Module 4. Exponential Organizations

Introduction

Having learned the most relevant concepts about ventures, we cannot end this course without mentioning the new organizational trends that emerged (and will continue emerging) as a result of the irruption of technology in the way of thinking and designing businesses.

Ismail, Malone y Van Geest (2016) argue the following:

> Internet is now the nervous system of the world, with our mobile phones functioning as junction point and nodes of that network [...] we are rapidly changing the filter through which we relate to the world, from a physical perspective, based on the material aspect, up to a perspective based on information and knowledge. (p. 24).

That is to say, all the things that are part of people's environment are being given access to information (this is known as the Internet of Things), which brings with it several opportunities for innovation.

This change brings about disruption in the conception and philosophy of the organization, which is aligned to innovative and hyper-accelerated business models; such change makes it possible to distinguish between linear or traditional organizations and exponential organizations (ExO).

Unit 4. 1. Concept

According to Ismail et al. (2016), "...an exponential organization (ExO) is one whose impact (or results) is disproportionately large—at least ten times larger—when compared to its peers, thanks to the use of new organizational techniques that make use of accelerator technologies" (p. 16). These are information technologies that drive a digital transformation: the clearest and most widely known example is the mutation from analogue to digital photography, which is infecting several accelerator technologies. In the days in which photographs were analogue, each one of them was expensive (from the negative up to its printing), so photography was sustained on a scarcity model where everyone tried not to waste a shot.

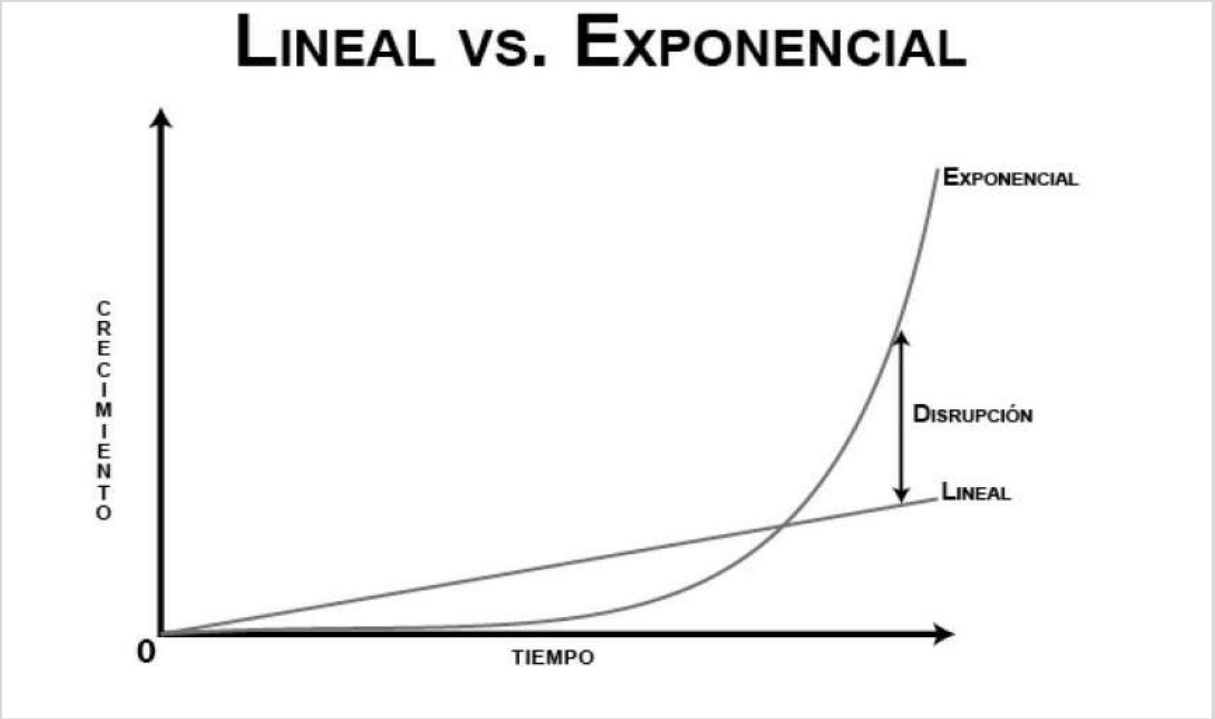
When the leap to digital photography was produced, something revolutionary marked its future: the price was reduced to zero. Even its storage went free and its handling and delivery were left in the hands of anyone who wanted to do it. The result: a camera whose size and cost are a tiny fraction of the traditional analogue version. In this regard, following Ismail et al. (2016):

> What happened in the world of photography was not simply a major improvement. Not even a unique evolutionary leap. Eastman Kodak could have remained competitive if that had been the only challenge. But Kodak (and Polaroid, among other giants) was hit by a revolutionary technology change coming from multiple directions: cameras, films, processing, distribution, sales, marketing, package, storage and, ultimately and decisively, a radical change in market perceptions. (p. 23)

Among the key technologies that follow the trend of making efficient use of information, we find artificial intelligence (AI), robotics, biotechnology, neuroscience, 3D printing, nanotechnology and even some related to medicine and energy production.

It is worth mentioning, then, that ExOs evidence a great acceleration of the business culture, which reshapes business and puts the so-called linear organizations that cannot adapt out of business.

Figure 1: Growth of Linear vs. Exponential Organization Over Time



Source: Ismail et al., 2016, p. 18.

The English translation of this image is below.

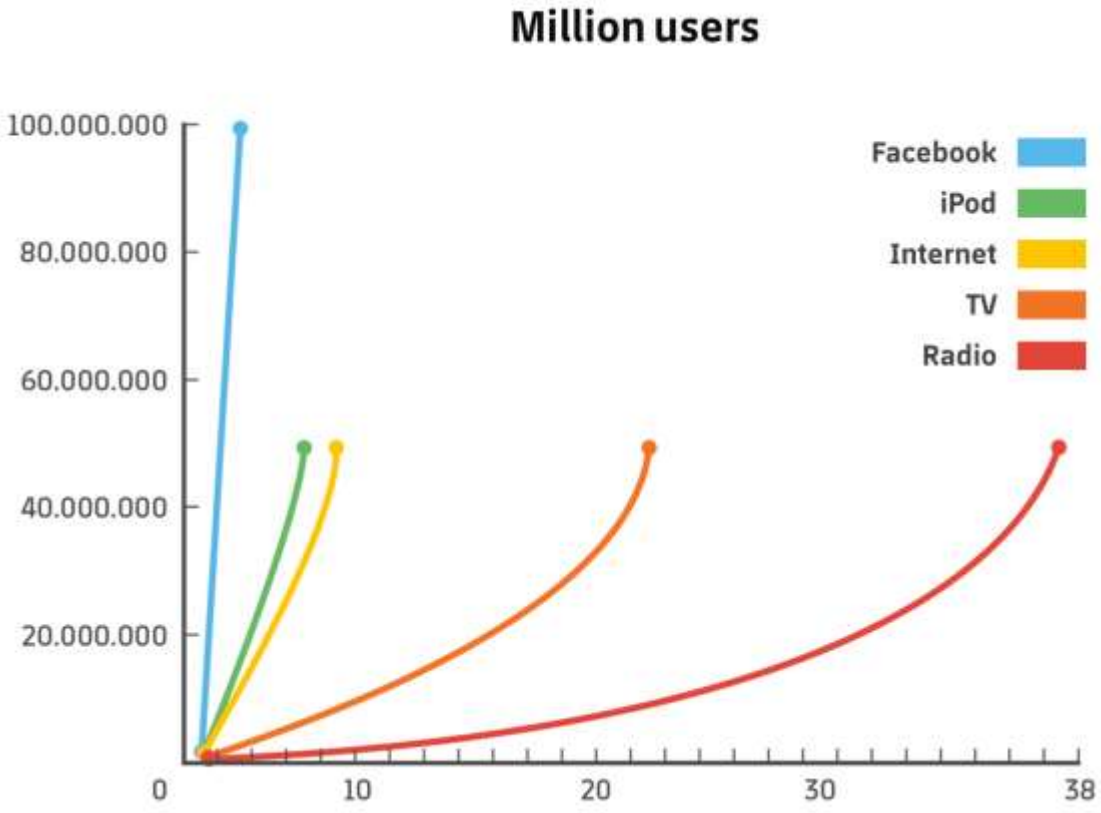
LINEAL VS. EXPONENCIAL	LINEAR VS. EXPONENTIAL
CRECIMIENTO	GROWTH
TIEMPO	TIME
EXPONENCIAL	EXPONENTIAL
DISRUPCIÓN	DISRUPTION
LINEAL	LINEAR

The exponential concept dates from the year 1971 when Gordon Moore identified a pattern of doubling in the integrated circuits, which applied to any information technology. What would later be known as Moore's law is that the price/performance of a computer doubles approximately every eighteen months.

From this basis, through further studies, Ray Kurzweil (2001) evolved these concepts into another thesis called the Law of Accelerating Returns (LOAR), which states that "...when the shift to an information-based environment occurs, the pace of development jumps to an exponential growth rate and the cost/outcomes doubles every one or two years" (quoted in Ismail et al., 2016, p. 23). What gets even better is that the replication patterns

which have taken effect are not interrupted (at least not naturally). In short, the speed of change is getting faster and cheaper, so it is a great opportunity to be awakened and ready to adapt quickly to these changes.

Figure 2: Accelerated Returns on Technology



Source: own adaptation based on en Ismail et al., 2016.

The time it took for some media to reach fifty million users

- Telephone: seventy-five years.
- Radio: thirty-eight years.
- TV: thirteen years.
- Internet: four years.
- Facebook: nine months.
- Angry Birds: thirty-five days.
- Pokémon Go: ten days.

This shift in paradigm evidences the power of information and states that an environment base don it opens the door to totally disruptive businesses. Think, for example, of how businesses that used to offer accommodation to their guests will have to innovate with the emergence of apps like Airbnb. Not so long ago, these models of business were unimaginable.

But what happens with the organizations behind these businesses? What happens, for example, with the industries that produce plastic objects now that 3D printing is available for almost everyone (or will be soon)? For sure, this transformation has a deep impact and democratizes access to resources and the acquisition of solutions.

Another example is related to the pharmaceutical industry. A curious teenager learned to print 3D prostheses at low costs and decided to share the tutorials, for free, with instructions so that they can be produced anywhere in the world.

There are hundreds of examples like the previous ones. The question to solve is what is behind these organizations that make possible these disruptions based on information? What are their features?

Peter H. Diamandis (quoted in Ismail et al., 2016), founder and president of the Foundation X Prize, describes in general terms some of the features of the ExOs known as the 6 D: digitized, deceptive, disruptive, demonetized, dematerialized and democratized.

Digitized: everything that is digitized has the potential to grow exponentially. Digital information is easy to access, share and distribute.

Deceptive: when something goes digital, its Initial growth period is misleading, since exponential trends do not grow rapidly at first.

Disruptive: existing markets for a product or service are disrupted by new markets generated from exponential technology due to their cost efficiency and efficacy.

Dematerialized: physically separated products are taken out of the equation. Expensive and voluptuous technology (GPS, radio, camera, phone) is now reduced to a cell phone which fits in a pocket.

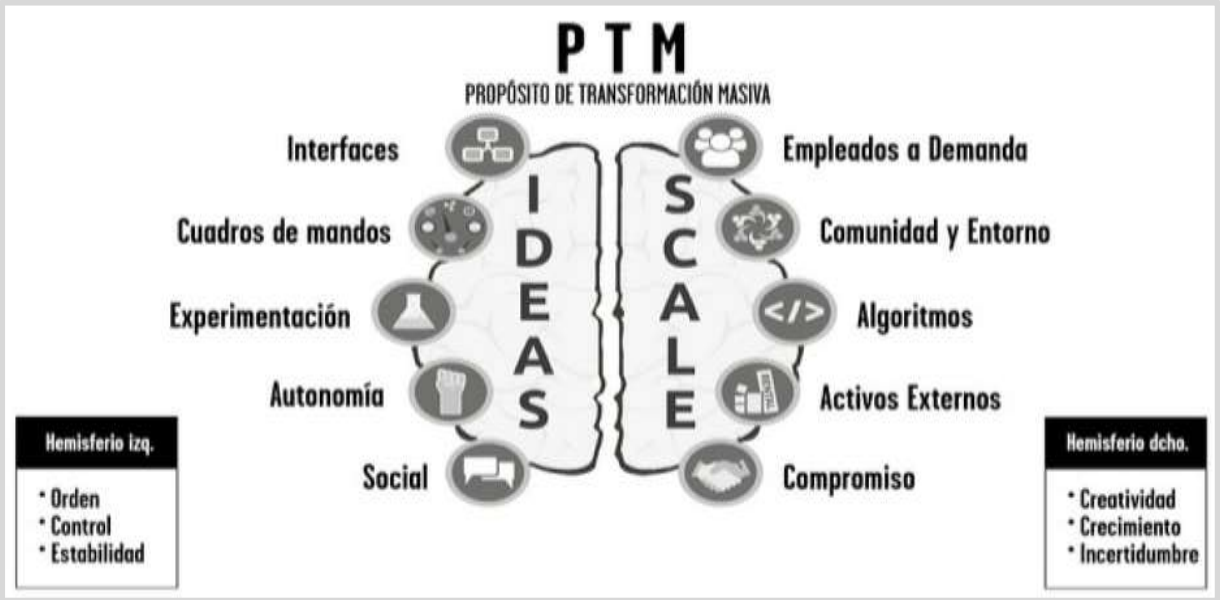
Demonetized: money begins to be taken out from the equation as technology becomes cheaper, to the point of being free. Software is cheaper than hardware, and copies of it can be created for free.

Democratized: once something is digitized, it is easier for everyone to access it. Powerful technologies are no longer exclusive to governments and corporations.

Why ExOs achieve such a level of scalability? According to Ismail et al. (2016), it is on the one hand, because of the access to information that can harness some aspect of the company's product to duplicate its growth. And, on the other hand, because of the liquidity of the information that allows the transfer of the main functions of the organization outside of it, to users, fans, public in general, etc.
In other words, these organizations climb over their boundaries to rely on the people, assets and platforms they find there, which are functional to increase their flexibility, agility and learning to the maximum possible.

Ismail et al. (2016) use the two hemispheres of the brain as a metaphor to explain the attributes of exponential organizations, arguing that the right side, as we saw in course 2, has the function of growth, creativity and uncertainty, while the left side pays attention to order, control and stability.

Figure 3: **Metaphor of the brain hemispheres to explain the ExO's attributes**



Source: Ismail et al., 2016, p. 40.

The English translation of this image is below.

PTM PROPÓSITO DE TRANSFORMACIÓN MASIVA	MTP MASSIVE TRANSFORMATIVE PURPOSE

Interfaces	Interfaces
Cuadros de mandos	Scorecards
Experimentación	Experimentation
Autonomía	Autonomy
Social	Social
Hemisferio izquierdo Orden Control Estabilidad	Left hemisphere Order Control Stability
Empleados a demanda	Staff on demand
Comunidad y entorno	Community and crowd
Algoritmos	Algorithms
Activos externos	External assets
Compromiso	Engagement
Hemisferio derecho Creatividad Crecimiento Incertidumbre	Right hemisphere Creativity Growth Uncertainty

In the right hemisphere, we can locate the five External attributes of the ExOs, their externalities, identified with the acronym SCALE (staff on demand, community and crowd, algorithms, leveraged assets and engagement). In the left hemisphere, we can locate the five attributes that reflect internal mechanisms to achieve exponential growth, identified with the acronym IDEAS (interfaces, dashboards, experimentation, autonomy and social).

The more attributes an exponential organization gathers, the better its scalability will be. However, the ten attributes are not compulsory. According to Ismail et al. (2016), "...having a minimum of four attributes turns you into an ExO and makes you accelerate and outpace your competitors" (p. 41).

Another major feature that ExOs share, which evokes their philosophy, is the Massive Transformative Purpose (MTP). Below, each of these features will be explained, starting with this important aspect.

The Massive Transformative Purpose is the ExO's guideline, which functions as a statement of intent. It is not the organization's mission statement, but the larger purpose to which it aspires, so all ExOs have one.

For instance, TED's purpose is to have ideas worth spreading, or the purpose of Singularity University is to impact positively in one thousand million people. What traits in common can be identified? First of all, and without carrying an extensive analysis, is that both aim high: they are ambitious, flashy and almost miraculous, yet designed with conviction and sincerity.

However, the most striking of these statements is that "...none of them say what the organization does, but rather what aspires to achieve" (Ismail et al., 2016, p.42). Their true intent is in touching, in reaching the heart.

The key in all this is to make clear the radical transformation it promotes, which brings about a cultural movement that Hagel and Seely Brown (quoted in Ismail et al., 2016) name as the power of attraction:

> The MTP is so inspiring that shapes a community around that ExO, which begins to work spontaneously on its own, creating, lastly, its community, tribe and culture. It is like the long queues at the Apple store of the waiting lists for the annual TED conference. Each one has an emergent ecosystem that is so excited with its products and services that it literally «put them out» of their core organization and assumes their ownership, complementing them with marketing, backup services and even design and manufacture (p. 42).

This cultural shift links the company with its market and clients. MTP becomes a competitive advantage. That is to say, what is left for the TED competitors with such purpose statement—that will seek to disseminate better than worthy ideas?

On the other side, a well-defined, convincing and attractive MTP also works as a hook for new talents and for the ecosystem that the company is part of, such as hackers, governments, suppliers, allies and so on, which, by the end of the day, will mean a decrease in the costs associated with the acquisition and retention of the interesting talents.

According to Ismail et al. (2016):

> Brands with aspirations produce a positive *feedback* cycle in the ExO community: customers feel good about the products and are increasingly proud to be part of a larger, more virtuous movement. Brands with aspirations help reduce costs, improve effectiveness and accelerate

> learning taking advantage of the intrinsic motivation instead of the external one. (p. 43).

Finally, it is important to emphasize that the MTP must fulfil each of the initials that make up its acronym when conveying a purpose (finding a meaning in working for the greater good, overcoming the ego) which is massive (gathering collective aspirations, supporting a cooperative culture) and transformative (breaking with traditional), in order to become unique. Otherwise, it is just a statement of intent.

It is the moment to analyze the five externalities that define an ExO:

Staff on Demand

With the overwhelming evolution of technology and the Internet (and the skills associated with the latter), it is really hard for a company to sustain permanent (full-time) employees whose skills are becoming outdated.

On other days, having hundreds or thousands of employees was a flag of powerful companies; while these days, that condition is considered a burden that slows down the organization and reduces the company's capacities to operate and transform itself. Many professionals try to avoid this type of structures since they are perceived as bureaucratic and with few opportunities for professional development.

Ismail et al. (2016) argue that "...in any information access business, a large internal workforce is increasingly unnecessary, counterproductive and costly" (p.46). Greater access to the Internet attracts more and better independent experts, professionals or not, who surpass the knowledge of internal employees, since they have different perspectives, experiences and appreciation of ideas useful to the company, as they have the freedom to work independently

This drives companies to rely on, more and more, freelance employees, who work temporarily and outside the organization (many times with a way of working differently to the one of the companies). For freelancers, this opportunity allows them to make better use of their time and talent, and to earn incomes from various projects simultaneously.

This makes organizations much more agile while improving their ability to learn—and unlearn—as a result of having a large, flexible and diverse workforce of external employees.

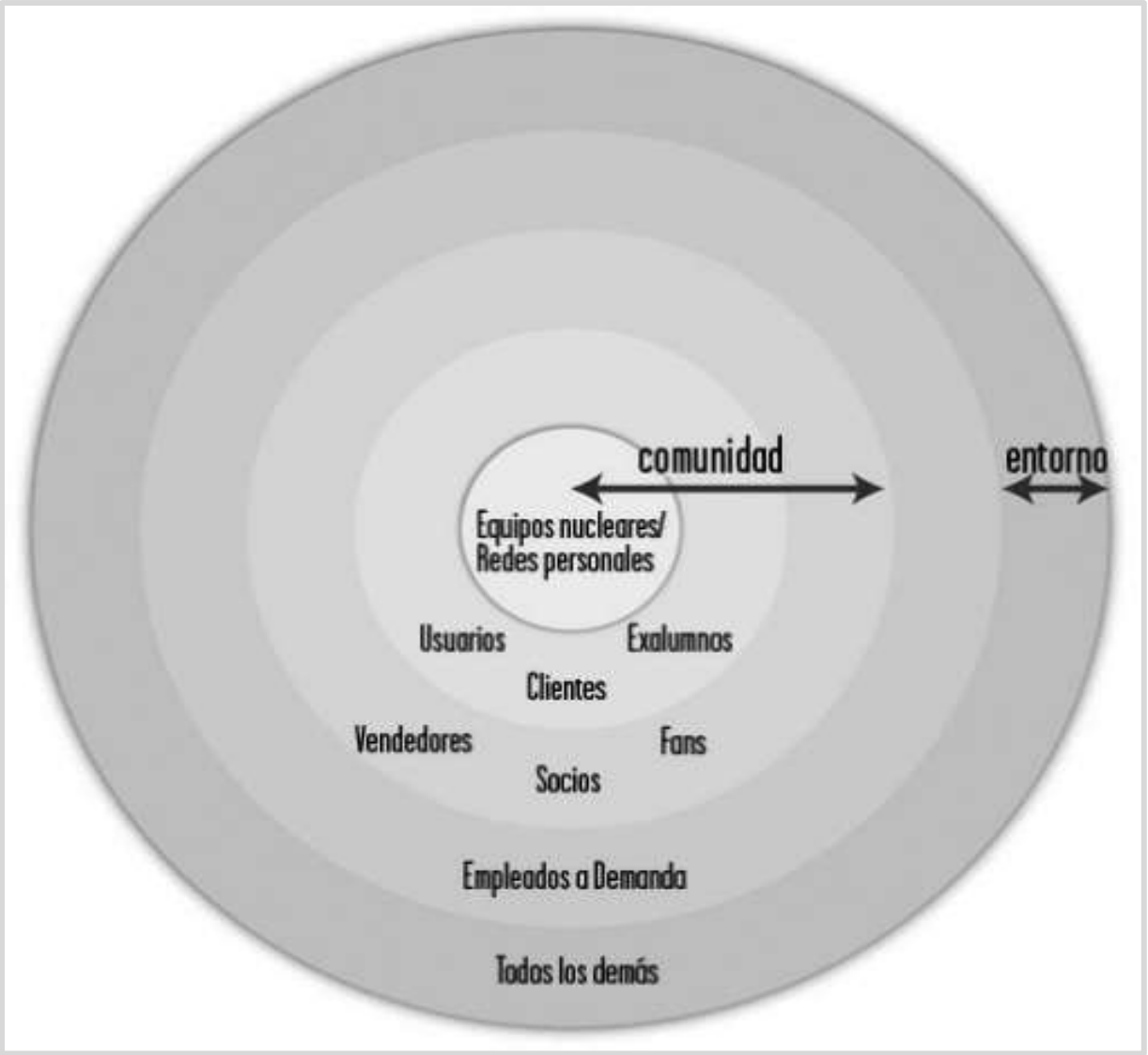
In conclusion, it is important to remember the following:

> For any ExO, having on-demand employees is a necessary feature to enjoy speed, functionality and flexibility in this fast-changing world [...] The fact is, that regardless of how talented your employees are, it is probable that most of them are becoming obsolete and decreasing their competitiveness in front of your eyes. (Ismail et al., 2016, p. 45).

Community and Crowd

The community of an organization is made up of current and former team members, partners, salespeople, suppliers, customers, users and fans or followers, while the crowd or environment is identified with people outside or surrounding that community, that is to say, everything that is outside it.

Figure 4: Community and Environment from the Point of View of an ExO



Source: Ismail et al., 2016, p. 49.

The English translation of this image is below.

Comunidad	Community
Entorno	Crow
Equipos nucleares/Redes personales	Core teams/Personal networks
Usuarios	Users
Clientes	Clients
Exalumnos	Former students
Vendedores	Salespeople
Socios	Partners
Fans	Fans
Empleados a Demanda	On-demand employees

Todos los demás	All others

- Community

When it is said that an ExO interacts with its community, it is important to know how to differentiate that relationship, since it is not only associated with a transaction, but with the creation of a bond, a commitment that extends outward, among equals. Therefore, the leadership for managing the community must be very strong and must respect the responsibilities and duties of the members.

A worth mentioning trait of the communities that emerge as a result of the Internet is that they not only have similar features but also they share purposes, beliefs, resources, needs, risks and more, independently of the location around the world where its members are.

Ismail et al. (2016) state that three steps are required to build a community around an ExO; it is worth saying that during the first instances, many companies start by joining an existing community that shares their MTP. The steps are:

1) Use the MTP to allure the members. The MTP must be the attraction that builds a community of engaged individuals. The communities of Tesla, Apple, TED, Singularity University are good examples of members that are grouped because they share the same passions.

2) Take care of the community, based on a very simple foundation: listen and give in order to build a long-term relationship.

3) Automate peer-to-peer connections through a platform, like Airbnb does, where both hosts and users complete evaluation forms.

- Crowd

As mentioned before, the environment is made up of people who are outside the community. Therefore, it is more complicated to win.

Bearing in mind the definition and the features of the exponential organizations, authors argue that they take advantage of the environment to harness "...its creativity, innovation, validation and even financing" (Ismail et al., 2016, p 50), through the use of various tools and platforms available on the Internet.

Algorithms

Although you may first think about Google, there exist an endless list of algorithms created to orient the user's search and to optimize companies' performance.

Due to their objectivity, scalability and flexibility, algorithms are key for the future of businesses and, mainly, for the organizations that aspire to exponential growth.

In their book *Exponential Organizations*, Ismail et al. (2016) suggest that there exist two types of algorithms in this new way of handling the world:

- Those of machine learning. These understand machine learning as "...the ability to accurately perform novel tasks, built on known properties learned from training or historical data and based on predictions" (Ismail et al., 2016, p. 52). An example of this was the open competition that Netflix launched in 2006, aiming to improve its movie recommendation algorithm for the prize of $1 million. Ahead of the schedule, one of more than 44 thousand valid submissions succeeded in the challenge.

- Those of deep learning: is related to a subset of machine learning. According to Ismail et al. (2016):

> Are based on neural network technology. A machine is allowed to discover new patterns without being exposed to historical or training data [...] The deep learning algorithms rely on Discovery and self-indexing, and operate in a similar way like babies who are learning first sounds, words, and then phrases and even languages. (pp. 52-53).

Deep learning algorithms can, for instance, detect specific episodes in videos, without human input. An example of this was developed by the team of Google X, which made a neural network of sixteen thousand processors of computers, with a thousand million connections, recognize cats –without knowing the concept of cat–, after watching ten million images of YouTube previsualizations picked randomly. What is even more striking is the fact that there was no human input or participation that influence the result.

This revolutionary progress will bring about products and services much more efficient and custom made. However, its impact on administrative and daily work will be drastic. Although it is hard to believe, the current management of many companies still depends on their leader intuitions, which use data to guide their ideas but continue struggling with their cognitive biases. This situation will change dramatically more sooner than later, that is to say, without people notice it.

Nevertheless, it is worth mentioning that depending on the nature of the market in which the activity takes place, it is possible to use more or less data amount. The psychologist Gerd Gigerenzer (quoted in Ismail et al., 2016) argues that "...in markets with uncertainty, it is better to simplify, use heuristics and rely on fewer variables. In stable and predictable markets, on the other hand, he recommends that organizations 'complexify' and use algorithms with more variables" (p. 54).

The truth is that these days, there exist many companies that have already incorporated big data into their operations, which is considered necessary to create more ExOs based on algorithms, making the benefits associated with big data exposed by Yuri van Geest (quoted in Ismail et al., 2016) a priority, like the five p: productivity, prevention, participation, personalization and prediction.

Finally, for ExOs to apply algorithms, they must follow four steps:

1) Collect: take advantage of the existing data, which were collected by sensors, humans or by public databases.

2) Organize: through the procedure known as ETL (extract, transform and load).

3) Apply: with accessible data, ideas are extracted to identify trends and improve algorithms. Machine learning or deep learning tools (open source) can be used.

4) Exhibit: open the data and exhibit them so that they can be intervened by an ExO community to improve functionalities and create scalable services by leveraging and merging the organization's data with the community members' data (Ismail et al., 2016).

Leveraged Assets

Similar to What has explained above about on-demand employees, ExOs can be flexible because they are not the owners of their assets, i.e., they take advantage of rich human resources (based on information, which they have made their main asset), including those of critical function, which allows them to accelerate their scalability, reduce the marginal cost of suppliers and, of course, avoid the management of such assets.

Although this is not completely new, at present, this trend of outsourcing assets, even of strategic areas, is increasing. The era of technology and information allows companies to share and scale physical assets easily, at any moment and without limits, instead of

needing to own them. Probably, the case of Apple is the most emblematic, since it is well-known that it uses the factories of its manufacturing partner, Foxconn, for key products.

In this way, the concept of collaborative consumption, which was coined by Rachel Botsman (quoted in Ismail et al., 2016), emerged. This concept embraces the idea of sharing the use of all types of assets with access to information, regarding rich and readily available sources.

Nonetheless, there exist cases that are completely different, such as the ones of Tesla or Amazon, who have their factories or warehouses, and made this decision not because of financial reasons but because of the scarcity of critical assets or the novelty of their proposal, which was just beginning to be built.

In this context, Ismail et al. (2016) state that if the asset "...is rare or extremely scarce, ownership is the best option; but if your asset is information-based or is a common good in any way, then it is better to have access to it than to own it" (p. 57).

Engagement

Unlike traditional companies, this issue is critical in exponential organizations to create network effects and powerful positive feedback cycles. Improving the engagement of the community is crucial.

There are various techniques to Foster the user's engagement. Some examples of this are draws and contests, loyalty strategies such as discounts, miles, awards, etc. This is not new. The difference is that companies now have greater reach and use standardized information to better guide their proposals, in a practically customized manner, which eases the path for better results.

Within games, gamification, which is understood as the use of "...techniques, elements or dynamics typical of games and leisure in non-recreational activities to enhance motivation" (Ismail et al., 2016, p. 59), is widely applied by companies, indifferent audiences, to represent enjoyable and extraordinary experiences to users, optimizing results and creating loyal players.

Although in general these techniques of engagement are designed to produce an effect on clients and the environment, they are also used to impact positively on the loyalty and performance of employees.

Based on what has been exposed so far, we must reflect on basic issues that will be useful when fostering the necessary engagement to support an ExO and its MTP, through the following questions posed by Nilofer Merchant (quoted in Ismail et al., 2016):

> Why do people connect? [According to] What type of purpose? What motivates them to follow common interests and not only their ones? What makes them trust you enough to want to contribute toward a common goal rather than their own? Therefore, the issue leaders must face is how to train, foster, organize, galvanize and act on that fundamental human capacity to contribute and work with others. (p. 58).

Among the features that the authors of engagement highlight, we may mention the following:

- increases loyalty;
- increases ideation;
- transforms the external group into a community;
- takes advantage of marketing, among other features (Ismail et al., 2016).

The accelerated rhythm of growth of exponential organizations and the strong connection with the community needs, obligatorily, a great engagement from the users. The MTP and SCALE elements highlight this: the MTP targets the passionate involvement of those who want to be part; and the SCALE components, to strengthen the bonds with the community and the crowd, to find the best on-demand employees and the optimal assets for their deployment, in addition to applying the algorithms. This combination of MTP and SCALE is suitable for both large and small organizations.

Unit 4. 2. How to make an exponential organization out of an entrepreneurship

After studying the external elements of exponential organizations, you may be wondering if it is possible to transform your company into one of these, starting with their philosophy up to the operational performance of their employees, with a different way of making decisions and assuming risks. How can you make your company and its people drastically change their performance, and become a fast, efficient, technologically intelligent, innovative and even scalable organization?

The first step to see how you can do it begins with the managing of the internal mechanisms (IDEAS) that rule the ExOs to manage externalities (SCALE)—remember the metaphor of the brain's hemispheres to explain the attributes of the ExO, detailed in figure 3.

At this point, we will see, then, what elements are contained in the acronym IDEAS:

- I for interfaces;
- d for dashboards;
- e for experimentation;
- a for autonomy;
- s for social technologies.

Interfaces

They are processes that allow ExOs, through the use of filters, to connect the externalities with the internal controls or, in other words, to achieve the migration of the SCALE attributes to IDEAS controls, without friction. Therefore, the interfaces are set as algorithms and flows of automatized and systematic work that distribute and guide, internally, the information and attributes of the externalities towards the corresponding people, at the established time, which reduces the error margin and makes more effective and efficient its processes.
Although complete automation is not immediate, it is the one that allows an exponential organization to escalate, even globally, as it transforms it into an automatic platform that supplies itself. The case of Google AdWords is exemplary since its self-supply is the key to its scalability (and of its billions of dollars).

Table 1: Examples of exponential organization interfaces

ExO	TED	Google	Uber
SCALE attribute	Community and crowd	Algorithms	Algorithm

Internal use	Integrate TED talks translations without problems.	Google places ads in your search results	The algorithm matches the best or the closest driver with the user's location.
Description	Manage translations made by volunteers (through the Dotsub to the supplier).	The user selects keywords to advertise.	The system allows users to find and choose drivers.
Interface	Subtitling and translation of videos.	AdWords.	Selection of the driver.

Source: own adaptation based on Ismail et al., 2016, pp. 67-68.

In this sense, Ismail et al. (2016) assert that it is the interface the one that can make the differential in the ExO, since "...at the peak of their productivity, interfaces train the business management of its SCALE external attributes—namely, on-demand employees, external assets and community and crowd" (p. 66), which makes their role distinctive and critical. Therefore, it is not astonishing for interface processes to be not unique but also the intellectual property of the organization, as it assigns the organization a formidable market value.

Finally, it is worth saying that interfaces manage and help create abundance since they filter, match and classify the vast amount of results derived from externalities.

Scorecard

The vertiginous nature of these organizations forces them to look for different control and management tools that are suited to the immense amount of customer and employee data they handle. This is, in the words of Ismail et al. (2016). "...a real-time scorecard, adaptable, with all the essential metrics about the company and employees, and

accessible to everyone within the organization" (p. 69). In ExOs, tracking data at the same time as work is significant, as small errors can become immense very quickly.

The new ExO companies use tools such as the Internet, sensors or the cloud itself to track data straight away. This mutation quickens the process and reduces time, effort and the costs of specialized technology.

The scorecard is also used to obtain metric on employee performance. Most of the ExOs use the objectives and key results (OKR) method. These are focused on monitoring individual, team and company objectives and results in an open, transparent, simple and concentrated way, with shorter feedback cycles.

The main features of the OKRs are the following:

- Unlike the KPI (key performance indicators), which are determined from the top down, they are determined from the bottom up.

- The objectives are qualitative, while key results are quantitative. In this context, the OKR aim at the company's objectives and how each employee is favoured by them; therefore, it is not their function to measure employee performance.

- In general, they are expected to be no more than five objectives and four key results for each; consequently, the latter has a rate of success of 60 or 70% (Ismail et al., 2016).

As regards this aspect, Ismail et al. (2016) argue that:

> The scorecards of value metrics, used in tandem with the OKRs, are becoming standards when measuring the ExOs—to measure all, from the whole company up to the teams and employees. (p. 72).

Besides, the authors mention Google as an example, since all its OKRs are public (and transparent) within the company (Ismail et al., 2016).

Experimentation

Provided a large number of ideas and information handled in these organizations—which, in general, come from the bottom up—, the risks are reduced by constantly

iterating and experimenting. Processes are improved, and learning occurs. At the end of the day, it does not matter where the idea comes from or who proposed it, what is important is that the best have been intervened and validated.

In this section, we will go back to the lean start-up methodology, coined by Ries (2013), who defines experimentation as the design of experiments that tests, over and over, the hypotheses to correct their mistakes and validate them, bearing in mind that everything which does not generate value must be erased.

Considering that the possibility of making a mistake is always present, this methodology proposes that, if you fail, you must be smart, as this experience will allow you to discard everything useless to optimize the process. The purpose of this methodology is to make you think and act at the same time, using the collected data to iterate and correct, thinking always about the client and the innovation.

The organization first finds out the needs of the client, and then, experiments to see how well its solutions match the identified needs. By relying on quantitative and qualitative data, this experience not only yields results in a short time and at a minimal cost but also leaves clear evidence when the project is destined to fail.

It is worth noting that in the report of Ismail et al. (2016), in most digital markets, "...the one who wins keeps it all due to the network effect. This makes a culture of continuous experimentation even more vital" (p. 75).

However, another virtue that exponential organizations have is related to the promotion of a different way of assimilating failure or the will to fail.

In the framework of a conventional view, it is not difficult to imagine the professional consequences that employees have to face when they make a mistake in the company, as a result of having innovated or taken a risk that was not beneficial. So, according to Ismail et al. (2016), "...when failure is not an option, you end up with an incremental and safe innovation, without radical breakthroughs or disruptive innovations" (p. 76).

Nevertheless, when a lean start-up is adopted, which considers failure as part of the necessary risks, such failure may be quickly assumed and lead to introspection rather than a catastrophe for the company and for the professional life of the employee who dared to innovate.

Not all failures are celebrated nor that all of them are encouraged:

> ...but if the team operates within a strategic, commercial, moral and legal framework, and avoids repeating these stereotypical mistakes, a failure can and must be celebrated because of the learning that such experimentation offers [...] Failure release people, ideas and capital for a future learning and progress. (Ismail et al., 2016, p. 77).

In business culture, this conception of failure fosters innovation and the creation of softer internal policies to responsibility and prosecution of culprits, which brings about an atmosphere of more freedom, loyalty and transparency.

Autonomy

The concept of autonomy refers to the decentralized authority in which a very small but multidisciplinary team organizes itself, decides and controls its processes, and has the freedom and independence to act. In this way, the particular composition of teams favours the exchange of functions and activities and predisposes to an open, sociable and dynamic culture, penetrable not also to changes but also challenges.

As we see in externalities, there exists a trend towards the increase of autonomy, both in hiring and in the workplace. Therefore, the OKR approach, which we tackled previously, is settled as a true and effective alternative to hierarchical business management.

New generations find it difficult to conceive of the classic hierarchical structure with centralized authority since they come from a culture based on adaptability to unexpected changes, initiative and entrepreneurship, thanks to the Internet and games. Therefore, it is outdated to attribute to autonomy an inherent disadvantage linked to the lack of responsibility of the one who exercises it.

In this sense, Steve Denning, a specialist in organizational design, states that "...there still are hierarchies, but they tend to be hierarchies based on skills [...] this is, responsibility towards somebody because of their knowledge and not because of their position" (quoted in Ismail et al., 2016, p. 79). What changes, seen from this perspective, is not the existence but the function of the director.

This is not new at all. Darwin had already demonstrated that small groups of species, independent from the main population, adapted themselves and evolved faster when exposed to a stressful situation, an aspect that evidence that small, diverse, independent and multidisciplinary teams are key for future organizations (Ismail et al., 2016).

It is often used as an example of the trend of organizational ruling applied by the company Holacracy "...in which authority and decision-making are distributed through self-organizing fractal teams instead of being established by the top of the hierarchy. The system combines experimentation, OKR, openness, transparency and autonomy" (Ismail et al., 2016, p. 79).

In this way, the company increases its agility, efficiency, innovating capacity and responsibility of an organization's members. When distributing authority, the members dare to take risks and to be proactive, while reducing the pressure on the leader to make decisions alone.

Below, we have the differences between traditional and autonomous organizations, as described by the company.

Table 2: **Comparison of traditional versus autonomous organizations from Holacracy's** perspective.

Without Holacracy	With Holacracy
Control and central authority.	Control and distributed authority.
Predicts and plans for the long term.	Flexible and dynamic: changes may occur (pretty often, indeed).
Hierarchical or flat structure, based on consensus.	None, since everyone is "the highest authority" in their own role and "follower" in other roles.
Interests oriented	Core objectives oriented.
Tension is a problem.	Tension is the fuel.
Reorganization and change management	Natural development, evolution and motion.
Job titles.	Dynamic functions.
Heroic leaders, employees and process supervisors.	Vital people fulfilling their function.
Organizes people.	Organizes job.

Instrumental use of human relations to serve organizational objectives.	Clear distinction between people, relationships and functions.

Source: Ismail et al., 2016, p. 79.

Social Technologies

Social technologies target horizontal interactions present in companies—whose organization is still vertical—, which are gaining ground due to increasing digitized work. In the very beginnings, it was only the e-mail the one that provided asynchronous connectivity, but nowadays this connectivity has spread to other channels of activity, with instant updates, transversal to the entire organization.

According to Ismail et al. (2016), the social paradigm has diverse implications for the ExOs: "Organizational intimacy is increased, decision latency is reduced, knowledge is improved and spread widely, and serendipity increases. In short, social technologies allow the existence of a real-time company" (p. 84). Besides, they add that "...it serves as a gravitational force, keeping the organization closely linked to its MTP and ensuring that its various parts do not drift in pursuit of objectives that may be conflicting or even opposing" (p. 84).

This is produced in such a way that social technologies are made up of seven key elements: social objects, activity flows, task management, file sharing, telepresence, virtual worlds and emotional detection.

- Social objects: they are a type of relationship management that are allowed to access not only information but also physical objects, ideas, knowledge and location.

- Activity flows: all these objects are transversally retransmitted throughout the whole organization, and constitute the support of the activity flows to which the members of the organization can adhere.

- Task management: traditionally, a to-do list was used, but now this is shifting towards the social and is taking a more agile and dynamic approach, thanks to the metrics that task management software offer, which allows teams to evaluate themselves.

- File sharing: Google Drive, Dropbox, OneDrive and all the tools that ease the shared use of information are transcendental in current organizations, not only for that end but also for keeping the client's information updated.

- Telepresence: there are no doubts as regards the advantages that this tool that, at least, Google and Skype developed so good. They are available for every device. This communication modality brings people closer, no matter where they are, facilitating them the possibility of working everywhere and at low costs.

- Virtual world: associated with virtuality, telepresence (interaction in the real environment) can now be transcended through the interaction, coordination and creation of a model of a virtual world.

- Emotional detection: through the use of sensors—health and neurotechnology—quantified employees can be created within a team. "Employees will be able to measure everything about them and their work, avoiding illness, exhaustion and irritation, improving team flow, collaboration and performance" (Ismail et al., 2016, p. 84). As a result, the importance of the intelligence quotient (IQ), is gradually left behind in favour of metrics such as the employees emotional quotient (EQ) and spiritual quotient (SQ).

In practice, these elements bring about connection and transparency and reduced what some authors call the **latency of an organization's information**, that is to say, "...a company in which the time between ideas, acceptation and implementation disappear completely" (Ismail et al., 2016, p. 82). Moreover, by applying just one, it is possible to obtain a great return on investment.

As a final thought on whether yours is an exponential organization or not, what you need to start becoming and being one, according to Ismail et al. (2016), is to ask yourself how exponential you are. Basically:

> How much have you internalized the philosophy of being an ExO? How is it reflected in your daily operations in terms of autonomy and social technology? How efficiently do you use the right tools, from dashboards to interfaces? And how open are you to risk, experiment and even fail? (p. 85).

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