

# Where (and How) to get the insights that drive our innovation

*In surroundings which are ever more competitive, achieving a revelation, a new understanding of reality, something which represents a starting point upon which to advance toward a clear direction, becomes fundamental in order to innovate and attain a position of advantage.*

Prof. Enric Segarra  
Deusto Business School

Exactly ten years have gone by since I wrote my first article for Harvard Deusto Business Review, entitled "Sources of innovation in the company", in which I enumerated the six sources from where companies drank so as to engender ideas that made innovation possible. And thus, I said that innovation could arise:

1. From a hypothesis that was cooked up in R&D labs tasked ad hoc with that goal (Bell laboratories, Xerox's PARC, Google X, and so forth).
2. From initiatives and/or contributions which our employees might make (and I cited Toyota as a prime example of this; albeit not the only one, fortunately).
3. Fruit of the observation that we might make of the user in his/her own context by way of the application of ethnographic techniques.
4. Seeing what others are up to (direct competitors and other firms in industries other than your own).

And I ended by enumerating:

5. Innovation "by purchase" (or hire)
6. Open or participative innovation.

A decade following that first article, I present you with a new one which delves even more deeply into the genesis of innovation from so-called insights.

## WHAT IS AN "INSIGHT"?

An insight is a revelation; a moment of lucidity which occurs when, suddenly, you get the feeling that what you're hearing, or observing, opens an unexpected doorway to an understanding of what you're seeking to resolve.

Insights reposition all the pieces of hitherto information at one's disposal, bringing with them a meaning which completely thrusts/guides/reorientates research. It occurs out of the blue; it would be somewhat of a "The penny's dropped!" experience, and it opens a new and unexpected avenue of exploration. It is the "A-ha!" (not to be confused with the famous "Eureka!" of Archimedes, which is associated with the phase of ideation, and which could be rephrased as "I've found the solution!").

The "A-ha!" doesn't solve anything per se; it brings clarity to the fact, to the entangled situation that we're aiming at the outset to get a handle on so as to, later, be able to solve. Insights illustrate in order to permit us to create a new logic which must allow us to move forward on what, at that point in the innovation process, are nothing more than mere conjectures or hypotheses.

It is, thus, a key point in the exploration phase, the new conclusion arrived at in the first stage of understanding a problem or a challenge. From that revelation we understand

things and see much more clearly the path ahead from that point onward. Insights are veritable springboard for the development of really valuable solutions. And the best thing to know is that those insights are "hidden" in plain sight. We only need to develop the ability necessary to succeed in discovering them.

Sometimes, as we see, insight leads us randomly (which does not deprive it of merit); on other occasions, we arrive at it by virtue of a structured endeavour, conceived to such aim (discovering some new pattern) from guided observation or statistical analysis of data. Regardless of how we attain it, insight is the fundamental, indispensable ingredient for innovation. A new understanding of reality, as has been said, which converts what until that instant was presented to us as a dead-end problem into an opportunity upon which to act so as to generate new value subject to monetization on the part of the company.

And where do insights come from? Carrying out an exhaustive inventory, one can arrive at it in up to twelve distinct ways, namely:

### 1. SERENDIPITY

Sometimes, one has the good fortune that the path ahead is marked out by a random insight. Some of the most celebrated scientific discoveries have been produced "accidentally". Surely, the most well-known case is that of penicillin, although it is not the only one. Viagra was another "accident" which brought joy to the world. Even Coca-Cola didn't come into being intended as a refreshing beverage, but rather chemist John Pemberton's intention was to create a pain remedy. Little could Pemberton imagine that his potion would become the world's most popular soft drink. And what can be said about the discovery of glue that doesn't stick ...and which was the basis of 3M's Post-it? (3M hit, entirely by luck, on that impressive cashcow).

The key lies not in the stroke of luck as such: the key is knowing how to train our gaze in order to see beyond what is evident. Being diligent and not falling prey to confirmation bias whenever we look is fundamental so as to be able to capitalize on those accidents that could change our boat's rumbo.

### 2. PAY ATTENTION TO ANOMALIES

Study anomalies, those which fall outside the pattern, could be a magnificent source of insights, given that the data that diverges from the expected pattern might not be a mere rounding error, but rather it could be instructive and it might be hiding something of great value. As cited above, in the previous point: the case of Viagra was a result of serendipity, yes, but moreover it arose also from the fact that someone deduced/inferred a pattern of unexpected behaviour in a certain type of patient involved in testing the product, which made its consumption notoriously more elevated. That silent alarm that a researcher detected and studied gave rise to what today is one of the most prominent pharmacological offerings of recent years.

We must, then, force ourselves to get immersed in that which appeared to be simple indications of anomalies. Self-discipline yourself to ask periodically:

- "Who uses our products/services/facilities in a novel way that we never took into account?"

That can be a very good way to begin. And once we're in questioning mode, we must carry on asking ourselves questions such as:

- "Do we have any customer that demands more (or indeed less) of our attention than the rest/the majority?"
- "Is there anyone that uses our product or service in quantities much greater than the average?"

If the answer to this type of question is affirmative, without delay, tug on the thread and ask yourself "Why?" as many times as necessary, until you find the answer that instructs you and which could serve as a guide.

Understand that "Why?", can open up the doorway to new market segments that you had been overlooking or which, unintentionally, you'd never considered breaking into.

The first disposable razors were not designed for use by women: they were designed for shaving men's chins, but, to everyone's amazement, some women saw the utility to remove unwanted hair growth from other parts of the body quickly, comfortably and efficiently. And what arose with the aim of serving only one half of the population (men), doubled the potential of its market to include women once someone noticed that they were also using disposable razors.

Posing the three abovementioned questions, periodically and systematically, is, therefore, fundamental.

### 3. DATA MINING

Related to the previous point, albeit starting from a different place, data mining consists of discovering unexpected "logics" from massive data analysis. The aim is to be able to find cause-and-effect relationships between variables. A smidgen of Internet searches on a specific topic (about, say, the flu) could be indicating we could be about to see an outbreak that any data analyst in a pharma firm could capitalize on in order to increase production of vaccines, anticipating the more than probable increase in the demand in the coming weeks. The risk of this practice, which is based on finding correlations among variables, is that we could lose our bearings and overlook the fact that correlation often isn't a reliable indicator of causation, the latter being the key to a correct understanding of reality which should permit us to anticipate what is going to occur, to our own benefit.

### 4. CONVERGENCE

One could "see the light" (read, discover new opportunities), foreseeing the temporary convergence of technological, sociodemographic and economic trends, which could bring about new business opportunities which, prior to the convergence taking place, were, simply, unthinkable or impossible. An example would be what is put forward as a plausible future for our universal healthcare system. The convergence of smart technology (most patients, if not all of them, are "equipped" with a smartphone), the increase in demand for healthcare due to the aging population in many countries and tight budgets (which make it impossible to double or triple the presential healthcare that we've had until now) facilitate our ability to glimpse a new healthcare model which will be much less presential. Doctor

and patient will be connected via their mobile devices and systems based on sensors which capture the patients' vital signs (data which will be analyzed by intelligent algorithms) and will make the system much more cost-efficient in terms of greatly reduced direct costs and infrastructure (or, at least, that is what we currently believe).

The questions to ask yourself in this case will be of the kind:

- What are the economic, demographic and technological trends that are going to affect my organization, my industry or my markets?
- How could those trends interact in my favour?

## 5. ANALYZE DIFFICULTIES/PROBLEMS

This fifth source of insights will be achieved by way of paying attention to that which bothers or angers our customers. In some cases, that inconvenience is manifest and annoying, and so we're told via complaints and returns. In others, that inconvenience goes unnoticed, because customers have gotten used to it and no competitor has, so far, paid attention to it (because if they had picked up on it and if they had remedied it conveniently, they would probably have taken away a significant part of our clientele).

The questions to ask oneself here are of this kind:

- What is the greatest problem (visible or not) that our customers face when they use or buy our products and which they tolerate, without even being aware, and which were they solved by a third party, would prompt our customers to reconsider their decision to keep buying from us?
- Who could become substantial consumers of our product or service if we were to eliminate some of the barriers that they find annoying; procedures that we obligate them to follow which they neither need nor want, or attributes of the product which they "put up with" because they have no alternative to try out?

Don't expect that alternative to appear so as to begin only then to act reactively. If the latter is your behaviour, the feeling left behind on the customers is that the company was perfectly aware of the problem, but did nothing about it, taking advantage of the circumstance, until the wolf was at the door.

Finally, ask yourself:

- What home-made workarounds/hacks/solutions do your customers deploy so as to use the product that you sell them (which is standard) to fully satisfy their need?
- What could we improve/add/eliminate so that our customers' ad hoc adaptations or our customer's solution were to be unnecessary because we would sell it them as standard?

The list of "inconvenient" products is long: toothpaste tubes which, on arriving at the end of the tube, one always gets the feeling there's something more inside which one can't quite get at; bottles of shampoo which you have to turn upside-down so it comes out quickly; food bags which, once opened, don't close hermetically, jeopardizing the rest by not eating it all... and so on. Small, everyday inconveniences –if that is what they're considered to be– which we've become accustomed to, which are not fully resolved and which can bring (if they were to be resolved) a much greater satisfaction than the total cost of resolving

them on the part of the manufacturer. We talk about perceived value, which is, what truly counts.

How many everyday problems could be resolved "playing" with the perception of value, instead of falling into the trap of developing sophisticated (and costly) solutions which, in the end, the customer doesn't buy?

## 6. REVISIT THE "STATUS QUO"

Questioning yourself as to why things are the way they are and why they're made in the way they're made is an inexhaustible source of insights.

One must wonder and question the suppositions and unquestionable/unquestioned beliefs upon which the business has been built, and keep on asking oneself why those things must continue in that way, until one gets to a point where trying out something different, might help.

Deploying tools of lateral-thinking as a way to provoke your mind such as "What if...?"<sup>1</sup> can be of great use.

And, a case in point: the oil industry, historically always drilled downward, until one day someone dared to ask "What if we drilled sideways?" You already know the answer: hydraulic fracture (fracking), which, environmental issues aside, has pushed the USA to the top of the world oil-production rankings.

Or something that touches all our lives much more closely: "What if, instead of carrying our luggage, we turned it 90° and we put wheels on it and a handle to pull it along?". This, which is normal nowadays, didn't see the light of day until the early 1990s ... Sometimes, questioning the basics brings results.

## 7. NOTICE WHAT EXTREME USERS ARE DOING

Cast your eye over non-conformists, eccentrics, mavericks, oddballs, who march out ahead of the mainstream; those who are ahead of the curve of what, sometimes, a while later, ends up being normal or conventional. Those visionaries, dissenters, misfits, who are alien to the here and now and who are or behave as if they were the harbingers of what is to come.

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### <sup>1</sup> How to Formulate a "What if...?"

1. List the basic, often unquestioned, assumptions around that which you seek to change. Describe the current characteristics of the product/service/system. All the features that are "taken for granted" and which nobody questions, normally, because it's "just reasonable" and the best that has been attained, the fruit of years of work and

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2. From there, turn those suppositions on their head by way of asking "What if...?"

3. Generate ideas which would render those new suppositions possible/viable.

It is important to listen to those extreme users as they often anticipate what can become a generalized demand on the horizon.

The "wacky" Californians who "tuned" their standard bicycles so as to be able to ride them in the mountains were at the vanguard of what later gave rise to a new market of mountain bikes, which in the years since then has become a worldwide phenomenon.

Being attentive to ad hoc modifications that our extreme users could be making to our product solutions can be a source of highly valuable insights. How many IKEA units of furniture have been adapted by users to better suit their needs, or have been used for different ends to those for which they were designed? Some of those adaptations or unexpected uses (which were not foreseen beforehand by the manufacturer) can offer clues as to new opportunities, not only to come up with new (or redesigned) products but moreover as to the possibility of entering new markets and/or targets.

## 8. GOING NATIVE

Experiencing how others live, work and behave, even how they think, is the basis of gaining a new perspective. Getting out into the street, venturing to learn and not only to confirm your hypotheses can open up our eyes to new information and we can discover things which, from our corner-offices, among spreadsheets and PowerPoint slides, are not so obvious.

The tool to use so that this can occur is called empathy; putting yourself, literally, in the shoes of others in order to see from there small (or big) things which would otherwise have passed you by unnoticed.

It is the Small Data boom, paying attention to, apparently, irrelevant detail with a view to asking ourselves, afterward, what the role of it is within the overall picture<sup>2</sup>.

In this sense, it is enough to say that people leave clues in everything they do when they move in their surroundings. Immersing oneself in people's everyday life in real context and listening to stories can reveal valuable insights, above all about what is not going right in their lives. Finding the lagoons, the incoherences, the things that seem not to make any sense is essential for a correct diagnosis of the situation that we can correct or improve with our product/service solutions. When the discourse doesn't fit right with the behaviour we're observing, then we know we're on the right track.

The message is: do whatever it takes to "see" from the point of view of the other, and to be able to understand the why of things.

## 9. ANALOGIES

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### <sup>2</sup> Qualitative and Quantitative Information

A great number of business leaders only "know" about their customers through data that arrive to them via IT systems; rarely do they know the customers directly, and even less do they ever visit them in their everyday surroundings. The decoding of the user in her/his real context brings great richness which we cannot get elsewhere. Probably, one of the largest risks or problems we have nowadays in the business world is that blind trust in quantitative information on which to base our decisions, at the expense of capturing information from experience in the real world.

The message here is: to arouse your imagination, poke your nose outside your habitual environs and let your mind make the links. The best-known example of this so-called cross-fertilization (understanding how others do things in different surroundings can help our minds to overcome those limiting factors which, often and from within, impede our advance) could be the dawn of Henry Ford's famous production line (although it has to be pointed out that it wasn't Ford, but rather William Klam, one of Ford's employees, who had that insight, after having seen in a slaughterhouse in Chicago how the cattle was cut into pieces as it proceeded hanging on hooks, throughout a predefined time period). That vision, conveniently adapted to the needs of Ford, brought about one of the greatest inventions of the previous industrial paradigm.

## 10. BIOMIMICRY

Under this premise, insight comes to us from observation of nature. Examining how nature behaves, its models, its systems and its processes is what inspires us to solve our "human" problems.

A visit to the Sagrada Familia temple in Barcelona can serve as a good such example; also, some of Dalí's surrealist paintings which took inspiration from the rocky landscapes of the Cap de Creus Natural Park.

Velcro came about from the observation made by Swiss engineer George de Mestral whilst walking his dog in the countryside when he noticed how the pods of the seeds of a certain herb stuck to the dog's hair. Watching carefully with a microscope, he discovered that those pods were covered in tiny hooks. Thus inspired, he created Velcro; the rest is history.

And endless new products have been created in that way, from goalkeeper's gloves which emulate the adhesive cushions of gecko's feet to cars that imitate the shapes of boxfish, to base-jumping suits which replicate the "style" of flying squirrels, among many other cases.

## 11. TAKE INSPIRATION FROM WHAT OTHERS THINK, SAY AND DO.

It might seem paradoxical, but, often, a good way to shake up or wake up our own imagination lies in building on the ideas of others. As Edison said: "Keep on the lookout for novel ideas that others have used successfully. Your idea has to be original only in its adaptation to the problem you're working on." Hence, many artists have found their own path by first copying and later on evolving their outline toward something which ends up distinguishing them. Picasso was probably one of the greatest examples, and moreover, he made no secret about how he developed his unique style: "Good artists borrow; great artists steal."

## 12. ABSINTHE, LSD AND OTHER "ILLUMINATING" SUBSTANCES

And we end with a known source of insights which, albeit prohibited, has been utilized throughout human history to get a glimpse at new ways forward. It's no wonder at this point, as it's well known that many artists (and by no means only artists) have been given a helping hand from "dope" to escape reality and visit places which are inaccessible from rationality. To knowers that ingenuity can come by way of moments of fiction or hallucination, any means may appear valid for attaining an innovative solution. In fact,

today we find a large number of articles and books about how executives of tech firms use controlled microdoses of LSD (with physicians on standby in case anything goes wrong), for instance, so as to reach a state in which they can have visions which later can guide them in their quests for innovation. Although this might seem like madness (something which, moreover, is illegal), it is nonetheless less a reality.

Presumably, technology can help us in the coming years to expand the threshold of the possible; and, whether it is through microdoses under medical prescription or by other means, we can access the brain to stimulate parts of it which permits us to disconnect the conscious part at our discretion and go on a thought trip (just as happens when we're dreaming).

Whatever it takes for the sake of getting that sought-after insight that might guide us toward innovation, which has ceased to be an option and has become an imperative for every organization. Any of these twelve ways to obtain insight will be welcome if, as we intend, it yields a position of advantage in settings which are ever increasingly, and will continue to become, more competitive.