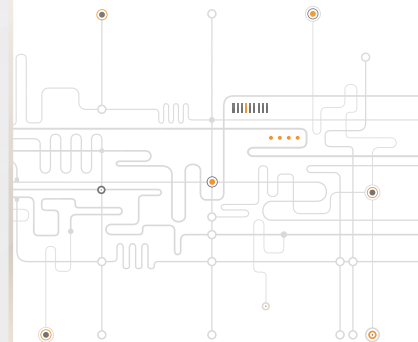


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Cristina Álvarez

Director of Services Development
and CIO at Telefónica

“I don’t have technology goals.
I have business goals”



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TECHNOLOGY

Let’s talk!



Technology and our fears

By **Rafael López Clapés**,
CEO of BABEL

The environment is changing faster than ever and digitalisation and robotisation are its key players. Technological advances that undeniably improve our lives usher in changes that make us afraid, afraid of not being useful and not having work, afraid of new types of interpersonal relationships. Today's digital technologies – social media, cloud computing, big data analytics, mobile devices and the Internet of Things – are forging new careers and relationships that have changed people's needs and desires. And more futuristic technologies are yet to come in the form of artificial intelligence, augmented reality, driverless vehicles, new energy sources, bioprinting, nanotechnology, biotechnology, genetic modification and human-machine integration.

Routine jobs are in danger of being taken over by machines that are more effective and cheaper. It will be harder to automate non-routine tasks that depend on creativity and social skills so activities will need restructuring. This will require more investment in learning and education, with the knowledge that we must keep on learning and evolving.

We need talent capable of adapting to the future. Experts predict a shortage in the most sought-after profiles, known as STEM (Science, Technology, Engineering and Mathematics) and a rise in unemployment rates among people from lower educational backgrounds or with training in other specialisations.

Risks and disorders will also emerge as we socialise less and stop working in communities. We could end up feeling more comfortable in our relations with machines than with other human beings. A machine that always acts the same will not disappoint us, but nor will it bring creativity and spark to the relationship.

However, not everything will be digital for human beings so it will be necessary to combine the physical and social world with the virtual one, harnessing the latter to make our lives better while promoting the best things about ourselves. Is there a limit to all this or will the evolution be infinite? And if so, will we have work? Or, as some models ask, can we survive without producing? Will we earn a wage that will allow us to live without work?

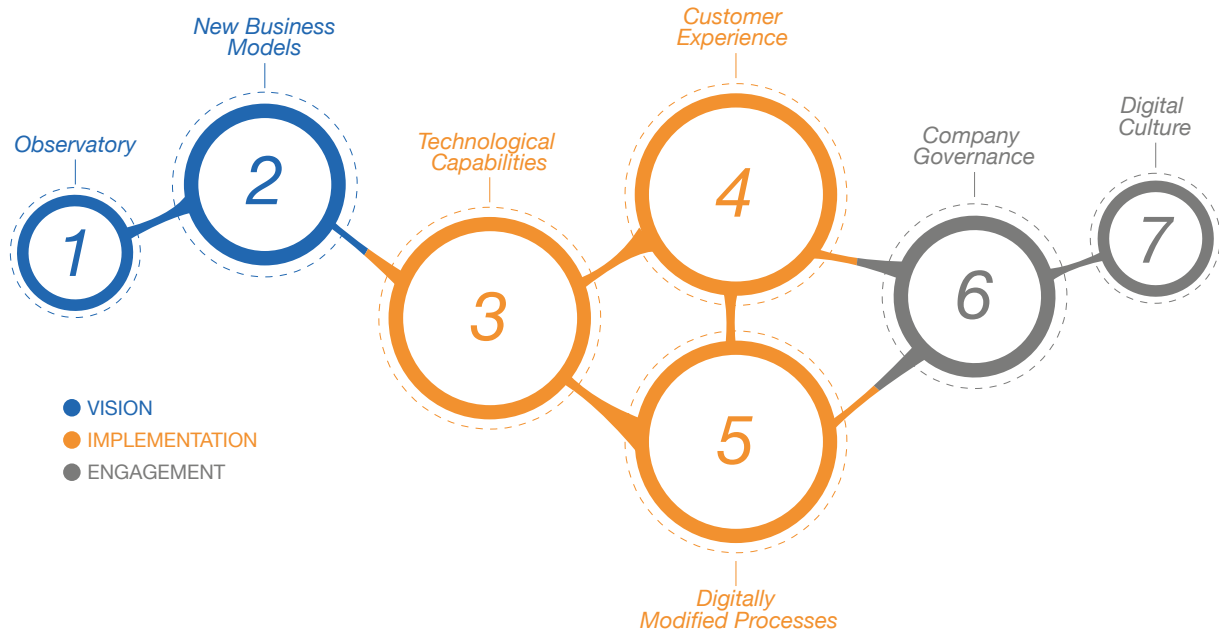
The switch to a new social model will not be immediate but it may happen faster than we think. Interestingly, the advent of digitalisation has not closed the economic gap between the most and least advantaged; quite the contrary. It is probably not necessary for the distance between them to be less; it may be sufficient for the disadvantaged few to have more. Are we succeeding here? This has to be our challenge as a society. Individuals and groups, public and private entities, are all part of society and have a commitment to it, pushing its development towards a more equitable and solidary world, not only because it is the right thing to do but also because, even from a selfish point of view, if each of us has more individually this will help to generate more wealth collectively.

People must remain the most important thing. Until the day comes when machines control everything (or almost everything), we have to put up with employees feeling like they own what they do and not simply following orders, with customers wanting to participate in the development and marketing of a product. The collaborative flow runs in all directions. This brings us to less autocratic leadership models that are in tune with customers (consumers) and employees (producers) to bring greater innovation, commitment, income and growth. ●

The 7 Pillars of Digital Transformation

Digital Transformation is a process of business redefinition that substantially impacts corporate vision, culture, operation and organisation.

*BABEL proposes **7 pillars** for evaluating the Digital Transformation of your business.*



What is the most important aspect in the Digital Transformation process?

Óscar Salcedo Ezquerro
Head of Oss, IT Operations and Infrastructure at MásMóvil



Perhaps the most critical aspect is really understanding what it means to be digital and, hence, what this transformation is about. If we see it as one or some of the multiple facets of this transformation, we will probably not achieve what we would expect from it, which is a common complaint about many of the Digital Transformation processes that companies say they've implemented. And there are many facets to Digital Transformation... Channels, products and services, processes, streamlining, automation, profiles, organisation, technology...

José Carlos Díaz Lacaci
Director of Transformation at Globalia



The purpose of Digital Transformation is to achieve simplicity and speed in any process or task. Technology has to be there; it has to be perceived but it has to be transparent for the user. As long as we use technology as the tool to reach these goals and not as an end, we will achieve our purpose. And, most importantly, it will only be possible if we manage to get the users (employee, customers, etc.) to lead the change, initiating, pushing and adopting it as essential for their survival.



Adolfo Fernández Valmayor
Director of Transformation and Systems at Quirónsalud

In healthcare, the Digital Transformation process is a great opportunity to make progress in switching from care processes with limited patient participation to a much more fluid and natural doctor-patient relationship where the immediacy, transparency and personalisation of care are new and essential quality factors.

Héctor Hurtado Ruesga
Head of Services Architecture at BBVA

The most important thing in my view is that the organization is clear about the change in mindset. The processes of development, deployment and operation are changing. It must have assumed the cost – economic and HR – of this transformation because it needs to adapt to what the main players are doing.



Sergio García Cebolla
Director IT Global de Prosegur Vigilancia

In my opinion the most important phase is the customer experience, given the fact that speed is the new coin in the digital age, and getting to our clients in the quickest and easiest way opens new business channels.



Miguel Jaureguizar Francés
Director of Digital Development at Renta 4

It is the definition of the governance model of the new digital skills. Transformation occurs because Business and Technology sit at the same table with each promoting the development of the services of the other. Keeping this disruption under control is the purpose of governance, the rules of the game for companies, which is why it is the most important phase.



Gustavo García Brusilovsky
CEO of Kliikin

People are the main thing that we need to care for and work with in Digital Transformation, both in terms of the vision and definition of goals (what we want to achieve, how we are going to do it, in what timeframe, with what resources, etc.) and the alignment of the team that will implement the transformation process. It is like an assembly line: the parts need to mesh perfectly and at the same time they must know that they are part of a bigger result.



Mario Triguero Garrido
Director of the Infrastructure and Development Centre of IT Management at the Social Security

Resistance to change in a new model of work and organisational culture, in the belief that eGovernment is an issue concerning technology and legal compliance. It is difficult to internalise the idea that Digital Transformation should lead us to a new business model; in our case, to a new model of General Government.



Mosiri Cabezas
Digital Strategy Director at IKEA Ibérica

Having to swap out the engines of an aircraft in the air with a full flight. This is the real challenge faced by companies like ours that are not digital natives, whatever our sector. Our costumers demand goods and services, "here and now". IKEA is transforming its entire value chain to make this possible but we know that the process is complex. We are working on it.



Cristina Álvarez Álvarez

Director of Services Development and CIO at Telefónica

“I don’t have technology goals.
I have business goals”

Cristina Álvarez manages 1,800 professionals at Telefónica España, a technology army that engages its ingenuity and talent in areas as diverse as information systems, IT, cloud computing, security and digital services, placing this telecommunications giant at the industry forefront.

What are today's priorities for business?

Essentially there are two lines of business: Residential and Corporate. In Residential, the priority is to transform ourselves into a video company, boosting the production of our own content and platform customisation, based on the deployment of fibre in more than 14 million households and LTE (mobile network). The process is not only about technological transformation; we also need to think about internal processes.

In Corporate, we offer small and medium-sized enterprises our

“Aura is a cognitive intelligence platform for more straightforward relations between customers and Telefónica”

cloud and Office 365 solution through our Acens subsidiary. For large firms, we have our “Living Cloud” proposal, supported by our data centre, which also represents a change in how we work; the most difficult thing is cutting down from eight data centres to the scheduled two for 2018. All this goes hand in hand with security measures because the bad guys are quicker than the good guys and we have an obligation to be at the forefront in cyber security.

When you say that you are transforming yourselves into a video company, what do you mean by this?

One of the main challenges is to build a cloud system in order to switch from a broadcast system to TV on demand. Platform customisation is the most requested service. For the past three years, we have offered a cloud recording service to three million customers. The next step is to offer them content from the previous seven days so that they can watch it whenever they want without having to record it. With this model, all traffic is going to be unicast, which has been keeping us very busy.

We are also creating a “recommender” for ease of access to the enormous range of content. We use big data to mix the catalogue with the past consumption and contextual information of our customers to come up with custom content suggestions for them. We are working to make this a 360 experience available on all devices.

How can we make the term big data really useful and strategic for business?

We are at the beginning of a learning curve. The first big data project was about two years ago when we managed to obtain the sales report in real time. We were overjoyed until we discovered that the entire decision-making process was designed for 24 hours afterwards. We had to adjust it.

You can develop the very best technology but it's useless if you don't accompany it with internal changes. You can go too far and start doing things that nobody needs or that no one is able to get value from. The main thing with big data is determining which business questions you want to resolve. At Telefónica, we are starting to experiment with streaming big data, which is no longer about taking a lot of information and massaging it; we now need to give it business logic (in real time) to work towards a management model truly moved by data. We are in design tests, but I see a lot of potential.

Aura was presented at the recent Mobile World Congress. Can you tell us about this fourth platform, which joins the other three: networks, systems and services?

The strategic plan has several pillars. The first is networks, fibre and the LTE mobile network, where we aspire to “excellence in connectivity services”; the second is information systems, to equip management processes with intelligence; the third is services (Fusión Plus, Cloud Computing, Security), and the fourth is Aura.

Aura is a cognitive intelligence platform for more straightforward relations between customers and Telefónica, adding value to the customer information available on the other platforms. Chema Alonso's team is working to develop this cognitive engine and tangibilise its use within a year. The priority is the end customer's vision.

This way of working is similar to the new Agile/DevOps concepts being introduced. Why work like this?

Customers demand cross-cutting companies. They want to see us as a single company; they demand a multi-channel approach. This means organising your company according to “customer corridor” processes (as opposed to isolated functional silos) to implement multidisciplinary projects.

Can you give an example of this?

While it's not all going to be Dev-Ops, the new Movistar app has been built with paradigms that are much closer to this concept, from a customer point of view and seeking that wow factor.

What new developments have been included in the app?

Customers get hooked on what we call convenience, on what they find really useful. We have worked a lot with user experience teams and customer focus groups on how they would like it to be, what information is most relevant, what they find lacking, etcetera. We are going to increase the functionality and mechanisms for customer feedback. This is very different to how we did things previously when marketing would give us some requirements, we would build it and then there were longer cycles of change. This concept is much more similar to that of companies born into the world of Internet.

Mobility is another key area. What developments will we see here over the coming years?

There is a lot of debate about it; people like Gartner are saying that apps aren't going to exist in three years' time and that it's all going to be about browsing. I think we'll have to wait and see. What we do know is that mobile consumption of personal and professional apps is on the rise. Internally, with our "Mobile First"

“You can develop the very best technology but it's useless if you don't accompany it with internal changes”



PROFILE

Cristina Álvarez explains that many things have happened in the ten years that she has been on the Telefónica management team. She had a smooth transition from Vodafone to Telefónica Móviles but the “big change” happened in her first year when Telefónica Móviles, Telefónica de España, Data and Terra joined forces. For Cristina, “the biggest challenge was merging different technologies and equipment”, but this period of convergence taught her “a tremendous amount”.

In 2010, she took on the role of CIO with the challenge of streamlining things. “We were coming from a company of 70,000 people and we are now 24,000”, she recalls. Then came a difficult period: “In 2011 and 2012 we did a lot of foundation work. We managed to reduce the cost structure by 56% by recovering internal criteria.” This left them with a very good foundation on which to build. “For the past four years, Gartner has been saying that Telefónica España is Europe's most efficient IT in Telco”, she notes. “Things have changed since 2014; we have become business partners. If you have problems with efficiency and quality, you cannot transform your business capabilities because you have to take things step by step. It's a journey”, she says.

She explains that she tries to enjoy herself even in difficult times because she firmly believes that “happy people are the ones who do their work well”. After being named engineer of the year in 2016, she says that her main task is to remove obstacles for her team and that “new technologies are putting to the test ways of working not only in IT, but in the organisation as a whole”.

Asked where she wants to be in five years, she says that there are three things she would like to have done: continue to hold an executive position allowing her to make the company better through technology, tell people about her experience in order to push for change in diversity, and prepare herself as an independent advisor.

Although she admits that she works long hours, she knows how to switch off. Time is precious to her and she tries to enjoy it with her three children and her husband, with whom she would like to retire one day to Galicia. She visits the region whenever she can, having being born in 1969 into a Galician family in Vigo, and it still makes her a little homesick even though she was brought up in various regions of Spain and worked in Madrid over her career.

project we have started to mobilise simple but useful things, like the Telefónica employee directory. It's not about getting everything moving, but rather knowing where you are adding value.

Is that the key to transformation?

We have to get it into our heads that the goals of an area like mine are business goals. I don't have technology goals; I have business goals. My mission is to make sure that we reach them with the most suitable technology in each case. If there isn't a real effect on the business, we don't do it.

Speaking of business, in addition to Residential, you have another priority, Corporate. How are cloud services influencing the configuration of a new offer for large companies and SMEs?

With the "Living Cloud" concept, we want to guide companies who were not born digital, which is the majority, on this journey. Where to start "clouding", whether it makes more sense to be in a public or private cloud. Clearly, we are focused on a hybrid cloud.

Given the many available platforms, how does Telefónica position itself?

Telefónica wants to be the partner that takes its cloud solutions – which are the same ones that we use for our internal systems – and helps orchestrate this technological complication, contributing to this comprehensive "end-to-end" management. At the end of the day, the company we are helping with the cloud transformation wants their business processes to continue to work with more flexibility and less cost structure.

You are supported by data centres. How are you helping them to drive this business segment?

We are very proud of our digital services centres, both Julián Camarillo and Alcalá, which is the best data centre in Europe in terms of security and facilities. We are setting up infrastructures there to give Telefónica and our Corporate customers very significant security and robustness. With current data regulation and protection issues, having custo-

mer data in a data centre of these characteristics instils a lot of confidence and it's a strategic value.

How do you see the impact of the new Data Protection Regulation?

It grounds a lot of concepts that were previously somewhat blurred. For example, we have the whole employee digital station service, which is based on Office 365, in the Microsoft cloud outside Spain. But we want all the data on our customers or relevant sales information on premises at our data centre. And this is happening in many sectors. It's not about taking anything to a cloud outside Spain, but determining exactly what and complying with the regulation.

We need to raise awareness and educate in our sector. Right now, data theft is doing away with companies. When Verizon bought Yahoo, it cost them 300 million less because they had stolen its customer data. Cloud computing has globalised the problem and robustness and security are becoming more important. ●

“Customers demand cross-cutting companies”



Change management: adapting to development

By Carmen Castelló, Director of BABEL

We are living in the transformation era and subject to exponential pace. Every change creates not one but multiple developments and adaptability is the key to success. Companies know this and realise that they must adapt their processes and equip themselves with the technology tools enabling them to progress and adapt to this context, both externally, especially towards customers, and internally, towards their employees. Nonetheless, the process of analysis and adoption is not always the same in both cases, although it should be. Let's take a look.

A soft drink company wants to launch a new drink, or a bank wants to attract customers from a segment that it wants to strengthen. In both cases, they also want to retain and ensure the loyalty of their current customers.

They will both probably analyse the market, needs to meet, patterns of consumption and so on and so forth, and this will lead to the design of a new product; they will even test it to identify the necessary adjustments. They know that acceptance by the majority is fundamental for success.

They may launch a prior notification phase to generate interest, a sort of teaser, shortly before its release. And once the product is on the market, they will promote it, continue with the communication and start to collect opinions and user feedback. The probabilities of success of “the freshest soft drink” or “The bank by your side” (or was it the other way around?) are high.

Ana hired Eli to clean her home for her. They agreed on the hours and wages and signed a contract. The instructions were very basic: basically, the house had to be kept clean.

Every day, Eli arrived at Ana's house early in the morning, they said hello to each other and informally checked that everything was okay for both parties. Eli got to work cleaning the house and Ana went off to the office to work.

One day, Ana came home early to find Eli on her hands and knees: she was dipping a cloth into a bucket of soapy water, wringing it out with her hands and shining the floor with it. Ana was saddened by what she saw and dashed to the cleaning cupboard to fetch the mop and bucket and asked Eli not to get down on her hands and knees to clean the floor any more.

From that day on, Eli was not so happy in the morning and although Ana asked her the question, she did not get an answer until a few days later, when she saw that Eli was indeed now using the mop, but following the same procedure as with the cloth, rinsing it out with her hands, which made the chore much harder for her. Everything went back to normal when she explained how to use it and what its advantages were.

What was Ana's mistake? She had incorporated ‘technology’ into Eli's life but forgotten about proper “change management”.

This is a true story; fictitious names have been used.



The same two companies want to improve their internal processes to give their employees a more collaborative and efficient environment to facilitate off-site work and flexibility without penalising productivity. The goals are the same as above: attracting and ensuring loyalty, in this case, of talent.

So should we not adopt the same measures?

- Analyse the general and particular processes of each department in the organisation.
- Identify their shortcomings and needs in order to offer valuable solutions.
- Select and implement the best technology for the context.
- Communicate, communicate, communicate – before, during and after – to involve employees in the change.
- Train, guide, adapt the use of tools – ultimately, the technology – to their professional context.
- Facilitate, listen, keep in mind, even gamify.

Transformation is change. Change is an opportunity and it requires adaptation. Adaptation requires learning and application to specific cases.

The work of IT companies is no longer solely about technology. We must accompany our customers in their Digital Transformation processes using a global approach: processes, technology and people, all included and participating in the same framework of development and change management. ●

We must accompany our customers in their Digital Transformation processes using a global approach: processes, technology and people

WiZink: Change management as a key to success

Integration of companies including Spain and Portugal, rebranding, new image and culture, new offices, new intranet and working environment. With all these changes, it was essential to take account of organisational impact, most notably how it affects each group.

The reality of a marketing department is totally different to that of invoicing or IT. They all share common needs, such as room booking, holiday requests, payroll queries, corporate, cultural and company style information, etc. but their day-to-day operation is specific with regard to processes.

Marketing will need to exchange content with external companies, notably agencies; invoicing will need creation and validation workflows specific to its organisation and the conditions agreed with customers while, for IT, constant communication between teams working off-site and knowledge updating will be essential.

WiZink has taken account of this and set up appropriate change management mechanisms around the new intranet project: outreach plan (training, ambassadors, collection of feedback, FAQs, etc.), communication plan and gamification dynamics.

BeeDIGITAL

Did you know you're losing customers on the Internet?

If you think that you control your business on the Internet or if you think that the digital world is too complex to get anything out of it, think again. PA DIGITAL has just launched BeeDIGITAL to help any kind of business not to lose customers on the Internet.



PA DIGITAL is Spain's leading Marketing and Digital Solutions company in the SME segment. With a digital presence, its paginasamarillas.es product has 6 million unique users per month (60% in mobile environments) and updated information on around 2 million businesses.

Its differential value lies in the quality of the information in its database. This is contrasted continuously by more than one million calls to businesses every year, making it a reliable source of information according to both search engines and users. What's more, if anything can be said to characterise PA DIGITAL, it's the company's eagerness to help businesses attract customers by combining digital solutions with offline solutions, such as 11888, direct marketing, databases and Páginas Amarillas, nationwide.

For some years now, it has offered a wide range of digital solutions for all types of businesses, whether freelancers, SMEs or large and recognised companies. These solutions range from the creation of web pages (more than 110,000 to date) to the promotion of businesses on Google or Facebook and the creation and management of their social networks with community management services.

Its team of over 300 sales advisers are ready to exploit the opportunities generated by the Internet. Their work is crucial.

Why BeeDIGITAL?

Back in May, PA DIGITAL launched BeeDIGITAL. "We have a social duty to look after our SMEs and many of them do not know how to approach digital issues. They know that there are opportunities out there, but they are afraid, uninformed or do not have the time", explains Víctor. J. Fuente, Manager of Digital Development and Strategy at PA DIGITAL.

Others have tried and given up due to lack of strategy or they simply believe that they have it under control when they do not. The reality is harsh:

Reflection of an internal transformation

With BeeDIGITAL, PA DIGITAL makes a firm commitment to becoming "the company that helps the most businesses to turn digital in Spain". This goal has also led the company to an internal transformation. The commitment of the entire organisation and the passion and determination of the CEO have been key in this process.

"BeeDIGITAL offers advice by building from the most basic and essential level, combining it with other digital solutions to develop a custom success strategy for each business". This and the service-centred approach, which is required to be at the heart of the digital presence of online business, are the two main challenges to transformation.

“8 out of 10 businesses have errors in the contact information they publish on the Internet and most don’t even know it”, reveals Fuente. This translates into a constant loss of customers and business.

Broad-spectrum target

The target customers of PA DIGITAL have always been all kinds of businesses, although it has focused in recent years on those wishing to make the leap to the Internet, especially in highly competitive sectors. With BeeDIGITAL, they recover their spirit. All businesses need to resolve this situation if they don’t want to miss out on opportunities in these digital times.

We are not only talking about SMEs. Corporations that change their names when they are taken over, companies that open and close offices, institutions with multiple sites, etc., all need to make sure that all their points of business are properly displayed on the Internet and to manage them with guarantees and at the lowest cost.



Technology as the foundation for development

“Whether they like it or not, their business information is shown on hundreds of data-hungry sites, although they may only be there partially and they do not check their accuracy. Not having a presence is not an option for SMEs, but they can opt to be well presented”, adds the Manager.

BeeDIGITAL arose from the need to solve this complex problem in a simple way. Any company can use its free diagnosis system (beedigital.es) to check whether its business data available on the Internet is correct. Following this, they are offered a complete service to remedy the situation, without having to invest much time or acquire the digital skills to do so.

BeeDIGITAL takes care of everything:

1. The business is featured in a prominent position on paginasamarillas.es.
2. This information is expanded and corrected on more than 20 strategic sites, including Google, Facebook, maps-gps, directories and information distributors. The more present and consistent the information, the more relevant it is to search engines. This, coupled with the value of a reliable source like Páginas Amarillas, puts these businesses at the top of the list when displaying results.
3. It is easy to complement and update this information with attractive and distinctive content (opening hours, products, services, prices, photos, advertising slogans), simply by calling the service or using a mobile app to update and synchronise all the information you want to publish, whenever and wherever you want.
4. We make sure that the information remains correct, preventing it from being modified without consent. ●

At a technological level, the keys to this service have been built around a strategy of constant evolution – not only for the management and distribution of all information with BeeDIGITAL, but also to allow businesses and customers to interact on paginasamarillas.es.

“This is the basis for constructing a world of services. By being in the mobile devices of business and developing a product with the scope of paginasamarillas.es, consumers will have greater choice for connecting with the ones that meet their needs”, argues Víctor. J. Fuente, adding that, throughout the transformation process, “BABEL plays a key role, both in conception and construction”.

Welcome to the tribe

Why agility is a bigger software revolution than you think

By José María España, Director of BABEL

First, let's take a look at the definitions. Agile development methodologies refer to software engineering methods based on iterative and incremental development, where requirements and solutions evolve over time according to the needs of users/customers.

These methods come about as a response to the failures and frustrations of the waterfall model, where the stages of the development process are rigorously ordered in sequential phases: requirements, functional analysis, technical design, construction, testing, implementation and maintenance.

What is the main problem with this last approach? We have probably all experienced it at some point: any change in requirements or design error detected in the test phase necessarily leads to the redesign and reprogramming of the affected code. In other words, more time and cost, and more tension between users, the IT Department and their providers.

Fortunately, agile methodologies have made their appearance, providing alternative methods in which recurring changes are considered part of the process, and in which the requirements and solutions are constantly evolving through the collaboration of multi-discipli-

nary and self-organised groups. It has to be said, everything appears to be heading in the right direction and this is one of the latest IT trends. Because, who doesn't want to be agile?

Agility challenges

Nonetheless, the impacts of these working patterns, their risks and the changes they bring are broader than they may initially appear.

First, we need to take care not to go too far. Agile methodologies may not be appropriate for every project. Projects with very stable requirements and which must be very predictable above all could continue to be managed with waterfall methodologies. Therefore, the organisation can develop the ability to switch between the two working patterns without this leading to an imbalance or schizophrenia.

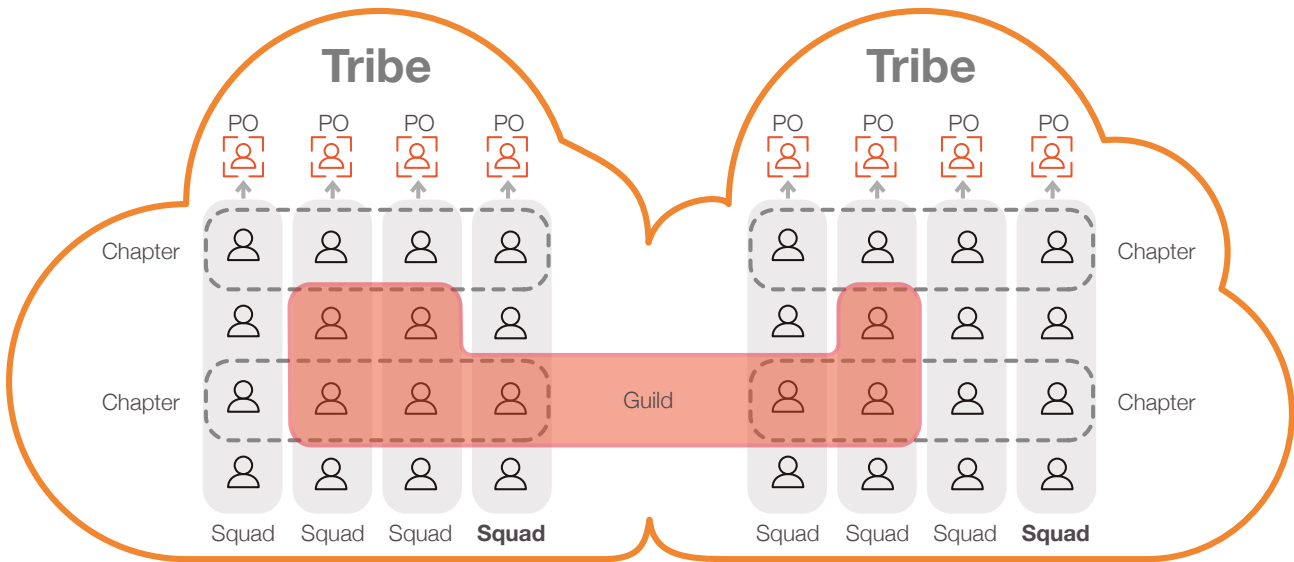
On the other hand, when it comes to medium-to-long-term projects that require scheduling and the provision of human and financial resources, how can we plan and estimate something whose scope is defined at the same time as its execution? How can we ask the organisation to approve a project where there is no commitment to deadlines or costs? In companies of a certain size, it is typical for projects to have to be submitted

to an investment committee with a business case that includes its costs, benefits, ROI, planning, risks, etc. Going in with an open approach or insufficient details is tantamount to walking out with the proposal under our arm and wounded professional pride.

In these contexts, an effort is required to obtain an initial "act of faith" from the organisation and, subsequently, express recognition that the decision made was the right one, once the preliminary results are available. And this is very complicated because it affects the management models implemented in these companies over many years.

We have to convince them that accurate assessments of a long-term project are irrelevant and that the important thing is for the project to produce and deliver regular, fast and incremental value-added to the business. At the same time, we must show that deviations in the global project will be identified early on, minimising their possible impacts compared to the waterfall model, and that change management in its traditional scope – and the problems it brings – is no longer strictly necessary.

But the challenges of agility don't end here. Once we have the green light for implementing this new way



PO (Product Owner)

The person ultimately responsible for the Product Backlog, the items it contains, and the success of the product development.

Tribe

Group of squads working in the same area (functional or departmental).

Chapter

Group of people with related profiles in a tribe who face the same problems on a daily basis.

Guild

Community of stakeholders from across the organisation. They share and solve common problems.

Squad

Scrum team set up to act like a mini-startup.

solution to the questions posed is to create “tribes”. Yes, tribes!

This organisational schema has its origins in native digital companies like Spotify and is spreading extensively. In these companies, the lowest level of the organisation is formed by agile teams called squads, each of which thinks and acts as though it were a small entrepreneurial company or startup. Each squad has a specific mission and works iteratively and continuously on “viable minimum products”, i.e. products with sufficient features to meet an initial set of needs and capable of contributing information for the next development. Moreover, the structure and organisation of these squads are flat as regards their internal management.

Squads are, in turn, grouped into tribes. Tribes have a maximum size of around 100-120 people, based on Dunbar’s number, which indicates that this is the number of individuals who can fully develop in a given system while maintaining their social relationships. So tribes are maintained as small, agile organisations with a tribal leader in charge of the correct development of the squads in this habitat.

Within the tribe, squads have an agile coach whose mission is to

keep the agile operation of these teams running smoothly. Each tribe is also split into chapters with the members of different squads who share a common feature, experience or challenge. The chapter lead encourages meetings and the exchange of information between chapter members to ensure the transfer of knowledge and best practices.

For continuous collaboration and communication – this time between the different tribes – guilds are formed, whose members are people seeking to share knowledge, tools, codes and/or practices. Their focus is that of groups of learning and since they are not confined to the scope of a tribe they cut across the whole organisation.

We have outlined the implications of agility with the biggest impact and the paradigm shifts that they introduce. In the light of this information, do you still want to be agile?

Well, in spite of everything, considering that agile methodologies are not only changing how we produce software, but many other things too, your answer should still be Yes. Because we are already seeing the many benefits of these changes. So why not start by creating a tribe? ●

of working, how do we organise multiple teams with strong autonomous decision-making capacity? How do we guarantee coordinated work and efficient production?

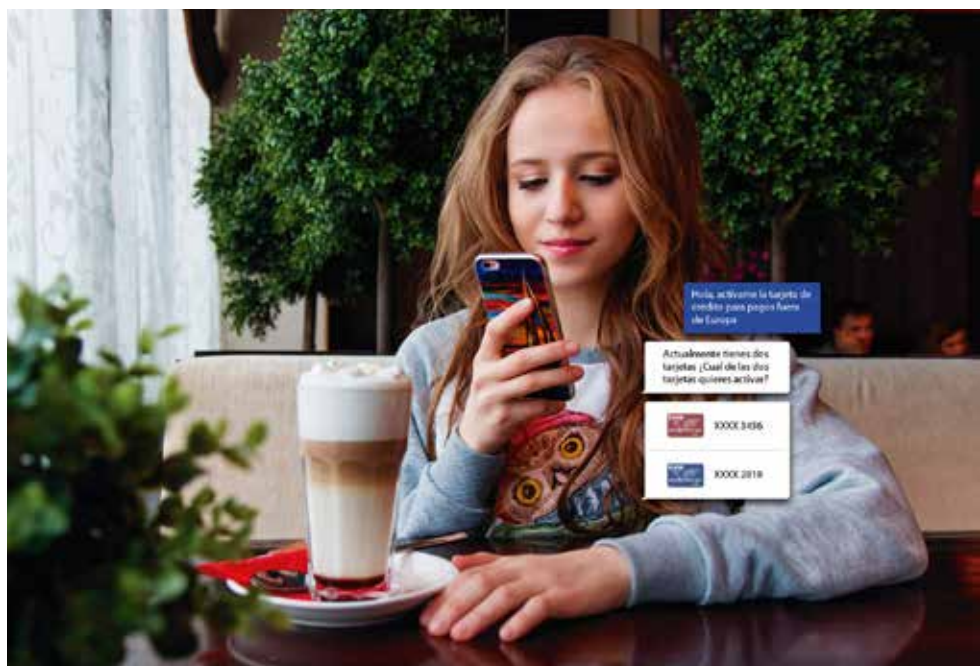
Tribe model

Different approaches are already available for resolving the above issues but we are going to focus on the one that appears to be creating a trend and is expanding the most rapidly. The

Bots: let's talk!

By Leopoldo Colorado, Head of the Initiatives Factory at BABEL

Chatbots, those programs that let us talk to our users or clients through messaging applications, have rapidly attracted the attention of many but are not being implemented at the predicted rate in the omnichannel strategy of companies. There is a lingering caution and not without reason, as there is still much to do.



On the subject of bots, it appears that everything has been resolved technically (messaging channels have exposed their APIs and there are plenty of artificial intelligence systems geared towards natural language). However, the intrinsic flexibility of conversation allows the user to raise new issues that did not affect the rigid structure of web applications and mobiles, and this is the really difficult part: executing an open task or resolving a complicated query. Nonetheless, it is a matter of managing expectations and striving to improve chatbot capabilities.

The most complicated part of launching a bot is clearly defining how we want to integrate it into the omnichannel strategy. Which channels are we going to use? How real must the chatbot be? Can we start little by little? What is the permissible minimum functionality for a user? Must it overlap with my app? And so many other questions that require answers.

Making a chatbot oriented towards customer relations requires a firm commitment because expectations

are high and require serious dedication, while the return on investment is neither direct nor evident.

Types of bots

Humanising these chatbots a little, we can say that they have three facets: manager, consultant and advisor. Manager bots are oriented towards the transaction or task. Normally, the idea is to give the messaging channel the same functionality as other channels, such as the website or mobile. The advantage of this channel is that it allows these tasks to be performed without the need to install an application.

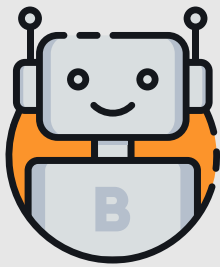
On the other hand, the challenge for these bots is the increased technical complexity needed to give coverage to more open requests, which requires preparing the systems to become something more flexible. Another challenge they face is security, since these bots need to identify the user and provide mechanisms to guarantee secure operations.

Then there are the consultants, knowledge-oriented chatbots

whose primary responsibility is to address user concerns from the knowledge they obtain. This type of assistant is evolving from advanced search engines that respond to frequently asked questions (where the user had to ask the right questions) to more complex agents capable of guiding the user based on a conversation that ends in a very contextualised reply. They do not need to identify the user to answer their questions, but they must manage cases for which they do not suitably find an answer.

Lastly, we have advisor bots, capable of knowing users and customers and proposing value-added services, taking advantage of the fact that they have a direct channel of communication with them. The challenge with this type of bots is knowing users well enough to offer them services that indeed match their profile, and always in a subtle way.

Chatbots can combine one or more of these facets; in fact, the key to generating a differential channel is a combination of all three. ●



Keys for defining a bot strategy

Incremental approach: the chatbot development must be incremental, not only because of issues of economic efficiency and minimisation of risks, but also in order to trace the successful functional path through valuable information obtained from messages from users or other sources, such as web analytics, contact forms and contact centre queries. We will find many of the clues about what users or customers want in these.

Monitoring and supervision: before going into production with the bot, we will need a good tool giving us detailed knowledge of its behaviour, as this will be the only way to optimise it. The knowledge obtained from analysing this data will allow us to orient the efforts of subsequent improvements and control service quality (and user satisfaction).

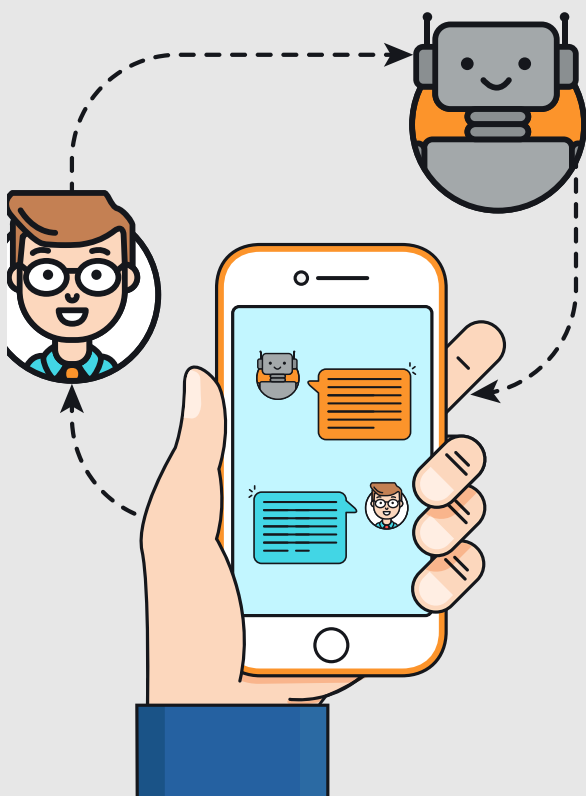
Medium and long term: The bot strategy must be defined with a medium- to long-term projection, since one of the goals of a good chatbot is to transcend the brand by creating an entity that, while manifestly artificial, is able to forge a link with users and customers. Trust is a process that requires time and honesty, so it is best to be patient.

Create a unique style: Creating a unique style (or even several, depending on the public) poses another opportunity to build a differential experience with other channels. This style can be defined as the personality of the chatbot, not for the purpose of trying to humanise it, but to make it more genuine. It is also an opportunity for brands to display new styles that allow them to reach other groups initially unrelated to the traditional brand.

Highly integrated (consistency): It is important for this channel to be able to extend its limits with the support of other channels, whether web portals, the mobile app or human support through the contact centre. The important thing is not to hit a dead-end, to be able to offer options even if they are outside the bot and to make access to these channels very straightforward for the user.

Memory: One of the most important points is that the bot has to resolve one area of unfinished business for many brands and their customers: a 360° view of this customer within the company in order to develop new levels of relations.

Although many challenges have yet to be overcome, there are also good reasons to consider adopting this channel. If good integration and a good understanding are obtained, the gains for customer relations can be more interesting than those obtained through other channels, or at the very least, they can provide us with new information and new opportunities.



Artificial intelligence: the sky is the limit

Artificial intelligence is already present in our lives. But is it ready for prime time in the business world? How is it best implemented? These are some of the questions addressed by Spain's leading tech experts, gathered together for the fifth year running at BABEL's ICT Executive Summit.

Morning mist blankets the city, but our vantage point on the 28th floor of Hotel Eurostars Madrid Tower places us high up above it. Not a bad metaphor for the event we have come to see: BABEL has gathered together the Chief Information Officers (CIOs) and organisation and systems managers of Spain's leading companies in widely different industries to share their experiences with artificial intelligence (AI) at the Fifth ICT Executive Summit.

Spotify and Netflix are already using AI to provide users with personalised playlists and content recommendations. Amazon, Azure and Microsoft offer AI tech as an ongoing service. This area of know-how is opening up whole new worlds. The challenge now is to find imaginative ways of leveraging AI in Spanish businesses.

Cristina Álvarez, for Telefónica; Ricardo Gómez, for WIZink; Pablo de la Puente, for Gestamp; Fernan-

do Lucero, for Iberdrola; José María Tavera, for Acciona, and Pedro Serrera, for Fraternidad Muprespa, spoke about their projects in the AI space, which they have been working on for several years. They all agreed that there is no point in investing in AI just because it's the new shiny thing – you really need to have a business case for it.

They highlighted the way in which RPA (Robotic Process Automation) is driving efficiency in back-office



“One key factor is the availability of AI Components via SaaS for use in productive settings”

“It's not just a single technology, AI is manifold: face recognition, language, movement, decision-making analysis... Everything is evolving very rapidly”

“The economic recovery has brought a rise in absenteeism. We are using AI to analyse the reasons for this, and identify the levers available to us”



processes, fraud prevention and complaint management. Big Data now plays a key role in capturing, managing and extracting value from generated information, while cognitive technology adds value to the customer experience, especially in industries directly facing end consumers.

In industrial processes, sensor-enhanced AI reduces maintenance needs and supports the shift from predictive models to prescriptive models – which, rather than just alerting you when you need to run a process, tell you how to run it more effectively. Virtual reality devices are being used to improve quality control in industrial processes.

Dream time

Speakers at the event also discussed latent needs in companies' IT areas, where some technologies require further development. For instance, drones are already being used in image processing for various industrial applications, but real time processing still lies in the future.

Natural language recognition is also still at a relatively early stage. Despite improvement in recent years, attendees were invited to think about past failures in the call centre field. Chat bots cannot be used as a shortcut to work around the root issue of customer relationships.

We need to manage our expectations about immature technology, seeking a balance between remaining at the forefront while staying realistic about the actual possibilities of using the tech in a productive setting.

For Rafael López Clapés, BABEL's CEO, the presence of artificial intelligence in widely different industries and leading companies heralds the emergence of new business models: "We have the tech, the ability to innovate, and an amazing imagination. Given this mix of factors, we need to choose: will we let the wave just pass us by, or will we ride it?". ●



“Technology is important but it is essential to find the business use case”

“The big struggle in B2C is 'who creates value for the customer?' The boundaries between sectors are blurring”

“We are moving forward decisively towards enhanced industrial processes and a shift in our relationship with our customers”

“Image processing is critical for quality assurance”

“The hardest part is changing team mindsets so as to flip the paradigm of how we do things”

“In these environments, safety and security is a key inhibiting factor for ongoing discussion”

Microfinance: a path towards financial inclusion and economic development

By José Luis Cayuela, Advisor at BABEL México

Digitalisation fosters financial inclusion. BABEL collaborates with Mexican banks on their digital microfinancing projects.

Mexico is a country with 125 million inhabitants, 60% of whom are aged between 14 and 60. In terms of Gross Domestic Product (GDP), it ranks 15th worldwide, right behind Spain. However, in terms of GDP per head, it drops to 65th, according to IMF data. Hence, we can see great potential for growth.

Other significant demographic characteristics of Mexico are:

- Important socioeconomic differences between the poorest and richest classes..
- A very high percentage of its economy is informal. According to the National Mexican Institute of Statistics and Geography (INEGI), more than 50% of the employed population works in the underground economy.
- Of its total population, 80% is concentrated in urban areas with the remainder living in rural areas, also with high levels of poverty.
- This is a profile that repeats itself in other countries in the Americas, Africa and the East.

Financial inclusion

Governments are driving programmes to correct these shortcomings, reduce the number of people living in poverty, reduce disparities between the rich and poor (with the growth of the middle class), and combat the problems of social integration in large cities or rural areas, promoting education or health services. No mean feat.

The initiative contributing to the improvement of the above is financial inclusion, which seeks to incorporate into the financial economy the unbanked population, amounting to almost 40 percent in Mexico. Financial inclusion is also driven by international organisations and financially supported by multilateral banks (e.g. the World Bank's IFC). At the same time, digitalisation is growing in leaps and bounds, and the

population with Internet access and a smartphone is at figures similar to those of more advanced countries.

In 2016, as part of its 2013-2018 National Development Plan, Mexico launched the National Plan for Financial Inclusion, geared towards incorporating more inhabitants into formal economy cycles.

More than fifty financial institutions (many as non-bank lending and finance institutions) are engaged in microfinance, offering micro-credits to small entrepreneurs and financing the needs of the poorer classes or minor consumption. They are the first step towards financial inclusion.

BABEL collaborates with some of these entities to digitalise all their business processes, helping them to expand their activities quicker.



Thanks to technology and the high percentage of the population with Internet access and smartphones, the number of credit operations will no doubt grow and progress will be made in reaching the goals of financial inclusion.

Although there are other challenges that still need to be tackled: lack of training, the complexity of certain documentary processes, the high costs of these loans (they can reach APR rates of up to 200%), high levels of loan delinquency and default, and problems of tax regularisation for those obtaining access to the formal economy through financial inclusion.

In any event, the ongoing management of all these aspects will contribute to creating greater value and to absolute and per capita growth of GDP. And to improve living conditions and services in the most disadvantaged areas. And BABEL is there. ●

Yei!

“Our project is 100% digital banking, with no branches. The entire process of contracting, awarding credit and its management by the customer is done through online channels from start to finish. We target microentrepreneurs and new customers across Mexico within a policy of financial inclusion. BABEL worked with us to build our entire platform, which includes a cloud computing banking core, Mambu”.

Pablo Varela, CEO of Digifin Yei!

WIRI

“WIRI was started with the mission to close the gaps that have emerged and been growing between users and financial institutions. One of the products that we have created, called GIRO, uses an environment of trust and community to generate a model of credit accessible in every sense for users in Mexico.

Our model targets an unbanked sector of the country that has taken refuge in informal loan models such as tandas to avoid getting into debt and obtain the financing they need. Our model takes advantage of the tanda method to create an environment where users feel comfortable accessing credits to increase their chances of getting ahead. We have a vocation to support the most disadvantaged classes and seek to offer very competitive terms to promote financial inclusion without penalising our customers with high costs.

BABEL is our technology partner and we have jointly designed the system and coordinated the integration of all hardware and software components, which include a Belarussian banking application called HES”.

Jorge Oseguera, CEO de WIRI

In 2016, Mexico
launched the
National Plan for
Financial Inclusion
to incorporate
more inhabitants
into formal
economy cycles

FinTech Hub

“Microfinance in Mexico accounts for an important percentage of financial activity, especially in the more popular segments of the population. This is where the impact is most relevant and far-reaching, reflected in many initiatives and FinTech startups targeting this market niche, such as ePesos, Propeler and Conekta, among others.

At FinTech Hub, we promote and support all ideas and projects to contribute to financial inclusion as a way of helping the population to integrate into the economic cycle of the country and push forward in the development of new entrepreneurial projects.”

Jorge A. Ortiz, President & CEO of FinTech Hub and Founder President of FinTech México

DevOps. Fact and fiction

“If you can’t describe what you are doing as a process, you don’t know what you’re doing” Dr. William E. Deming

By Ángel Luis Mula, DevOps Expert at BABEL

DevOps has become a buzzword. Everyone wants to apply it in their teams and to use its methodologies and tools. There is even talk about the term being obsolete and that we need to start evolving to BizDevOps, DevOps 2.0, DevSecOps or “insert definition here”. However, before we start going crazy trying to define what it is (and what it is not), let’s take a quick trip back to its origins to understand why it came about and what problems it attempts to solve.



The term DevOps came about in 2009 when Patrick Debois organised the first DevOpsday in the Belgian city of Ghent as a technical forum bringing together developers and operations people to lay the groundwork for closer collaboration between IT teams. Following the success of the event, these days began to be organised on a regular basis in other countries, the term gained in popularity and early attempts were made to give it a formal framework.

Works like *Toyota Kata* (Mike Rother) and *Continuous Delivery* (Jez Humble and David Farley) were published and big companies like Flickr, Amazon and Etsy boasted that they followed its principles and methodologies allowing them to release code into production more than ten times a day. Interestingly, one of the most influential

texts was the publication of *The Phoenix Project* in early 2013.

This novel contains multiple references to agile methodologies and lean production models.

We have reached a point where there are so many definitions of “what DevOps is” that, even though they share a core idea, each one puts the focus on a particular area, giving rise to a multitude of contradictory currents. This led to the need to give the term a consensual definition, so in 2015 Patrick Debois, Gene Kim, John Willis and Jez Humble published the *DevOps Handbook*, considered by many to be the bible of DevOps. Large organisations such as the Linux Foundation adopted this as a reference for their courses. Ultimately, DevOps could be defined as a corporate culture that seeks to align all departments involved in

the lifecycle of a service/application, focusing efforts on high overall performance, not only in development and operations departments, but also in business areas.

What are the influences of DevOps?

There are basically three: agile manifesto, lean and webscale IT. We will also find references to scientific method, the Deming Cycle or psychology of work (importance of human capital, fighting burn-out, maintaining motivation).

On the technical side, it talks about a series of good practices such as continuous delivery, use of Kanban or infrastructure as code, and defines some key concepts: minimum viable product (MVP), continuous learning, automation, deployment pipeline, fail-fast or cattle vs. pets among many others.

Why should I consider using DevOps in my company?

The best way to show the benefits of its implementation is pointing out the profits obtained by companies that have already done so:

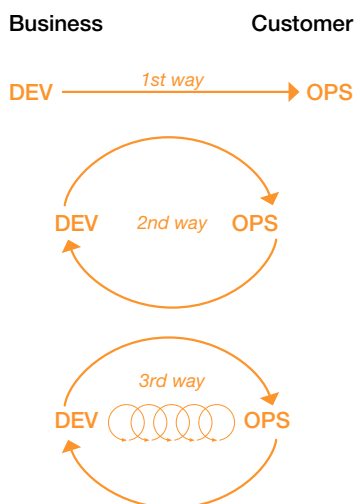
- Recovery versus total failure: 96 times faster.
- The time between introducing a code change and putting it into production is 440 times faster.
- The frequency of deployments is 46 times more common.
- The times that goals are reached are doubled.
- The error rate is 5 times lower: 38.5% to 7.5%.

The data compare the situation before and after using DevOps. Source: State of DevOps Report (Sixth annual survey of DevOps users).

How can I implement it?

It is common to start using tools that allow the adoption of any of the proposed methodologies. Everybody talks about software like Puppet, Ansible, Docker, Jenkins, etc. when searching for “DevOps profiles” for their teams. While using these tools will definitely provide us with a qualitative improvement, focusing only on the technical side will cause us to overlook many of the benefits.

There is a model known as The Three Ways of DevOps that proposes a gradual and non-traumatic adoption, working on a specific goal in each of its phases. We can summarise these phases as:



First way: Systems thinking. The aim is to obtain extensive knowledge of the system, putting the focus on the creation of an agile and maintainable workflow.

Second way: Improve feedback. It is necessary to transfer knowledge to the whole chain in order to make corrections and improvements and to facilitate decision-making based on the data obtained.

Third way: Culture of continual experimentation and learning. We will focus on testing the system to obtain sufficient expertise in the event of failures and to evolve.

As in other areas of life, there are no magical solutions or short-cuts and we need to know the company and its processes in order to adapt DevOps to it. Getting the right advice and learning from others' experiences will help us enormously along the way. ●

Fiction

There are some false rumours about DevOps. Let's look at some of them:

“It is only valid for new projects in cloud computing, with containers and/or microservices”

It is easier to implement DevOps in new projects born within this culture but it can be used in any project (like transferring legacy applications to these environments [legacy in a box]).

“It only talks about technical aspects”

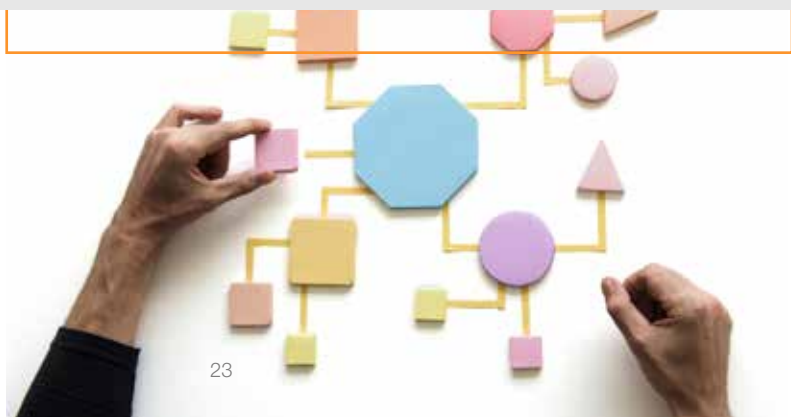
DevOps is intended to solve business problems and processes not technology aspects. It talks not only about technique, but tries to improve the quality of work, creating a framework for collaboration and communication between teams using aspects of organisational psychology to break down the traditional silos.

“It's groundbreaking”

DevOps is not a framework or a methodology but rather a set of good practices designed to produce a corporate culture. Its implementation in companies is evolving.





“It is not compatible with ITIL or SCRUM”

DevOps complements many of these methodologies; it shares many of their good practices and they have common origins. They all pursue the same purpose: to improve processes. They are compatible and it is even desirable to apply them together, although there may be some areas where they overlap.







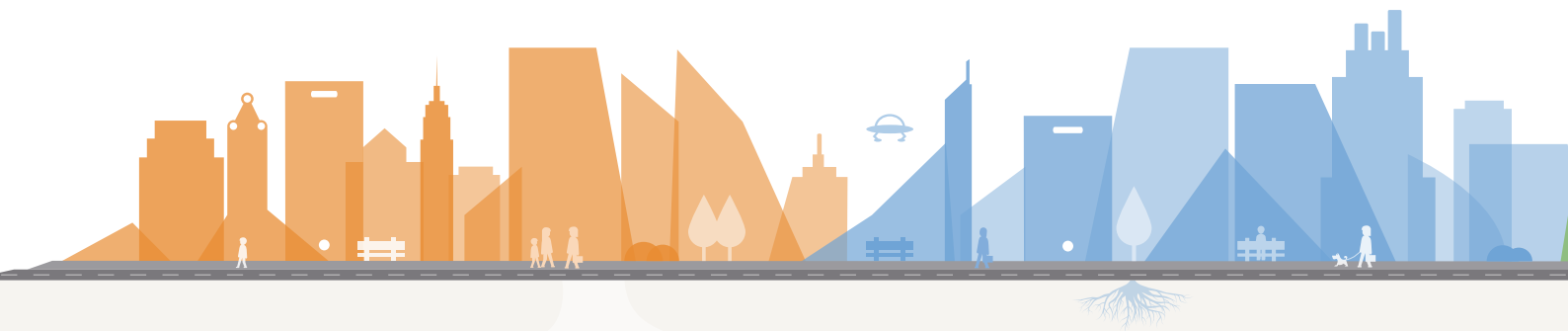
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