INTERNATIONAL

# MARKET & COMPETITIVE INTELLIGENCE

## MARKET INTELLIGENCE

Economic Intelligence for Action!

## TECHNOLOGY MAPPING

Applied methodology for knowledge discovery

## FORESIGHT

Future studies in the post-pandemic world

If you can dream it, You can build it!

# Letter from the Editor

Rom W Gayoso, Ph.D.

In this opening issue one will notice the abundance of architectural imagery. It is our way of using imagery to convey the concept of building, and in this specific case, the emphasis is on the importance of continuously building our skills as Market and Competitive Intelligence professionals.

This publication exists with the sole objective of promoting the exchange of thoughts and ideas, as well as industry best practices.
The magazine is a good vehicle for experts to share content, and for all of us to be up to date on the latest industry scope.

We will do our best to help you dream about novel ideas, encounter new tools & techniques, as well as revisit some tried and true concepts - they just need a new brush up before we can use them again.

So dive in and start dreaming about new intelligence concepts that will for sure help you build a better research  project.

Without further ado, I hope you enjoy it!

# Technical Information

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# Methods

## Technical Competitive Intelligence Method

By Rom Gayoso, PhD.

**A methodology for technology mapping, supplier evaluation or for targeted intelligence research**

In the event you need to map how a certain technology is evolving, if you need to compare supliers' capabilities, or if senior management asks you where are my competitors investing money - here is a methodology that will help you provide a good answer and get the task done in about 2 weeks' time.

If the goal is to understand what a competitor is doing, then it is important to start understanding what it cares about. In this case, we will follow the product life cycle: Ideas become white papers, some of them are good enough to be published, a few turn into patent applications; and, at the end of the tunnel we can find a couple of patents granted and - hopefully - one or two marketable products.

In this approach, we will focus on papers published, and on patents granted. Published papers require a lot of time invested, and patents are both work-intensive as they are costly. When we look at those items alone, we can understand what the entity truly cares about, and where exactly do they invest resources.

Though the analysis requires seven steps, you can certainly move in-between as often as needed. Say late in the discovery process you learned of a new facet, or a key stakeholder in your research project wants you to explore a different perspective. Thus, think about these steps as a biofeedback loop - where there is no penalty from moving back and forth.



Figure 1: Technical CI method
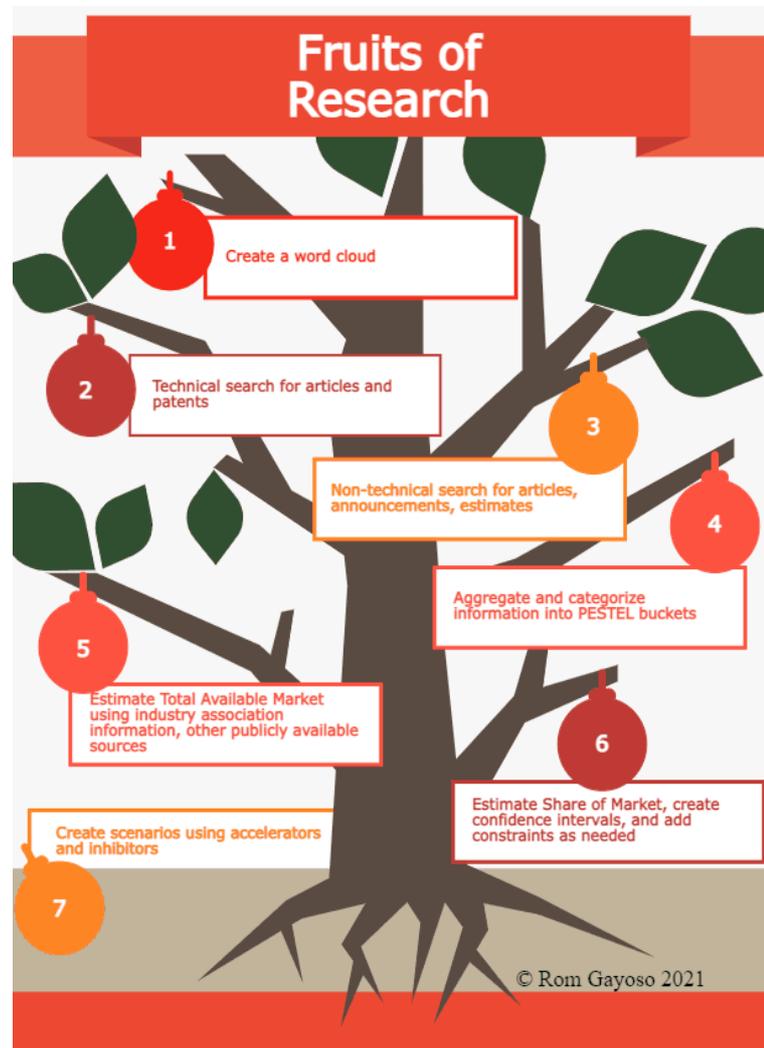
## Methods are important features in intelligence research

Using standard methodologies that are fully disclosed, and sharing the data with others allow them to reproduce the analysis. Since this is a social science, they will certainly arrive at approximately the same answer. This is important because it adds **VALIDITY** to our claims.

Having your study validated by another researcher is important because our projects involve strategy, finance, and other types of important decisions - and those are often accompanied by audits.

**Disclosure**, **repeatability**, and **validity** features are a sure win with an auditor.

*Research, like a tree, will yield many fruits - provided we care for it right.*

Rom Gayoso

# Methods

## The 7-step process

Step 1: Define the object of interest.

In this step, we will ask the object of interest to define itself. In lay terms, we are asking the "thing" to define itself. In order to do that we will use a data visualization tool called word cloud. Clouds are generated with the use of software, and they are just a visual representation of word frequency. Basically, the software counts how many similar words do exist in a document, and produces an image - the bigger the image, the higher the word frequency. Using software to perform this step is better than eyeballing the document (or website) because as readers we have bias - selective attention - and the software does not. In other words, the use of software helps reduce researcher bias. See Figure 2 below.

Figure 2: Word cloud from Abiomed.com



Source: Word art created using WordArt free platform, www.abiomed.com, article author

The largest words are Impella heart pump, heart care technology, health and patient care or assistance, and Oxy(-1) cardiopulmonary support system. We now know this is a biomedical device maker that specializes in heart and lung care solutions - which is the way this entity describes itself.

Step 2: What the entity cares about?

In this step, we will look at the object of interest's knowledge creation. In other words, what do people associated with this entity write about and what kinds of patents it holds.

In order to complete this step, it is necessary to access any article indexing engine you have handy. Elsevier's Engineering Village, Derwent's Web of Science, or Proquest - any of these sources catalogs literally millions of scholarly articles and papers. If you look at the author affiliation information, it is easy to identify what topics those employed by the organization write about.

Patent search also requires specialized tools. Derwent offers both the Derwent Data Analyzer and Derwent Innovation - which is accessible online. Though it requires a subscription, it is the author's opinion this is well worth the investment. Alternatively, you can also use the European Patent Office open-source tool called Espacenet. If you enter "lithium-ion battery" into the search box, you will find there are 358,534 entries in this patent collection. You can index it by author, by publication, and by priority date. You can also read the patent application itself. The selected entry is highlighted anywhere it appears in the text, and the patent can be read in a variety of languages. This tool is fairly useful and does not require any upfront investment. The downside is you need to catalog and index the patents yourself, whereas a paid subscription tool such as Derwent Innovation already does the job for you, in addition to a series of useful graphs, and even a heat map.

We need to consider articles published and patents jointly, for they answer the questions "what are your interests," and "what are you investing in." Next time your senior executives ask you what are your competitors investing in, respond with the information in this step, and your response will be solid - it is backed by information discoverable via open sources.

# Methods

Step 3: Non-technical search.

In the prior step, we were mostly concerned with peer-reviewed papers, and patents - which can be defined as technical searches. In this step, we will concentrate on other types of articles. The focus here is to understand what others say about this entity - or technology. Think about articles written elsewhere, such as in business or trade magazines or in blogs; also investment bank reports, public relations notes, press releases, research house reports, and other online sources. For example, Deutsche Bank's DBResearch site's "EU Monitor" service offers about 100 articles on a variety of EU policy issues - all free of charge. Similarly, research powerhouse IDC offers a great variety of its content, including trending data and their analysts' perspective online, and also free of charge. If business information is your cup of tea, then Dow Jones' Factiva is the answer to your needs. Factiva combines deep searches and a variety of filters that will make searching for an article, information or analyst report an easy task. Can you perform a similar search on major search engines such as Google or Yahoo? Yes, of course you can, but the results are counted in hundreds of millions of entries, so finding exactly what you are looking for will be a time-consuming task.

Step 3: Non-technical search (continued).

The goal in this step is to use a combination of different sources in order to help us ascertain what third parties say about this entity. One can ask why do we care about what others say? Steps 1 and 2 are the voice of the entity proper - what it says, how it portrays itself, and it is an effort to define itself. Step 3 is the outside world's perspective, and when we combine what one says with how others see it, then we can develop a somewhat more comprehensive view on this topic. Do have in mind - more and different perspectives will make your analysis richer.

Step 4: Data categorization

After we collected all that data from steps 1-3, now it is time to put it to good use. In order to process the data, we will use a tried and true approach: PESTEL. In this case, we will combine all of the information into a single file, and then categorize each of the pieces of information into a unique category using Political, Economical, Social, Technological, Environmental, and Legal buckets.

Say you are in the Stem Cell research business, and your search yielded several pieces of information. On one hand - use of live embryos to harvest Stem Cells was deemed "somewhat acceptable, but not desirable" in social circles, a new administration was voted into power, and legislation passed to block this practice in the country. On the other hand - new technology advancement allowed for cells to be harvested from other tissue, the business development people found a lab in an emerging market that could harvest cells for a fraction of the cost of your domestic market, and scientists agree this is a humanly acceptable way of disposing of the cell harvesting by-product. See Figure 3 below.

Figure 3: Data categorization example



Source: Mindmap created using Coggle free platform, article author

# Methods

Step 5: Market Sizing.

This is the market intelligence step par excellence - this is the market sizing exercise. There are several key performance indicators we could use - but typically units sold (or shipped), and revenue in currency terms are two of the most popular ways to size a market. For the purpose of this example, the metric of choice is units, and we are back at looking at satellite launches as the market and Virgin Orbit as the entity of interest. To get started we will establish three categories, namely Total Available Market (TAM), Share of Achievable Market (SAM), and Share of Market (SOM). We need to pick a time frame, say in one year, or use one of the timeframes the key research houses in this market tend to favor. For instance, Frost & Sullivan publishes an estimate for satellite launches using the '19 to '33 time interval, so that is as good as any. One way to think about satellites is to split them according to satellite size or according to launch vehicle size - and thus "small," : medium," and "large" are good labels. In this case, TAM would be all satellites launched, SAM would be small and medium, and we are left with SOM. Since Dan Hart said in an interview Virgin Orbit will make 6 launches in '21, and 12 in '22, then we have our definition for SOM. See Figure 4 below.

Figure 4: Market Sizing example
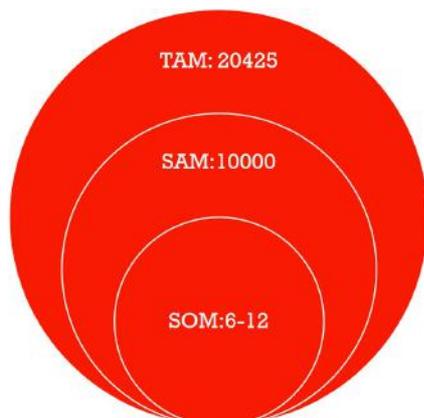


Source: Article author

Step 5: Market Sizing (continued).

The concentric circles are an easy way to visualize the TAM/SAM/SOM concepts. Of course, there are other research houses out there, and we can certainly compare figures or average them. For example, if the objective is to estimate the size of the semiconductors market, then it would be useful to average the estimates from Semiconductor Industry Association (SIA), IDC, and Gartner. In my experience, it is also useful to adopt a qualitative approach in this step. For instance, the Delphi Panel methodology is a commonly used technique to interview industry experts, and average their opinions. In addition to that, several investment banks publish their own interpretation of market size, so it is useful to read those reports to understand how they differ from your estimate - and most importantly - why they differ.

Step 6: Forecasting.

Since we have our estimates for the different markets, then it is time to make projections based on our findings. Again, the industry association and the key research houses in the market of interest will play an important role because they too make projections of market growth. The most common approach to forecast is to assume the entity is just an animal in the herd, and therefore its key performance indicator will grow at approximately the same rate as the herd does. For example, if SIA says it expects PC shipments to grow by 10% year over year, it would not be out of the ordinary to assume entities selling PCs will likely grow at approximately the same rate.

In addition to this approach, it is also useful to create your own model using macroeconomic variables and statistical software. Correlation-based models are a very good approach here, and in my own experience, I learned to use past errors in my models to create better estimates. Once historical data and past forecasts are on hand, then it is useful to extract standard deviations and build statistical process control charts, and use Monte Carlo Simulations to account for variability in the forecast. You can certainly also ask your panel of experts for a market prediction, so there are both qualitative and quantitative approaches to forecast your metric of interest.

# Methods

Step 7: Scenario Planning.
In this step, we are working to create scenarios around our estimates. In order to do that, we will go back to Step 4 - Data categorization and look at those PESTEL buckets again. We will need to reclassify the information, but this time only using two categories: Forecast accelerators and forecast inhibitors. It means we will look at the data and ask the question, if "this" takes place, will it make the forecast grow faster or slower? In our Stem Cell example, encountering a lab abroad that can harvest cells at a fraction of the cost implies lower costs, which will operate as a positive growth entry in the forecast, or a forecast accelerator.

The figure below is a mind map created using the example of the satellite launch vehicle, and there are a few sub-categories for both accelerators and for inhibitors.

Step 7: Scenario Planning (continued).
Specifically, there are 3 sub-categories for accelerators and inhibitors. After the data was considered individually, like-terms were then grouped into broader categories. For example, greater adoption of robotic assembly, use of more 3D-printed parts, and serial production of satellites (as opposed to batch production), are all changes in the way satellites are made, hence the title "production." Since more of these items implies production increases, this item is placed in the accelerator column. Conversely, increased market intervention in the form of excessive regulations or the adoption of protectionist policies operate to curb down demand for satellite launches, and therefore are placed in the inhibitor column. This visual uses green for "good" change and red for "bad" change, but you can certainly use any of the free mind map sites and play with colors to find some that suit your example best.

You certainly do not forcibly need to create so many images for your project, but in my experience, I learned visuals did better to convey my message than a standard spreadsheet ever could. In other words, adopting more visualization tools made my projects better, and surely easier to present.

Figure 5: Scenario Planning
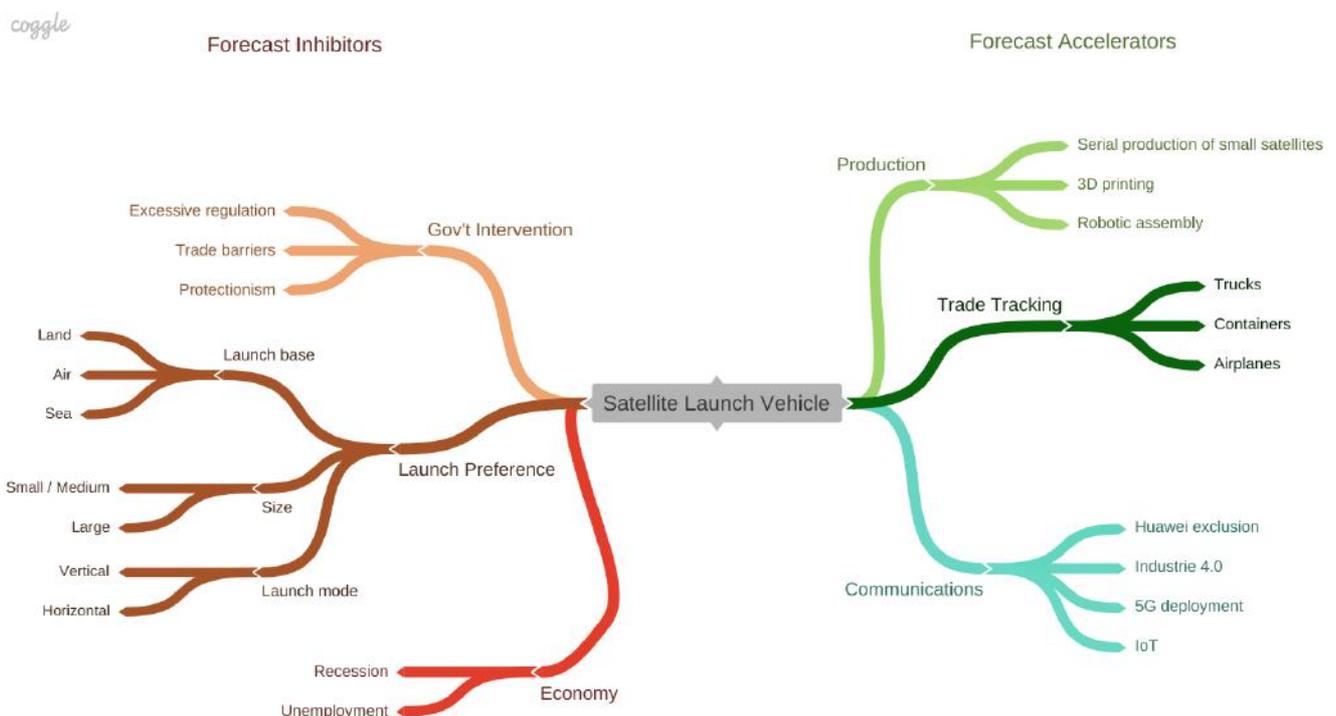


Source: Mindmap created using Coggle free platform, article author

# Methods

## Taking notes - the smart way!

By Dmitrii Kuptsov

**Using note taking methods to increase intelligence research efficiency**

The basic idea of this article is to describe how the smart note taking approach, in addition to some knowledge management strategies, can actually help you sharpen your information skills, and ultimately help you improve the way you work. You know the adage – work smarter, not harder. The more I use this approach when I work with new materials – I will describe the approach further down in this article – the more I realized I was making the journey from concepts of note taking to how the brain works (neurophysiology), and back. Before we address how the brain works, let us first talk about the basic principles of note taking, and why these principles are so important.

## Note taking

Note taking and knowledge management are very important skills in the learning process; and by that I mean how we process data, transform it into information that we will somehow retain for later use. During the research process we come across a lot of information we read in print, watch in videos and hear in podcasts. Literally, we come in contact with a lot of information delivered through different means and originating from a variety of different sources. Frankly, without some form of structured knowledge management strategy such as note taking, most – if not all – of our thoughts will very quickly be forgotten.

I do not want to offend anyone; I am basically talking about my own research effort and my experience processing information in a way that increases retention. If we stop to think about this, when we read information written in a text, it will first feature in our short-term memory, and without some form of additional work, only a small fraction of what we read will ever make its way into long-term memory. The decay does not stop there – an even smaller amount of information will make its way from long-term memory into actual knowledge that can be applied elsewhere outside the context of the text we originally encountered the information. It is often the case we transfer information from one memory place to another – but fail to increase our knowledge retention along the way.

It is a fair question to ask why this happens – and the answer is found in human nature, or the way physiological processes work. Researchers found at the cellular level those learning process activities operate to increase neuron to neuron contacts, and as a result of increased activity, those neural links are strengthened. We also know those neural connections that are more often used do tend to consolidate into clusters.

If you come to think about it, when we are working with small blocks of information as it is in the case of note taking in the physical space – we are seeking to create connections between the information we just encountered, and the existing blocks of information we already retained in our knowledge base.

This is indeed similar to how the natural brain works – neurons or sets of neurons are creating new connections called synapses, which is the way neurons exchange information. Those connections are very valuable because in the process of combining the new data with the existing information, we learn something new.

The way we organize, process and store the resulting greater amount of information helps us see combinations and relationships among the various bits and pieces of information that others did not realize existed – which is the definition of serendipity. In essence, we are discovering something new from the things we already knew.

# Methods

## Brain physiology

Let us now consider the learning process in the context of how the whole brain works. Scientists found that in order to save information from being forgotten, it must be transferred from the working memory in the hippocampus to the brain's cortex, where it is stored on a long-term basis. It is important to note the hippocampus is part of the limbic system – which is the part of the brain associated with the way we regulate emotional and behavioral responses, such as it is in the case of survival needs, like feeding, caring for young or reproduction. The hippocampus is responsible for homeostasis, learning, motivation, memory, emotions, human communication, olfactory, as well as many psychologic functions. Since we have this well-developed complex brain structure to rely on, it is easy to understand why information associated with emotional concepts or found in a behavioral context is actually easier for the brain to process, than say some abstract concepts.

We now need to ask about thinking, sensing, and discovering – how are those concepts transmitted from short-term to long-term memory? Here we need to discuss the neurophysiology of thinking. The three major brain networks for thinking are the default network, the salience network, and the central executive network.
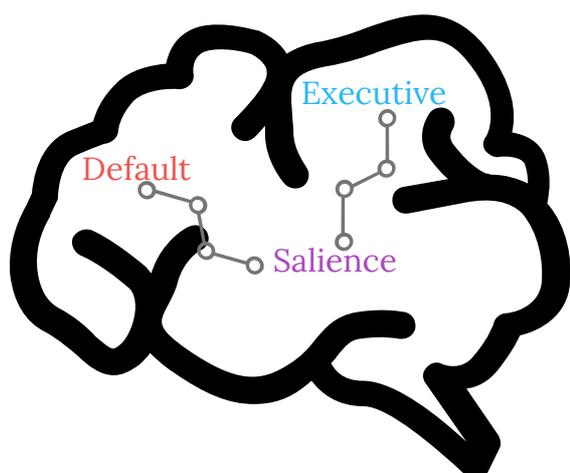
When we are not concentrating on some activity, our brain is using the default mode network. This network has internal and social focus, and it is the way the brain works in passive mode. This means our brain is always working, even when we are consciously at rest, for when the brain is at rest, it is mostly working on human behaviors, and sometimes even on some problems. This is why when we are at rest, sometimes some unexpected solution appears in our head – we have the passive brain or default mode network to thank for that. In fact, scientists say upwards of 90% of the energy consumed by the brain is used to support this very important brain function, the default mode network.

On the other hand, we have the central executive network, which integrates sensory information and interoceptive awareness (i.e. awareness of inner body sensations) to facilitate sustained attention, manipulates materials in working memory and weighs possible behavioral responses. In addition to its role in practical decision-making, the central executive network is also responsible for processing task-oriented functions, which are necessary for the effective regulation of emotions.

In addition to default mode network and central executive network, the brain has a salience network, which operates as the switcher between the two other networks, is responsible for relevance detection, and is also responsible for the integration between internal and external stimuli.

## Researcher example

Now that we have a general understanding of how the thinking process works, let us look at an example of a known researcher, and discuss which strategy or method he used to become more effective. One example of researcher effectiveness is Niklas Luhmann.

Luhmann was a German philosopher, social scientist and one of the prominent thinkers in systems theory. During his life he was a very prolific researcher – having published 75 books and in excess of 500 articles – some of those papers became seminal in the areas he worked.



Brain networks

# Methods

Looking at the importance of his work, acceptance in the academic area, in addition to sheer volume, we can say he was a very efficient researcher. So we can ask - what kind of strategy Luhmann used to be so productive?

There is no secret sauce here, in fact Luhmann created a method called Zettelkasten (German word for index card box). His method is quite simple, yet very effective. The whole idea is how to index a collection of note cards – Luhmann worked with physical paper notes – just like a Rolodex card – so he created a method to organize this information in a way that emphasizes connection of ideas, as opposed to the location of the information in the slip box.

There are six tenets of the Zettelkasten method: 1) One "note," one idea – which Luhmann called "permanent" note; 2) Be brief and concrete; 3) Use interpretation as opposed to direct quotation; 4) Avoid collectors' fallacy; 5) Use tags, instead of theme folders; and 6) Think of it as a wide link system.

Luhmann's approach paved the way for many other contemporary writers to follow - even Sönke Ahrens' "How to Take Smart Notes" or Arnold Schimidt's "Slip Dream" famous books are described as an indexing method based on permanent notes – both Luhmann's concepts.

> *When we take notes, it is a form of thinking in the medium of writing and in dialogue with the already existing notes in the slip box*
>
> Sönke Ahrens

## Making it work for you

Now we need to put those concepts to work for us. As my sensei (martial arts instructor) says, at the end you need to develop your own style, which is the best fit for you and your needs. Here we need to do the same thing – you need to develop your own Zettelkasten or information indexing process.

One easy way to start – one has to start somewhere – is to get a fix on the idea that is going through your head at this exact moment. Write it down – even if it seems weird or out of context on the first pass. Once you have those original thoughts (Luhmann's permanent notes) put together, they can be reassembled, recombined, and used to construct something bigger or altogether novel and unique.

When you are working with many sources and information is at hand, there are two approaches to note taking.

One way to approach this task is to write a note to a person you do not know at all, so you will need to be very clear, concise, and descriptive.

Another approach is to use your own senses, images, and associations to convey the key idea / concept at hand. I am more familiar with the second approach (using my experiences) – at times I even use mnemonic techniques to help organize those thoughts and combine those ideas together.

Usually, those words that contain unknown concepts or abstract meaning are very difficult for people to remember, so we need a strategy to deal with those. If the goal is to achieve lasting memory retention, and ease of memorization, then the word should be combined with other content using a mnemonic method. Such methods are associated with specific vivid visualizations (an image), a sound (or music), and anything else that evokes sensations or is emotionally charged.

Man
+ hat
+ beard
= XTMAS

# Methods

Here is the basic technique in easy steps: Replace abstract objects and exoteric facts with concepts and representations that have a visual, auditory or kinesthetic representation. This way we are linking those objects and hard to understand concepts with information already retained in our memory. We are just combining the new idea / concept with the information already in existence.   Of course, this is an iterative process, so you may need to go a few rounds and make all the modifications necessary  - until you are happy with the result. You will know when to stop – when the information is easily memorized. In other words, work with the new data and combine it with existing information until you can easily retain it. If we say "QWERTY" it has no meaning at all...that is until you look down to your keyboard.

## Knowledge management

The last point I want to make in this article refers to the knowledge management system. Of course, you can use Luhmann's physical paper cards, pencil, and slip box method.

Nevertheless, we are in the digital era, and one of the benefits of information technology is precisely software.

In my own experience I can attest the use of software will go a long way to improve the notetaking process, and help you significantly better coordinate the knowledge management process.

Of course we can get into more details of each software, compare and contrast advantages and disadvantages – and I can even share some tricks and tips for each one of them I use.

This, however, would require I further split this article or write a series of articles on this topic. In Luhmann's terms, each piece of software is an original note (permanent), and so are the advantages. I would just be recombining each concept to each unique piece of software. For now, I will provide you with a selected list  - my favorites – so you have some options to pick and choose. Do try them all, and discover which one best fits your needs. Here is my list:

Obsidian

Notion

Roam

TiddlyWiki

RemNote

Enjoy!

## About the author

Dmitrii Kuptsov is a security professional, competitive intelligence wanderer, and effective information skills seeker. He has been working in the field of security industry for more than 10 years. He has a master degree in CI and some interesting practical experience in this sphere. He is a Member of the Russian Society of Competitive Intelligence Practitioners and the Union of Non-State Security Services. He is a believer that only the interpenetration of academic and practical methods make real effectiveness and true knowledge.

# Economic Intelligence

## Economic Intelligence for Action

By Asia Aslam, PhD.

**Economic Intelligence is a key contributor to strategy success and Market Intelligence mastery**

Economic intelligence gained significant attention in the corporate world in the early 2000s, as two market forces collided: More data made available online than ever before and increasing market unpredictability. In addition to that, the business environment in the US forced companies from a variety of different industries – manufacturers, pharmaceuticals, and even banks – to make adjustments in their strategies to help them face an increasingly more complex, ever-changing market where global competitiveness became the norm.

Though nowadays a lot of companies have analysts and data scientists that can navigate the ocean of Big Data, it is also true economic intelligence is needed more than ever, as there is a need to find the linkage among a great variety of external business indicators, and how this data relates to the corporate strategy. Is there a correlation between a specific indicator and demand for your products? Or perhaps this connection is not merely correlational, but even causal? Economic intelligence is precisely this tool that helps you interpret the external signals, find relationships among the data, and draw conclusions about risks and opportunities for the business units. That is true not only for the domestic American market, but also for corporations abroad – as firms in Asia, Europe, and elsewhere face the same market pressures we face here in the US.



Figure 1: Picking an economic indicator

One way to understand the health of the economy is to look at economic indicators such as Gross Domestic Product (GDP), some form of business optimism, and a measure of consumer buying sentiment to understand how the business cycle works. In other words, indicators help us develop a solid understanding of how the broad economy operates and how it affects our business during periods of economic expansion, and also during a contraction. For example, if you are in High Tech, then IT Spending is one of the key economic indicators you should be monitoring; in addition to that, up and down movements in IT Spending are certainly correlated with the behavior of those economic indicators (business optimism and/or consumer sentiment). So during a phase of economic expansion , which translates into economic growth, there will be more growth in IT Spending, and therefore the market for your tech goods just became larger.

# Economic Intelligence

## How Economic Intelligence helps us better understand the market?

It is fair to say that Market Intelligence is precisely Economic Intelligence - and by that we mean the variety of ways the market economy and the market dynamics affect your business environment, and ultimately determine the fate of your corporate strategy. In fact, several key performance indicators (KPI) are directly related to the broad economy. For instance, Total Available Market (TAM), Market Segment Share (MSS) Analysis, even capacity, and resource planning are directly affected by the overall level of economic activity. When we do segmentation analysis and discuss the share of wallet – in reality, we are discussing what proportion of one's after-tax income will be set aside to acquire the goods and services we provide.

Another key contribution of economic intelligence is to help us focus on sets of standardized inputs – such as economic indicators – or those that have known units of measurement and defined frequency. Say we are looking at Quarterly US GDP measured in US$ Dollar terms – then we also need to match unit to unit, and thus we would adopt corporate reporting and forecasting targets using total sales in US Dollar terms measured in Quarterly increments.

> *Economic indicators help us understand how business cycles work*
>
> Asia Aslam

## Economic Indicators

In the USA, economic indicator data associated with High Tech goods is fairly handy as the US government even publishes how much its own agencies spend on IT goods. In fact, the USA intends to invest US$90.9B in such spending for FY 2021 (source: www.itdashboard.gov); but if you are more interested in a global picture, then most research houses have some form of estimate for global IT Spending. For instance, Gartner projected it will reach US$4.1T, thus exhibiting an 8.4% YoY growth. Of course, the key question in people's minds is when will IT Spending recover to the growth rates we used to see before the pandemic started.

This is, of course, the corporate perspective. We also need to look at personal spending to have a more well-rounded view of household IT investment. A good way to look into that is to consider the balance between people's intent to save versus our intent to consume, and a good way to gauge personal spending trends is to look at the Consumer Confidence Index. In other words, looking at government, private, and consumer IT Spending altogether is a good measure of IT Spending because it mimics the Keynesian model of Gross Domestic Product (GDP), where we consider economic growth as a function of consumer spending, private investment, government spending, plus the net of trade (exports minus imports).

It is a good idea to see how demand for your High-Tech goods correlates to IT Spending – it is common to see demand models that use IT Spending as one of the explanatory variables, along with some other broad economic indicators, such as GDP or Consumer Confidence, and some indicator variables to account for demand seasonality. For instance, countries in the West tend to see Q4 as a statistically significant variable, which means demand for goods in the 4th Quarter of the year is significantly different from demand levels seen in other Quarters. Countries in Asia, say China, for instance, tend to see strong demand in Q1 because it coincides with the Chinese New Year, when people typically exchange gifts, versus in the West when gift-giving season generally falls in the month of December or thereabouts.

# Economic Intelligence

## Lagging, leading, or coincident indicator?

Though it seems a bit confusing at first, economists like to define economic indicators as they relate to one another. For that purpose, we consider there are three possibilities: 1) indicator "A" changes, then indicator "B" changes - indicates a leading indicator ("A" is leading indicator for "B."); 2) Indicators "A" and "B" change simultaneously - implies "A" and "B" are coincident indicators; and 3) indicator "B" changes, then indicator "A" changes - implies "A" is a lagging indicator for "B". Understanding the time component of the relationship between the indicators is important because in economic intelligence we make use of economic indicators in prediction models; in other words, leading indicators often feature in demand models. One way to look at that is to consider how Consumer Confidence is an indicator for Consumer Spending – in broad terms, first people manifest their desire to spend more of their budget to acquire goods, then that spending takes place. If we are to consider the order of events, then we would see an uptick in the Consumer Confidence Index, followed by an increase in actual spending, as accounted for by domestic statistics.
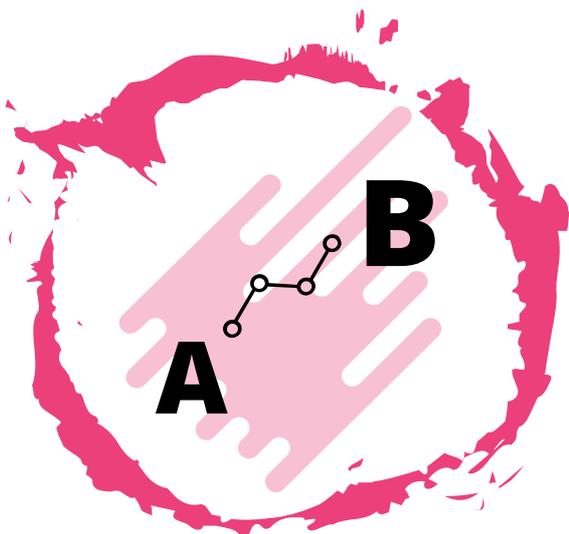
## Global, regional or local perspective?

It is often the case we talk about broad economic indicators – for example Global GDP – but it is also true if a company is globally displaced, meaning it draws revenue from sales in other countries, then it is useful to develop a regional, and depending on the importance of a given market, even a local demand perspective. For example, if a company draws a lot of revenue from the EU Zone, looking at Global GDP alone is not a good idea, for there is a lot of information associated with the regional GDP figure that might bring additional insights to your models. In this case, the European Union publishes a variety of information on its economy via Eurostat (the European Bureau of Statistics) free of charge. In addition to that, say one makes lots of sales in the Indian market, then one should develop an India market model – and for that, one can use the economic information available from the Indian Central Statistics Office.

## How about frequency?

It is also common to look at a variety of indicators – some are measured monthly, some are Quarterly, some are yearly, and some are even published in weekly increments. In economic terms, some data are labeled "high frequency," meaning they are published very frequently.
Which one should one pay attention to? It depends - one can use a combination of indicators – but make sure to align them to the frequency used to report demand and forecasts. One can also change the frequency of key indicators to use them in demand models, it is a simple and common statistical procedure. Bottom line: Pick the frequency that best suits your business needs.

# Economic Intelligence

## Why should you care?

"Where is the beef? Is often a good question to ask when you encounter any indicator or when someone tells you to invest corporate resources to secure some sort of information. For this, we will look at a very broad economic indicator published by the Organization for Economic Cooperation and Development (OECD) – the OECD CLI, or Composite Leading Indicator.

The CLI is important because it is a leading indicator for business cycles, in other words, this indicator provides information about inflection points in the economic cycle. For example, if a recession is imminent, then the CLI will decrease, and if there is an imminent economic expansion, then the CLI will increase from the baseline.

The value here is to call a change in the business cycle **BEFORE** it happens. Say we are about to enter a recession, then one should signal to planning, strategy and finance it is a good idea to start looking at places to reduce costs; conversely, if an economic expansion period is about to begin, then we need to ask those respective organizations for ways to flex up production in anticipation of higher sales in the early horizon.

Think about it, if you make adjustments in anticipation of the change in the business cycle and your key competitor does not, then you are on more solid ground than they are.

## The alphabet soup

By now you are feeling a bit confused – time component, frequency, and market coverage – are all important. Do not feel intimidated. Market sizing is as much of an art as it is science, and that means you will eventually test a variety of economic indicators until you find the right one for your business. Which one is right? The one that is statistically significant – that one belongs in your demand models. Even better, perhaps you have some relationship so powerful, it is causal, and by that, I mean it passes the Granger Causality Test. Of course, that is yet another story.

No matter what you do and the economic indicators you decide to use, if you select the right ones, it means your economic intelligence unit is providing actionable market intelligence, and it is providing strategy with meaningful information **BEFORE** a market change takes place, so surprises are minimized. In this case the corporation has some time to better align itself to protect itself from vicious downturns, while at the same time better preparing for the upturn cycle. If you can do that, you will be golden!

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# Competitive Intelligence

## Market Intelligence & Indicators: How to get an early start in the Big Data era

By Daniela Ramos Teixeira



Big Data Lake

Volume
Value · Variety
Veracity · Velocity

**The Corporate Intelligence value chain is most productive in an environment that fosters cross-department collaboration and knowledge sharing.**

In this era of Big Data, marked by huge volumes of data and the evolution of Market & Competitive Intelligence in Brazil, there is an even greater need for processes, norms, methodologies, and indicators to help us better measure and understand results.

An easy way to understand Big Data is to think about it in 5Vs' terms, which simply means it is defined as the body of technical solutions that allows one to process digital data in great volume, variety, velocity, veracity, and value.

Even before Big Data was ever popular, analytical capability was already a known competitive advantage for corporations; and now this tendency will tend to become even more evident, as corporations are picking up the pace of Big Data investment.

The combination of increased analytical capacity in addition to the use of indicators will certainly help your organization get a head start, position itself to win in the competitive environment and in the use of business data to extract meaningful insights.
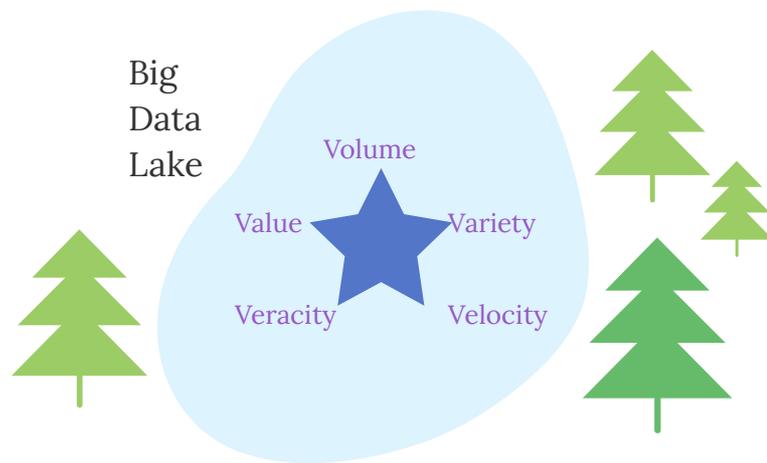
This article is about those important metrics we care about – the key performance indicators – and how one can use them in the Market & Competitive Intelligence arena. In fact, this topic is the focus of a training series REVIE developed to address practical competitive intelligence needs through the understanding of methodologies, analytical techniques, and other processes associated with key performance indicators analysis.

### Peformance & efficiency indicators

It is important to establish the level of corporate performance is determined precisely by the firm's ability to generate value to clients, partners, shareholders, and ultimately to ensure its own long-term existence.

In a way, one can look at performance and efficiency indicators to understand market performance, and ultimately, to evaluate the organization's results. Since there is a great plurality in the world of business indicators, it is important to note this article uses examples that focus on applied intelligence for Sales & Marketing organizations.

One way to think about applied intelligence indicators is to consider they could be split into two: 1) those that relate to the firm proper, and 2) those that focus on the external market and competitive intelligence environment.

Note it is important to understand Market Intelligence strategies add value to both the firm's data, as well as to further the understanding of the external business environment.

# Competitive Intelligence

## Indicators associated with the firm

One of the most common and most used indicators in the corporate world is Return on Investment (ROI), and very rightfully so, if the goal is to use a metric to help us decide how best to put corporate resources to work. Though this is an important indicator, it is not the only one. In fact, there many other alternatives to ROI – each different indicator serves a specific function and is associated with a different metric. For example, if one is trying to measure the level of product innovation in a given corporation, then the percentage of sales generated by new products would be an interesting indicator to watch. In fact, this indicator is associated with both Product and Competitive Intelligence (CI) which are axis of the REVIE methodology – and both need to be jointly taken into consideration, for one to make sense of the firm's position in the market place.

The REVIE methodology is a value chain model created to support corporate intelligence objectives and it is designed around four axis: Products (or Services), Competition (or Market), Clients, and partners.

It is important to focus on what management cares about in order to establish the best key performance indicators to track. It is precisely this focus that will ensure the output of applied corporate intelligence processes (and activities) will indeed be useful to company executives. Back to the example we used for the indicators associated with the firm, if executives are mostly concerned with evaluating the degree of product innovation  - we are back to the percent of sales generated by new products' indicator – then we are actually working along two of the REVIE's axis: Competitive (or Market) Intelligence, and Product Intelligence.

The second axis – Product Intelligence – focuses on all of the indicators associated with the product line (or with the service offering) portfolio. For instance, consider the number of product launches, how many of those were new products (versus product extensions) – and the financial result generated by each type of product.

Figure 1: REVIE methodology



Source: Daniela Teixeira

## About the REVIE methodology

REVIE is a value chain network designed to support business intelligence objectives. It is structured around 4 jointly integrated intelligence axis: Competitive, product / service , client  and partner. Collaboration is the main characteristic of the value chain. REVIE differs from traditional business intelligence – which focuses on internal collaboration – because it requires collaboration with clients and partners.

Knowledge sharing and collaboration are the building blocks of corporate intelligence. Results are the by-product of innovation and value creation – for clients, partners, the firm, and its shareholders.

# Competitive Intelligence

*The combination of Big Data and intelligence practices allows the corporation to be more agile*

Daniela Teixeira

This way we can see what proportion of the revenue was generated by novel products, versus that generated by existing lines. One should also consider the existing product plans and associated strategies – how many of those actually resulted in product innovations, and on top of that, how much return did these novel products bring to the corporate coffers.

The first axis – Competitive (or Market) Intelligence – helps you understand how your competitors are actually behaving in the marketplace. In other words, how are your competitors working the innovation angle? There are many variables to consider, but one can think of product development and ask the exact same questions we asked of the internal product offering, namely which products are associated with novel features. This way we would have constructed an innovation indicator for the firm's own products, and another for the firm's competitors – then we can actually use those indicators to draw comparisons across the market.

If you consider the dynamics, on one hand we have the internal business data collection taking place at the same time Competitive Intelligence is collecting secondary data on competitive products. This way Big Data resources and strategies come into play because they allow for the cataloging, collecting, storage and display of data in a way the firm can map its own growth, while at the same time developing deeper understanding of how competitors behave in the marketplace. This combination of Big Data activities associated with intelligence practices do allow for the corporation to become more agile in corporate decision making – and agility in today's hypercompetitive market is a must have. In essence, those corporations that can effectively use Market Intelligence (MI), coupled with business intelligence practices and Big Data tools – do have a competitive advantage, and are off to an early start in the competitive arena.

It is important to understand those activities are happening in parallel – the competitive intelligence arm needs to be in synch with the business data team – so that together they have a common set of indicators used to compare activities both within and outside the corporate structure. This close collaboration and alignment will allow both entities to function in unison, and therefore their collective effort will surely help the corporation achieve its market objectives faster.

It is important to note in this collaboration example, as intelligence professionals, we need to be able to demonstrate the value of intelligence, and ultimately provide some form of measurement to evaluate intelligence activities. Since in this example the ultimate business result came as a result of a partnership across different entities and intelligence is a business support unit or an intermediary, it is more difficult to measure its contribution; unlike the sales' team – they can use an objective metric such as month over month sales growth to measure value add. It is therefore imperative intelligence professionals ask how useful the intelligence effort was, and how was the data applied. The focus here is to put in place a structure that allows for a continuous evaluation process for both MI and for products.

When one comes to think about it, Competitive Intelligence operates like a gigantic puzzle – and not like an exact science does. The only way for intelligence to grow is to establish intelligence networks in partnership with other strategic units, so that we can jointly work towards the achievement of corporate goals.

# Competitive Intelligence

Again, in the end of the day we need to be able to explain what the intelligence contribution to the attainment of those objectives was, and we can do that in both formal and informal ways. After the intelligence activity was performed, we can use a formal process, such as a survey, to establish which way intelligence contributed to the success of the effort.

Alternatively, we can also use an informal process, such as gathering testimonials from an area executive to determine how the intelligence effort contributed to the project or effort's value-add. No matter which approach – formal or informal – it is imperative we document the findings.

Note, in the case of the innovation example we have been using through this article, there is no quantitative indicator for the intelligence work performed, rather we have a qualitative assessment of the partnership between competitive and the business intelligence teams (or in partnership with more areas, if others were involved).

It is important for CI and MI managers to work alongside others in strategic business units and corporate entities such as Sales, Marketing, or Product Management – to educate senior executives on the ultimate value brought by the collaboration among intelligence and other units.

> ❝ *CI function needs to work with its partners to educate senior managers on the value of intelligence work* ❞
>
> Daniela Teixeira

Conversely, intelligence units must also be able to account for the value they extracted from the collaboration with others. For example, say the CI team consulted with and asked the business intelligence team to extract some information from a decision support tool or from a database. Say the CI team used this data to create an indicator to monitor an area of the business. In essence, the business intelligence team – that deals with internal data – is actually contributing to the CI effort, and therefore we need to be able to provide statements to account for that matter.

It is important to note if we are seeking to build a comparison between competitors and the firm, we need to be able to establish that common set of indicators we talked about. We therefore must – first – see what we can encounter in the external environment, for it is a lot harder to find useful external data, in comparison to the vast amount of data internally available or discoverable through business intelligence systems. In other words, look externally first, then seek to match the information to the internal data. Then the question to ask is how exactly can we go about finding this external data – to begin with?

## Focus on Market & Competitive Intelligence

If the goal is to create a series of market or performance indicators, and pair those we find externally to the internal data, then there are a few strategies the CI team can adopt, such as perform benchmarking analysis, use intelligence portals or proprietary platforms that both report and measure area of interest indicators, and interview both internal employees as well as external experts to gather the indicators' data.

Benchmarking is a powerful instrument exactly because the output of a benchmarking exercise may be sufficient to convince higher management those other firms in similar business areas are deriving good market results. The same is true for partners – benchmarking can establish how partners derive value from the marketplace, and thus operate as a basis for comparison.

# Competitive Intelligence

In our case, REVIE, promotes the exchange of information among clients, and we even arrange for visits, so that clients can get to know the intelligence work developed by others. This is a convenient way to understand firsthand how others work – and derive some learnings. In fact, we even encourage higher level management participation in those visits – this way intelligence work and lessons learned from other corporations can flow all the way to the top of the organization, provided there is engagement and participation.

Though it is known we cannot apply the technique to direct competitors, based on our experience, we can safely say benchmarking activities add value even when they are performed with firms in different economic sectors. It is true fashion and auto parts industries deal in different markets, but the way they perform trade show intelligence or data collection is probably not dramatically different from each other - therefore lessons can be learned, and efficiencies can be found.

Though we cannot understand intelligence practices of our competitors through benchmarking, it is also true we can attend trade shows, market intelligence conferences, perform research, use Big Data collection tools, leverage Marketing & Sales, among others – to help us gather understanding of competitor practices and ultimately help us monitor how they work.

In terms of using intelligence portals or other proprietary tools, those are fundamental to the dissemination of knowledge & information since they conveniently allow for users to access a unique database – or single depository of corporate information.

In addition to providing this common platform for data to be extracted, those portals are ideal to build intelligence indicators because they provide a quantitative perspective to the indicator creation.

For instance, we could look at a website, time, duration, and the number of visits' information to generate intelligence indicators. That can be used to better manage resource scheduling – so we can provide a better match between availability of corporate resources and market demands.

In terms of conducting interviews with employees or external experts, they are highly recommended for a variety of reasons, but mostly because those interviews can be used to validate intelligence work and provide guidance on practices.

Say, back to the product innovation example, intelligence decided percent of revenue derived from new products is a good metric – a unilateral decision – but if the same indicator appears in internal interviews and also in the panel of experts' recommendations, then intelligence could validate that this is indeed one of the indicators we need to understand and monitor.

> *Benchmarking adds value to intelligence efforts even if it is performed with entities in different economic sectors*
>
> Daniela Teixeira

Figure 2: Steps to document intelligence value
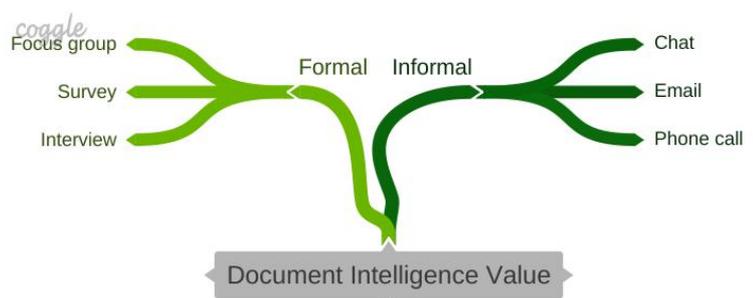


Source author, visual created using Coggle free platform

# Competitive Intelligence

It is likely business indicators will be common across a variety of different internal business entities – and that reinforces the need for the CI team to develop an internal collaboration network, so that the value created is altogether greater than in a situation where units work alone or do not share common metrics.

Intelligence indicator analysis adds a lot of value because there is a good chance those common indicators are already part of some other business process, such as those key performance indicators maintained in a Balance Score Card format, thus intelligence information is truly integrated into a unique corporate information database that can be used to measure results.

In closing, it is indeed important to invest in the growth of analytical capability where the collaboration between CI and other areas (such as Big Data or business intelligence) leads to the creation of applied intelligence indicators. Those indicators will help your corporation get a head start in the competitive environment and will ensure value was indeed derived from the use of your databases.

## About the author

Daniela Teixeira has been working in the corporate intelligence field for over 20 years and is the Principal at REVIE Inteligencia Empresarial (Corporate Intelligence). Founded in Sao Paulo (Brazil) in 2002, REVIE develops projects in the areas of Corporate Intelligence, Competitive / Market Intelligence, Customer Experience, Planning and Strategy.

In 2009 Daniela Teixeira published the REVIE method – the value chain for corporate intelligence - and since them REVIE provides consulting services, mentoring and training to support companies on how to combine intelligence practices with other strategies to create their own intelligence value chain, bringing innovation with better results to its clients.



**CI/MI Practitioner** — **Big Data / Business Intelligence Manager**

A partnership for results

&

**External data focus** — **Internal data focus**

| External data focus | Internal data focus |
| --- | --- |
| Research the market | Maintain data environment |
| Document competition | Manage corporate data |
| Benchmark | Big Data vision |
| Analyze CI data | Internal user experience |

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# Competitive Intelligence

> *In a nutshell, intelligence is an attitude*
>
> Udo Hohlfeld

## The Two Complimentary Activities of Corporate Intelligence

By Udo Hohlfeld

**To mitigate business risks and defend against threats, a company must understand its adversaries and environment in detail while at the same time preventing others from learning about its own intentions and capabilities. This creates a strategic intelligence gap and provides you with a significant and sustainable strategic advantage.**

Obtaining information on the business environment and analyzing it, is not enough and provides no sustainable advantages. Only when it supports the decision-making processes and helps shaping the operational environment, it develops value.

This value can be increased by multiple times when in parallel one's own sensitive and crucial information, data and knowledge is effectively protected.

In Western economies, intelligence is used as one tool to achieve business success. Some economies are more advanced on this topic than others. But in a nutshell: Intelligence is an attitude. It does not only include intelligence gathering and protective intelligence, as a third component, it is also mandatory that the consumers of intelligence - the decision-makers - act on it.

Competitive dynamics are constantly changing and intensifying with technological advances - this is true for all sectors of economies worldwide.

Quick technological innovations trigger even higher pressure on incumbents and newcomers to adapt and perform.

There are more drivers to consider such as the increasing speed of scientific development or the liberalization and deregulation of international business or the improving living standards worldwide that impact and change consumers' needs. Hyper-competition is a recent catchword to describe the rapidness with which change evolves and requests market players to adapt. Another is economic warfare. So, what is competition actually and how can one succeed?

In general terms, competition can be defined as the will by market players to outperform others by gaining market share and/or achieving further objectives at the expense of the others. It is not war, but it is a battle to be the best and to sell the most products or services and to win long-time, loyal customers. Additionally, competition becomes more complex. The boundaries between markets and products fade away. Competitors are not clear cut and alliances may lead to cooperation in specific ways between formerly clearly distanced adversaries.

This complexity also leads to more ambiguity as competition is no longer static. On the opposite, competition has achieved a dynamic unknown before, driven by shorter product and service life cycles, ephemerality of knowledge or the breaking up of corporate strategies, organizational structures, and cultural values.

To stay relevant and adapt, intelligence, this means competitive and market intelligence, is a must, is one effort to be executed.

The hyperdynamic competition requires to be best informed about competitors' activities, strategies, and weaknesses.

To understand with which capabilities competitors may exploit market opportunities, attack one's own weaknesses and seek to compensate or hide their weaknesses.

# Competitive Intelligence

Many more rightful questions on competitors, the customers and the markets are possible. The answers can only be obtained with the appropriate intelligence, trustful acting on the intelligence and eventual decision-making.

The acronym VUCA (volatility, uncertainty, complexity, ambiguity) is the on the spot summary of the intensifying competition in all markets across the globe. Competition for talent, resources, market share, customer attention, and investments put pressure on all players.

Competition in these categories is not serial but parallel and overlapping contributing further to the complexity of the business activities.

The second effort for companies, to stay relevant and competitive, is to render the intelligence gathering activities of their opponents useless, or at least they should aim at lowering the value of the intelligence obtained by increasing its costs.

If you do competitive intelligence on your adversaries, be assured that they do the same on you. How well are you prepared for their attacks? As competitive intelligence is a legal and ethical activity, we are not talking about hacking IT systems or breaking into facilities, and stealing information. We are not talking about insider threats, bribery, or blackmailing.

No, we are talking about competitors' benefitting from the information outflow from your organization. It is about what level of data and information is published and available in the public space, what your employees talk about to people outside of your organization, what your corporate communication conveys in press releases, interviews, on websites, and in brochures. Also, the information you share with authorities and partners.

Do you have control over these many sources and needs to share information with the outer world?

Do you have an understanding of the consistency of the information and the details contained?

Information security, hence, is sustaining to your competitiveness. If you control the information that flows out of your organization and you optimize it, you easily counter any legal intelligence gathering effort of your adversaries. And you support building a healthy Strategic Intelligence Gap aka Information Sovereignty that gives your organization a competitive and strategic advantage.

> *Information security, hence, is sustaining to your competitiveness*

Udo Hohlfeld

## Strategic Intelligence Gap

The Strategic Intelligence Gap is all about obtaining strategic advantages by developing Information Sovereignty. It develops based on a coordinated and rigid intelligence effort, which are the two complimentary activities of corporate intelligence. Information sovereignty is thus achieved via active information gathering (what one knows about others) including market intelligence, competitive intelligence, patent intelligence, and active information protection (what others know about oneself) such as patents, intellectual property, or IT security, but also traditional security. See Figure 1 below.

# Competitive Intelligence

Figure 1: Obtaining information sovereignty
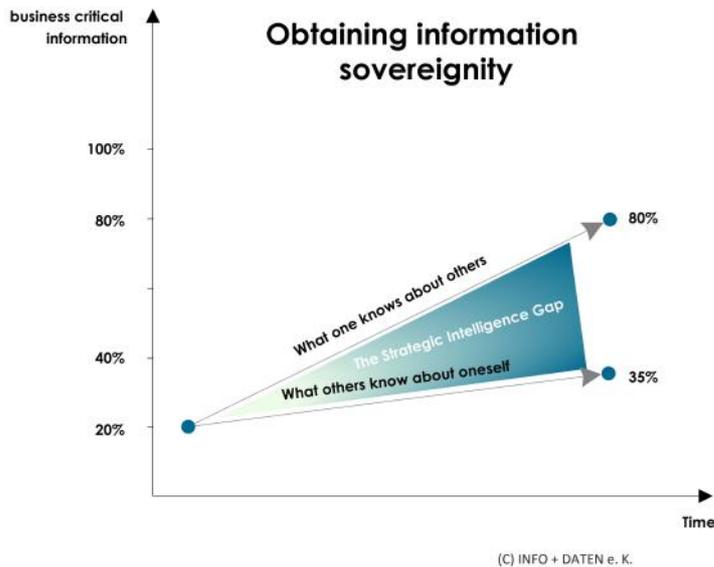


Source: Article author, Info + Daten e. K.

## About the author

Udo Hohlfeld is a senior intelligence expert. His experience in Competitive Intelligence and Corporate Counterintelligence stretches across more than 750 successfully completed projects in the past 21 years.

In 2000, Udo founded INFO + DATEN to provide Fortune 2000 clients as well as leading strategy and CI consultancies with his unique portfolio of intelligence services. His extensive network of global intelligence and information experts and his project experience in many industries guarantee clients the highest possible quality of deliverables.

Udo has deep knowledge of certain vertical markets such as IT and high technology, machining and machine tools, mechanical engineering, healthcare, and medical devices but provides services related to any market and industry.

He is co-founder and CEO of Counter Force Group (CFG). CFG provides corporate counterintelligence services worldwide and maintains offices in Germany, Russia, United Kingdom, and the USA with subsidiaries on all continents.

However, the latter often only protects the obvious goods and values and there are dedicated departments and employees for implementation. Important: The proprietary knowledge is not covered by the aforementioned protective measures and there is no responsible body in a company for it either. Only when a company knows who is interested in its business-critical information and what resources it has at its disposal to obtain that information can effectively protect itself or its proprietary knowledge.

Obtaining information on the business environment and analyzing it, is not enough and provides no advantages. Only when it supports the decision-making processes and helps shaping the operational environment, it develops value. This value can be increased by multiple times when in parallel one's own sensitive and crucial information, data and knowledge is effectively protected.

## Book release

Udo is currently working on his first book to be published by CRC Press later in 2021.

Illegal intelligence collection such as corruption, data theft, and corporate espionage have become a common threat to multi-national organizations today as well as to mid-size and even small enterprises. Corresponding news headlines trigger waves of outrage and concern, which in turn can become an image tsunami for the affected organizations. Yet, this is not the complete threat picture. There is also an equally serious threat from legal intelligence gathering activities known as Competitive or Competitor Intelligence.

This is mostly neglected in today's common threat scenarios and risk management approaches and can cause serious damage even to the most powerful organizations

# Competitive Intelligence

There are countermeasures that can be applied to mitigate the dangers arising from legal intelligence collection which go well beyond public exposure, finger pointing, accusations and the treats of injunctions. These are not only ineffective, as they are invariably applied after intelligence has been lost but are simply not the right way to address the challenges.

There is a structured approach to the protection of the knowledge assets held by organizations which prevent unwanted information outflows by protecting companies from adversaries' attacks before they take place. A structured approach that combines intelligence collection (Offensive Intelligence) with a denial of access to intelligence (Protective Intelligence) establishes, maintains and enhances a company's strategic advantage.

This book provides readers with hands-on insights and advice on how to outpace the competition and to protect against legal and illegal intelligence gathering activities. A highlight of the book is that it uncovers the role of intelligence for the corporate world in different geographies. In our globalized economy, these insights are eye openers to the conduct of fair competition and malign influence of state actors but most of all they paint a new picture of the role of corporate security. Building on operations security (OpSec) intelligence adds to the anticipation of threats and provides solutions to counter them effectively.

The underlying framework of the Strategic Intelligence Gap provides straight-forward guidance to establish a structured portfolio of Offensive Intelligence and Protective Intelligence activities. The complementary activities boost organizations' business success while fighting off competitors and other adversaries.

## STEPS TO MASTER MI/CI

### FASTER!

Here are some strategies that will for sure expedite your progress and help you deepen your skills

**MAKE IT FUN & GAMES ON TOUGH TASKS**
Learning a new piece of software is not easy. Try a scavenger hunt or an escape room: Learn while you play. How about a brown bag? Pizza pairs well with CI

**WRITE YOUR PLAN DOWN**
How about 30-60-90 day targets? Rome was not built in one day...it will take some time for you to sharpen your skills, so make it about the trip, not the destination.

**READ, WATCH CLIPS, LISTEN TO PODCASTS…**
Reading helps you build a foundation, but mixed media will help you establish a solid knowledge base.

**LEARNING IS AN INTERACTIVE PROCESS**
Try a couple of approaches, engage others - read blogs, articles, and comment on them. Share your thoughts & ideas with others - be open to different perspectives.

**SET TIME ASIDE FOR THIS TASK**
How about an hour each Friday, just to get started? Mark your calendar as "busy" for training & personal development.

**STICK TO THE PLAN!**
Commitment is key... you probably heard "showing up is half the battle," if you have goals, write them down, and stick to the plan, you will succeed.

### GO THE EXTRA MILE, IF POSSIBLE

Take that online training, attend that conference

Move out of your comfort zone - look at other industries

Seek an international perspective: plurality of voices = better analysis

# Competitive Intelligence

## Competitive Intelligence Escape Rooms – a new approach to CI training, team building and testing knowledge

By Arthur Weiss

**In this article, we will learn how the Escape Room technique can be used to test competitive knowledge, operate as a team-building exercise, and operate as the ultimate CI training tool.**

*Escape Rooms are useful to both test specific skills and for building team togetherness*

Arthur Weiss

However, using an escape room as a medium for training in a particular topic area such as competitive intelligence is new – which (so far) makes the Competitive Intelligence Escape Room at CI Escape Room.com unique.

There has been one other CI-themed virtual escape room. The first escape room for competitive intelligence was designed by Sarah Hartman-Caverly of Penn State University (see: Sarah Hartman-Caverley (2021), Ticker vol 5 issue 2 accessible online with the Exiltration! game - which can also be found here. This escape room is aimed at business and entrepreneurship undergraduate students and so the CIescapeRoom.com experience is the first industry-facing room.

## Introduction

As a result of the recent/ongoing pandemic, many entertainment venues had to close down or move online. One particular type of venue was the Escape Room. An Escape Room is a type of puzzle game where participants have to find clues to solve puzzles in order to escape a room or series of rooms – generally in a set period of time.

The aim was to either co-operate with others to escape or compete with others to escape faster than other participants. The pandemic changed the dynamic as physical rooms were no longer possible. Instead, they moved online – where participants had to solve problems to go from a virtual room to the next one.

Many escape rooms – virtual and physical – take a theme: Harry Potter, Zombies, defusing a ticking bomb, and many more. Physical escape rooms would often be used for team building.

## CIEscapeRoom.com

The CI Escape Room was piloted at the Institute of Competitive Intelligence's Spring 2021 conference, and rooms were opened up over the conference time period. Each room tested a different CI skill – starting with lateral thinking to get from room 1 to room 2. The overall escape room takes a case study approach, looking at a particular company that needs to be identified from the clues in Room 1. Entry to each room requires a password found by solving the particular task in the previous room. Some rooms have multiple tasks.
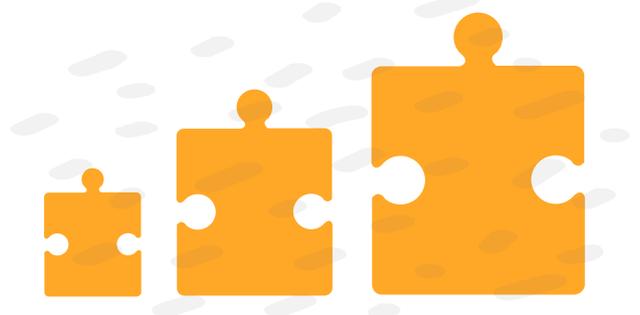
# Competitive Intelligence

Room 1 requires participants to locate a website and then, having solved a code (with clues given to solve the code) locate a news story that names the target company. This activity tests search skills.

Room 2 focuses on social media and image searching,  and it involves 3 steps. The first can be solved with multiple approaches – for example, reverse image searching to find an address. The real task for room 2 is a test of social media searching, looking at both Twitter and LinkedIn.

Room 3 takes a sideways move – looking at a potential disruptor: A start-up company in the industry, its founders, and investors.

Room 4 returns to the target company – and focuses on the analysis of interviews, and then looking at job interviews from a subsidiary company.

Room 5 focuses on product comparisons and analysis of financials – benchmarking and financial analysis -  both are essential skills for competitive intelligence practitioners.

Room 6 - the final room looks at patent analysis, a legal case, and market shares.

## CIEscapeRoom.com

As can be seen, the 6 rooms look at a range of areas and are typical for many competitive analyses on both companies and industries:

· 	Who are the disruptors?
· 	Are there patents?
· 	What's being said on social media?
· 	What can be learned from primary research interviews?
· 	Financial analysis, patent analysis, news analysis, search skills, etc.

The beauty of an escape room type approach – that differs from a typical case study is that whereas a case study tests analysis skills, the escape room can also look at enhancing research skills.

As an example, the Twitter search for room 2 used an undocumented search option not included on the Twitter advanced search form. A clue was given to this – but such clues are optional. Participants can be required to find this for themselves.

In fact, almost any type of analysis can be included – depending on the design of the escape room.

The key is to ensure that the final answer is one word or a number of combinations of both. For example, some tasks could involve participants completing single choice type questions – where the password would be of the form "abcd" where "a" is the answer for the first question, b for the second, and so on. It is even possible to include dummy primary research challenges. As an example, participants could be expected to find a particular person to interview. This person would be briefed to expect a call – and what sorts of answers to give, depending on the questions asked. Ask the wrong question – and you'd get a bad answer, so the task would be to elicit the correct answer to proceed. (Of course, this may require the person to be re-interviewed, and this would need to be set up).

The approach taken by the CI Escape Room was that entry to a room depended on finding a password from the previous room. This isn't the only approach. Exfiltration! used an online multi-choice question approach – where each part required participants to select an answer to proceed. This format would not need multiple rooms – it would be a single puzzle path. The advantage of this approach is that hints can be given as participants go along – rather than the CI Escape Room approach where participants need to email for support (or Whatsapp or similar communication with the game arrangers).
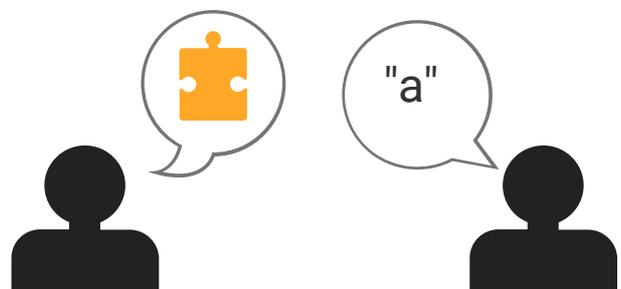
# Competitive Intelligence

A key aspect in setting up an escape room that will be enjoyable and challenging is to pre-plan and have a theme. The pilot escape room used for the Institute of Competitive Intelligence conference was that the participants were all candidates for a job with a company – Wunderbar Ltd. The preamble stated: "You've been working for Dulles Ditchwater Ltd. since graduation and want a change. You realize you won't get a promotion with your current management and so must escape to a new role. You have a chance. Wunderbar Ltd is looking for a new competitive intelligence expert. You see an advert in the Daily Mercury advertising a job with Wunderbar Ltd for competitive intelligence analysts.

The advertisement says that to be recruited, you will need to show your abilities in solving competitive intelligence-related challenges (although they may not all involve CI – some may involve problem-solving)." This sets the theme – and this is just one of many such options. They can involve real companies or be pre-prepared with a dummy or fictional company. In the case of a dummy or fake company, online searching – OSINT and SOCMINT may be harder or not even feasible, but such escape rooms could include more analysis and the aforementioned primary research type approaches). Real companies can be actual competitors – providing a fun way to research what is known about a competitor – or any company of interest. They can also look at an overall industry – looking at what can be found out and involve accessing market research reports – which would be supplied if found. They can also look at particular skillsets that are needed for CI – for example testing financial analysis, as in room 5.

Figure 1: Setting up the Escape Room challenge
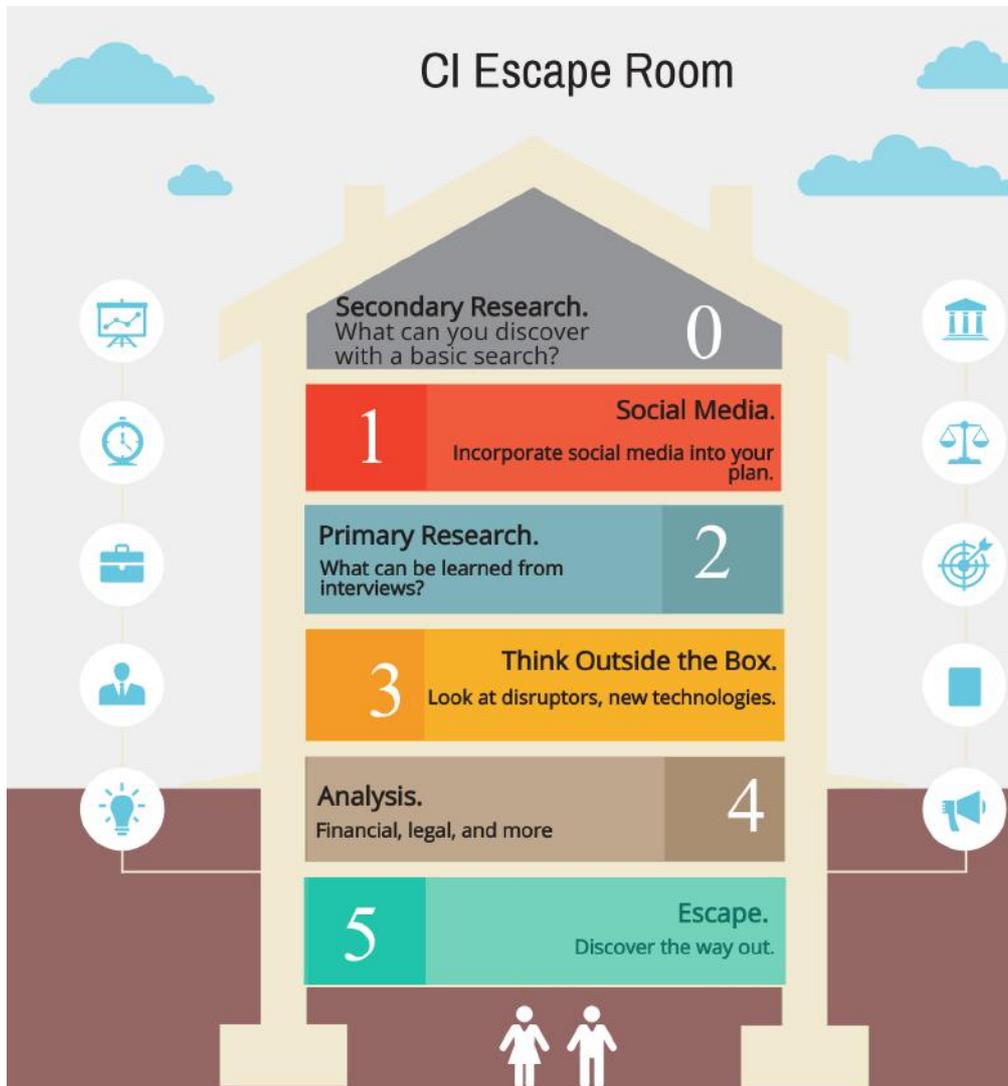
# Competitive Intelligence

## Summary

Escape Rooms for CI are particularly useful for a multi-faceted training exercise to identify areas where there is weakness in employee knowledge, or to test knowledge. They can follow a training course to show that this has been effective or be part of the training itself – where various techniques get taught with participants learning as they go along. Another use for Escape rooms is for team building where one group of employees competes against another – or each other – to see who can solve the problems in the least amount of time. However, for them to work it is important that:

a)   The problems and puzzles are solvable – based on participant knowhow OR that help and support is available (either online, via email or via other communication medium)

b)  The problems and puzzles are challenging and interesting. If they are too easy then learning won't take place. One aim should be to make participants think about how to achieve the escape

c)   The overall escape room is fun. Length doesn't matter as long as there is sufficient variation in tasks and sufficient time to complete them without getting bored.

## About the author

Arthur Weiss is the managing director of AWARE, specializing in marketing & competitive intelligence analysis, research and training.  He has worked as a consultant for several of the leading companies in the information industry; authors and lectures on a variety of marketing, competitive intelligence and information industry related topics; and offered the world's first workshop on using the Internet for Competitive Intelligence at the 1997 International Online Information Conference. He has led workshops in the UK, USA, across Europe, in South Africa, China, Malaysia, Indonesia, Dubai and Israel. Arthur was the General Editor of Croner's Marketing – A Practical Management Guide published in 1996, contributing two chapters - on competitor analysis and on marketing planning, and more recently wrote the chapter on Corporate Intelligence for The Palgrave Handbook of Security, Risk and Intelligence published in 2017. A chapter in a book looking at scenarios post-Covid is due to be published mid-2021.

Arthur holds an MBA and is a Chartered Marketer with the UK's Chartered Institute of Marketing. He has designed the first dedicated competitive intelligence escape room with a sample at CIEscapeRoom.com – and would be happy to devise a custom escape room for organizations as a training or team-building exercise.

# Competitive Intelligence

*"Companies need to recognize the value of a systemic perspective to integrating CI into the overall strategy"*

Paul Santilli

## Intelligence Driven Growth Enablement in a Perpetual Disruptive Environment

By Paul Santilli

**How a company's Intelligence functions must adapt to meet global industry and competitive challenges**

## Intelligence adaptation

It is a given that today's businesses are faced with an unprecedented business upheaval and investment uncertainty, as the business climate of today, is unlike anything we have seen. The onslaught of never-ending data, the proliferation of perpetual disruption activity, and the rise of industry-changing digital transformation requirements overnight - this all has a dramatic effect on the CI professional's ability to not only acquire the right data but to be able to synthesize the analytics in order to drive it to the right conclusions, all while navigating through a non-stop, fluid information environment.

The traditional batch-processing of CI analytics is a thing of the past and woefully inadequate for today's needs. The business climate is moving so fast that organizations need to incorporate the intelligence and analytics function as an integral part of their organizations, where the ongoing data collection, synthesis, and integration within the entire company strategy is a normal part of the planning and execution process.

Unfortunately, intelligence communities are oftentimes stuck into the same mold of consistent use of common legacy methodologies, fragmented infrastructure hierarchy, and limited ability to influence company direction. In order for intelligence to be truly applied universally, corporations have to take a pragmatic approach of leveraging the CI efforts throughout the company and recognize the value of a systemic perspective to integrating CI into the overall strategy of the company.

At the foundation, organizations need to employ a Data-Driven Decision Making (DDDM) mindset in their corporate culture. In order to truly be on the leading edge of a data-centric intelligence model, some key critical factors need to be recognized:

1. Development of Data Intelligence organizations that drive (and report to) senior company executive strategy development.

2. Integration of Intelligence functions throughout all aspects of the business, including infrastructure and support organizations.

3. Uniformity in execution on the strategy and align the organization during market shifts, transformations, perpetual disruption, and related business upheavals.

4. Consistency in measuring the results of the actions, making changes, and developing a new strategy with updated research and analytics.

DDDM

# Competitive Intelligence

The recent Covid-19 implications provide a clear indication that utilizing only backward-looking perspectives to drive future strategy is simply a misdirected proposition. As mentioned, one of the most impactful ramifications of our business environment today is that we are constantly in the midst of disruption at all levels. This is essentially termed "perpetual disruption", and the impacts on organizations and world events are clearly a function of the amplitude of the disruption. Consequently, this can vary within many different scenarios; from local supply shortages to weather conditions impacting the supply chain, to global events like natural disasters and trade wars.

We are essentially in the same scenario today. Much of the competitive and market intelligence, customer insights, market dynamics, global economic scenarios, and all related intelligence & insights from only a few months ago are no longer applicable to a vast majority of anticipated scenarios. Additionally, the speed of this disruption is exacerbated by business uncertainty, consumer fear, and difficulty discerning fact from fiction. Consequently, to reiterate, the appropriate course of action becomes increasingly more difficult as a function of the amplitude of the disruption.

While many companies have disaster plans readily available, there are many limitations towards contemplating a full spectrum of options available. Extreme cost pressures will inhibit organizations from adequately preparing for lower probability disruptions or ones with a frequency that is hard to determine. Moreover, companies often defer to the path of least resistance and focus on familiar threats because they have systems in place to monitor known risks. This adds very little value to long-term planning when faced with unfamiliar threats, and worse, it can lead to organizations having a totally inappropriate growth strategy that doesn't represent and act upon the real challenges present in the perpetual disruptive state.

Fortunately, there are several approaches to managing this, albeit some more resource-intensive than others, but certainly can provide some insight to help reduce the relative risk from business idleness. Some companies stress crisis management as a separate but related process that gets organizations quickly out of a crisis state while working to sustain normal business operations.

Alternatively (and sometimes concurrently), companies can take steps to establish a temporary stop-gap to the resultant business climate. These activities move into play usually after some aspect of the crisis has been resolved. This is essentially adjusting behavioral impacts to do "damage control" during the disruptive activity while putting in a robust plan to embrace the changing business landscape after the disruption magnitude is softened. Building this bridge to renewed business growth strategy while adapting the culture of the organization to these changes is key to disruption preparedness, and requires seamless integration between intelligence and strategy, regularly informed by data analytics and modeling performed on a continuous basis.

Below are a series of tools and methodologies that business organizations, and specifically intelligence communities must embrace to better equip themselves with the right recipe for business growth within perpetual disruption business climates:

## Data 'Fluidity' Dynamics

One of the challenges for the CI practitioner in an Internet of Things (IoT)-connected world is the fluidity of the data. As mentioned, batch processing of CI efforts was the norm – a collection of static (and dated!) data, analysis, and results, all compiled as a "batch" and synthesized by the organization many weeks/months after the data was collected. In the perpetual disruption world, this information processing methodology is almost useless.

A CI model infrastructure needs to be designed that has the ability to process data that is perpetually fed and insights that are continuously provided and updated in order to stay abreast of the latest market behavior and customer preferences.

# Competitive Intelligence

This goes beyond the traditional "batch" methods and must include world-class collection methods, integrated processing tools, and organizational readiness for flawless execution. There are three main areas related to IoT data analytics and modeling:

1. Industry Models redefined – Business and operating models are changing to accommodate a more product & service solution scenario that most benefits organizational outcomes. This includes as-a-Service (aaS) business modeling that treats customer usage of products and services on a consumption-based financial model, rather than on a traditional single-level capacity-based solution.

2. Value of analytics – New insights and perspectives are being generated from shared relationships between users and products & services, supply chains, and cross-industry / markets to create new opportunities for growth and expansion – this is especially important in customer engagement and requirements as an outcome of high-magnitude disruption.

3. Data Automation – Intelligent AI/ML-based tools will automate repetitive human tasks, while human capital will be depended upon to provide more creative, sophisticated, and complex perspectives to intelligence modeling and will require a different skillset from the traditional practitioners of the past.
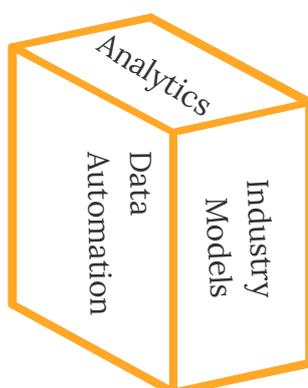
## Tools

The internet has been the lifeline for CI research in the public domain. This has and will continue to be a dominant source of content for years to come. However, this source content will now start to proliferate exponentially over time. Hundreds and/or thousands of applicable sources will need to be analyzed and processed quickly and efficiently to determine the relevancy to your objective – and all are immediately changing over very short periods of time. A "must" is the utilization of databases that pull in vast amounts of data from virtually all sources and has the ability to provide collection, analytics, and insights on a potentially real-time basis. Without these tools, this data picture puts a significant burden on your CI model in its ability to carry out even the most basic lifecycle components of the overall analysis – collect, manage, and report.

## Digital Transformation

A major reflection of being able to adapt and grow during times of great strife, organizations that have instilled a digital transformational business model are best suited to capitalize on the uncertainty brought upon by perpetual disruption. And this needs to be focused on both the organizational infrastructure as well as customer interaction components of the company.

Inward-facing digital transformation allows companies to be better equipped to managing changing product and service demands from customers, instilling better flexible supply chain capabilities and promoting a more agile and "nimble" workspace for its employees.

Alternatively, customer-facing digital transformational engagements allow products and services to be offered, delivered, and serviced digitally without excessive customer-intrusive demand requirements and costly operational effects.

# Competitive Intelligence

## Intelligence Strategist™

A clear outcome to all of this is the need for an advanced role around the intelligence practitioner. In the past, data scientists and intelligence practitioners were best suited to provide a level of information that can be well aligned to offering inputs towards the development of a business strategy. However, given this perpetual disruption platform, the intelligence playbook must be augmented and enhanced. Traditional roles and process behaviors of narrow-focused, singular-variable approaches need to be significantly modified towards developing skill sets that are much more broad, comprehensive, and all-inclusive in combating this perpetual disruption business view. The new role of the Intelligence Strategist™ provides a broadened set of competencies for the future that entails a greater set of knowledge around data acquisition sourcing, analytics and compute, AI/ML tool usage, intra-organizational communication and influencing, and a resultant better understanding of the global socio-economic implications that can impact business growth and market trends.

## Digital Transformation

Given the uncertainty within this perpetual disruption environment, advanced tools around data analytics and the emboldened role of the Intelligence Strategist ™ are only a couple of pieces of a very complex puzzle. These transitional roles and responsibilities require an appropriate organizational structure, culture, and mindset instilled through all levels of the company that aligns with this proactive strategy.

Otherwise, the result is a siloed approach towards action, resulting in multiple plans and multiple implementation strategies that are not aligned and create more chaos rather than benefit to the organization as a whole. In these cases, we see infighting, disparate organizational team building, and multiple "edicts" on an organizational direction. Ultimately this leads to the demise of many companies that cannot (or will not) align to a single course of action.

Effective organizations must instill characteristics that enable them to anticipate and understand the ramifications of disruption and developing and sustaining an infrastructure to respond to this new business landscape.

Additionally, organizations must maintain flexibility so that they can quickly pivot from one operating model to another. Activities include:

1. Flexible and redundant supply chains.
2. Manufacturing nimbleness on product configurations and features.
3. Transitioning to core services as a deliverable commodity.
4. De-committing clauses for efficient exit strategies out of long-term investment guarantees.

Lastly, the fundamental organizational structure must change. Organizations that have fewer levels provide faster decision-making capabilities. Self-managed work hubs allow product and R&D teams to operate more as an entrepreneurial group, without the inherent overhead and heavily-burdened infrastructure load that traditional hierarchical chains of command demand. Cross-organizational communication and infrastructure load-sharing and knowledge leveraging activities provide for a better-equipped intelligence and strategy-driven company around a unified strategy.

Efficient exit ✓

Transition to core services ✓

Manufacturing nimbleness ✓

Flexible supply chains ✓

# Competitive Intelligence

## In sum

Overall, organizations are facing probably one of the most challenging business climates in history, requiring a fundamental change in the way intelligence is collected, used, and disseminated through companies to best drive DDDM and growth strategy initiatives.

Organizations are subject to an ever-increasing level of business disruptors that make it more and more challenging to effectively compete in the marketplace. Traditional CI behaviors are inadequate and quickly becoming outdated in serving the needs of companies looking to effectively compete in the 21st century.

Recognizing these shortcomings is a first step towards implementing a truly integrated, Intelligence Strategist™ driven organization that instills a common strategic vision that is aligned with the cultural DNA of the company in order for it to be a truly effective weapon in addressing competitive pressures and addressing the needs of the future.

## About the author

Paul Santilli is a 25 year veteran of Hewlett Packard Enterprise (HPE) and currently leads the HPE Worldwide (WW) Industry Intelligence & Strategy Organization for the Original Equipment Manufacturer (OEM) Solutions Business. He is a recognized thought leader in Data Analytics Modeling around Industry Intelligence, Insights and Strategy, and chairs Executive Customer Councils and Industry Advisory Boards globally.

Paul also serves as Chairman Emeritus of the Strategic Competitive Intelligence Professionals (SCIP) Board of Directors Executive Committee and is active in several advisory roles to industry conferences and forums. Paul presents worldwide on Intelligence, Innovation, and Strategy in keynote and executive coaching capacities, and has published numerous papers in industry and academic journals related to Intelligence Modeling, Innovation, Disruption, and Strategy.

Paul is also Founder and CEO of Strategence LLC, a company that provides proprietary advisory and business insights & analytics to companies for intelligence-based business growth.

Prior to HPE, Paul contributed 10 years at Apple Computer in various leadership roles around Quality, Operations, and Product Development. Paul has a Bachelor's degree in Engineering from the University of Michigan, and a Master's degree in Engineering and Business from Stanford University.



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# Foresight

## Thinking futures in interesting times

By Kai Goerlich

**As we navigate times of great uncertainty and people are worrisome about the future, we need to dedicate resources to think about the future in ways that help us envision possibilities and put people first. Here are some thoughts on how to get there.**

As you may have already noticed, we are living in so-called "interesting times". In the exit of the classical industrialization and the beginning of the so-called postmodern era, we find ourselves in various socio-political, economic and ecological crises, accompanied by an increasing division of societies and national interests. Interesting, confusing and full of surprises.

As always in times of crisis, we look for completely new strategies, even more radical innovations and over visionary future scenarios - or simply wait for doom. Without an understanding of the context and our own view of the future, we will be forced to follow the preconceived ideas of others - which is not necessarily correct, nor is it a unique selling point - and we will be unable to assess the movements of competitors, either their assumptions, innovations or mistakes. So, if you prefer not to fly blind, but to think your own future, I will give you some rules - the first rule being, of course, that there are no rules.

## Nothing is fixed

The first rule says that the future is not fixed, otherwise it would be something like fate. The usual comments are: "If it's not certain, why do we do it?" and "So it is an oracle after all!" Either I take it humorously and point out that I just forgot my crystal ball or bones (by the way, if you are interested in old and new methods of prediction, I recommend the PredictionsX Program from Harvard University - or I take it more scientifically. Accordingly, all statements about the future are predictions, no matter if weather forecasts, stock prices or personal fates, and no matter how scientific or speculative the methods may be. They differ only in the degree of accuracy. Quantum physics provides the best prediction but ironically this is of little use in our macroscopic world. The future scenarios may be inaccurate but so are maps in the end and we have good use for them.

## Not just the ONE

The second rule states that there is not THE future, but several possibilities. Of course, we know that we have plan B and C because A rarely works but we still don't like it very much. Contrary to our experience, and very frequently in innovation and business strategy, we are asked to eliminate as much ambiguity as possible. Or as a client once told me, "Just give me your best ten ideas and eliminate the nine that won't work." You certainly don't need twenty futures but you should work at with between three and seven.

> 💛💛 *Futures are inaccurate, and so are maps - but we have good use for them* 💛💛
>
> Kai Goerlich

# Foresight

## Linear is lame

Especially in times of crisis, we prefer quick and easy answers. We call these "linear futures", ideas that extend the known now forward, enriched with a dash of blockchain, digitalization or sustainability. We know from history and our personal lives that the future is rarely a straight road, but often takes twists and turns. So be skeptical when reading or having created overly simple futures, and accordingly, the third rule is that linear futures are lame futures.



## Creative cuisine

As in any good cuisine, we should use many spices, that is, interesting trends and influencing factors, but just not too many. More concretely, all futures need factors or combinations of them that are not mainstream or even contradict it. The fourth rule states that the future should be well flavored. Feel free to read one of the more flavorless annual reports for dessert.

## Minimize influences

Before we continue with the rules, I'll slip in a comment about free thinking in interesting times. I don't think I would have thought this section necessary a few years ago but we are living in politically and media hyped up times. Discourse has been largely replaced with opinion-making, agitation and political correctness - whichever it may be - and we are flooded with information, disinformation and narratives. We discussed this development at the last ICI conference and largely agreed that under these conditions it is increasingly difficult to build a solid, unbiased information base.

## Framing, narratives and myths

A lot has changed in recent years. Whereas the sum of the media tended to deliver a balanced view of the issues, since the advent of social media, the media have become more opinionated and less discursive. The publications of the media, analysts, organizations and companies, often aim in the same direction and are no longer sufficient as a neutral starting point for a diverse future. In addition, so-called narratives are increasingly being built up, such as "Industry 4.0" or "The Great Reset" by the World Economic Forum, which provide a certain direction for the future and thus set a framework of thinking - which is, among other things, the point of the exercise. The narratives of cinema and the series of streaming services also have great influence. If you are attentive, you will find many of the future topics already dealt with there. We are of course always influenced by frames of thought, narratives and myths. This only becomes problematic for our independent future thinking if we accept the underlying assumptions and their directional arrows without reflection. My advice is to become aware of the defining narratives and myths of the present and always think of a countervailing future as well - whether you agree or disagree and what future you personally would like to have. If this sounds like some kind of schizophrenia, welcome to my world.

# Foresight

## Conspiracy theories

The term conspiracy theory is booming. We are not just talking about theories like "alien abduction" (a quite plausible story when we look at how unabashedly we as humans conduct animal experiments; how likely it is that aliens exist and visit us is another question). Times of crisis are naturally good times for alternative explanations but the term is also very good for distracting and pushing political opponents into an unfavorable corner. Nowadays, the journalists of the Watergate affair would probably be called conspiracy theorists. Don't be swayed, listening to or reproducing a so-called conspiracy theory does not mean that we are conspiracy theorists ourselves, as is often suggested. In the professional handling of information and futures, it simply means that we also allow explanatory models outside our normal thinking and comfort zone, regardless of whether we believe in or like them, and - that's the point - take more possibilities into account than is usually done.

## Science in the boxing ring

Unfortunately the polarization continues at the scientific level. Professional discussions that used to take place in closed circles are now in the public and in increasingly aggressive, pejorative, and tendentious ways. Since we often have neither the knowledge nor the time to get to the bottom of the facts or to wait until a consensus has formed, we can only continue to work with the different scenarios. We should keep an open mind and consider outsider positions that have often become consensus in the past. With climate change and Covid, we are then very quickly back to (alleged) conspiracy theories and the above said applies.

## Finding the path

We know very well that the path is more exhausting than the thought of it. Therefore, the fifth rule states that it is not about a particular future, but about the path, about what we need, what we might encounter, and what to avoid. Without defining a path, there is little likelihood that we will even set out or ever get anywhere, because the future – as we have already discussed - is a moving target. In Visionary Labs' client projects, we therefore map the paths between the present and possible futures and innovations very thoroughly.

## Focus on people

You will find a number of future scenarios in which humans hardly feature at all or only as passive accessories, sometimes by design or because the human factor only complicates things unnecessarily. In my opinion, we should not accept any futures without a clear description of the role of humans. It's like the famous organization charts: if your department is not on, you don not exist anymore. It's easy to think of a future with 100% automation or sustainability. Startrek often features societies that live in an agrarian culture with high technology. This is an attractive vision of the future, but it would be interesting to see what paths lead there from here. Unfortunately this is hard work.

## Conclusion

The time we have left on this planet will be spent in the future. Of course, there is no guarantee for a good or for the occurrence of a certain future. However, if we do not design and shape our future ourselves, we will have to make do with what arises by itself or is intended by other players. Since those follow different ideas, it is only logical to think ahead of ourselves.
If we want to explore the unknown territory, old maps are of little use to us. Good futures emerge from free-thinking and against the patterns of the system in which we find ourselves because these are descriptions of the now, which we must leave behind.

# Foresight

Do not let yourself be influenced by any kind of thought control or prefabricated futures, in which it is fixed what may be thought and how things should be. Instead, use a professional and humane attitude by maintaining multiple world views and leaving open future possibilities in order to recognize possible pathways and obstacles that have not been seen before.

In my opinion, we have reached a critical point where it is not certain whether we will be able to stay on this planet. If we want to secure our own future and that of our species, we need all the creativity we can find. Don't get caught up in the zeitgeist of polarization, exacerbation and lame futures that keep us in the old pattern of our industrial past and politics. We need new answers to the old problems, so please cook interesting futures, as we already have enough fast food.

If you need my help in cooking futures, you can always reach me via email at kai.goerlich@visionarylabs.io.

## About the author

Kai Goerlich is currently the Chief Futurist at Visiononary Labs.
He has 23 years experience in market intelligence, competitive intelligence and corporate foresight.
As new times need new tools, he created new foresight and innovation workshop formats and constantly develops new methods for futuring and innovation management.
Kai is a trained biologist, musician and runner and lives with his family in Germany, in Potsdam near Berlin.

# Foresight

## Future Homes - @Home in the Post-Pandemic Era

By Sylvia Gallusser

**X-ING from home (X=Consume, X=Work, X=Leisure) is a futures exercise based on an investigation on consumption, work and leisure patterns - understanding shifts in these activities is crucial for one to estimate the post-pandemic market for the goods and services we provide.**

We built a framework to investigate the future of home life, called "X-ing from Home," and based on two components.

First, the fact that during the pandemic, many of the activities we were used to conducting outside of the home were transferred partially or completely inside the home. As a consequence, the frontier between the exterior and the interior has moved, impacting the future development of homes.

Secondly, the introduction of three alternative futures for the 5-10 years to come: "Back to the familiar," "pandemic frozen," and "creative disruption." The adoption of these scenarios might differ in time, scale, and location, with some geographic areas or socio-demographic groups evolving at different speeds from one to the other - but we have pointers in the direction of each of these three scenarios.

Note that it is not as much about being right about one scenario dominating the others, as putting these three options on the table and envisioning which consequences each of these scenarios would bring.

As a result, we applied our three scenarios to the different activities that have been transposed to the home environment - namely work, education, entertainment, socialization, and consumption.

## Consuming from home

In the specific case of consumption, we envisioned the following three alternative futures.

1) Back to consumerism: We will go to our comforting shopping patterns and instinctive buying because we missed it so much. For example, in France, there is a strong push towards such a return to the familiar, with a lot of resistance to deep change. Shopkeepers protested government orders to keep stores closed for sanitary reasons' Restauranteurs strapped on aprons in defiance of Covid-19 closures. Booksellers preferred to pay fines in order to stay open. Stand-up comedians organized private shows in their apartments. French politicians attended private dinners in luxury restaurants. French art galleries had a record number of visitors when museums were closed. In addition to that, customers rushed to cafe terrasses as soon as the lockdown was over.

2) Virtual shopping: We witness the reign of online retailers, more and more immersive experiences, digital window-shopping, online tutorials, AR try-ons, and micro-influencers. In favor of this second scenario, we noticed the adaptation of small businesses to survive the pandemic. Most of them invested in an e-commerce website and connected with a delivery platform to pursue business, and they plan to continue as the world reopens. On the consumer side, 128M Americans used a voice assistant in 2020 to make their purchases.

In the beauty industry, digital try-ons and smart mirrors with a makeup coach or a fitness coach entered the everyday life of many. In the kitchen, a chef helps fix your dinner from your iPad; and food delivery apps have more than doubled their revenue during the pandemic, profoundly changing our home dinner habits.

# Foresight

3) Sustainable consumption: We proceed to more local, equitable, conscientious, and mindful buying as our values are shifting. Survey results from Accenture are pointing towards more conscientious buying. 67% of consumers have been limiting food waste and making more sustainable or ethical purchases, with 90% of them likely to continue on this trend. There is a resurgence in interest for local bakeries, food trucks, and farmers markets, as well as a democratization of permaculture, and a steady "grow-your-own-food" trend.

## Perspectives on X-Consume

If this scenario based on transformation is attractive, we also have indicators that sustainable consumption is not an easy option for everyone: Some populations will remain in recovery for a long while, which means that they will deal with first-necessity purchasing - closer to survival mode - than to sustainable conscientious buying. If we refer to Maslow's Hierarchy of Needs, sustainability tends to be at the top (next to esteem, actualization, and morality). When individuals have their personal needs met, they can focus on what is good for the planet and for society as a whole. However when they are at the bottom of the pyramid, looking to meet their physiological and safety needs, they cannot always afford altruistic behaviors. Unfortunately the pandemic and ensuing crisis have fragilized large portions of the population towards the bottom of the pyramid.

## Working from home

The same way we applied our three alternative futures to consumption, we underlined three futures of work as part of our "X-ing from Home" pyramid.

1) Back to the Workplace: In the "Back to the familiar" scheme, the workplace revives, we miss office life. Employers invest in safe and healthy workplaces. The home keeps scars from the pandemic, but work-at-home is not a main driver any more. A good number of signals back that scenario, such as the fact 88% of employees want to come to work 2-3 days a week, according to WeWork's CEO. Half of UK workers miss in-person chats with co-workers and 10% miss office perks. In that scenario, most workers return to the office, except for a few telecommuting days.

2) Remote Work is here to Stay: In this pandemic-frozen scenario, remote work becomes the norm as we anticipate other grey swans on the horizon. We rarely visit the office and enjoy spending time at home. We improve our home workspace with new features and employer perks. Information technology thrives to adapt to this new workstyle.

3) Hybrid Workplace: In the creative disruption scenario, we are transformed but resilient. Under constraints, we invent a new workplace, mixing work-from-home, social work hubs, redesigned office life in less populated areas, and work-from-anywhere. At home we have new specialized rooms at the intersection of work and leisure. In terms of signals that sustain that scenario, Silicon Valley is currently expanding its talent pool geographically and diversifying its pipelines. Facebook and Dropbox adopt a hub-and-spoke office model for a distributed workforce.

## Perspectives on X-Work

Here again, we are mostly on a continuum between full remote and full workplace, and the time we spend at each will vary according to geography, local work laws, scope of work, teamwork expectations, and in-place interactions needed, Different studies present different statistics on how much employees want to return to the office or not.

# Foresight

Some argue that the death of the office market is greatly exaggerated; and we are still not sure how distant team work affects productivity in the long run. What is interesting to observe however, are the new forms of organizing work and work life such as the hub-and-spoke office model, where companies rely on a central "hub" headquarters for important meetings and events, and a network of smaller regional offices. Other upcoming innovations include Google's Project Starline, which enables coworkers to feel together, even when they are far apart, thanks to a booth decked out with cameras and sensors to capture your image and movements from multiple vantage points. The imagery then gets transmitted to a similar booth in a different location and spatial audio makes it seem like the sound of the other person's voice is all around you. Such stations will be installed in Google's offices before becoming available for private use.

As we deal with the "remote work / return to the office / hybrid model" debate, we must not dismiss the situation of millions of frontline workers, as they express a sense of resentment, given that there is no return for them, since they continued working on-site throughout the pandemic. We risk opening a breach between anxiety from white-collars returning to the office and exhaustion from frontline workers.

## Leisuring from home

As we listen to signals from the future and investigate the driving forces in our current STEEP environment (Social, Technological, Economical, Environmental, Political), we also broke down our future into three plausible scenarios regarding entertaining and "Leisuring" from home.

1) Social Animals: We are social animals with physical bodies and have not forgotten about it. Big venues, outdoors, and travels will be fully available again. When the pandemic is over, we go back to our dinner parties. We welcome back the exterior world within the realm of our homes. We yearn for physical presence, body odors, non-distorted voices, human faces without masks, smiles, hugs, and more! We have never craved that much outdoors, cultural life, and intellectual connection with peers. We go back to our old habits, movie nights, sports classes, and travels. Renovated venues reopen and welcome large audiences for live events. Some signals supporting that "Back to the familiar" scenario include the following: During the pandemic, young adults defied rules to data in hiding; Churches defied lockdown with back-door entrance and secret church services; Our body needs vitamin D from sunlight, endorphins from exercising, oxytocin from relationships; and a $500M entertainment venue and hotel complex is planned in Toronto.

2) Immersive Entertainment: We have tasted more immersive experiences and enjoyed them. Now comes the reign of AR/VR/MR. Culture comes to our home, it is more inclusive; social life happens online anyway. The pandemic made us prioritize our relationships and we now go for learning. We avoid meeting in person, unless it is necessary. Dating happens primarily online without leading to in-person. We move away from exterior social life to focus on the nuclear family. The pandemic forced cultural institutions to renovate themselves. Culture is available worldwide. Mixed reality technology enables enhanced online experience. We share it in close circles in our home entertainment centers. The home has become a movie theater and the scene of our own talents.

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Pointers in that direction show that we rediscover the concept of "positive solitude." Tiktok launches a sexy, body sensitive Silhouette Challenge. Clubhouse brings online dinner party-style chats. Tomorrowland virtual festival set a new standard for digital events. 2021 sees a boom in Non-Fungible Tokens (NFT), crypto art record sales, as well a Roblox' IPO and video game boom.

3) Phygital fun: The pandemic scarred us, but we now grow stronger out of it. Our social nature and our tech-savviness make us adaptable and resilient under hard circumstances. There is a continuity between physical and virtual (phygital).

We explore new ways of being together, recreate small committee quality events, and embrace different kinds of social interaction.

We still enjoy "tech-free bubbles" and favor human touch. We enjoy intellectual, cultural, business, and creative conversations in small audiences and respectful settings.

We also take on active part in cultural production; we give classes about hobbies, and consume it from others. A hobby marketplace based on mutual sharing of skills emerges. In terms of signals, we observe evidence of a great variety of changes in the way we live this experience.

During a funeral over Zoom, despite missing the human touch, participants appreciate the possibility to reconvene participants from all over the world and make it a creative moment with a talent show and live emotions.

It does not end there - there are more signals, as there are some interesting growth trends all across different gaming platforms. For example, the board game market gained 20% in 2020; children invent versions of "Among Us "IRL" extending online gaming to real life gaming, and Clubhouse grew from 600,000 users in December 2020 to a whopping 10 million users by May 2021.

## Perspectives on X-Leisure

If the pandemic popularized locutions such as "community spread," "sheltering," "isolation," and "social distancing," it also celebrated "frontline heroes," "essential workers," "random acts of kindness," "zooming," and "joyscrolling." The evolution of our vocabulary reflects how the quarantine triggered our social nature.

In addition to work and education, our socialization needs include connecting with family, friends, and romantic partners.

The pandemic recreated our social connections around the following modalities: Sharing online activities (yoga, cooking, drawing tutotials), and conversing - thanks to social networks and communications tools (Houseparty, Clubhouse, Tiktok, Amigo, and Bumble), as well as nurturing distant in-person interaction (garage gym, balcony clap for heroes, and outdoor movie nights).

We also revamped our rites of passage along these lines: Online graduations, streamed Thanksgiving dinner, wedding broadcast, funeral on Zoom, outdoor banquet with wrapped treats, drive-through birthday party, Halloween trunk-or-treat, and newborn introduction behind a window.

Our homes adapted consequently indoors with private rooms for intimae conversation, cosy areas for online reception, and outdoors with garden remodeling for party hosting and garage cleaning for social distant interaction.

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## Conclusion

The objectives of foresight and futurism are to help us prepare for these plausible future, and to seize opportunity within these worlds. These scenarios might happen at different time scales (short-term reaction, mid-term innovation, long-term foresight / vision) in different areas of the world. As vaccination is moving along, some countries are showing great signs of openness and physical social revival, such as in Israel - while others are in-between reopening and closing again, such as France and Germany - while others seem to go through a slow but steady recovery process, such as the USA.

## About the author

Sylvia Gallusser is an inquirer of our future, conducting foresight research on the future of health, well-aging, social interaction, the future of work and life-long learning, as well as transformations in mobility and retail. She closely monitors the future of the mind and transhumanism. She also investigates Artificial General intelligence and AI ethics. she is involved in the future of our oceans and sustainability - she is a supporter of positive ocean tech startups. This past year she focused her research on mental health and the home of the 2020s, developing a resilient housing framework and four archetypes of future homes.

Sylvia has been advising 500+ tech companies on their strategy, business development, and funding - for the past 15 years as an IT consultant at Accenture, Head of Tech Division at Business France North America, General Manager at French Tech Hub, and co-founder at Big Bang Factory.

Sylvia graduated from HEC Paris (France). She settled in San Francisco in 2005, where she has developed a special interest in the Silicon Valley ecosystem. She is a published author of Future Fiction with Fast Future Publishing, teaches MBA classes, and facilitates workshops on go-to-market strategy, competitive analysis, futures thinking, worldbuilding, and entrepreneurship.

# Foresight

## Keep your Stakeholders Closer with Participatory Foresight

By Kacper Nosarzewski

**Future is a time-after-the-present, but it is also a place where you can safely meet your stakeholders and competitors to learn more about them.**

### Behind closed doors with your stakeholders

It was a sunny fall afternoon on the 40th floor of one of Warsaw's more emblematic buildings, The Spire and I was watching a big conference room with floor-to-ceiling windows, humming with a conversation that few people would believe could happen. Here they were, the Country Manager and VPs of my client, a multinational corporation in the energy and utilities sector, sitting shoulder to shoulder with senior government officials, finance sector stakeholders, influential jurists and, most surprisingly, VPs of their competitors, exchanging passionate comments about the shape of things to come.

More than 30 top movers and shakers of the energy transformation business accepted invitations to what was, essentially, a part of a project contributing to my client's new multi annual strategy. With the right branding and a right set of props, namely three enormous globes: white, grey and black, symbolizing three future scenarios, the feeling of something one-of-a-kind emanated from the gathering and there was a great enthusiasm to be sensed.

It was, indeed, unique. There was no press - this meeting happened behind closed doors, but this time, with all the stakeholders on one side of them.

For a couple of hours, all the stakeholders present willingly assumed the roles of my client's advisors, and they did not bill a cent for this.

This is one of many things that foresight can do.

### What is foresight?

Strategic foresight is a practical application of futures studies, a discipline interested in the exploration of possible futures. Foresight brings the hypotheses, scenarios and thought experiments typical of futures studies to the boardroom, helping to reframe mental models of decision makers and analysts and broaden the view of the strategic environment. With a cunning use of scenarios, games, collective intelligence process and experimentation, foresight achieves this and improves decision-making in the present.

Research by Danish scholars Rohrbeck and Menes proves that big companies which use foresight in their strategy-making tend to get a higher return on their R&D investment (up to 100%) and to grow faster (up to 30%). This is why the demand for our services is growing dynamically across all the industries, mainly in these three lines of service:

- Future scans, where we explore the market futures with our clients, looking for new pockets of opportunity, acquisition targets or significant future innovations, that need to be secured to gain or retain the competitive edge.
- Delphi studies, where industry experts get together in a unique online workspace to come up with new insights to benefit our clients' strategic product innovation.
- Futures Literacy processes, where we bring key employees up to speed with the complexities of near-future worlds and help them work out new business models fitting for the challenges they face ahead.

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Faced with uncertainty and a necessity to innovate at an increasing cost, our clients go farther and farther into the future, just to bring back the novel products and services inspired by emerging trends to their market at the right moment.

This is also why Futures Literacy, a new school of foresight developed and promoted by UNESCO, to which we have been contributing since 2013, is gaining so much traction worldwide.

Participation matters and all-hands-on-board approaches to internal futures research require an update in futures thinking among the staff.

At 4CF, we made it our mission to innovate within our discipline, and this is why we cater as much to the needs of our clients as to the needs of fellow futurists who look for new tools and methods to stimulate their clients' thinking.

We usually test out new online tools and games with public sector clients, such as UNFCCC (the UN climate change agenda), Ministry of Defense or PMO of United Arab Emirates, so that they can reach the corporate market in mature and ready-to-deploy form.

The scenarios that we developed to animate a workshop for our energy and utility transformation project were an example of a successful implementation of proprietary analytical methods, different from the scenario textbooks that can be bought online from Amazon. After all, future changes and so the tools to deal with it need to evolve as well.

## Why is this important for your stakeholders?

A conversation about the future is, usually, synonymous with close relationships. It is also a bit of a rarity. Most meetings and events focus on the here and now, and they may fulfil the need to solve pressing problems, coordinate action (which is not always well seen in the light of antitrust legislation) or sometimes to flex your muscles and boast about new products and services. If you want to achieve any of the above aims, you need to offer your stakeholders something in exchange for their attention, and more often than not, this means a significant investment to compensate for their time. In the case of your competitors, it is even more difficult to get them to talk.

Future, however, opens up opportunities to talk to almost any stakeholder on the market without the smell of sell. Except for situations where there is limited trust because of a strong contradiction between the voiced policies, like there would be between the countrywide environmentalist NGO and an oil-field developer, a conversation about the future that is not linked to any specific business project or product incites more curiosity than suspicion.

Remember that your client's stakeholders are no hermits and loners themselves. A fair and equal conversation about the future will be perceived as an opportunity to strengthen the position on the market of ideas in a given sector or even to socialize with your client in a safe situation.

There are of course limitations to the involvement of elected officials and senior government stakeholders in any kind of industry dialogue, stemming from either lobbying legislation or best practices in a given organization, and futures dialogues should not circumvent such restriction, but if you want to target this group of stakeholders in particular, you may still hold your session on the margin of a bigger event where these representatives will be present. Last but not least, some of your client's stakeholders will want to join, because they have their own agendas to push and will see this as an opportunity.

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This is to be expected - less in the case of competitors - but you can and will control the agenda of the meeting by using an "external" model. This model will be your set of scenarios to be debated, either in a traditional facilitated break-out group setup or perhaps in a more novel, gamified approach in which you may even have mixed groups of clients and stakeholders competing against each other. This approach worked very well for our client in the financial sector, who wanted to co-create knowledge about the future consumer with their clients from the banking sector. But so, how do you get this input material that you should use?

## How to start

This particular project started with a big review of competitive intelligence and Futures Literacy among our clients' top management. It's often amazing how diverse and unaligned are the forecasts and perceptions of strategic risks within a seemingly coherent group of managers and analysts. It is however not surprising. Research from eminent psychologists such as Philip Tetlock as well as practical experience prove that there are so many ways of interacting with the future visions, that individual differences in hopes, fears and expectations are a norm rather than an exception. This is also a stage at which our clients realize how many tacit assumptions about the future, including opportunities and threats, underlie the apparently coordinated strategic efforts. Future exists only in the form of such assumptions, one more reason to learn more about what your key people - and key stakeholders really think about it.

At this stage already, we usually have more than enough information to start working on scenarios. The complexity and refinement of this process is only contingent on time that the client is ready to dedicate to the process.

From simple matrices and STEEPL tables analyzing change factors and trends, to complex portfolios including analysis of hypothetical breakthrough innovations (or moonshots, as they tend to be called), to whole sets of simulation games and gamebooks designed to uncover blind spots and deepen the scenarios' different nuances.

Once your scenarios of the future market are ready and initially approved by the client, you can start planning together on ways to get stakeholders involved. You should perhaps do it prior to the final analysis that is meant to yield recommendations to the client, as your aim is not to disclose knowledge that is meant to secure a mid- and long-term competitive advantage to the clients, but rather to improve and test your hypotheses against different stakeholders. In the end, the honey of the process is meant for the client, and you can only use as little as needed to attract the stakeholders without letting out too much.

This usually means that you will need to redact and even abridge the original scenarios, taking out some of the most salient features before you show them to the stakeholders and your client's competitors.

## Tips & tricks

Try to steer away from the old scenario typologies based on probability (business as usual, optimistic, pessimistic) or desirability towards a set of plausible, different, and equal narratives that cannot be easily cataloged - your clients will spend more time studying them and may deduce better insights from the comparisons.

Underline diversity as a key to selecting client's internal experts that will contribute to the process. More junior staff is seldom privy to strategy-making, but their presence sometimes awakens a sense of temporality and long-term succession of responsibilities. Slogans of the day from the business press headlines and covers may sometimes help you win a client but break away from them as soon as possible in the project. Your client deserves a proprietary, fresh, inside language to talk about their futures. A futures report that regurgitates someone else's talking points will likely be discarded by people who need it the most - those who don't work directly on creating it.

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Secondly, this approach relies on personal characteristics of the 'evangelist' that may impress your stakeholders positively or negatively and usually requires a strong marketing investment to get this recognized format across.

This is why in our foresight-oriented approach to stakeholder involvement we focus on what the stakeholders can do

## Need to go deeper?

The meeting that I mentioned at the outset was perhaps the most picturesque of all, but by no means the only, where our clients got a pass to meet with their most important stakeholders and talk about the future. More often than not, the clients who hire 4CF to work on scenarios, future trends and disruptions or strategic innovation, decide to declassify a portion of the findings and share them with their most important clients, providers and sometimes, trade boards on which they meet the competitors. I cannot tell if this is more because of the military pedigree of foresight, stemming from the strategic simulations of the Cold War era or the science-fiction note it tickles in the stakeholders' imagination, but there is almost a sense of jealousy in reactions of the invitees, when they learn that non-public insights into the futures of the sector will be disclosed, discussed or even co-created.

The excerpts from foresight studies we drafted for our clients help build a progressive, innovative image of our clients and, as it was the case of another multinational company in the fintech sector from our client's portfolio, win new deals in highly competitive b2b market, such as banking, where opportunities to make a big sell are few and far between, just because the market is, by definition, already divided.

Futures are also a powerful positioning tool. Despite popular demand, not every company wants to get involved in so-called evangelization, which usually boils down to just a thinly varnished sales speech.

This approach wanes in comparison with a conversation about the future, firstly because it follows the traditional one-to-many communication pattern, which means there is no activation.

## Follow up

Depending on the success of the initial contact, you may want to try different approaches in follow-up, engaging your stakeholders even deeper, based on the first common experience with futures.

With one of our clients we expanded the format of a meeting behind closed doors to a bigger communication project spanning a year, in which invited experts from a wide range of stakeholder organizations contributed content and opinion to an exclusive online portal analyzing forecasts, prospects and alternatives in several topical analyses.

The information that you will gather from a stakeholders' futures workshop will of course need to be further analyzed and taken with a grain of salt. In running such a workshop, you will however notice three main benefits: an external look at your scenarios with many sets of critical eyes; a great opportunity to give your client value time with relevant stakeholders, which is a good way of keeping them close; a chance to expand your client's thinking about the future in the specific context of the strategic questions they are asking or perhaps those that they should rather be asking... Even those who are skeptical towards futures research (as some people still are, against all positive evidence) will agree that there are few ways in which you can have all of the above at one sitting.

# Foresight

## About the author

Kacper Nosarzewski is a partner at 4CF and a board member of the Polish Society for Futures Studies. He is the author of methodologies and facilitator of foresight projects for civilian and military clients, a NATO expert. Kacper advises on strategic foresight enterprises and international institutions, such as UNESCO and UNDP.

He led the project Scenarios of National Development 2050 for the Polish Ministry of Infrastructure and Development.

Kacper has managed projects for medium and large companies and government agencies around the world in the high-tech, food and beverage, financial, logistics and defense industries, including the Polish and Dutch Ministries of Defense, Brazilian mining corporations, UNFCCC, and many other clients.

He is a member of the Polish branch of The Millennium Project - the world's largest foresight think tank and a member of the Association of Professional Futurists.

Author of scientific articles, workshops, and media commentaries on the future of industries, cities and companies. He teaches foresight at the Naval Academy, AGH University of Science and Technology and has a seminar on future cities at the Faculty of Geography and Regional Studies, University of Warsaw. Graduate of University of Warsaw, alumnus of Rockefeller Foundation Bellagio Programme.

Foresight
## Kacper's Tips & Tricks

### CLEAR AND SUCCINCT MESSAGE

### Probabilistic Scenarios
Avoid optimistic/pessimistic scenarios or probabilistic ones

### Diversity
Use a very diverse base of participants in your scenario exercise

### Slogans
Stay away from jargon, slogans, and fad language

### Futures' language
Use a fresh, proprietary language to talk about your client's future

### Stakeholders
Align futures with your clients' stakeholders

# Market Intelligence

## Identifying Target Markets using Global Landscape Monitoring

By Kenan Mahmutoglu

**A good way to understand markets and identify / size potential trade opportunities is to use the International Trade Center's "Trade Map" platform. This article discusses how to use the ITC to acquire export intelligence, as well as to identify supply chain partners mostly associated with a product.**

Market Intelligence requires a variety of activities be performed on a regular basis. In today's integrated market economy, it is important - now more than ever - to adopt a structured approach to develop product-level sales intelligence; this activity allows us to identify target markets, find buyers (new customers), identify sales opportunities, and develop an understanding of one's market position in respect to that of the competitors of interest. In our hyper-competitive world, the next sales might not be next door, rather across the world, in a distant land. In other words, in order to remain competitive, we need to be able to identify business opportunities on a global level.

We are all trying to get revenue from our competitors, but to do that it is important we first develop a solid understanding of the market landscape at the product level through purchase records, and only then one can say the competitive position is understood at a level of detail that matters.

*"Use ITC to get product-level global sales intelligence"*

Kenan Mahmutoglu

A good place to start our analysis of the competitive landscape is to perform a SWOT analysis, in combination with Gartner's Magic Quadrant method - these two methodologies will allow us to acquire understanding of the market dynamics, this way we can ascertain who is in a position to win. Though a necessary condition for our analysis to be useful, it is not enough to ensure it will be a success. It is important we look at the data in greater depth, for individual purchase record information often reveals competitors' sales activities, as well as import information - which is in fact supply chain intelligence. If purchase record information is so valuable, how can one go about performing such analysis?

## Working with purchase record information

If the goal is to do purchase record analysis, then the first step is to identify the source of this data. The International Trade Center's "Trade Map" tool is THE place to go for all sorts of trade statistics that are used for international trade analysis. The ITC tool has a great variety of business, export / import trade information both at an aggregate, as well as at a product level, with corresponding tariff information. The site has filters for timeline, frequency, as well as geographic regions, and individual countries. There are tables, graphs, statistics, time series, and visuals to enrich any presentation / analysis.

In order to properly navigate through the information the ITC provides, it is important to note all of it is categorized and stored using the Harmonized System (HS) Code, which simply put, is a standardized numerical method used to classify traded products. Custom authorities use the HS Code to identify products, determine duties, and report trade statistics. Please check the European Trade portal to determine your HS code.

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Once you determined your HS code, then we are ready to discuss what kind of data will be extracted from ITC, and what we can learn from it.

Here is a list of sequential steps one can perform using the Trade Map application.

1) Retrieve the worldwide import data related to your product using the defined HS code, and analyze the data related to the last 5-year trade trend. Here we are looking for changes in trade volume (increase vs decrease).

2) Retrieve export data from your country as well as the last 5-year trade trend. Here we can use this data to understand the export market that already exists. Say you are in Sweden and you sell light Volvo trucks - "light Volvo trucks" in the USA's Harmonized Tariff Schedule (HTS) would appear as "4011.20.10.05" tag, so we would know how many such trucks Sweden exported.

3) Retrieve export data from global competitor countries using the same method. On the example above, we would want to know how many light trucks Daimler (Germany) exported.

4) Study the market competitiveness , including geographic trade agreements, duty tariffs, regulatory requirements, documentation compliances, etc. This information is easily accessible at ITC's Market Access Map ("Macmap").

When you list the importing countries & trends, your exporting countries & trends, along with competitor countries & competitiveness, you will easily see where your short term strategic movement could be. In our light truck example, we realized Germany exports a sizeable volume of light trucks to Algeria. We can immediately check if Sweden exports trucks to Algeria, look at trends and ask why / why not.

Once you identify your target market ("Algeria"), we need to do some more digging. This time we are not only identifying existing buyers for your products, but also analyzing who the buyers of your competitor's are and which specific companies do they sell to.

This information is available from a variety of sources, you can start with TradeAtlas or with Panjiva - they are both good alternative sources for purchase record data. In fact these sources not only help you identify potential buyers through purchase records, but also help you monitor your competitors' export sale & import purchase activities - an activity known as global landscape monitoring. In other words, knowing who they buy from and who they sell to enable supply chain intelligence.

In conclusion, next time you are seeking to understand existing markets for your products, or trying to identify new market opportunities, do follow these steps and you will certainly identify the right business opportunities.

Happy hunting!

Duck

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## About the author

Kenan Mahmutoglu is passionate about the export sales market & competitive intelligence. He enjoys finding solutions and creating actionable commercial knowledge - as he condenses massive amounts of data, insights, and trends into a strategic business path. He is a strategic international business development advisor with expertise in the global trade markets.

# Market Intelligence

*The greenest data center is the one you don't need to build in the first place* 🧡🧡
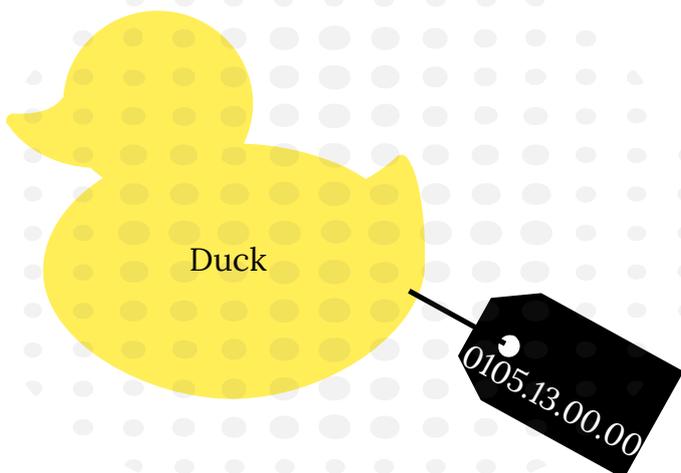
John Miranda

## Sustainability re-shaping the Technology Ecosystem

By John Miranda

**In this article we learn how the emerging trend towards embracing sustainable practices is playing out in the tech sector. In fact, sustainability is the pervasive market force that is reshaping the Information and Communication Technology (ICT) ecosystem.**

## Rising Focus of ICT's Environmental Footprint

As compute becomes increasingly pervasive in our everyday lives, the awareness of its sustainability footprint has been sharply expanding amongst users, businesses, investors, and regulatory bodies. Over 2020 we saw increasingly bold goals outlined by CEOs of the largest technology companies, from achieving carbon neutrality to a more aspirational carbon negativity.

Forecasts show the ICT sector, left unattended, can represent up to 20% of global energy requirements by the end of the decade.

So how is the ICT sector unpacking this challenge, and how will that reshape our future?

## Four Vectors that will Re-shape the Technology Sector

Vector 1: Equipment Efficiency, getting as much as you can out of your capital

The most obvious area of focus for the IT industry is to get more compute out of an existing infrastructure.

The greenest data center or cell tower is the one you don't have to build in the first place. For Data Centers, moving compute from on-premise and private infrastructure to a shared cloud infrastructure offers significant efficiency gains – the analogy is that a book in a library gets much more use than one sitting on a private home shelf.

Further, the largest cloud service providers have economies of scale that allow higher overall efficiency programs in hardware utilization and equipment cooling. And doing this is an increasingly complex challenge as orchestrating a cloud infrastructure composed of millions of compute cores juggling thousands of incoming requests per second requires ever deeper expertise to address.

Within a Data Center, a large source of energy consumption is cooling compute equipment.

This heat removal challenge is also becoming a larger factor in 5G base station towers. Further, in data performance-intensive settings, compute components are getting hotter and denser.

# Market Intelligence

This will drive the adoption of liquid cooling, including immersive liquid cooling where you dunk the entire compute platform under a dielectric liquid which when pumped, removes the heat much more efficiently than mechanical fans and air handlers. Via liquid cooling, an opportunity arises: The exhaust liquid, now heated, can be a source of energy that can be reused to warm buildings, campuses, and homes.

This nascent practice is first rising in zones that have district heating, such as Stockholm. But even in warmer climates, there is always the opportunity to leverage preheated liquid for an adjacent manufacturing or other nearby processes.

## Vector 2: How Green is your Energy? Power Source Matters

A second area gaining traction is comprehending how 'green' is the energy you are consuming. Large businesses commonly purchase green 'offsets' as they work towards carbon neutrality, which involves funding investments that increase renewable energy availability - somewhere. Still, this doesn't guarantee that the energy powering a data center, for example, is renewable per se, it just means that somewhere else more renewables were added as part of an offset investment.

More recently, the largest cloud service providers (CSP) have been evaluating how to actually make the energy itself going into the data center more renewable, which will influence future data center site selection choices to favor locations that are sunny, windy, or near hydroelectric energy sources. The carbon profile of energy can vary widely, within the EU alone, there is a carbon impact factor difference of up to 50x between the greenest countries (e.g. Sweden) and others that are more reliant on fossil energy sources. This variance will shape future data center site selection.

A further consideration is that renewable energy, particularly solar and wind, are variable in nature, rising and falling in production hour by hour. A characteristic of the energy grid is that it must balance regional supply and demand continuously: Not enough power, and you have a regional blackout, too much power, and you have to unplug some energy-producing source. As we add more renewable energy, this variability means we have 'too much' power at 10 am on a sunny morning, and not enough at 6 pm after sunset. This is creating a stranded power condition where solar panels may have to be 'unplugged' when they are most productive as the grid cannot absorb more energy than demand at a given time. Storing energy using batteries, a partial solution, is prohibitively expensive to fully implement at scale, as sufficient battery capacity to address the United States alone would exceed a trillion dollars.

So what else can we do? One technique being applied by a CSP is the concept of 'Time Shift', that is, find workloads that can run a little earlier or later, and run them when it is most sunny, or windy. In essence, this transforms the data center to behave as a virtual battery by consuming extra power when the sun shines and less in the early evening when energy sources are more fossil-based. Expand that to everyday devices: Your refrigerator should produce extra ice at 10 am, and less ice at 6 pm.

Appliances big and small will become carbon aware over the upcoming decade, and adapt their behavior to map their highest energy consumption in alignment with when the energy source is most carbon-free.

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Energy utility providers will over time further amplify the economic signal of energy by varying electric rates more widely to homes and businesses based on time of day usage. Factories and Smart Cities will pre-heat things earlier or later, and pre-cool things earlier or later, and so on, to facilitate the introduction of more and more variable renewable energy sources onto the electrical grid.

Finally, consider that the nature of power is undergoing a transformation from centralized energy delivery to where power harvesting, storage, and consumption are becoming decentralized as our homes and neighborhoods become nano-grids that will offer new opportunities for optimization.

## Vector 3: Embodied Impact, what did it take to produce compute components?

As the largest technology operators and data centers transform their facilities to be powered by renewable energy, the focus then shifts from operational impact ('OpEx') to the carbon and pollution content associated with the equipment that is purchased and placed in their respective facilities ('CapEx').

This focus on equipment 'Embodied' or 'Embedded' carbon, can further include upstream water consumption, hazardous and non-hazardous waste associated with the production.

Going forward, we will see compute equipment purchasing entities apply increased environmental scrutiny on their supply chain.

## Vector 4: Equipment Lifecycle, moving from a linear to a circular supply paradigm

As efficiency and carbon impact from compute is reduced via renewable energy sources, with the rising focus of embodied carbon, we will see an expectation that equipment lasts longer, as this allows us to amortize its production footprint over more years.

Implications are that we will see more legislation such as 'right to repair', and vendor equipment designs that are more modular, repairable, expandable, and resilient in nature.

This will also introduce higher expectations on hardware and software support over a device's life.

Within Internet of Things (IOT) in particular, especially for subscription-based solutions,, we are seeing devices that become bricks once the original vendor drops software support for an aging device.

On the flip side, devices offered as a Service model do provide a better mechanism for end of first life reclamation vs. ownership models.

A Second Life: Once a piece of equipment no longer supports the original buyer, we will see a rising secondary market movement where that component can be refurbished and resold to a new customer. Finally, at end of first life, upon equipment decommission, the ability to reuse sub-assemblies, remanufacture components, and re-introduce ingredients in a circular supply chain structure will become more practiced.

Ultimately, in the lifecycle space, the objective is to drive e-Waste towards as close to zero as possible.

# Market Intelligence

## Conclusion

We are seeing a rapid rise in interest, goal setting, and reporting across technology providers as the ICT industry grapples with its environmental impact. In my experience, the level of sustainability discourse amongst the largest compute ecosystem players in 2021 has risen sharply even over 2020. This rising commitment to address will have implications to where compute is performed, how energy moves towards decentralized electrification, and a shift towards a circular economy for devices, from years of service to end of first life treatment.

## About the author

John Miranda is a Director of Strategy at Intel's Data Platforms Group (DPG). He is responsible for market and technology trend sensing, uncovering strategic opportunities and gaps, forming recommendations, and working with Intel's executive leadership to shape investment actions across Intel's Data Platforms Group Business Unit.

Figure 1: The four vectors reshaping the Technology Sector
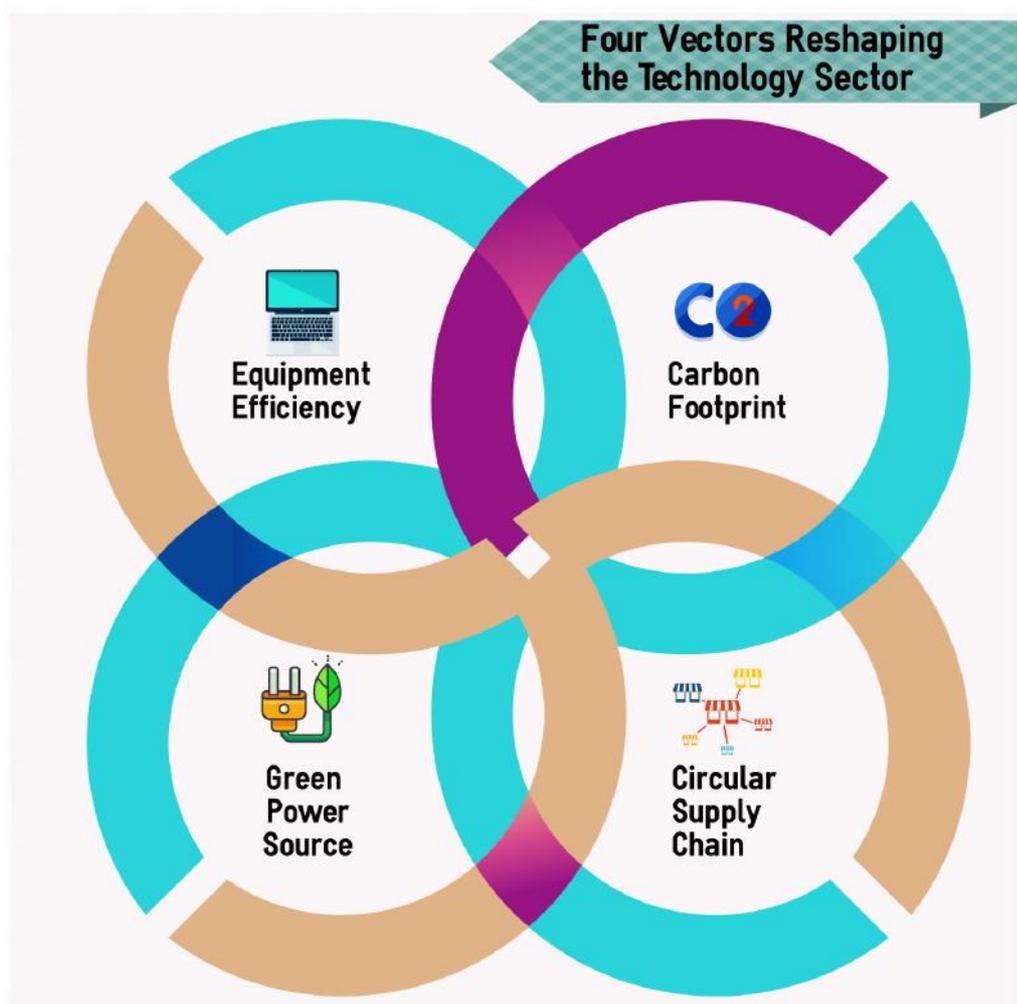
# Opinion

## Melbourne Convention Center post-pandemic strategy

By Editorial Staff

The Covid-19 pandemic hit companies particularly hard - and it hit venues even harder - from reduced hours to lockdowns, and all the way to complete shutdown.

In order to survive venues need to modify the way they attract, retain and conduct business - so now more than ever, it is important to innovate.

As intelligence professionals, one important aspect of our function is to conduct trade show intelligence, but that can only be done properly in a venue, therefore what happens in the venues is of interest to us.

Venues are important not just to intelligence professionals, they are also an important business driver for local economies - in fact, convention centers drive thousands of visitors into an area, and their economic impact is measured in Millions of Dollars on an annual basis.

One way to see the changes in the industry is to look at the transformation going on at the Melbourne Convention and Exhibition Centre (MCEC) - and its effort to become the 'home of the unconventional'.

For more than 25 years, MCEC has been a leader in its industry and a significant contributor to the Victorian economy, driving more than AUS$1.2B worth of activity to their state in 2019. Known for its exceptional customer service and ability to deliver extraordinary events, its 2021-24 strategy focuses on continuing the leadership in a post-COVID world with a clear focus on four key areas of priority: People, financial sustainability, community pride, and new markets & products.

The new brand plays a crucial role in showing the world why MCEC, and Melbourne, is the place to do business events.

Peter King, Chief Executive MCEC said the refreshed brand is representative of the unconventional ways MCEC works.

In his words: "We do things a little differently at MCEC and we are now looking to the future to ensure we keep innovating and evolving."

He stated: "Our 2021-24 Business Strategy recognizes that MCEC makes a significant contribution to the life and economy of our city and state, and we want to keep making an impact where it counts."

Furthermore, "By unveiling a new brand to the world, that accurately represents the way we are working here, we hope to attract like-minded customers, partners, and visitors to join us at MCEC."

In 2020 MCEC began using their space in unconventional ways, this included providing space for training Guide Dogs, opening Australia's first Drive-In (Door) Cinema, and partnering with food supplier Flinders & Co on a new wholesale product offering.

Next time you are shopping for a venue, do check the MCEC.

## What are the benefits of attending an ICI conference?

By Karin McKenzie

Competitive Intelligence is a discipline continuously changing. The challenge for every CI/MI practitioner is to stay up to date with new methods and dynamic markets. The focus of the Institute for Competitive Intelligence - ICI - has always been to encourage peer exchange and mutual learning. With that in mind ICI organizes conferences to provide a platform for new-comers as well as seasoned practitioners! We keep our conferences small and personal, hence providing opportunities for in-depth discussions in a familiar setting. Our interactive formats are unique ways to share new insights, work on real-life case studies and discuss hot CI/MI topics. ICI conferences are a must for everyone who wants to be at the forefront of the CI/MI discipline.

# Economic Intelligence

## The golden age of cyberpiracy: Industrial espionage against the biggest Swedish companies today

By Prof Dr Klaus Solberg Søilen

**In this article, Dr. Søilen (Halmstad University) shares a report from the Confederation of Swedish Enterprise, with the latest on industrial espionage.**

The Golden Age of Piracy was from 1650 to 1730s. At the beginning of that period Spain had already been a superpower for more than a century and England was in part a nation of pirates. But with their loot, newly won sailing abilities and later the development of science England could build spinning factories in the 1780s and after 1800 steam power & iron production which helped turn the country into the world's superpower. The United States was often seen as a mere refugium for Christian extremists at the time, but it had ambitions, a working-willing population of immigrants from Europe, and plenty of natural resources. Through industrial espionage, the United States would copy Énglish factories and products and set their capital to work. Within half a century it was the new undisputed superpower.

History shows us that it is normally the weaker party that engages in piracy, but also individuals or nations with ambitions. Piracy is also the means of a declining empire losing its position in key industries as we see in the United States today; in telecom, kidnapping ("arresting") the daughter of the owner of the largest competitor, Huawei, or in the heavy gas turbine business, kidnapping a senior executive of Alstom at the J F K Aiport in NY, releasing him from prison only when Alstom was sold to General Electric. When you are the undisputed top dog your efforts are instead put into setting up barriers and passing laws to protect the status quo. You do not by any means want to be seen as a thug, a pirate. This then seems to be the logic by which great nations have grown and prospered.

Today we are living in the golden age of cyberpiracy as it is cheaper and less risky to steal and defraud online. Cyberattacks come from all parts of the world, from Asia, Russia but also from other Western countries. Sometimes it's a lonely private schooner drifting around and sometimes the direct attack of a full rigger operated by private individuals in "troll factories" on behalf of a competitor or nation-state. Most of the time it's difficult to say who is behind, and for the attacker, that is the point.

In Sweden, we typically assume that it's Chinese or Russian pirates but sometimes it's our allies like in "Operation Dunhammer". In the 90s and early 2000 focus was on online piracy where customers and consumers would steal copyrighted content from companies such as music or software. Now it's cyberpiracy with ransomware, malware from cryptovirology that threatens to publish the victim's data or perpetually block access to it unless a ransom is paid. Online piracy was mostly for private use. Cyberpirates are mercenaries like we remember them in Renaissance Italy destroying whole cities, but also like in the more recent war against Iraq. As always they signal a less ordered, stable period in history.

# Economic Intelligence

## The report

In March 2021 the Confederation of Swedish Enterprise (Svenskt Näringsliv) released a report on industrial espionage targeted towards the biggest Swedish companies. The report confirms the growing activities of industrial espionage in the form of cyberpiracy. The number of attacks has in some instances increased by 100-150 % during the Covid-19 pandemic.

The heads of security in 14 of the 30 companies at the OMX30-Index list were asked a series of 17 questions. These companies have sales of more than 1 200 billion SEK (2019) and employ more than half a million people around the world were of 70 000 work in Sweden. A list of OMX30 companies is listed in the table below. They represent the jewels of Swedish industry and are vital for the competitive advantage of Sweden. Their taxes pay for our welfare state.

So, what kind of problems do they see? Phishing attacks are everyday events, but there are also insider jobs. Denial-of-service (DDoS) attacks occur when multiple systems flood the bandwidth or resources of a targeted system, usually one or more web servers.

These DDoS attacks can go on for days, in which case it is assumed that the pirate is representing big money. Schooner attacks are often one-offs. These pirates are mostly common criminals often just trying to get the system to accept fake invoices or hoping for a quick payment in Bitcoin. Other attacks come in the form of harmful code (viruses), portscanning, and escrow injections.

To defend themselves the companies spend millions on security a year. They use 2nd generation firewalls, virus protection and secure emails. Special teams go in and evaluate risks or deficiencies in the system. "Red teams" go in and attack the system to try to detect weaknesses. They also employ "Bug bounty" rewarding "white" hackers to detect errors in the system. ISO 27000 standards are implemented. But, all of that is not enough.

> 🙶 *The number of cyber-attacks has in some instances increased by 100-150% during the Covid-19 pandemic* 🙷
>
> Klaus Søilen

Figure 1: OMX-30 companies as of 2019-05-02

| Company | Index weight (%) |
|---|---|
| ABB Ltd | 2.80 |
| Alfa Laval | 2.26 |
| Assa Abloy B | 5.28 |
| Astra Zeneca | 2.30 |
| Atlas Copco (stock A) | 5.99 |
| Atlas Copco (stock B) | 2.56 |
| Autoliv Inc. SDB | 1.15 |
| Boliden | 1.84 |
| Electrolux B | 1.75 |
| Ericsson B | 7.02 |
| Essity B | 4.44 |
| Getinge B | 0.84 |
| Hennes & Mauritz B | 6.07 |
| Hexagon AB | 4.35 |
| Investor B | 5.06 |
| Kinnevik B | 1.63 |
| Nordea Bank | 4.26 |
| Sandvik | 5.33 |
| Securitas B | 1.41 |
| SEB A | 4.90 |
| Skanska B | 1.64 |
| SKF B | 1.80 |
| SSAB A | 0.26 |
| SCA B | 1.31 |
| Svenska Handelsbanken A | 4.94 |
| Swedbank A | 4.29 |
| Swedish Match | 2.02 |
| Tele2 B | 2.08 |
| Telia Company | 4.32 |
| Volvo B | 6.11 |

# Economic Intelligence

Pirates are looking at anything to do with major bids, offers, sales prices, margins, and larger databases.

They also try to recruit insiders and engage in spoofing where the pirate tries to pretend to be a colleague or fellow employee. What is seen is that the bait on the hook is becoming ever better, bigger, and more attractive.

Or put differently, social engineering skills are becoming more advanced, trying to lure employees into disclosing vital information. The pirates try to map the organization, find people of influence and figure out how to get to them, normally by turning their attention to someone in a lower position first. Staff in finance and HR are special targets.

Some of the OMX30 companies were the victim of the recent Cloud Hopper (led by a group known as "APT10") maybe from China. Sometimes the pirates are also "unethical competitors". Physical attacks are comparatively rare.

## Conclusion

There is a continuous effort by pirates to get at company secrets through illegal and unethical means. This is excluding all kinds of reverse engineering and competitive intelligence efforts.

As a result, Swedish companies are spending an increasingly large part of their budgets on security. Another effect is that companies tend to choose major hosting services as these are perceived to have higher degrees of security.

The cost of security for those companies who decided to convey this information range from 8 to hundreds of millions of SEK per year, with an average of more than 100 Million SEK per year.

The degree of sophistication of these attacks is very high and is becoming more so. It's not your average hacker-kid who is the pirate anymore, but well-educated engineers.

The object is to sell the formation to other parties (existing or potential future clients) or to use the information for extorsion.

A major problem is that most of the interviewed OMX30 companies do not feel they are getting enough (or often any) support from the government.

The government lacks the resources and the funding to help, they argue. The new national cybersecurity center (Det nationella centrum för cybersäkerhet), cooperation between The National Defence Radio Establishment (Försvarets radioanstalt), Swedish Armed Forces (Försvarsmakten), The Swedish Civil Contingencies Agency (Myndigheten för Samhällsskydd och Beredskap), and The Swedish Security Service (Säkerhetspolisen) - in cooperation with The Swedish Post and Telecom Authority (Post- och telestyrelsen), The Swedish National Police Board (Polismyndigheten), and The Swedish Defence Materiel Administration (Försvarets materielverk) is thought to be insufficient and ineffective even before it has opened (to be fully operational by 2025).

Instead, companies point to other organizations in other countries that they think to work better like the FBI or CISA (Cybersecurity & Infrastructure Security Agency) in the US, Enisa (European Union Agency for Network and Information Security ) in the EU, Great Britain's NCSC (National Cyber Security Centre) or Germany's BSI (Bundesamt für Sicherheit in der Informationstechnik). Europol has probably also a certain capacity, it is thought.

> *Firms believe efforts by the new national cybersecurity center are insufficient - the agency lacks adequate funding to be truly effective*

Klaus Søilen

# Economic Intelligence

The security personal at the major companies thinks that the new national cybersecurity center must be constructed more like the organizations that function well in other countries.

They also argue that there must be an official way for companies to contact the government about the issue of cybersecurity while remaining anonymous. For this to happen new laws need to be passed (sekretesslagstiftningen).

In general, it is argued that the police have too little resources to affront these problems or be much of help. In the end, it is acknowledged that more effort must be directed towards the offering of education and training in cybersecurity and related topics. Only then can we hope to push back the pirates.

## About the Author

Klaus Solberg Søilen is a full professor of Management at the Department of Business Studies at Halmstad University in Sweden and an external at Copenhagen Business School, Denmark.

His main areas of research are intelligence studies and digital marketing, but also economics.

He has been the editor-in-chief for the Journal of Intelligence Studies in Business (JISIB) for ten years and has published more than 100 articles and case studies and half a dozen books.

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CHALLENGES AHEAD

# Feature

## Center for Societal Progress

Contact: Dr. Stefan Bergheim

"The Zentrum für gesellschaftlichen Fortschritt (ZGF or Center for Societal Progress) is a non-profit research center in Frankfurt (Germany), and the Principal is Dr. Stefan Bergheim.

Dr. Bergheim is an expert in futures studies, and the center publications are a great source for quality of life analysis.

Economists tend to view well-being as a function of per capita wealth - thus the assumption people living in high per capita Gross Domestic Product countries are well to do and that is a definition of well-being.

The ZGF goes much further - it invests research resources to help us better understand the complexities of life in developed economies in ways the simplistic average income statistic approach of GDP cannot.

The ZGF method consists of four different steps: 1) researchers use structured discussions with the goal to capture the wealth of different perspectives; 2) the output of structured discussions is consolidated into defined views of the future; 3) several indicators are identified to allow for the trajectory towards specific desirable outcomes be tracked; and 4) the ZGF seeks to take action to help social actors achieve the desired state.

ZGF focuses on quality of life in the city of Frankfurt, in Germany in general, it also conducted a variety of studies on the topics of the future of social market economy, and the quality of life in the digital age.

Of particular interest is the report "Happy Variety of Capitalism 2.0" (it can be downloaded freely from ZGF , see link above). In this study ZGF used 16 different indicators to create clusters and therefore countries were combined into groups, according to how similarly they ranked on the selected indicators. Notice how ZGF looks at indicators such as Gender Equity and Tolerance - in addition to GDP per capita. Here is the learning for your next intelligence project - when you are benchmarking a competitor, go beyond "number of articles published," or "number of patents." Let us learn from ZGF's play book - how about diversity in the Board composition or their position on sustainability? The idea here is simple - a corporate entity that embraces people from a variety of backgrounds, and focuses on product sustainability is in a better position to foster innovation.

The ZGF report also mentioned other indicators, such as carbon footprint - in our case we can turn to sustainability indicators, or corporate commitment to sustainability as a way to differentiate and rank corporations using this variety of social acceptance indicator. Say you are benchmarking consumer goods' companies, but one of them uses recycled materials for packaging, then this one ranks higher in the lower carbon footprint, and higher on embracing socially desirable practices.

In other words, ZGF work goes a long way to meet one of foresight's main objectives - namely looking at trends and patterns to help us better understand how behavior is changing and how culture is shifting. If we can better anticipate those important shifts - and understand how societal norms like tectonic plaques will realign - then as intelligence professionals we are in a position to better guide corporate strategy, and to help planners make the necessary shifts to ensure the firm will continue to win in the marketplace.

As you look at the ZGF reports, do ask yourself what, how and why are they using those other societal variables. Can you use some of the same strategies to tell a better user story? Can you use this investigation to portray your product/service in a better light? Can you use this approach to show how your offering is better positioned to more broadly satisfy customer requirements? The more you read ZGF's work, the more you will find areas to explore. Enjoy reading all of ZGF's reports - they are worth your time investment!

## Futures – Open to Variety

is the easy-to-read manual for the wise use of the later-than-now. It will boost your appetite for futures work and provides many concrete suggestions for what you can do in your context. Selected futures methods are presented for practical use. The author shares personal encounters and deep insights from the many futures processes he conducted or advised. Meaningful illustrations facilitate your journey towards higher futures literacy.

#FuturesLiteracy #OpenToVariety

**THE AUTHOR:**



Dr. Stefan Bergheim strengthens futures literacy in politics, business, academia, and civil society with processes on quality of life. He was an advisor to the German government's national wellbeing strategy and led the processes "Positive Futures - Forum for Frankfurt" and "Quality of life in the digital age". As a member of the UNESCO Futures Literacy Network, he helped curate the 2019 Design Forum and the 2020 High-Level Summit.

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# Tools

## We are already there!

By Editorial Staff

### How Factiva can help you deliver actionable intelligence

As intelligence research professionals, it is important to continue to find novel ways to add value in the workplace through the delivery of actionable insights. A good way to start is to timely deliver critical information where it is needed the most – wouldn't it be great if we could get a little bit of help in this area? It is often the case other entities within the corporate structure are fairly busy taking care of business and focusing on meeting their own deliverables: Engineers need to solve engineering problems, business development managers are looking to capture new clients using their go to market strategies, marketing & product owners are focused on their targets, strategic planners continuously check how the corporate strategy is working, and they are busy preparing for the next planning cycle. So, who is looking at the external business environment and is expected to prevent any surprises from spoiling the corporate's plan? Well, you are! In this article, we will explore some of the ways Factiva – Dow Jones' business information, and data delivery service – can help you achieve your research goals faster.

> "Factiva is the world's most comprehensive collection of news and data, empowering information professionals to get the right information to the right people, at the right time"

Brian Gelinas (Head of Product Strategy - Dow Jones)

One of the tenets of ethical Competitive Intelligence is the use of open-source tools to gather data and information about our competitors, technology, or specific aspects of a market. It is also true we can make use of proprietary tools to facilitate the capture of information, application of filters, identification of trends, and use of visualizations to better convey a message. We can certainly use any search engine to look for information, and even if we have all the time in the world, we are still faced with some critical issues. In the world of misinformation, is this source credible? How many pages of information can you read before you find the one interesting article feature on page 119? Once you found "it," who is the copyright owner, how much will it cost, and can you legally share this information (link, picture, or entry) with your co-workers without violating any right or exposing your company to a legal claim? Oh no, wait… what happened to that article you found just a couple of days ago – it disappeared!
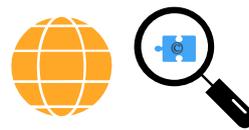
## Usage Model: Where in the WWW is that info?

Alternatively, you can use Factiva services – Factiva's global news database contains more than 32,000 premium sources, including thousands of licensed publications, influential websites, blogs, images and videos. 74% of Factiva's premium news sources are not available on the free web and thousands more are available via Factiva on or before the date of publication by the source.

In addition to that, Factiva's deep archiving and indexing of licensed data means that the article will no longer disappear – it is still retrievable! All of this is also available in the mobile app platform as well – you do not need to be physically seating in your office/home office, you can be commuting in the subway meanwhile using your Cell Phone to search, create, and distribute content – virtually in no time. Let us talk about some usage cases – it is the best way to understand how Factiva creates value for customers – beyond the convenience of finding, cataloging, storing, and distributing data in a copyright compliant way.

# Tools



## Usage model: Trade show intelligence

We all do trade show intelligence – perhaps you work in High Tech goods, and the Consumer Electronics Show (CES) is your go-to place, or you sell yachts and therefore the Fort Lauderdale International Boat Show is your target, or if you are in aerospace, then the Farnborough and Paris Air shows are your cup of tea.

Your branding executives want to know how their key product stacks against the competition: How the public perceives your Cell Phone offering versus that of Apple or Samsung? Was the award-winning Italian design on your 200' luxury sailboat more talked about than the Fincantieri yacht? Airbus announced its own line of hydrogen-powered jets, was it well received?

Factiva has filters that allow you to target a specific show or an event and see how it was described in the media. Even a simple count is helpful – for example, it is one thing for the sales team to say they were the "talk of the show," of course they will say that!

It is another story if you can show executives a graph of media entries about your product before, during, and after the target show ended. In this information age economy, it is actually hard to imagine how any branding entity can go without this type of analysis. Factiva media analytics offer comprehensive visuals that can help you better tell that story; in fact, all those nice charts can be immediately dropped into your favorite presentation software, or embedded into documents.

For more information and a specific case study showing the value of Factiva analytics, please see the insert titled "Aerospace industry in the last 2 years" - it shows the power of Factiva's advanced syntax, combined with data mining tools to produce visuals that are used to explain one's share of voice in the media, and article publication trends over time.

## Usage model: Creating a profile

You are in the process of assembling all materials for an upcoming war gaming exercise. Your business development team will go head-to-head against other top cloud cybersecurity firms and they need all of the information put together as soon as possible, and their battle cards need to be updated. It is often the case you want to start with a company profile – perhaps addresses, websites, and other identifiable information can come from the target's own web pages.

However, you are best served using Factiva to help you collect company profiles, financials, executive information, and the latest news about the company. Factiva even has already collected and arranged for you to access several investment bank reports on traded companies and depending on the type of subscription, even adversarial information is clearly labeled. Though our memory may be faulty – the stored content is not; it is probably a good idea to remind the business development team competitors "a" and "b" were security providers of superstore XYZ, when it was last breached. It is even better to find super store XYZ filed a lawsuit in a different jurisdiction and is looking for some form of compensation. It is also possible one of the companies in the bidding process is in fact associated with political actors, or their ownership structure is populated with shady characters, or even worse, is composed of people who violated one of the embargo lists. Luckily, Factiva has all this information handy, and even PDF files of syndicated content, in addition to a report builder, so you can decide how your document actually looks like.

# Tools

## Case study: Aerospace industry in the last two years

In this case one can see how Factiva analytics aids in two very important Market Intelligence tasks: Share of voice and trends in the news. Here three different searches were performed and combined in the form of a graph. For example, for entities in Aerospace industry that sell commercial aircraft it is important to understand which brand is most often featured in news stories, and how this portrayal of the brand has changed over time. Here on the top of the graph one can see the number of times in media when the top three players - Boeing, Airbus and Embraer- are featured in articles written in five European languages (English, German, French, Spanish and Portuguese) during the last 2 years. It seems Boeing has the most amount of entries, followed by Airbus – and Embraer is a very distant third.

Notice the peaks (highest frequency), valleys (lowest frequency), and trends – as this visual will guide us into asking further questions of the data. It seems from May '19 to Jan '20 Airbus and Boeing exhibited the same patterns, but in Feb '20 we see a peak for Airbus and a valley for Boeing. In the Mar '20 to Jul '20 period both are on the same trend, but in the Jun '20 to Jul '20 timeframe the change in Airbus coverage was more accentuated. During Aug' 20 and Sep '20 the valleys are off by a month. From Oct '20 to May '21 they seem to be on the same trend, though Embraer sees a slightly positive trend, versus the other two, that remain in negative trend territory. This is just the beginning. Factiva's advanced syntax allows one to further analyze the data. Now we have counts, averages and can compute statistics to help us better understand how product features were received. For instance, out of the 8,513 Airbus entries in the database for the month of May '21 (excluding blogs), how many were associated with "hydrogen fuel?" Airbus announced a line of aircraft powered by hydrogen as an alternative fuel powered aircraft in that period. Now we can compare the average number of Airbus features during the month of May over the years or during product launch announcements to see if there is a statistically significant difference, and thus allow us to test some hypothesis.

Figure 1: Aerospace industry snapshot for June '19 to June '21 period.
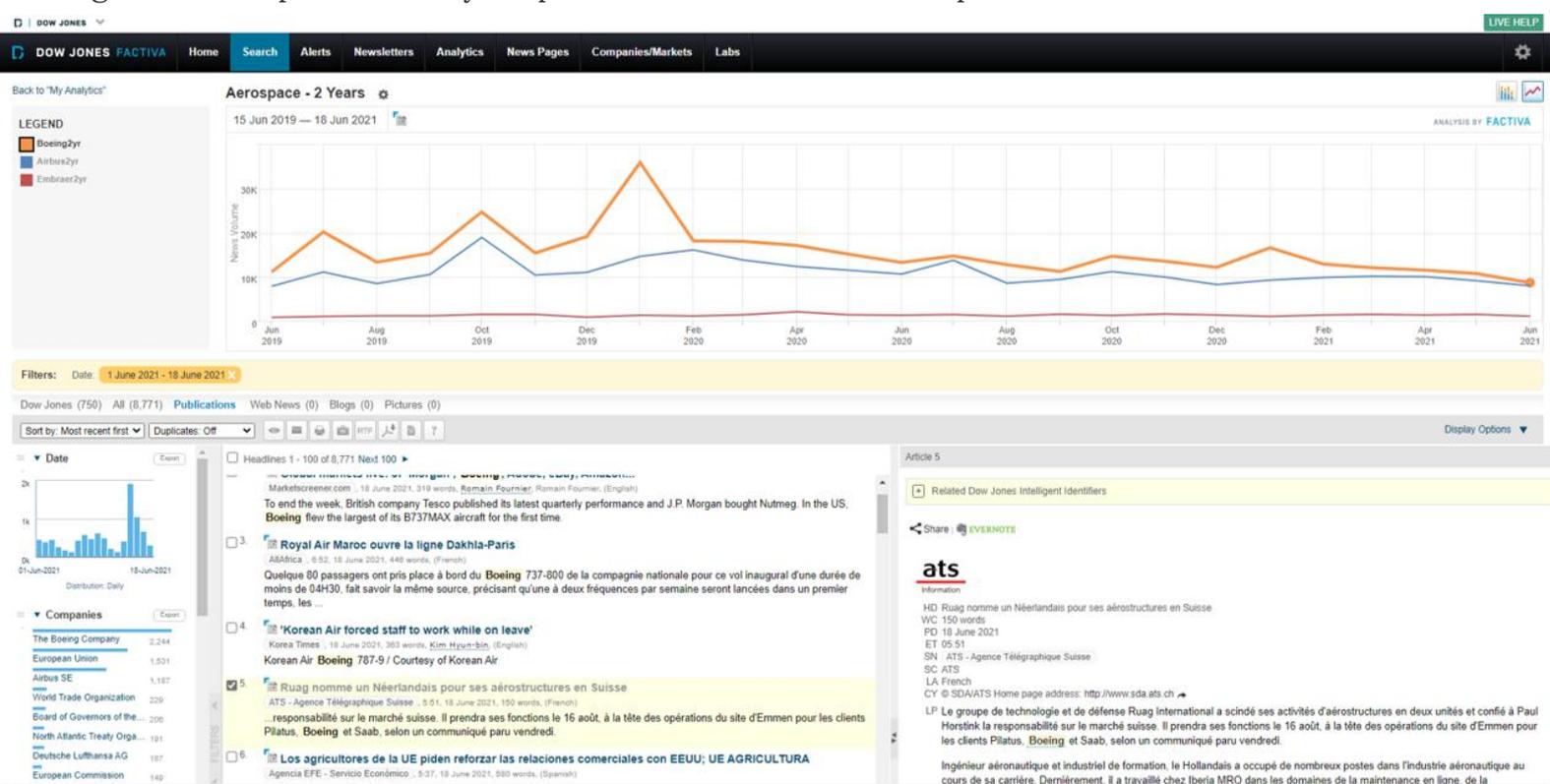
# Tools

## Usage model: Foreign language & culture

As a content-sharing platform in the US, your entity stores a lot of data and other types of identifiable information that are used to place and sell ads. There is talk in Europe to adopt a more restrictive information sharing and storage set of guidelines.

Instead of waiting on the sidelines, it is best to understand what the Europeans are actually thinking, and what is their thought process as far as data protection is concerned. In this case, reading the South Bend Weekly News may be interesting, but will not help your case. It is best to proactively engage the actors abroad – and the first step is to understand what exactly the local media says.

Local media analysis is important not just because it conveys people's perceptions about your products & services, but also because it helps us understand how their - often different - norms and value systems do work.  For instance, it is possible to get a picture of one's front door here in the USA, but in Germany, that is not an acceptable practice.

It pays to understand what Le Monde paper in France, the Suddeutsche Zeitung in Germany, and El Pais in Spain are saying. Factiva has literally thousands of publications in a variety of languages – all indexed and ready to be analyzed. Even if you do not speak the language,  content can be translated in the site itself.

The European Union is not a single-minded community – far from that – it is a plurality and understanding how the dynamics of your business model operate in those different cultures, is fundamental to help you achieve your business objectives abroad.

Back to your cloud security exercise – it is one thing to suspect people in The Philippines would be a potential target for your services, but it is a completely different story if you can show the execs a graph that shows 10,000 instances in the local media where "alternative to Huawei's 5G network" were keywords in these articles.  Now we move from supposition and assumption space to evidence, there is indeed a market for cloud security that is not associated with China.  How could we compile this information if neither you nor I speak Tagalog… and key publications in the Philippines are published in Tagalog? Well, Factiva vets media outlets and compiles this information for us…not only in Tagalog but also in 28 other major languages.

## Usage model: Risk

You operate oil extraction in the Niger Delta area, and corporate security is worried about activity in West Africa that might disrupt business or be a threat to employee security. Nigeria counts as English-speaking, but neighboring Mali is certainly Francophone. Factiva algorithms use natural language processing and machine learning to screen huge amounts of data in real-time, which allows for media to be processed, cataloged, and distributed – along with identifiable metadata, and even event-type classifications – which will go a long way to help you track, monitor a situation/region or language to look for inflammatory speech or to help you identify other types of risk. A report from field sales may be dismissed as hearsay, but evidence of troublesome speech patterns detected in a variety of languages in a region is clear evidence some threat is not purely hypothetical, but rather real. In the old days, the default was to rely on peoples' observations, but nowadays tools allow us to reduce human bias and to identify risks, monitor areas of interest, or otherwise other identifiable risks with a reliable data discovery, indexing,  and information delivery partner as Factiva.

# Tools

## Usage model: Data science

The interesting part of all of this data Factiva puts on our hands is the further use we can make of it. Abirani & Gayathri (2016) remind us data analysis is the activity of discovering, aggregating, cataloging, and processing all sorts of data to extract some meaningful information. As researchers, we can look at the work Penafiel et others (2017) did to explain how diffusion of news in social media can be understood using Sentiment Analysis tools – to act as predictors of human behavior.

In fact, You & Luo (2016) used Sentiment Analysis to predict revenue levels for movies, whereas Baydogan & Alatas (2018) discussed how people's opinions can be modeled using Sentiment Analysis tools to help us analyze, explain, and to a good extent even predict a great variety of different behaviors. As far back as 2012 Karamibekr & Ghorbani (2012), demonstrated even "hot topic" issues such as abortion can be better understood using this technique – they also discussed how reviews of a Canon and an iPod could be analyzed.

In other words, Sentiment Analysis, which emerged in the 1990s, but became mainstream in 2000 is a useful tool to help us understand differences of perspective in social issues, as well as in products. This is a useful feature because the understanding of how consumers relate to and use one's products is used to help us create user stories.

In essence, Factiva is an instrumental tool to help us capture, catalog, document, and use all sorts of opinion-based data, which will certainly move your research reports away from "statements of opinion," and closer to evidence-based recommendations.

It is important to note that at the end of the day, the person with the most comprehensive, better presented, and more actionable insights will win the argument – and ultimately, the race to secure corporate resources be invested correctly.

In summary, Factiva is a tool designed to help analysts navigate through the vast ocean of online data, with an instrument capable of identifying, indexing, and making available media information published in a variety of languages. In addition to that, the analytics' capabilities allow analysts to isolate events, entities of interest or regions to help us understand trends and to create visualizations that do tell the user stories in an easy to comprehend way.

If not all of that was enough to move you, then perhaps one of the most interesting features of the service might – the Factiva reader comes with integration with a variety of languages both written and spoken. So next time you are trying to improve on your French, do let the Factiva tool read that Le Monde article for you – in French. You may not be able to detect all the words, but you might gain a Parisian accent in the process.

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# Bookmark

By Paul Thomas, PhD.

## The Premonition: A Pandemic Story

A Book Review of Michael Lewis'
The Premonition : A Pandemic Story, published by W.W. Norton & Company, 2021.

As I write this book review in June 2021, there is an air of completion to the Great Pandemic of 2000 and 2001.   In the US and other rich countries, the availability of covid vaccines has led to falling hospital stays and fewer fatalities.   While Brazil, India, and other emerging markets continue to experience high fatalities they too can see that vaccines will ultimately save them.  The way is not certain; the latest covid variant could lead to further spikes and a resurgence in deaths.   Nevertheless, things feel better and people seem ready to examine what has and what has not happened so far.

One place to start our examination is to look at Michael Lewis's latest book, The Premonition.  Lewis has a long history of writing books that raise questions and proffer solutions about the unexpected. Among his books are:

Liar's Poker: Rising through the Wreckage of Wall Street (1989)
The New New Thing: A Silicon Valley Story (1999)
Moneyball: The Art of Winning an Unfair Game (2003)
The Big Short: Inside the Doomsday Machine (2010)
Boomerang: Travels in the New Third World (2011)
The Fifth Risk: Undoing Democracy (2018)

His penultimate book, The Fifth Risk, and his newest, The Premonition, are closely related.   Both focus on a few brilliant scientists and MDs who have shaped their jobs in academia, government and, to a smaller degree, the private sector to try to save the world should the need arise.  Not to give too much away but the need does indeed arise.   It could be due to storms, earthquakes, global warming, financial collapses and even to pandemics.   To complete the story, there are usually villains in Michael Lewis's books although some may redeem themselves.

Lewis's writing is exciting and funny at times.   If you do read any of his books don't forget that he is writing non-fiction and not suspense novels.    There is some natural suspense.  Whatever emergency is going to put us at risk is unexpected and deadly. The Lewis stories also do not all finish well.

Despite the genius of the heroes in Lewis's books, there are enough villains and enough laziness among the combatants that needless death and destruction will likely occur.

In The Fifth Risk, we're introduced to a variety of scientists and engineers who work for Federal agencies as well as state offices. The featured analysts are geniuses and love the intellectual challenges faced in their jobs. Some have good bosses who recognize genius and give their reports a lot of leeway to recognize and fix serious problems.

Some have bosses, though, who resent the geniuses and would do away with them if only they could figure out a way to do that with no recriminations.   On top of this natural tension is the increasing resentment that many politicians and followers hold toward government employees and academics.   This did not start with the Trump administration but the resentment seems more tangible now and has led to impediments for the heroes of The Fifth Risk.

# Bookmark

Now jump to Premonition. The setup is basically the same as in The Fifth Risk. Premonition refers to the intuition that the heroes of the book have that a deadly overwhelming pandemic is likely to spread and kill in large numbers around the globe.

Corona viruses, in particular, have been recognized as particularly dangerous risks since the 1950s.

Each time a new virus appeared, scientists and MDs have sounded the alarm until and unless their bosses told them to hold their tongues.

The current pandemic attracted a large number of people who resented the public alarm. In effect, in earlier outbreaks and the latest, politicians seemed unable to keep themselves from playing out Ibsens's An Enemy of the People. Go reread that book from your high school literature reading list. Alternatively, rewatch the best movie version of all time, namely Jaws. It's time to reopen the beaches for tourists and their money but there's a troublesome Great White Shark patrolling the shore. What to do, what to do?

In the Great Pandemic of 2020 and 2021, we argued viciously about the data and the intensions of the politicians, the journalists, and the scientists and MDs. We replayed An Enemy of the People again and again.

The general phenomenon came from The Fifth Risk. Take a collective of brilliant people and proceed to hamper, malign, and ignore them because they are academics or government employees.

The specifics might be in the third book of the series should Lewis write it. In Premonition, Lewis introduces a few amazingly smart and hard-working experts who have prepared most of their professional careers to fight a pandemic strikingly similar to covid 19.

In particular, Lewis introduces Laura and Bob Glass who successfully modeled social distancing and contagion when daughter Laura was 13 years old and Bob a scientist at Sandia National Laboratories. Their work was essential although often ignored in formulating policies to combat covid 19.

In Premonition, Lewis tells us about Dr. Charity Dean, who accepted the position of Deputy Health Officer of Santa Barbara County in California in 2011 because she recognized that that office was ideally placed to combat all sorts of communicable diseases including the inevitable pandemic. She walked away from many lucrative private practice opportunities to take what most MDs saw as a thankless task combatting infectious diseases that were harbored mostly by the poor. As Chief Health Officer she had near-police powers to demand remediation in unsafe businesses and medical clinics.

The story of Premonition is mostly about Dr. Dean and two other MDs who were able to crack the world of orthodox medicine that was dominated by the Center for Disease Control which almost never allowed emergency measures and that seemed to exist just to support publication opportunities for the staff.

The other two amazing MDs introduced in Premonition are Richard Hatchett and Carter Mechar. Hatchett has the ability to recruit other brilliant MDs and scientists and get them working on ways to combat whatever is threatening the US and the rest of the world. Mechar knows how to keep the geniuses talking to each other. Both Hatchett and Mechar provided a working reminder to all the other geniuses oh how to solve problems and use the solutions to improve public policy.

# Bookmark

When you read Premonition or The Fifth Risk, you'll probably find your own favorites.

When you do, remember that Lewis did not invent these people – he is the scribe recording history.

The Fifth Risk and the Premonition show us a small group of experts who hold the fort.

In our current hate-filled world of public policy, though, Lewis's geniuses are always at risk of being dismissed or ignored.

This leads to potential widespread losses of lives and further breakdowns in civil discourse.    Should Michael Lewis write a third book in this series, I will be reading it to see if he discovers a better way to apply the talents of some of the best and brightest currently holding the fort.

A third book in the series might find some stories of social scientists using their craft to add to the discourse and to convince policy-shapers to work together and to resist trying to destroy each other.

In Premonition, at one of those secret, influential meetings that Lewis describes, Dr. Dean says, "We know what the virus will do.  We don't know what the humans will do" (page 205).

That is an invitation to social scientists, including economists, political scientists, and sociologists to help us steer away from disaster and allow people to work together in the next disaster and beyond.

## About the reviewer

Dr. Thomas is an experienced economist - he is the past Chief Economist for both Continental Airlines and for Intel.

He has extensive knowledge of both commercial airline transportation, as well as the High Tech sector. He created numerous econometric models, forecasts, and what-if scenarios to support demand analysis and corporate strategy.

He is the Principal and co-founder of Economic Stories - an economic analysis consultancy in Port Towsend (WA).

Dr. Thomas is an avid reader and he often shares books and articles that attract his attention.

Foreword by PEDER INGE FURSETH,
Professor of Innovation Management, BI Norwegian Business School

# Small Data, Big Disruptions

## How to Spot Signals of Change and Manage Uncertainty

### MARTIN SCHWIRN

## Connect the Small Clues to Paint Future's Big Picture

By Martin Schwirn

Introducing Small Data, Big Disruptions: How to Spot Signals of Change and Manage Uncertainty (ISBN 9781632651921)

Humans have always wished they could see into the future. Ancient Greeks visited the Oracle of Delphi, a high priestess reputed to know what would happen long before it actually occurred. Then came soothsayers who foretold the future by examining the entrails of sheep and carnival fortune tellers who predicted the future by gazing into crystal balls or examining the lines on your hand. Today big data promises to deliver what oracles and soothsayers and fortune tellers failed to produce. Science, we are led to believe, has developed the ultimate crystal ball. But here's the problem with this approach: big data needs, well, a ton of big data. But change starts with small data. The process of scanning lets you anticipate the future more reliably than all of the algorithms on which big-data analysis pins its promises.

I have dedicated the past two decades of my professional life to horizon scanning to find the crucial changes in today's marketplace that will shape tomorrow's world. I have led and participated in hundreds of workshops to find strategically crucial developments and to make sense of them. On four continents and in more than a dozen countries, I have experienced the differing expectations that participants from organizations in different industries have and how they think about emerging trends and disruptive developments. I have seen how businesses, organizations, and government-related entities think about the future and what priorities they set when looking toward tomorrow's challenges.

During this period, I established a framework of best practices to make sense of the future in the here and now. Through the years, clients, business partners, and colleagues have asked me to summarize my experience and expertise to provide the approach and rationale underlying my methodology to help them avoid pitfalls and blind spots when making decisions under uncertainty. Scanning is the art and science of identifying the bits and pieces of information that enable the development of meaningful narratives about future worlds. These narratives guide strategic thinking. Scanning is a disciplined approach and well-structured process. It takes the guesswork out of contemplating what the future might bring. Scanning prepares organizations and individual decision-makers for future markets with the information that is available today.

I had the chance to plunge into scanning at a tumultuous time that dramatically challenged previously held assumptions. My introduction to scanning occurred just when the dot-com bubble started to burst. I had about a year to observe how signs of Enron's downfall were easy to miss and then very rapidly became only too obvious. I saw how the fallout of the Enron scandal then rippled through markets, taking down accounting firm Arthur Andersen in the process. Just months into my second year, I experienced how one dramatic event—the September 11 terrorist attacks—instantaneously reshaped the political climate and commercial environments. I started learning how to make sense of the future at a time when it became very clear how quickly, radically, and surprisingly business models, industries, and entire nations can change.

# Bookmark

As I came to understand scanning's strength, I also became aware that all these events were not as surprising as I had first believed them to be. The sudden stock-market plunge, the prominent bankruptcy filing, and a morning of terror did not arrive out of the blue.

"I didn't see that coming!" How often have you heard that statement about an event that, in hindsight, seems fairly obvious? Consider the evolution of media for recorded music, from unwieldy vinyl records and magnetic tapes to compact discs and digital files for streaming; the death of photographic film at the hands of digital cameras; or the fatal attack on the World Trade Center. Yes, from today's perch, the future seems uncertain, but your environment will change and in ways that you should learn to envision. Leaders may not own a crystal ball that reveals precisely what future perils and chances will visit their organizations, but they can use a powerful tool to anticipate tomorrow's threats and opportunities. And, of course, anticipation is the first step toward preparation.

Scanning, a proven four-step process for capturing and analyzing information from a company's external environment, helps decision-makers foresee coming changes in the marketplace:

1. Filter vital information from an avalanche of data.
2. Identify what matters most to you and your organization.
3. Prioritize the crucial changes that will shape tomorrow's marketplace.
4. Initiate strategies that move you from vulnerability to preparedness.

These steps help business leaders make the best possible strategic decisions. Even if you think you have developed a brilliant strategy, it will inevitably collide with reality. As Mike Tyson famously said, "Everyone has a plan until they get punched in the mouth." Scanning can take the sting out of that punch or, better yet, help you avoid it altogether.
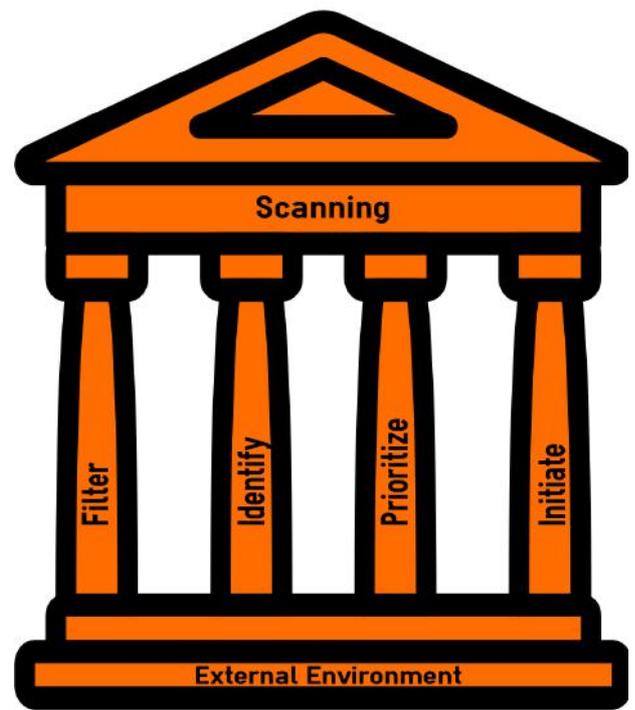
In less than ten years, the former telecommunications giant Nokia emerged from Finland to lead the mobile phone revolution. At its height Nokia commanded more than half of the global market for mobile phones; only half a decade later, it had plunged to below 3%. An organization's future success depends on the ability to anticipate market and competitive dynamics, identify emerging opportunities, and foresee potential threats. Add Blockbuster, Borders, Eastman Kodak, and Motorola to the list of companies that went down in flames because they could not see tomorrow closing in on them. In hindsight, the events that led to their demise seem perfectly obvious.

How do you position yourself to anticipate and act on the dynamics, opportunities, and threats you might easily see if you could look back from the future with 20/20 hindsight? Small Data, Big Disruptions will answer that question and enable you to put foresight in your decision-making toolbox.

Small Data, Big Disruptions introduces and applies a methodology that enables organizations to prepare for future success. If you can see it, you can prepare for it. As Muhammad Ali once said, "Float like a butterfly, sting like a bee. The hands can't hit what the eyes can't see."

# Bookmark

The introduction presents the four basic steps of scanning: filter, identify, prioritize, and initiate (FIPI). By taking these simple steps, any organization can avoid the disasters that befell yesterday's corporate dinosaurs and begin the journey to future strategic dominance.

The future is uncertain. But company leaders have to make decisions today. Your chosen strategy inevitably will meet reality. Better make sure that you had a chance to consider what the future might bring. Better you spent some time anticipating future plausibilities.

Your ability to anticipate future dynamics and markets is your insurance against surprises. Today's world is the result of yesterday's decisions. Tomorrow's fate starts with today's weak signals of change. If you want to identify emerging opportunities and foresee developing threats, why would you look at market charts that reflect yesterday's world?

Alas, companies don't have a future-predicting crystal ball or the Oracle of Delphi. They can fail spectacularly when they foresee a future that will not materialize. Worse, day-to-day operational needs can push aside long-term requirements; strategic thinking about the future is delayed. People usually mention Blockbuster, Borders, Eastman Kodak, Motorola, and Nokia when reminiscing about major corporate mistakes—people whose hindsight is by then 20/20. It is easy to become a retroactive expert in discerning the future that was to come. What seems so obvious when looking toward the past from the present was very difficult to anticipate when looking from the past toward the future. Anticipating tomorrow's world to prepare your organization for future strategic needs therefore is daunting. That is why many decision-makers eagerly gobble up sales forecasts and market size predictions. But everybody knows they will be wrong.

These charts have a market because they pretend to reduce uncertainty. They provide a misleading picture of the future, though, because they build on past dynamics.

Embrace uncertainty instead. Learn to understand what future issues will be, where pain points emerge, what changes are ahead. Scanning offers a disciplined way to address the challenges that doing so presents. Four straightforward steps offer strategic foresight, anticipating and envisioning future possible developments (rather than predicting the future or forecasting developments in mathematical models). Strategic foresight addresses the uncertainties decision-makers face. Anticipation is the first step to responding correctly and in time when futures become the present. Strategic-management authority Paul Schoemaker maintains, "Anticipatory experiences develop [firms'] reflexes and skills for the future" (Profiting from Uncertainty, 2002). It's these reflexes and skills that you can train to step prepared into tomorrow's world.

An organization's future success depends on their decision makers' ability to anticipate changes and disruptions in the marketplace. But how do you get information about tomorrow today? How can your decisions today account for tomorrow's uncertainties?

Small Data, Big Disruptions helps readers:
- Understand why big data will not help you with understanding tomorrow's disruptions. The future starts with small data—first.
- Learn the proven 4-step process to capture small data that help envision the future.
- See examples of how the process anticipated major disruptions.
- Implement the process in your organization and learn how to initiate meaningful actions.

Small Data, Big Disruptions provides readers the information needed to anticipate the future, understand tomorrow's market dynamics, and make the necessary decisions to meet the future on their terms. The book teaches readers how to exploit the period between the moment they could know about emerging disruptions, and the moment most everybody will know about it.

It's the difference between being ahead of the curve and struggling to catch up.

# Executive Summary

## Technical Competitive Intelligence Method

R. Gayoso, pages 6-10

There are many ways to implement Market & competitive Intelligence research projects - the author proposed an approach that emphasizes the adoption of standardized methods, disclosure, information sharing and validation.

The method is to be implemented in seven steps that require data gathering, information categorization, estimation of market size, creation of forecasts and other projections aided by statistical process control charts, and the creation of data-based scenarios to explore a variety of what-if questions.

Rom Gayoso is an economist with 20 years of experience in the Semiconductors and Aerospace industries.

## Taking Notes the Smart Way

D. Kuptsov, pages  11-14

This article is about a structured method to manage the note-taking process and combine it with knowledge management best practices in order to increase research efficiency.

The article explains the strategy highly prolific authors adopted to help in article and book writing exercises. The key idea is to combine new information with existing data in a way that facilitates its memorization, for instance through the use of mnemonics, sounds, or other emotionally charged indicators.

Dmitrii Kuptsov is passionate about CI - he has experience in security, is a member of the Russian Society of Competitive Intelligence Practitioners and the Union of Non-State Security Services.

# Executive Summary

## Economic Intelligence for Action

A. Aslam, pages 15-18



This article is about economic indicators and their importance. The author explains the timing component of indicators, namely coincident, lagging and leading indicators. Particular attention is focused on leading indicators because they are used to predict inflection points on the economic cycle. For instance, the OECD Composite Leading Indicator is monitored closely because it is a good predictor of changes in the economic cycle of OECD-member countries. Indicators are also important because they are often featured in demand and in forecast models.

Dr. Asia Aslam is an economist with extensive knowledge of High Tech goods, with particular emphasis on networks. She is a strategist and Competitive Intelligence professional at Palo Alto Networks.

## Market Intelligence & Indicators

D. Teixeira, pages 19-24



This article is about important metrics – the key performance indicators – and how one can use them in the Market & Competitive Intelligence arena.

The author explains those key performance indicators are the basis of a training series REVIE developed. The methodology is designed to address practical competitive intelligence needs through the understanding of methodologies, analytical techniques, and other processes associated with key performance indicators analysis.

Daniela Teixeira has been working in the corporate intelligence field for over 20 years and is the Principal at REVIE Inteligencia Empresarial (Corporate Intelligence). Founded in Sao Paulo (Brazil), she works in customer experience, strategic planning and competitive intelligence.

# Executive Summary

## Complimentary Activities of Corporate Intelligence

U. Hohlfeld, pages 25-28



Corporate intelligence requires two complimentary activities to take place. On one hand the corporation needs to put enough resources to understand competitors' positions, and on the other hand, it must prevent others from understanding its capabilities and true intentions. If one knows more about others, than others know about one's firm - then there is an intelligence gap in favor of the corporation.

The article highlights the importance of understanding, as well as controlling the outflow of information. In essence, the main premise here is information security is key to sustain competitive advantage.

Udo Hohlfeld is a founding partner of the Counter Force Group.

## CI Escape Rooms

A. Weiss, pages 29-32
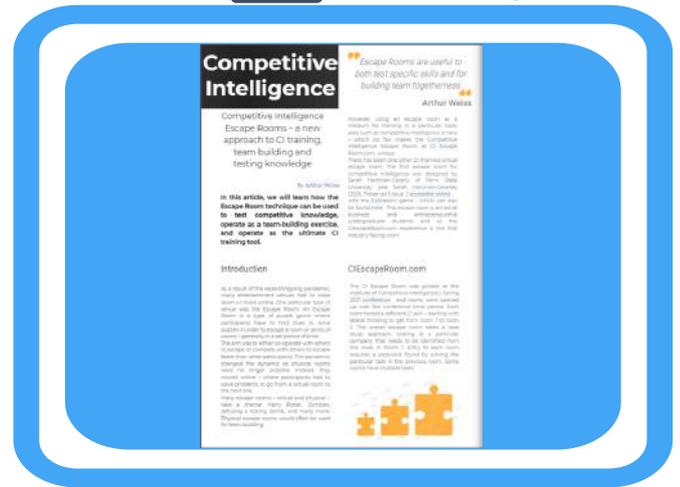


Escape Rooms are typically not used in Competitive Intelligence. In this article A. Weiss demonstrates how Escape Rooms can be used to foster team integration, to promote intelligence training, facilitate learning, and as a tool to evaluate one's CI skill level.

The author describes an Escape Room exercise example - an activity he led at the last International Competitive Intelligence conference - with great success.

Arthur Weiss is the managing director of AWARE, specializing in marketing & competitive intelligence analysis, research and training. He has worked as a consultant for several of the leading companies in the information industry; authors and lectures on a variety of marketing, competitive intelligence and information industry related topics.

# Executive Summary

## Intelligence-Driven Growth Enablement

P. Santilli, pages 33–35
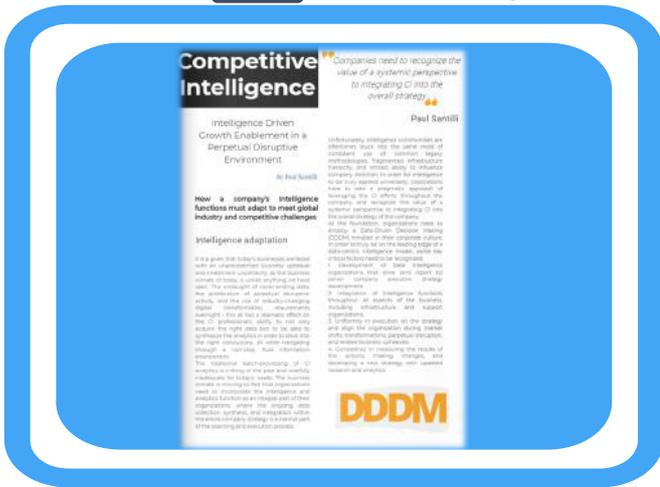


Organizations are facing a period of great uncertainty, a challenging business climate, and an unprecedented number of disruptions that make it more and more challenging to effectively compete in the marketplace. Traditional CI behaviors are inadequate to help firms The author discusses the Intelligence Strategist™ driven organization model - one that instills a common strategic vision that is aligned with the cultural DNA of the company in order for it to be a truly effective weapon in addressing competitive pressures and addressing the needs of the future.

Paul Santilli leads the HPE Strategy Organization @HP, is the Chairman Emeritus of the Strategic Competitive Intelligence Professionals (SCIP) Board of Directors Executive Committee, is active in several advisory roles to industry conferences; he is also Founder and CEO of Strategence LLC, a company that provides proprietary advisory and business insights & analytics to companies for intelligence-based business growth.

## Thinking Futures in Interesting Times

K. Goerlich, pages 38–41



In this article, the author reminds us living in "interesting times" implies our society is facing a great variety of challenges. We face a combination of socio-political, economic, and ecological crises, in addition to a trend marked by an increasing division of societies and national interests. This confluence of forces implies our times are not just Interesting, but also confusing and full of surprises.

In order to not be enslaved by someone else's worldview, we need to work harder at creating new strategies and envisioning new futures. The author offers his vision and some ideas on how to get us from passively waiting for the future to unfold to become active players in the construction of a new reality that puts people first.

Kai Goerlich is currently the Chief Futurist at Visiononary Labs.

He has 23 years of experience in market intelligence, competitive intelligence, and corporate foresight.

# Executive Summary

## Future Homes

S. Gallusser, pages 42-46
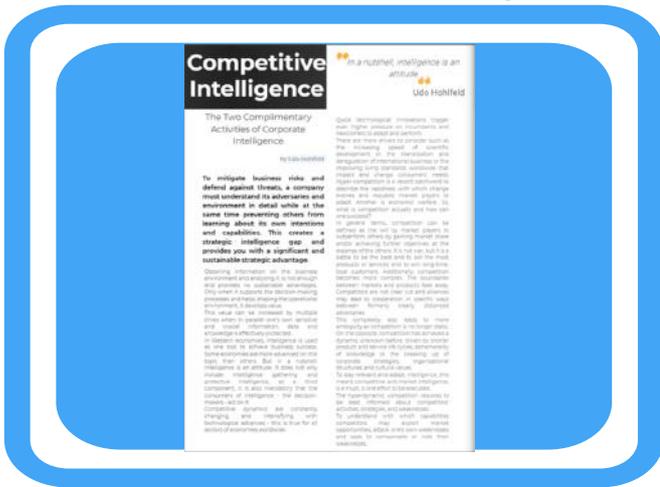
In this article the author offers insight into the post-pandemic home: How we work, consume and pursue leisure activities in a place often associated with just a "place to live."

The framework created to investigate the future of home life, is called "X-ing from Home," and it is based on two components.

First, during the pandemic, many of the activities we were used to conducting outside of the home were transferred partially or completely inside the home - thus blurring the line between "interior" and "exterior" to the home.

Secondly, the introduction of three alternative views of the future covering the 5-10 year horizon. The author envisioned three alternative paradigms: "Back to the familiar," "pandemic frozen," and "creative disruption."

Sylvia Gallusser is a graduate of HEC (Paris) and has settled in San Francisco where she has been advising 500+ tech companies on their strategy, business development, and funding - for the past 15 years as an IT consultant at Accenture.

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## Keep your Stakeholders Closer

K. Nosarsewski, pages 47-51

The author is an experienced futurist and he offers a few tips & tricks to help advance any futures' exercise in your organization.

Among the guidelines, one suggestion is to avoid the business as usual scenarios or those that are associated with a probability of occurrence. One idea is to make sure one integrates a very diverse team to ensure the foresight exercise will contain as many perspectives as possible. One thought is to avoid the latest business fads, rather seek to build a future using unique language - customized to one's client. Finally, the author stresses the point to align the stakeholders to ensure smooth communications.

Kacper Nosarzewski is a partner at 4CF and a board member of the Polish Society for Futures Studies. He is the author of methodologies and facilitator of foresight projects for civilian and military clients, and a NATO expert. Kacper advises on strategic foresight enterprises and international institutions, such as UNESCO and UNDP.

# Executive Summary

## Identifying Target Markets using Global Monitoring

K. Mahmutoglu, pages 52-53

Business prospecting is not an easy task, but it can be facilitated - if one decides to leverage existing knowledge centers to look for new business opportunities. The author explains how one of the premier trade statistics data repositories - the International Trade Center's (ITC) "Trade Map" tool can be used for international trade analysis.

ITC data is classified according to the Harmonized System Code, which is just a standardized numerical method used to classify traded goods.

Once located, there is a good amount of information on specific products - from country-level aggregates, to firm-specific invoice data - and that information can be used to locate buyers for those products you sell.

Kenan Mahmutoglu works as a strategic international business development advisor; he has expertise in the global trade markets and specializes in finding new business opportunities.

## Sustainability re-shaping the Technology Ecosystem

J. Miranda, pages 54-57

In this article we learn how the emerging trend towards embracing sustainable practices in compute activities is playing out in the tech sector. The author explains sustainability is the pervasive market force that is currently reshaping the Information and Communication Technology (ICT) ecosystem.

The author identifies 4 different vectors that are driving significant changes in the ICT market: Pursuit of greater equipment efficiency, cloud service providers choosing renewable energy as a preferred power source, greater understanding of compute equipment carbon footprint, and a trend towards longer equipment lifecycle - based on repurposing and refurbishing equipment to extend its life.

John Miranda is a director of strategy at Intel's Data Platform Group (DPG).

# Executive Summary

## The Golden Age of cyberpiracy

K. Solberg Søilen, pages 59-62

The article discusses a recently released study sponsored by the Confederation of Swedish Enterprise describing industrial espionage activities targeting the biggest Swedish companies. The report confirms the growing activities of industrial espionage in the form of cyberpiracy. Furthermore, the document reports the number of cyber attacks has in some instances increased by 100-150 % during the Covid-19 pandemic.

The study was conducted with the heads of security in 14 of the 30 companies at the OMX30-Index list, who were asked a series of 17 questions.

Respondents described phishing attacks as "everyday events," and they also noted a variety of insider jobs. Participants also pointed to denial-of-service and virus attacks as frequent observations.

The report further noted the counter-measure strategies adopted so far proved inefficient to deal with the size of this threat.

Dr. Klaus Solberg Søilen is a full professor of Management at the Department of Business Studies at Halmstad University in Sweden.

## We are Already There!

Editorial Staff, pages 65-70

In this article, we learn how Dow Jones' Factiva product is a perfect tool to help advance one's intelligence research.

Factiva has a collection of news spanning several decades, on most spoken languages, and covering in excess of 32,000 sources worldwide. Content is licensed, so it is safe to share any information obtained through the subscription with your internal customer base.

The article shows a series of usage cases - illustrating how Factiva adds value to research in risk analysis, strategy, technology mapping, trade show intelligence, and as an aggregator of information for one's data science projects.

One of the examples illustrates the three top players in the commercial aviation market during the last two years. Factiva's intelligent search builder allows for the identification of all articles featured in media - so one can look at Airbus, Boeing, and Embraer's coverage during specific events, at points in time to understand trends, perceptions, and to compute the share of voice.

# Let's connect!

Here is a short list of movers & shakers in the industry! Please do reach out, connect & follow!

## Dr. Asia Aslam

Is a CI strategist at Palo Alto Networks. She is an authority on economic indicators analysis.

**in** Asia Aslam

## Trip Kant

Is a digital strategy expert. He writes on a variety of applied intelligence topics.

**in** Trip Kant

## Maxime Ghiduci

Is an expert in energy markets. He is an expert in economic warfare analysis.

**in** Maxime Ghiduci

## Rainer Michaeli

Is the director at the Institute for Competitive Intelligence. He is an author & keynote speaker.

**in** Rainer Michaeli

## Rui Marques

Is a financial intelligence expert. Creator of the Agile to Actionable Intelligence tool.

**in** Rui Marques

## Paul de Ruijter

Is an author, lecturer, and specialist in scenario planning analysis.

**in** Paul de Ruijter

# In this issue...



Voices heard in this issue!

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Email your article proposal to editor@imcimagazine.com