generally seen as negative. Mentioning the possibility of refusing information usually provokes a sudden reaction such as:

- a) if you do that you are going to miss some information;
- b) are you lazy to the point that you don't want to process the information at hand?;
- c) each piece of information can help, we never know.

Possible answers to these remarks

a) If you refuse information you are going to miss some information!

Yes it is true, we will miss some information. Where is the difference with today's situation? We miss information today already. The progress paradigm for information looks like a bet that believes that from information will come performance and perceptiveness. As the time goes by, if we look back, we simply can not associate information and perceptiveness. Would you prefer scanning as much as you can information that you did not really want or start by imagining a project, a strategy, a scenario, etc. and looking up for little piece of information that you desperately lack of?

b) are you lazy to the point that you don't want to process the information at hand?

It can be difficult to consider refusing information as a professional behavior. It has to be said that in companies, there are lots of yes-people who always accept to join in meetings and to read clippings and reports. Is there clearly a positive return on invested time? If not, in the name of which guru shouldn't we explore another way for a while?

c) Each piece of information can help, we never know

What a beautiful theory. So is this luck model working? Is the maximum variety

theory always right? Can we master it? If the answer is unsatisfactory, the methodological information refusal is an option. Let's give a try. Try an quit. The information addiction deserves a profound personal implication so that the decrease of anxiety (Kuhlthau, 2005) effect and the time which is gained can be turned into more strategic tasks than simply processing available data that presumably many people can have.

Managing data is relatively reassuring. This is not the point anymore. Let's investigate further the methodological information refusal (MIR).

WHAT IS THE ORGANIZATION DEVELOPMENT AND CHANGE WITH MIR

The Methodological Information Refusal is pushing to decrease the downstream activities of data processing and to increase the upstream activities of questioning.

– Replacement of many databases by a needbase (work more on our needs and dreams than on the data and information at hand);
– Identification of managers' needs and lacks (not knowing should not be blamed, pretending to know everything or not asking for information should be more severely punished);
– Less data is better than more data (this is an information behavior methodological principle, not applicable for each situation);
– More inductive reasoning and less deductive reasoning (let's empower people with creative behaviors towards information invention);
– More curiosity and less distraction (setting standards to limit time wasting watching for nothing useful);
– "Information" shifts from a involuntary treating process and a product to the voluntary combination of a need and a lack;
– No information distribution if there is not a clear need and a clear lack first: stop spamming our supervisors and colleagues with "for your information" emails;
– Use of the "luck model" (seeking at random) on an complementary and irregular basis and not as the cornerstone of our (human and computer) information system.

This new approach is calling for more skills and competences, from which there will emerge a change in tools and a change in organization.

CONCLUSION

Information overload is clearly an issue for competitive intelligence. Unfortunately we face it with our old habits that welcomed information: therefore we accept and welcome information overload due to our culture, our education, our mindsets and our habits. Information overload is often a

justification for more structure and organization, for more retrieval and processing softwares. Instead, this article suggest a new individual philosophy and competence: Information Refusal (in a methodological way of course).

We need to question our approaches concerning information. The vicious circle of more data, more technology, more treatment has to be questioned for an alternative virtuous circle. The Methodological Information Refusal is an option to the progress paradigm for information. Is ignoring information overload in our information management a naive information process? This study can not tell. The author needs to carry on his work and cover other fields of the business like information management, decision making, etc. and other scientific fields (information behavior, psychology, sociology and philosophy at least) to highlight the salient points and reveal a more general situation. This first article on competitive intelligence and information overload in the Scip publications is not so much a review of literature than a call to suggest authors to explore deeply this topic as a central issue in CI. It is about time that the progress paradigm is challenged by alternatives, either to strengthen it in some situations, either to replace it by another paradigm. As one of several limits to this topic, information overload is a general concern, such as law, ethics, performance, etc. We should not ignore it but it is a tremendous shift to integrate it from the start in our information behavior. Our maturity in information behavior and information literacy must improve.

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