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2020

Build Back Better

How business model innovation
can help your firm out of crisis

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Where ideas and people meet

Build Back Better

How business model
innovation can help your
firm out of the crisis



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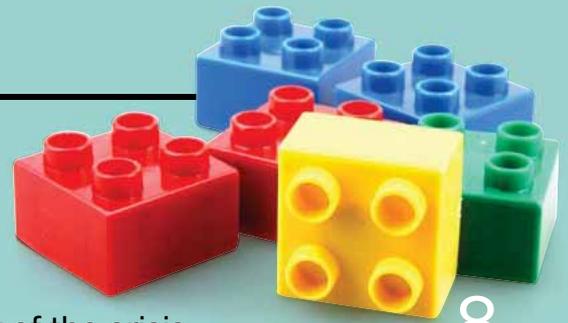


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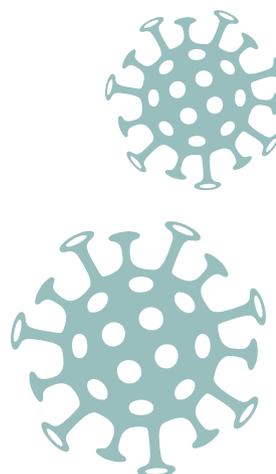
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Antonio Argandoña
Editorial Director of *IESE Business School Insight*
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A model issue

One of the most enjoyable aspects of being the Editorial Director of *IESE Business School Insight* is being among the first to read the magazine from cover to cover. And I must admit that the Report for this issue has been one of the most exciting for me. I felt like I was in the middle of a case discussion in one of IESE professor Christoph Zott's classes. It walks us through the process of rethinking our business model when circumstances change, as we try to work out what activities will create value, how to implement them, who is best positioned to perform them, and why. It helps us grasp the logic behind business models and how to leverage business model innovation (BMI) as a leading source of value creation. And there isn't just one case presented, but several; and they're not theoretical, but real: The cases featured in our Report are all people just like you and me who have suddenly found themselves needing to innovate their business models – and fast – because of the coronavirus pandemic. May their stories inspire you as much as they did me!

The stories in our +IESE section bring to mind the lunches shared with participants in our programs, when someone asks a question that stirs a colleague to share his or her own personal experience – whether about the incredible new possibilities of AI to anticipate customer behavior, or how multidisciplinary R&D teams and university collaborations can help you realize your business vision, or how networking with business angels can help more women to launch their own startups.

As record-breaking wildfires rage yet again around the world, our Know section contains a timely article that forces us to confront how climate change will continue to affect many sectors, and what we should be doing to prepare. Equally timely is a conversation about how the culture and values of a society can change rapidly, and how our business strategies should be taking account of those societal shifts before waiting till laws catch up. Another article on the use of AI in the world of sports shows the possibilities for business to also hit it out of the park.

We hope returning to work and the “new normal” is going well for you, your families, your companies and your employees. Keep sending us your feedback, which helps us to improve *IESE Business School Insight* so it continues to be a relevant, exciting read for you.



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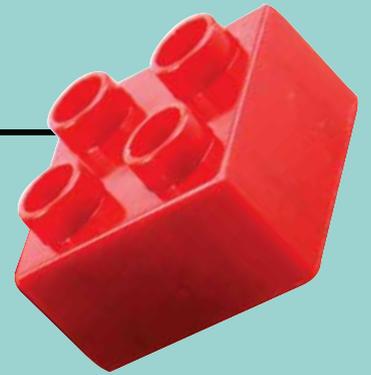
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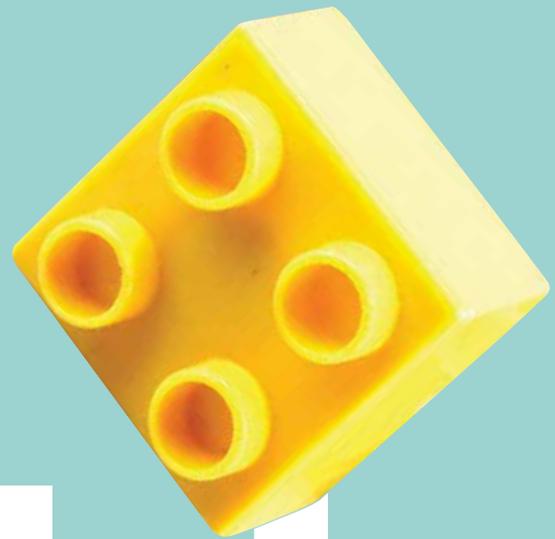
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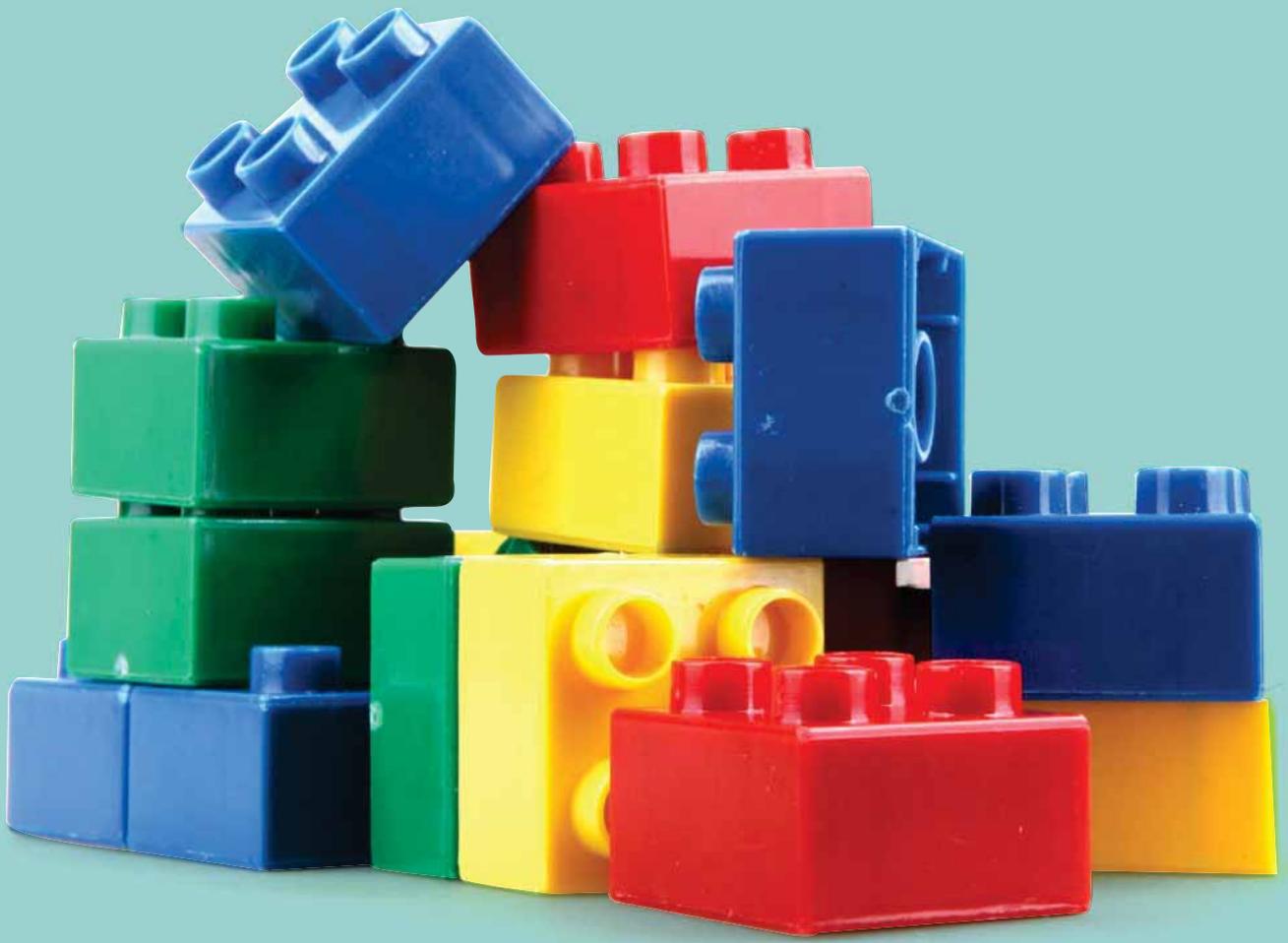


How business
model innovation
can help your firm
out of the crisis



Build Back





Better

In mid-May 2020, with COVID-19 lockdowns in full force, Boston-based Neuroelectrics received uplifting news. The U.S. Food and Drug Administration had greenlighted its request for clinical trials to test a novel brain-stimulation therapy as an at-home treatment for depression. The approval had come back fast: less than a month after filing.

At a time when anxiety was running high and good news was scarce, this potential win for the tele-medicine venture was especially welcome. Neuroelectrics was progressing in its mission to “reinvent brain health” while helping vulnerable patients (namely the elderly) at a crucial juncture, precisely because they could be treated remotely while the threat of COVID-19 loomed. “Out of every challenge comes an opportunity,” says Ana Maiques (AMP ’15), the company’s CEO. “In this pandemic, we’ve accelerated about five years ahead in our timeline.”

Striking a similar note, Microsoft CEO Satya Nadella told investors in spring 2020: “We’ve seen

two years’ worth of digital transformation in two months.” The company has moved decisively in uncertain times: Between March and June 2020 alone, it made five acquisitions to expand its cloud computing empire.

Amid all the doom and gloom provoked by COVID-19, there are silvery glints in the clouds. With supply chains interrupted, travel restricted, mass gatherings banned and social distancing required, there is no business as usual. Yet, the restrictions in place to protect public health need not limit business leaders’ imaginations. This is a prime time for business model innovation (BMI), changing how value is created.

So, should some supply chains be shorter? Can education, training and meetings happen via videoconferencing to a greater degree than before? Will older customers embrace online banking and other essential services as fully as their millennial counterparts? The short answer seems to be yes, implying far-reaching ramifications for



Out of every
challenge comes
an opportunity

Ana Maiques
CEO
Neuroelectrics

current business models and the assumptions that underpin them.

Business Model Innovation Strategy: Transformational Concepts and Tools for Entrepreneurial Leaders (Wiley, 2020) is the title of a new book by IESE's Christoph Zott and Raphael Amit of the Wharton School, which arrives for just such a time as this. Here, we share some of the practical insights contained in the book, as we learn from entrepreneurs how to innovate and change the way a business works.

What a business model is – and isn't

First, what is a business model? In a nutshell, it's how a firm should do business.

The business model is one of the fundamental strategic issues a firm faces. During the dot-com boom, internet entrepreneurs were rewarded for their BMI – but that might as well have stood for “business model imaginations,” as too many of their wild ideas never turned profitable, leading to a dot-com bust. They had plenty of strategies, but they lacked viable business models. Making “radical changes in some parts of a firm's business model can have tremendous performance implications,” asserts Joan E. Ricart, holder of IESE's Carl Schroeder Chair of Strategic Management.

Indeed, in a recent study of 917 retail companies, IESE's Govert Vroom found that the business model has a significant effect on company success, accounting for 5.1% of a firm's ROA, after controlling for other factors. He and his co-authors call this “the business model effect.”

To better understand the mechanics of the business model, here's the technical definition provided by professors Zott and Amit in their book: “A business model is a boundary-spanning system of interdependent activities that centers on a focal firm, yet may encompass activities performed by

its partners, suppliers and customers in the pursuit of value creation and capture.”

Embedded in that definition are some key features like “boundary-spanning” and “partnerships,” which we'll discuss later. To ground this definition, here are four deceptively simple elements of every business model, and four related questions to ask yourself about your own:

- **What:** Its content. *What* are the activities that encompass my business model?
- **How:** Its structure. *How* are these activities linked, both the sequencing of the activities and the exchange mechanisms among the activities?
- **Who:** Its governance. *Who* performs the activities, i.e., which activities are performed by my firm versus those performed by our partners, suppliers or customers?
- **Why:** Its value logic. *Why* does my business model create value, and *why* does it enhance value appropriation?

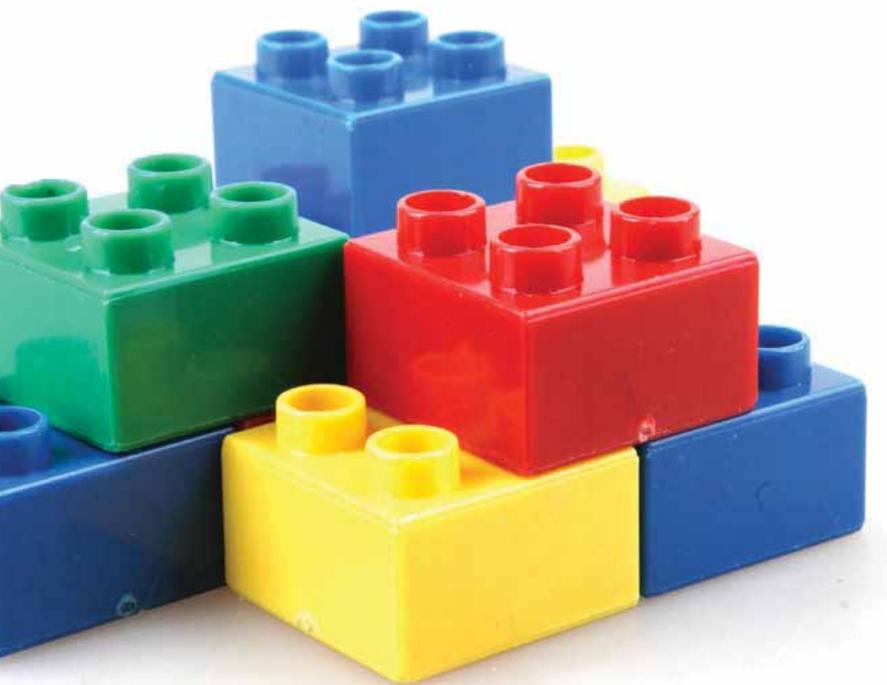
These four elements are often highly interdependent. And making innovative changes in any one of them is when things start to get interesting.

Spotting BMI

If a business model is essentially “how to do business,” BMI can be defined as “how to do business *in new ways*.” That sounds simpler than it really is. Test yourself: Which of the following real innovations is most likely to result in BMI?

A. Robot laborers. As the *Financial Times* reported in summer 2020, automated labor for doing everything from picking strawberries to sorting packages to recycling waste is increasingly being deployed, so humans can keep socially distant and avoid contagion.

B. Plant-based meat substitutes. With the coronavirus originating in animals and the initial outbreak



traced to animal markets, a plant-based burger captures rising consumer demand for healthy, vegan alternatives and the growing trend for socially conscious, environmentally friendly food products.

C. An online platform like Apple's. In addition to offering innovative hardware, an online platform can attract a loyal base of developers and end-users whose value grows the more the network interacts and expands.

If you answered A, sorry: Although a robotic workforce may bring major gains in efficiency, it doesn't fundamentally change how the business of picking, mailing or sorting gets done. If you answered B, sorry again: Even if it's better for the planet, product innovation, no matter how commercially successful, is not BMI if the company follows a traditional path of, say, selling vegan burgers in supermarkets. If you answered C, you

are correct: Developing a platform that benefits from "network effects" will fundamentally change a firm's value logic (its *why*) as well as *who* is doing *what*. In other words, many elements of the business model design change when a company like Apple moves from being purely a product innovator to becoming a digital platform provider.

The lesson: BMI is not simply operating more efficiently or offering new products or services, however innovative they may be in their own right. According to two decades of research by Zott and Amit, the four main advantages of BMI (as opposed to just having a good business model) are:

BMI complements other forms of innovation. When done well, BMI can create positive synergistic effects alongside product innovation. So, you may first become an Apple customer because of innovations in the latest iPhone, but you may stay loyal to the platform because of the app store, music downloads or Apple TV.

BMI does not usually require large upfront investment. It can be cost effective. Notably, digitalization enables frequent low-cost experiments and innovations in business models. (You don't need to build hotels to make money if you rent rooms to travelers like Airbnb.)

BMI can serve as an effective barrier to imitation. When service or product innovations are embedded in a novel business model, competition will have a harder time playing copycat.

BMI can be a disruptive force in an industry. "Disruptive innovation," popularized by the late Clayton Christensen, creates brand new markets and/or uncovers new opportunities in established ones.

Of course, BMI carries risks, too. They include:

- Insufficient customer adoption or market size.
- Costs of organizational change and other implementation risks.
- Imitation by competitors.

- Legitimacy risk: New business models need high legitimacy, which may be harder for new ventures to achieve.
- Increased complexity may lead to increased risks to viability.

BMI in times of crisis

If all that sounds daunting, remember that stasis is not an option. Consider the case of Tickets.ie, Ireland’s leading independent ticketing retailer for large events. “Our business was gone overnight,” says founder and CEO John O’Neill. “On March 13, the day after Ireland’s schools announced they would close, we sold 25 tickets – compared with 6,600 the same day a year ago.” To add insult to injury, those 25 ticketholders might seek refunds.

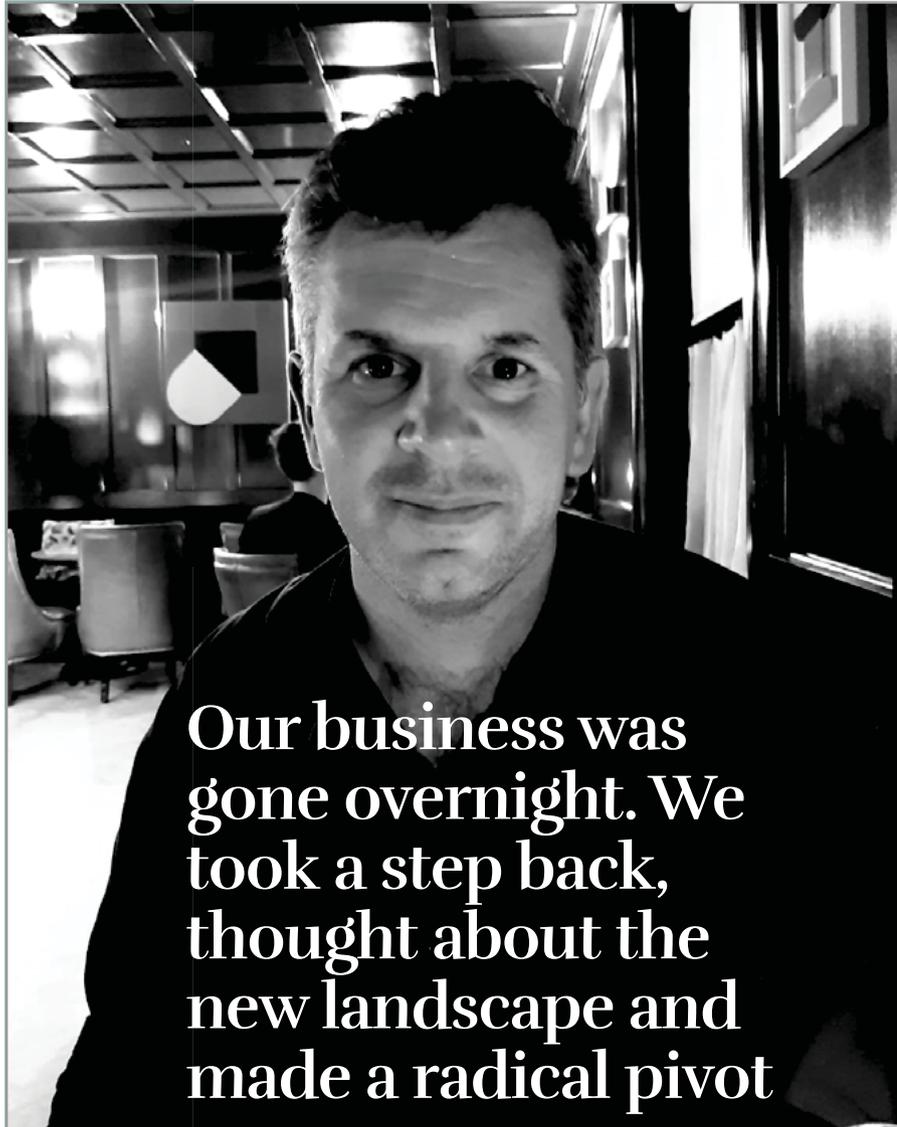
A similar thing happened to Ivan Rodriguez and Luis Paris (MBAs 2011), founders of Parclick, which offers reservations for parking lots. With nobody paying for parking, the founders admit they were cursing the virus before regaining their composure.

Especially in relatively young ventures, the potential for pivots, or BMI, are more than compelling. They may even be necessary to stave off a liquidity crisis.

To help make sure innovations in your business model promote positive changes, Zott and Amit present several analytic tools to help you evaluate your current model, before embarking on designing a new one.

Getting your story straight

To understand a business model, tell its story, and tell it simply. Try this exercise: Write a one-paragraph tale about how your firm’s business model works. In addition to *what* (activities), *who* (carries them out) and *how* (in what order they’re carried out), remember to briefly explain *why*, i.e., explain the model logic and the main source of value creation. Does the story come to a neat conclusion? If the answer is no, consider it a red flag.



Our business was gone overnight. We took a step back, thought about the new landscape and made a radical pivot

John O’Neill
 Founder and CEO
 Tickets.ie

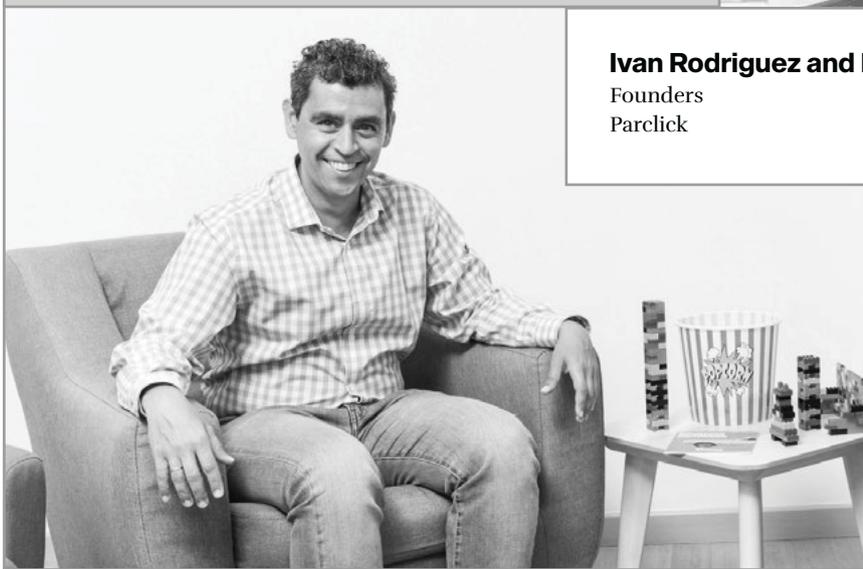


Once you
stop cursing
COVID-19 and
accept it...



Ivan Rodriguez and Luis Paris

Founders
Parclick



”

...then you'll see
the glass half full

Once completed, the one-paragraph exercise can make great copy for your company's website, introducing your story to potential customers, for all to see and understand.

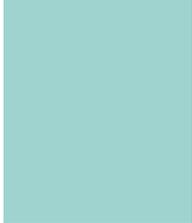
Another useful tool is the business model activity map or flow chart, used frequently in business practice and in academic research. Start by drawing boxes for *what*, arrows between boxes to depict *how*, different colors for the boxes to show *who* and additional text, as necessary, to describe *why*. IESE's Ricart suggests connecting each of the main elements to their relevant performance indicators, to depict value loops, virtuous circles and other value-creation dynamics. Such visuals will help give you a bird's eye view of the business model and the underlying dynamics at play.

Designing a new model

Understanding a business model is one thing, but designing one from scratch? Again, there are tools available to help with that, some of which borrow from or dovetail with design thinking.

FIND THE PROBLEM. For starters, think of your prospective customers' goals and needs. Write out a problem that these prospective customers have, and then aim to solve it. Formulating a problem statement forces you to put yourself in the shoes of your customers, and to put your customers at the forefront of your business model redesign effort.

PROBE STAKEHOLDERS. Once you have a problem statement (formulated from the customer's point



of view, not your own), don't assume you know how to address it. Stay open to suggestions. Formulate a questionnaire for your stakeholders, including not only prospective customers but also employees and suppliers for more valuable input. The goal here is to understand the problem better, not to find a solution (yet).

BORROW TEMPLATES. Getting closer to solutions, look to the successful business models that abound to learn from them. Examine how incumbent business models work in your field – and look farther afield, to very different industries, to learn from new (to you) business model templates. (This would be the industry- or boundary-spanning component referred to earlier.)

For example, when Ana Maiques' firm figured out they wanted to be in the business of providing non-intrusive, electrical stimulation to treat brain disorders, they saw many options in front of them. They could be a hardware company, selling the devices that look like (and essentially are) wired helmets that deliver the neural stimulation. Or they could provide a platform for monitoring and delivering stimulation treatments. They chose to work with the latter option, delivering treatments, not unlike the pharmaceutical models for selling pills, once they had studied and understood the nitty-gritty of the business models out there.

LOOK AROUND. Strategy professors will always tell you to make sure you understand the external environment, and even more so in times of change. IESE's Miquel Llado recommends frequent scanning of the Political, Economic, Social and Technological (PEST) factors as we wade through the pandemic.

Remember Tickets.ie's dramatic drop in sales? O'Neill explains how his company – which makes most of its money via sales – also has a revenue stream from licensing its software. If put to new uses, this could potentially attract new business customers. O'Neill took a step back and thought about the new landscape: No events meant no charity events. The dinners, dances, races and even charity shops were no longer possible. As Tickets.ie was already in talks with Ireland's postal service as a potential ticketing-software subscriber, O'Neill pitched the idea of post offices accepting monetary donations over their counters, to be sent efficiently to charities via Tickets.ie's e-commerce platform. Things moved quickly from there: The postal service signed on, and O'Neill expects the deal to be cashflow positive in the second half of 2020.

This goes to show that looking around can help identify new potential customers. It can also lead you to identify new partners whose capabilities can

Examine how incumbent business models work and look farther afield to learn from very different industries

6 questions to BMI



1. What perceived customer needs can be satisfied through the new business model design?

2. What novel activities are needed to satisfy these perceived needs?

3. How could the required activities be linked to each other in novel ways?

4. Who should perform each of the activities that are part of the business

model (e.g., the focal firm or a partner) and what novel governance arrangements could enable this structure?

5. How can value be created in novel ways through the business model for each of the participants?

6. What novel revenue model fits with the firm's business model to appropriate part of the total value it helps create?

help your firm fill any gaps. Call it “resource and capability scanning.” It’s extremely useful to a young company that may want, or need, to quickly pivot to stay above water in a crisis.

REDEPLOY RESOURCES AND CAPABILITIES. Returning to O’Neill, his team is now working to offer time-based queueing systems to retailers who want to win back in-store customers in a safe, well-managed way. He describes the entry into queue-management as a pretty radical pivot, “almost transposing one axis to another in a graph” – from selling a large number of tickets, to offering a limited number of tickets via QR codes to many, many “events,” which are basically the various sections of a store that’s open all day.

SEEK OUT VALUABLE PARTNERSHIPS. But how do you monetize a well-managed queue? That’s where a business partner may come in, one already working on tracking customers’ journeys through retail. Such a partner could offer O’Neill’s company either commissions or subscription fees in exchange for the customer data it received.

EXPERIMENT. Once a new, radically revised or transposed way of doing business has been sketched out, it should be possible to engage in some low-cost experimentation. Experiments not only help test your hypotheses, they can also be key to overcoming innovation inertia if you are in a well-established firm.

This is borne out in a case study by IESE’s Marc Sosna et al. He examined trial-and-error learning



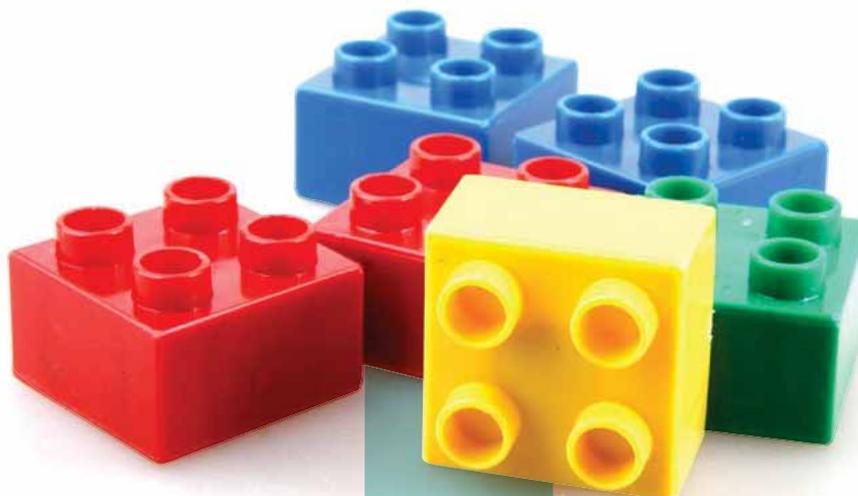
in a Spanish dietary products business called Naturhouse, a mature company that was facing a recession and new competitive threats. While simultaneously maintaining revenues and profits, Naturhouse experimented and learned from the process over the course of two years, which then enabled it to internationalize successfully.

TEST ASSUMPTIONS. If your business model is complex, as many are, breaking down the critical assumptions that underpin it is a fruitful exercise. There are many questions to ask: Is there demand? Will your third-party suppliers find value in working with you? Is the environment changing in a way that's compatible with your medium-term plans? Here is where the test-assumption matrix (TAM) can come in handy. It will help prioritize experimentation.

In a TAM table, each row highlights critical assumptions of the business model, while each

column contains milestones, using low-cost experiments. Make it dynamic: Changing the order of the rows can highlight your changing priorities, based on the results recorded in your columns. Empirical evidence from your tests can validate your model and mitigate risk, tackling the business model one piece at time.

For example, in the latest Business Model Challenge elective course that IESE runs every year in its MBA program, students came up with a novel idea for Dr. Oetker, a 100-year-old family business best known for its frozen pizzas. What if Dr. Oetker leveraged its brand name and reach to provide a platform for bakers and customers to connect – a sort of Airbnb for baking? As the lockdown brought baking at home to new prominence, the students' idea resonated with the external environment. But how might a company test the students' assumptions without risking too much? A simple online mockup could be a start, with split-testing or other



When you innovate, look at the forest, not the trees

Christoph Zott

Professor of Entrepreneurship

digital experiments. A pie-in-the-sky idea could, one day, get to the board table with some data and targeted experiments. (At press time, this was still in the “ideation” phase.)

Adopting a BMI mindset for change

According to the McKinsey Global Innovation Survey, 80% of executives surveyed think their current business models are at risk of disruption. A more recent survey of IESE Alumni amid the COVID-19 crisis echoed this: A principal preoccupation of executives surveyed in April 2020 was the pandemic’s impact on their business model. So what is getting in the way of change?

The pandemic adds urgency to the question. “Now more than ever, we need leaders to focus on entrepreneurial agility,” says IESE Dean Franz Heukamp. “The economic and societal impact of this crisis is huge. As such, we need agile business leaders who are able to spot opportunities and innovate quickly in light of a new playing field in terms of both supply and demand.”

Research indicates that instilling a BMI mindset can help overcome resistance to change. But note

that structural measures can help, too. Hiring outsiders and creating separate business units can also help overcome inertia. So, too, can corporate venturing mechanisms, as IESE’s M. Julia Prats explains in a later column. In any case, it’s imperative that top management be highly involved in the BMI process.

Leaders need to see BMI clearly. “Without a business model perspective, a firm is a mere participant in a dizzying array of networks and passive entanglements,” write Zott and Amit in their book. Analyzing the business model “encourages systemic and holistic thinking when considering innovation instead of concentrating on isolated, individual choices.” Their overarching message to managers: “When you innovate, look at the forest, not the trees.” And when it comes to your team, look to hiring strategically, mentoring with purpose, and being a role model. (See the infographic “Developing a BMI mindset” in this report.)

Relentless optimism is another key feature of the success-prone entrepreneur – and the entrepreneurial executive. In the midst of the crisis, with

Wanted: Your business model challenges

Does your firm have its own business model challenge? Every year IESE runs a Business Model Challenge elective during which teams of second-year MBA students collaborate with real companies to provide fresh, unbiased, outside perspectives on their current business model, and then present them with a well-crafted proposal for a potential business model innovation (BMI).

Interested in submitting a challenge?
Email czott@iese.edu for details on how to apply. Certain conditions apply.

Deadline for submissions: **Nov. 30, 2020**

Company reps are invited to collaborate closely with MBA teams and to visit the IESE campus in Barcelona (conditions permitting) sometime between **January and April 2021** for discussions and final presentations.

Take advantage of this opportunity!

liquidity concerns, the optimist finds opportunities for creative partnerships or even mergers. If all events are on hold, there's an opportunity to make big, disruptive infrastructure changes or implement new technologies.

As Parclick's founders told Zott recently, as soon as they stopped cursing COVID-19 and accepted it, they saw weakened competitors, M&A opportunities, reduced costs, more time to find and eliminate inefficiencies, a job market in which to score rock-star hires – that's the glass half full!

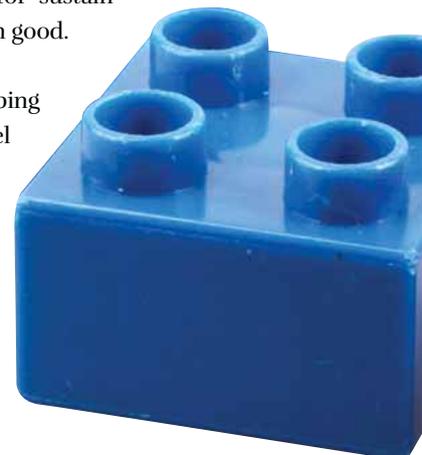
Crisis-sparked change is opening up even the most traditional of industries to new ideas. And ever-advancing technologies continue to make change nimbler. As Maiques points out: "I think that the pandemic has forced us all to rethink the way we have been providing healthcare. There is a lot of inefficiency today, and as patients telework, they may also see that you don't always need to go physically to the doctor." The relentlessly optimistic entrepreneur sees challenges and opportunities as two sides of the same coin.

Meanwhile, the United Nations is calling upon governments to "Build Back Better" with renewed urgency for a post-pandemic reordering. For its part, the World Economic Forum has launched "The Great Reset" to encourage vital improvements via public-private partnerships. Both campaigns share a wider view regarding the chance we have now to speed up innovation for sustainability and the common good.

Now seems like a tipping point. Business model innovation can help usher in a post-COVID-19 era that works for all. ■

New Executive Education course on business model innovation strategy

IESE's Christoph Zott and Marc Sosna are developing a new online course on business model innovation strategy. Watch for details at executiveeducation.iese.edu



“

I'm asking *you* for your ideas

”

As an ambitious entrepreneur looking to acquire an established company via a search fund, Bruno Lea explored dozens of possibilities with an open mind. He finally set his sights on Performer CNC, the southern France-based distributor of Haas Automation machine tools. With the backing of Finaves, IESE's seed capital fund, Lea took the top management seat in 2019. Just a few months later, in early 2020, he gathered employees from across France, Morocco, Algeria and Tunisia to share a new vision. “We're not a distributor of machine tools,” he said. “We're in the business of helping clients be more productive.” Eyebrows were raised, especially from the sales veterans who had been distributing machine tools for more than 30 years and knew this business inside-out.

Around the same time, Lea (MBA '14) had been invited to take part in IESE professor Christoph Zott's class on business model innovation (BMI). He thought it would be fun to return to his alma mater. “At first I was just curious,” he recalls, “but soon I realized how critical it was for the long-term future of my business to foster this BMI mindset.”

Shortly thereafter, the COVID crisis hit, and BMI became not just a nice-to-have but an absolute necessity, as sales of the expensive machines plummeted. “You can't afford *not* to foster BMI within your company and your employees,” says Lea. Here, he explains how he did it.

You took over a machine tool distributor when you knew nothing about the specialized industry. How did being an outsider help?

The fact that I wasn't from the industry is, I believe, an advantage, because I'm not coming with preconceived ideas and losing time having to unlearn things. I'm coming with fresh ideas and a different way of seeing and doing things. This helps with BMI.



Bruno Lea

President, Performer CNC,
Haas Automation (France)

CREDIT: Maria Dias

I look for this in employees, too. Because we're a technical business, it's tempting to just recruit technical experience. But finding people with the right attitude and mindset – people who challenge the status quo, who question why and how we do things, who are constantly trying to learn and progress – that's what makes the difference.

We recently hired four new salespeople who didn't come from the sector – one came from a law background, another was a high-school teacher. But, vitally, they have the right attitude. Yes, they must believe in the product, but they don't just focus on the product; they focus on client needs. That's a big shift. I'm very aware that new hires are key to fostering BMI and so I hire purposefully.

And with existing employees who may have gotten stuck?

It starts by setting the right tone. But it's not always easy. I can think of one guy who wasn't so keen at first, but as he tried new things, he began to come around. People have remarked how they can see a real change in him. He seems happier now than he was before, being alone in his convictions that there was only ever one way to do things. Indeed, he's happy to be *nicely* challenged. That's the key: being nice and respecting that this guy has 35 years in this sector and, rather than giving up on him, showing him the worth of exploring other ways of doing things.

This was essentially what I was doing when I told all employees in early 2020: "What you think we're doing is not what

we're actually doing. Here's the vision: I will not tell you what we should do. I'm asking *you* for your ideas."

So what did they come up with?

Once I said, "We're in the business of helping," the next question becomes, "What does it mean to help?" Selling machine tools is one way, but what about renting them? Especially for many SMEs, buying a big, expensive machine may be beyond their means, especially during a recession when many companies are facing liquidity challenges. So, this led us into renting machines, something not common in this sector.

Then we started thinking, instead of just offering a product (whether selling or renting), why not offer clients solutions to help them finance the product? Suddenly, the picture changed dramatically. That guy I just told you about, I remember him saying, "Renting is stupid. It won't work. Nobody is doing it in our industry." Now, he's one of the biggest promoters of renting machines.

We're already seeing positive results. Whereas the rest of the industry is down 50%, we're outperforming our peers in Europe, and U.S.-based Haas has named us "best in class" for our region. I don't believe that was beginner's luck. It's because of BMI.

If no one else in your industry is doing it, how can you check your ideas to see if they might work?

You have to search outside your industry, which forces you to imagine things that nobody else has implemented in your sector.

You can't imagine how many different places we looked. In some ways our model is similar to Software as a Service (SaaS) and I remember talking to one guy from that sector who told me, "The answer to your question is in your name: Haas." I didn't see it at first, but the name of our company also happens to stand for Hardware as a Service (HaaS), which is a model more common in computing companies. That led me to study models like Xerox's: They go beyond renting copiers and printers to adding maintenance, training, data management, and more.

“You have to search outside your industry, which forces you to imagine things that nobody else has implemented in your sector”

One of our guys got an idea from 3-D printing farms of us creating a warehouse where clients could come to rent our machines by the hour, day, week, etc.

I even learned from street sellers in Madagascar. Those guys are ingenious the way they keep selling with very limited, scarce resources. When 90% of our sales orders dropped at the beginning of the coronavirus lockdowns, I reminded myself of those guys in Madagascar who keep smiling against the odds. All this adds to BMI thinking.

Another part of BMI thinking is reframing problems as opportunities. How did that help you deal with the challenges of COVID-19?

In the months prior to the pandemic, I hadn't been meeting with all the teams, and I had only met with the branch manager in Paris. Now, I'm doing Zoom calls with groups of people, seeing many more people every month.

The same with the salespeople. Before, they felt that, in order to sell a machine, you had to take the car and go have lunch with the prospective client. But, even before the coronavirus, I had been thinking that, in 2020, the new generation of SME owners behave differently: They don't need lunch to sign; they want information. I had been thinking we needed to use more digital tools for prospects.

And then, with COVID, suddenly we had no choice. Initially, some people thought, “Well, if we can’t take the car to do sales calls, we might as well furlough all our workers until this is over.” But I said no, it’s also an opportunity to accelerate what I was already thinking.

We trained our people on Zoom and they enjoyed it. They thanked me and said otherwise they would have gone crazy for months at home. Now, they can give the specifications to the client via Zoom. They don’t need to drive four hours to do that. I think a hybrid system – some physical, with online follow-up – can be effective. For me, COVID-19 was definitely an opportunity for innovation.

In what other ways did reframing help?

Take the rental model: It takes almost five years of renting a machine before those monthly payments add up to what you’d earn from selling the machine. The board saw that as riskier than selling. But I reframed it as an opportunity. We’re in a crisis. The main thing is to survive, and for many companies the first thing they’ll try to save is cash. They won’t spend \$100k to buy a machine, but they might spend \$2k a month to rent the machine because they perceive that as less risky.

I said to the board, “If we want to prepare for the future, we have to propose renting to clients now, not next year, but now when they need the machines.” In framing it that way, I encountered less resistance and more buy-in for the idea from my stakeholders: not just my shareholders but also my employees, especially my salespeople, and the clients themselves. We had to show them the advantages on the balance sheet: renting shows up in a different place, not as debt as it would with buying a machine, but as a business expense, which is better for your debt ratio.

One of the biggest barriers to BMI is not being able to see the possibilities. How do you overcome your own blind spots?

The first blind spot is not being aware that you have any blind spots. Before doing my MBA at IESE, I wasn’t aware of how conditioned I was by my French culture until I was surrounded by non-French people. That’s why I always try to surround

myself with diverse thinkers, to help make me aware of the ways I may be behaving without thinking.

Another blind spot is that I tend to trust my own instincts when maybe I should be soliciting feedback. Rationally, we all know the value of feedback, yet in real life we seldom actively seek it out. Being afraid to ask for help is a common blind spot. So, as much as I can, I make a conscious effort to go and get feedback.

We all need a blind-spot buddy. I have a mentor, a high-level executive who has known me for years, whom I have lunch with a few times a year. He acts like a mirror to me. It’s essential to know how others perceive you or your business idea, which may be totally different from the image that you thought you were projecting. It’s not easy. It requires that you dedicate time and energy to doing it consistently. But for BMI, the results are worth it. ■



CREDIT: Maria Dias

Developing a BMI mindset

Business model innovation (BMI) is a key task for managers – yet they often can't do it because they lack the requisite mindset. The BMI mindset is one that is able to conceive of the entire activity system of a firm in terms of problem-solving or business opportunities. By thinking proactively and holistically about how you do business, you can better prepare for changes in your industry or business environment. Granted, such thinking isn't easy and may not come naturally. But the good news is, it can be taught and learned. Here's how to develop it, in yourself and in others.



ACTIONS TO FOSTER BMI IN YOURSELF

1

Anticipating

Never be complacent about your current position. Just because the future is unknown doesn't mean you can't try to imagine future scenarios, especially ones in which your competitive position isn't the same forever. Use strategic foresight tools to help you think about future possibilities.

2

Distancing

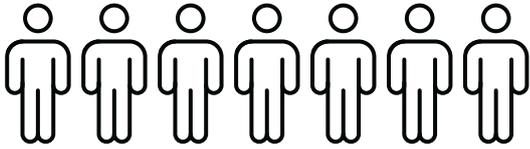
Don't get so mired in the day to day that you lose sight of the bigger picture. Step away to get an outsider's view of your firm, either through a strategy workshop, or by leveraging the views of external hires, advisers and periphery employees who may have a very different take.

3

Abstracting

Think about your business model in generalizable, conceptual terms, which helps in identifying elements of your existing model that could be applied to a new domain, or vice versa. Just be careful not to oversimplify or ignore crucial elements on which your current model depends.

ACTIONS TO FOSTER BMI IN YOUR TEAMS



7



Role modeling

Unlike mentoring, role modeling is neither necessarily based on direct interaction nor does it necessarily have a teaching purpose. By deliberately displaying your own interest in BMI and always being open to new learning experiences, employees may seek to emulate the same attitudes and behaviors if they are so inspired.



Avoid these traps

Not seeing the forest for the trees

Paying too much attention to individual components (e.g., the product or technology) rather than seeing how the whole system works.

Accepting your model as a given

Path dependencies (e.g., standard procedures, ongoing contracts, stable relationships, established routines) discourage the search for anything new.

Following a dominant template

Benchmarking and copying elements from other business models similar to your own, forgetting that things can and often should be redesigned with novel features.



6



Memorable mentoring

Send strong messages from the top that BMI is important. This can happen through formal training and workshops on the topic, but also through informal means. Make sure your meetings are future-oriented, where everyone is encouraged to share examples from other industries to solve problems. Invite employees to travel outside their usual domain to compare how things are done elsewhere.

5

Employee selection

Hiring criteria should include openness to learning. Probe job candidates about their recent learning experiences, not just their industry expertise. An individual with less firm-specific experience but a more open mind or broader background may prove more valuable longer term.

4

Reframing

Make sure you have strong communication processes and that there is sufficient appetite for flexibility and change within the organization before presenting business model alternatives. How receptive is your organization to diverse perspectives? Does it take a crisis before change is considered?

Framing tip



When presenting BMI internally, be conscious of how you do it. When framed as a threat, people tend to get more rigid, which restricts information, narrows attention and reduces channels, resulting in inertia. When framed as an opportunity, people react more positively under the expectation of gain, which motivates change and promotes innovation. Opportunity and threat perceptions act as important cognitive antecedents to business model change and innovation.

**Dr. Philipp Schulte**

Group Vice President and Head of Corporate Development & Strategy at Giesecke+Devrient in Munich. A computer science communications engineer by training, he previously worked for McKinsey, which he says gave him the outside perspective to see things analytically and holistically, which helps for business model innovation.

In July 2020, 10 members of Giesecke+Devrient's top management team, including the group CEO, the CFO and the CEOs of key business units, gathered for a three-day strategic workshop as they do every year – only this was no ordinary year. “When we grasped the magnitude of the COVID-19 challenge, we immediately pulled together a broad taskforce and set up a new program called Planning.Ahead,” says Philipp Schulte, who organizes the strategy process. Their goal: “To identify topics that we have to start doing, or that we would like to keep doing, through and beyond the crisis.”

Giesecke+Devrient (G+D) is a market leader in security solutions for payments, connectivity, identities and digital



The crisis may have created a greater willingness to change



Photo courtesy of Giesecke+Devrient

infrastructures. It belongs to that fabled group of German companies known as “hidden champions” – relatively small but wildly successful companies that excel in niche markets. The business literally prints money: It was founded in 1852 to print banknotes, which continues to be a major pillar of its business today, though they’ve moved way past paper to counterfeit-proof, machine-readable banknotes featuring foil strips, holographs and micromirrors. Their portfolio also increasingly includes other high-security products such as contactless payment cards, biometric passports as well as national IDs and driver’s licenses.

With COVID-19 making digital healthcare, eGov services and e-payments more important than ever, this year’s G+D

workshop felt more urgent: “If we don’t constantly question what we’re doing and how we’re doing it, then we run the risk of falling behind. Engaging in business model innovation (BMI) thinking and activities helps to decrease that risk.”

Schulte, who participated in IESE’s Business Model Challenge MBA elective offered by professor Christoph Zott right before COVID-19 hit Europe, offers a glimpse of what any company can do.

Why hold a strategic workshop?

Everybody knows the struggle between the important and the urgent. We tend to focus on the urgent at the expense of the highly important. A workshop forces you to make time

for what's really important for your business. It's deliberately intense, with lots of topics covered during those three days, and invited experts coming in to speak on certain specialized topics. But it's a perfect opportunity, because you have all those key people together locked in a room – they cannot escape [laughs] – and you get a grip on where all the business units stand, what the strategic plan is, the resource allocation, improvement programs, competitor moves, and so on.

How can companies do this during a pandemic?

We would normally hold our workshop at a hotel on Lake Tegernsee in Bavaria, but because of the coronavirus situation, we had to hold it on our company site. Still, we tried to create an off-site feeling to get people in the right mindset, so they didn't just run out during breaks to check emails on their phone or have quick meetings and catch up on other work (the urgent again). That was completely forbidden.

Another difference was that people went home at the end of each day, unlike in a hotel, where your conversations may

continue into the night at the hotel bar – which are very special moments when interesting ideas emerge spontaneously. So, you have to think creatively about how to re-create those special moments on-site. We still had lunch and dinner together, and we took advantage of our headquarters' rooftop terrace to celebrate the milestones achieved.

Apart from those practical considerations, there is definitely a greater feeling of uncertainty, things are less predictable right now, so we found ourselves spending a lot more time discussing different scenarios, what additional portfolios and business model innovations we might want to develop, and the respective resource allocation. You need to plan more time to focus on those things.

What is the attitude toward resource allocation in this time of crisis?

Interestingly, after spending time discussing all the different strategies, we asked people to say how they personally would choose to allocate investment. On average, people felt we needed to be even more aggressive with resource allocation, funneling more money to new businesses with innovative business models. That was something new this year. As long as the value proposition was clear and understood, we saw that people were more willing to support it

and create funding for it. The crisis may have created a greater willingness to change.

What new business areas are people more willing to invest in?

Largely digital equivalents of an existing physical business. So, for us, we are working on a central bank



Photo courtesy of
Giesecke+Devrient

digital currency. While we don't foresee a cashless society anytime soon (believe it or not, 80% of all global payment transactions are still done in cash), we definitely see a change in consumer behavior in many countries when it comes to payment. And since payment solutions are such an important part of our business, we have to closely observe and review all developments there, and be at the forefront of new developments in digital cash.

This would imply new business models...

Yes, because it's not just about creating one digital solution but actually creating an entirely new ecosystem involving the central bank, the commercial banks, the merchants, the citizens and everything in between. How do you equip all those stakeholders while also guaranteeing the very highest levels of security against hacking and so on? This is very different from anything in the physical world.

Will this require new skill sets?

Part of it will require hiring new people but we are also re-allocating internal resources, particularly R&D people from cryptography, secure algorithms and embedded operating systems. We're also evaluating partnerships with external companies. In an ecosystem, there's not a single company – not even the mighty Big Tech companies – that is able or even wants to do everything. It's okay to say: We want to have a role in this market, but it may be even more beneficial if other companies have a role in this as well.

What are you doing differently this year, prompted by the crisis?

One thing we did in our workshop for the first time was that we got our top management to think about big, disruptive trends. For this, we invited groups from within the organization to present on different topics, to stimulate their thinking in the moment, without them coming pre-prepared with lots of papers, as they normally would. We deliberately started with that exercise. Then, we posted all the open questions they had come up with for each trend on the wall, to keep triggering our thought processes throughout those three days. That helped to focus minds.

A major part of our conversation was also around how to sustain the business and allocate the resources accordingly, which is not about meeting a financial growth target. Not

“While we don't foresee a cashless society, we have to be at the forefront of new developments in digital cash”

every business can grow 10%. The market isn't like that now anyway. It's ultimately about the plans you envision for the future, and deciding how your business model will fit with those future objectives you set.

How will you keep the momentum going?

After our workshop, the CEO proposed that we shoot a video out of the session on long-term trends, which we will share with all employees via our intranet. We also plan to do some deep dives into the trends involving smaller working groups, or think tanks, to come up with some recommendations. It's important to move from communication to execution.

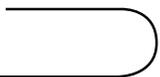
Getting a mandate to push in a given direction can help to overcome organizational inertia. That comes from the top but you also have to motivate yourself and have enough passion to overcome your own inertia. As a consultant, I had to get accustomed to many different topics quite rapidly, and this is a useful skill to develop. You have to like to learn, to see every day as something new to explore, to have curiosity. That can create momentum. And once you have momentum, you have to use it or lose it. ■



credit: Edu Ferrer

M. Julia Prats

Holder of the Bertrán Foundation Chair of Entrepreneurship, head of the Entrepreneurship Department, and Academic Director of IESE. She's also a member of CNBC's Disruptor 50 Advisory Council, a group of 55 leading thinkers in the field of innovation and entrepreneurship from around the world.



ENABLING innovation

Corporate venturing enablers can help established firms and startups to innovate and grow at a higher speed and lower cost.

New technologies and excess liquidity accrued over recent years have together fueled startups, many of which are offering better solutions to old problems or brand-new value propositions.

As market volatility has increased dramatically amid the COVID-19 crisis, established firms are looking to adapt or even transform themselves to achieve profitable growth in uncertain times. Many firms are looking at corporate venturing, bringing together startups and established firms, to explore the future.

First, let's clear up a myth: Corporate venturing is not just for the incumbent giants, although many large multinationals are making good use of it. In a series of studies of corporate venturing, my colleague Josemaria Siota and I have seen many small and medium-sized enterprises (SMEs) successfully deploy these mechanisms. Remember, corporate venturing is an umbrella term that encompasses many initiatives with startups, including corporate accelerators, incubators, strategic partnerships, venture builders, venture clients, scouting missions, hackathons, challenge prizes and the more common startup acquisitions, and corporate venture capital (CVC). Each of these involves very different levels of investment in terms of time and money, potentially serving a wide variety of budgets and requirements.

In the latest study that Siota and I published in July 2020, we found that the Chief Innovation Officers we interviewed are engaging with increasingly complex corporate venturing ecosystems. These ecosystems feature established firms, startups and a growing number of participants that we call “enablers” working with both groups. As our research on these ecosystems continues, we are exploring when it’s better for firms and startups to engage directly and when it’s more opportune to go through an enabler – and how working with enablers can be configured.

Enablers include private accelerators and incubators, research centers, universities, venture capital firms, business angel investors, private equity firms, consulting firms, governments, embassies, chambers of commerce and think tanks. Although very different in nature and purpose, their common function is to improve deal flow between established firms and startups, not only in terms of quantity but also quality, so that the fruits of collaboration are borne faster. Enablers can also reduce innovation costs by sharing their expenses with other enablers and thus strengthening the value proposition offered because of the group’s aggregated value.

Let’s look at one example. The car manufacturer, Volvo, joined forces with other corporations in its same value chain, including CEVT (China Euro Vehicle Technology) and the auto tech provider Veoneer, together with the communications company Ericsson – all hosted in Sweden’s Lindholmen Science Park. The joint initiative, dubbed MobilityX-lab, offers startups the opportunity to accelerate through mentorships, access to professional networks, industry insights and workspaces provided by these more established corporations working on the future of mobility.

Business model innovation (BMI) can be the result of industry-spanning collaborations like these

For corporations, this lets them get a view of the future and, not rarely, business model innovation (BMI) can be the result of industry-spanning collaborations like these. And it is through business model innovation that the search for new sources of growth may become reality.

As the business world catches on to the value of corporate venturing collaborations, navigating such ecosystems can be more complex but also more fruitful, with new ways to mitigate risk and share resources via corporate venturing enablers.

Complex times may call for complex – and bolder – solutions. Time for your firm to consider an enabler? ■

MORE INFO: “Open innovation: Improving your capability, deal flow, cost and speed with a corporate venturing ecosystem” by Josemaria Siota and M. Julia Prats, in collaboration with Gellify’s Diego Fernandez and Acciona’s Telmo Perez (IESE, 2020) can be downloaded from ieseinsight.com or visit iese.edu/entrepreneurship to find out about all the other entrepreneurship activities and resources available through IESE.

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DIGITAL | INNOVATION | TECHNOLOGY

THE BIG PICTURE

Teleworking: the new normal?

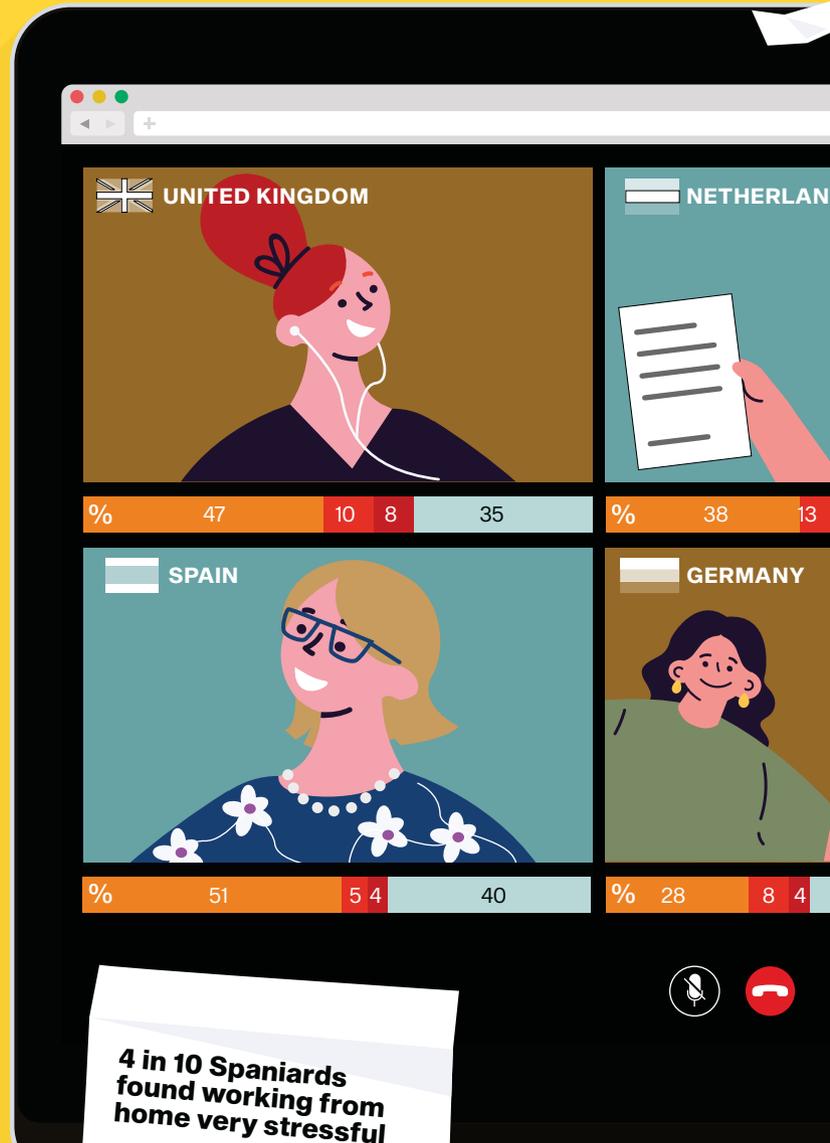
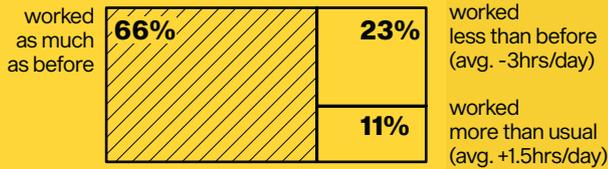
How did salaried professionals who had never worked from home before react to the experience during the coronavirus lockdowns? Do you see yourself in the results of these EU surveys? How might your work culture change as a result?

The 5 stages of grief

Everyone reported some negative feelings over the loss of face-to-face interactions with colleagues. Yet the majority (in all 6 EU countries) came to terms with teleworking during lockdown.



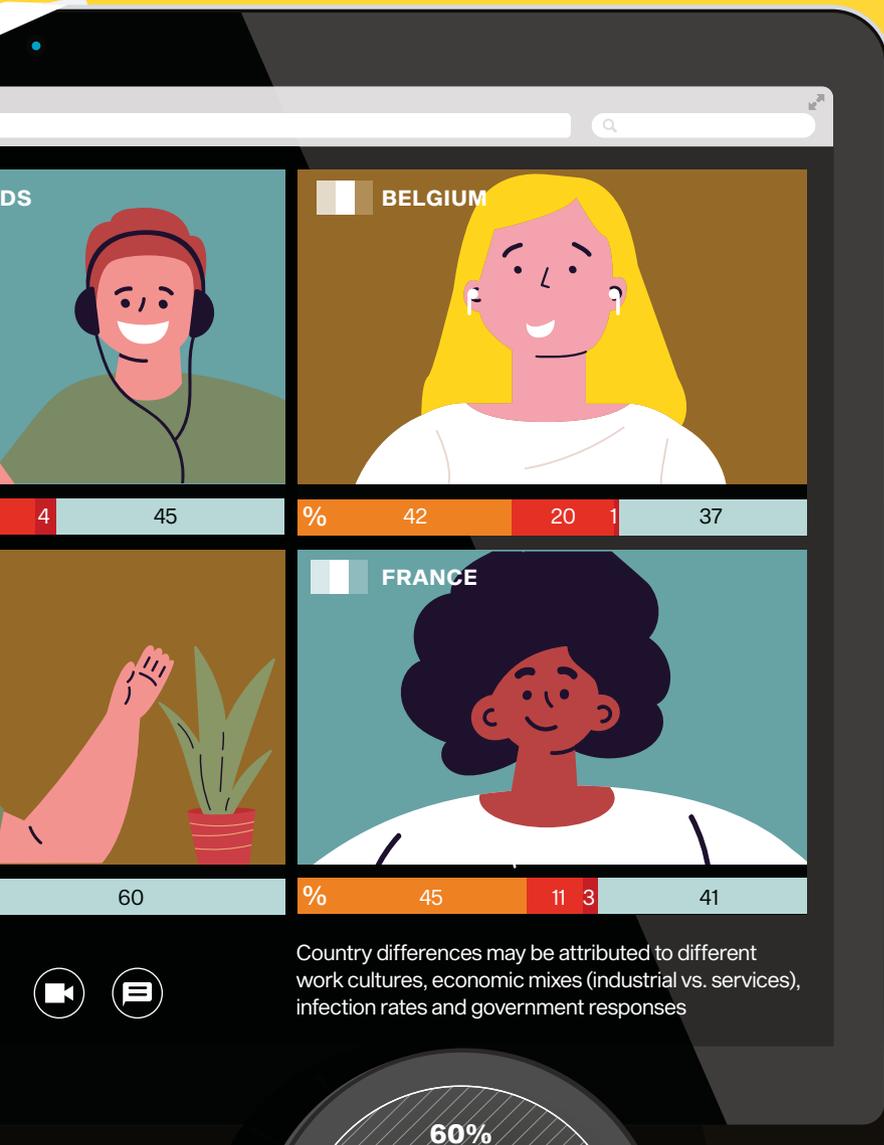
Time spent working during the lockdown



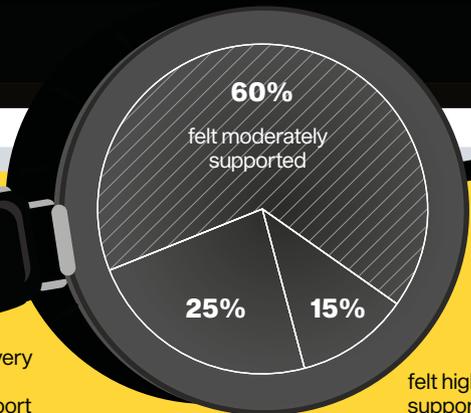
*Includes their openness to different ways of working and being understanding of employees' need to care for dependents – the case for twice as many women as men.

To what extent did Spanish workers feel supported by their boss?

% of active workforce working from home versus the office during the coronavirus outbreak (measured May 2020)



Country differences may be attributed to different work cultures, economic mixes (industrial vs. services), infection rates and government responses



Aspects to consider



Sebastian Reiche

Two IESE professors discuss the issues that your company may also be chatting about...

Do we need to rewrite our company policies for teleworking? 🤔

It depends on personal preferences as well as logistical and technical issues.



Mireia Las Heras

The best of both worlds may be to work remotely two or three days a week for personal productivity, while going into the office the other days to maintain workplace relationships and contact with the company culture.

What meetings should remain emails?

Only 20% of meetings need to be face-to-face, while the rest can be handled via videoconferences.

This may mean less business travel. ✈️

How can we continue to grow our digital capabilities acquired during the crisis?

The qualities that got us through the crisis – flexibility, generosity, initiative and an upbeat attitude – are worth preserving. 😊

I hope the remote work experiment has shown us the possibilities for designing work that is more flexible and accommodates different needs and circumstances. 👨‍👩‍👧‍👦

Continue the conversation in your company...

SOURCES: blog.iese.edu/expatriatus
mireialasheras.com/research-reports/telecommuting

Based on separate surveys by IESE's Jeroen Neckebrouck (with Cass Business School and the HR service provider SD Worx) and by Mireia Las Heras, director of the International Center for Work and Family. Read "Keys to telecommuting during, and after, the lockdown" at ieseinsight.com.

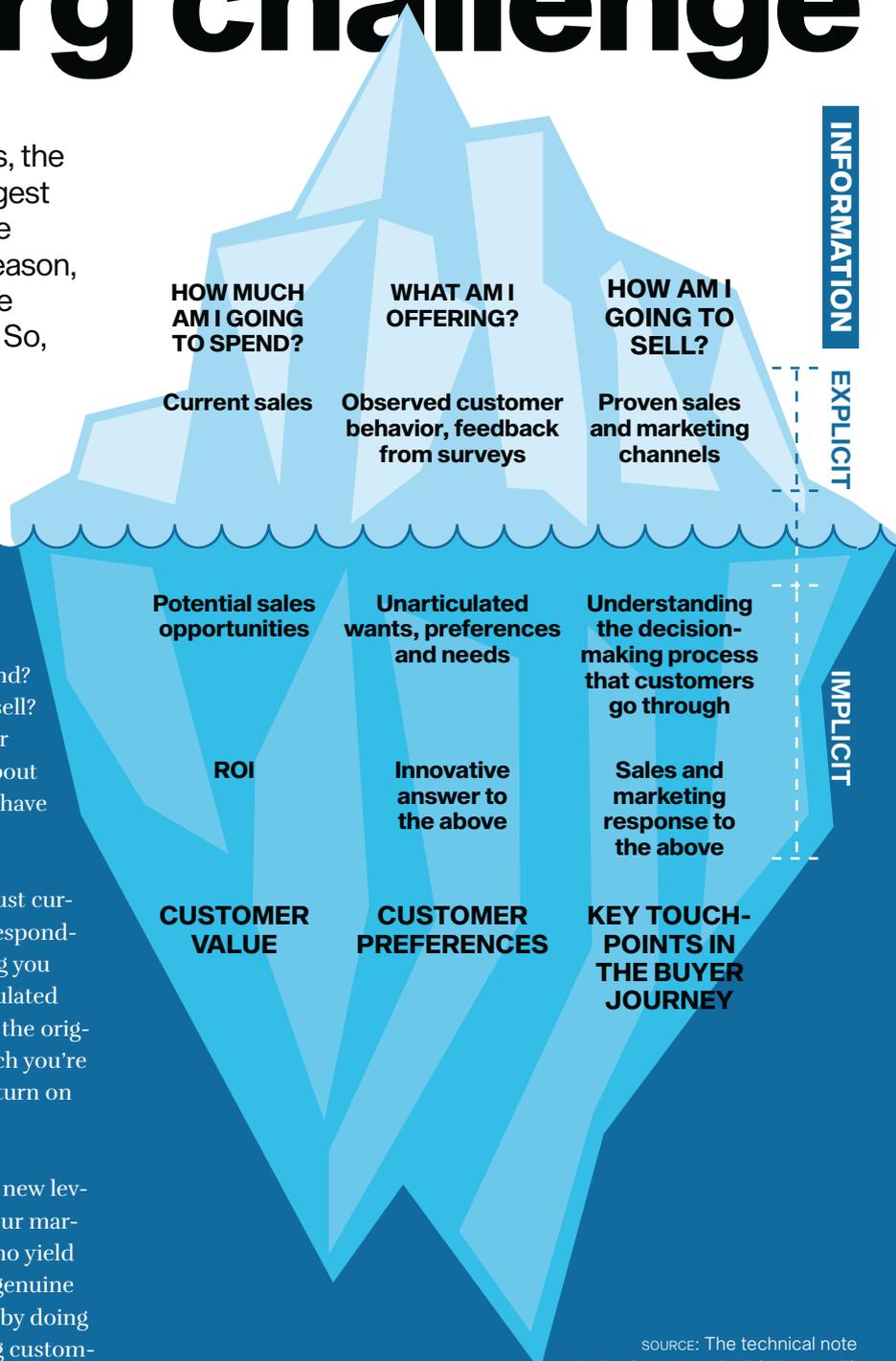
Iceberg challenge

When it comes to market segmentation, just like icebergs, the factors that could have the biggest impact on your business may lie beneath the surface. For this reason, IESE marketing professor Jorge Gonzalez uses this framework. So, dive in and develop a deeper understanding of your customers.

Sales and marketing departments typically start off with three basic questions: How much am I going to spend? What am I offering? How am I going to sell? To answer these questions, they consider current sales, what they already know about the customer, and which sales channels have worked so far.

But you must go deeper, exploring not just current but potential sales opportunities; responding not just to what customers are telling you they want but tapping into their unarticulated wants, preferences and needs. This flips the original questions, so it's no longer how much you're going to spend, but rather, what's the return on investment (ROI)?

You deepen your segmentation to reach new levels of abstraction – and insight. Thus, your marketing spend can be targeted at those who yield the most value. Your offer is tailored to genuine customer preferences. And you sell, not by doing things the same old way, but by reaching customers at the exact right moment in their journey when they are most predisposed to buy.



SOURCE: The technical note "Market Segmentation" (MN-400-E) by Jorge Gonzalez is available from www.iesepublishing.com.

Buying time for banking

Historically low interest rates, new regulation, rapid digitalization and growing competition from Big Tech and fintech startups were already challenging traditional banks well before COVID-19 (see The Big Picture in *IESE Business School Insight* #155). With the pandemic exacerbating these trends, here's where to focus next:



1

"The Bank Business Model in the Post-COVID-19 World," the second report in *The Future of Banking* series from IESE and the Centre for Economic Policy Research (CEPR), was prepared by IESE's Xavier Vives, with Elena Carletti (Bocconi), Stijn Claessens (Bank for International Settlements) and Antonio Fatas (INSEAD).

Banks should make the most of their trusted role as lenders, and leverage the temporary regulatory and supervisory relief that the crisis has afforded them, to revitalize their relationships with customers and build bulwarks against their challengers.

2

Consolidation could help banks gain the cost efficiencies and IT investment they need to survive. Beware that the strained political environment could make cross-border mergers more difficult as states become more protective of their national banking interests.

3

Regulators must strike a fine balance between protecting financial stability while facilitating healthy competition and innovation. The coordination of competition policy with prudent data-protection policies will involve complex trade-offs.

Though the impact of COVID-19 varies across sectors, all companies will need to pivot to adapt to the new normal. What can we learn from online companies, which seem to have been less drastically impacted? Heed these tips from Fuencisla Clemares, Country Manager for Google in Spain and Portugal.

Keys for pivoting your business

✓ Take care of your employees.

It's time to demonstrate your corporate values and put extra effort into looking after your people.

✓ Identify users' real needs.

Consumer behavior has grown more erratic. Dig deeper to understand the new breed of at-home consumer.

✓ Learn to work remotely.

Enable your employees to work from home. Make sure they have the equipment and resources they need.

✓ Redesign the office of the future.

Assess when and why employees need to be in the office, and switch to teleworking as appropriate. Many positions can benefit from teleworking, and companies can reap the benefit of employee productivity and satisfaction.

✓ Prioritize adaptability.

Besides adopting agile methodologies, make "learning ability" part of the employee hiring and development criteria.



WATCH: The full video with Fuencisla Clemares and Julian Villanueva is available in Spanish at [iese.edu/open](https://www.iese.edu/open).

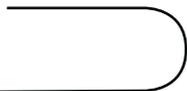


+IESE



Jonathan Lakin

Founder and CEO of Intent HQ, sponsor of IESE's Chair on Changing Consumer Behavior, currently held by marketing professor José Luis Nuño.





Companies that design for difference win every time

CREDIT: Marcus Perkins

When it comes to customer analytics, most companies think of what that data will enable them to do to their customers: sell more, increase plans, reduce costs. Jonathan Lakin had a different idea: using analytics to listen to customers and understand what they're *trying* to do – their intent. Thus, his company, Intent HQ, was born in 2010. Advances in artificial intelligence (AI) make it possible to sift through billions of signals from millions of customers to determine what matters to each person, and operationalize that insight.

It hasn't been easy: "The pace of AI is outstripping our ability to leverage it," says Lakin. The challenges are technical, requiring an entirely new way of processing data, as well as organizational, as companies need to change their old ways of working to take advantage of the AI opportunity. There are also challenges around privacy, which is where Intent HQ has focused its efforts to develop customer AI that "redefines what's possible both from a customer insight and a privacy perspective."

In this interview with José Luis Nuño, Lakin elaborates on managing these challenges when "playing to change the game."

How do telcos, one of your key clients, illustrate the shift that many companies need to go through?

Telcos are trying to reinvent themselves but reinvention is hard. While telcos' reputation for "invented here" might have been true in the past, today it is Apple, Samsung and the OTT players that get the glory. Yet there's still pressure on management to deliver consistent cash flow and margins, even though competition and 4G maturity have made commoditization more prevalent, and 5G requires a considerable capital investment whose benefits won't be immediately transformative.

All this requires a regime change. Because many of us in Intent HQ come from telco backgrounds, we get it. The capabilities we provide help to break down company silos, forcing telcos not just to rethink their business models but to turn them on their heads. We help them establish an ecosystem to

“We look for people who can ‘smell’ the data”

co-generate value for end customers, because collaboration and partnership now hold the key.

What else might companies be missing?

Many organizations have forgotten about the data gold sitting right under their noses – it’s just hidden in a lot of noise. Our AI looks at the customer activity data through a number of different lenses. Our IntentGraph has a semantic and a behavioral component. The semantic graph looks at language, so when someone says “Queen,” for example, we know whether they meant the band or the monarch. The behavioral graph looks at people who exhibit similar social behavior, such as going to the same type of restaurant or being persistent complainers. We start with the data we have – every tiny signal, every interaction – and then build out from there. It’s combining human behavior with quantitative measures that’s key to business transformation, particularly in detecting which customer behavior drives your KPIs.

What common mistake do you see analytics teams make?

Using averages, such as the average of all the interactions that happen in a day. While storing an average might seem a reasonable trade-off to spending money on storing every single piece of data, for many kinds of analyses, particularly those involving humans, we are unwittingly trading the cost for accuracy. Think of all the ways your own behavior is a bit quirky or different from the average person. By using averages, the products or experiences we design will be naturally less compelling.

Companies that design for difference win every time. The challenge is twofold: sifting all the data to find the key customer signal, and then operationalizing that insight at every touchpoint. This requires a completely different approach, not only to how you compute your data but to how you orchestrate it across the plethora of platforms and systems that make up today’s complex IT landscape.

How are you dealing with those challenges?

Think of the MP3 player. The core innovation was the algorithm that compressed the raw music file while retaining close to the original sound quality. That reshaped an entire industry and changed the way we relate to music forever. The same will be true for encoding raw customer activity data. To make data easy enough for data scientists to use every day, we need to compress and transform it without losing the meaning.

This is one of the things we do at Intent HQ: taking raw customer activity data, finding the signal, deciphering the meaning, removing sensitive data, turning it into vectors (for greater privacy) and making it available for data scientists. This new behavioral dataset can then be used to improve all the customer propensity models across an organization. This means organizations can start to talk to their customers more like a friend rather than as average revenue per user.

How about privacy concerns?

Customers want to be treated personally but they also demand privacy; it’s not an either/or. Most organizations, however, think about privacy one-dimensionally: as compliance with legislation. But privacy is ultimately about trust: demonstrating it, rewarding it and building it directly into the customer experience.

Building it into the experience fabric means thinking about privacy at every step of data flow. For example, in the data

layer, automatically removing sensitive data classes, like politics or health, before they can be used. In data processing, preventing the processing of data for restricted categories. And at the customer touchpoint, offering a graduated consent approach that builds a greater sense of value exchange.

Did COVID-19 affect your models if they were trained on prior behavior?

Churn is an area that saw obvious impact. In lockdown, churn was significantly reduced across most industries. This meant figuring out which customers were suffering hardship and providing solutions to mitigate churn later. This goes back to what I said earlier: focusing on understanding what a customer is *trying* to do, rather than just analyzing their current activity.

What management profile is necessary for what you do?

Talent alone isn't sufficient. You need to marry technical expertise with data curiosity and commercial savvy. When I did the Global Executive MBA at IESE, I recall a finance professor talking about developing a "smell for the numbers." I loved that concept. We look for people who can "smell the data," which is really about having an instinct or natural curiosity for finding the insight and stories in the data, and weaving together the many strands into a picture of the future. This kind of data curiosity is in short supply, and there's always a strong demand for it.

Which is more important for a manager: good instincts or lots of good data?

Both! You've got to have some intuition to select the types of data that will give you actionable insights. On the other hand, without good data, you're lost. It's wonderful how often the arrival of more data yields better insights, which will shape your instincts. Good instincts guide choices and select the actions the data will drive. Those actions generate more new data and, if done right, more new insights. We learn and improve. This goes back to that rare skill of data curiosity. That's what good management is all about. ■



CREDIT: Marcus Perkins

Technology transfer

Despite the popular perception, most breakthrough innovation is not the result of college dropouts brainstorming in their garages, but comes from years of research, often carried out in partnership with universities and R&D labs. How to ensure those great ideas move beyond the walls of academia and make it to market – in other words, how to achieve successful technology transfer? Here, three people tell their stories, below which we highlight some best practices.

Universities
R&D Labs
Entrepreneurs

Business Vision



Antonio González Prada
Director of Technology Transfer,
University of Navarra's research
center CEIT

One of the most common mistakes when setting up a tech company is focusing so much on the technology that you forget the business vision. Experience shows it's better to conceive of a product supported by technology rather than the other way around. Without any clear idea of the potential application of the technology you hope to sell, it makes little sense to conduct a market study, much less start a company. For this reason, sometimes the fact of having a registered patent can be overrated.

Many entrepreneurs make overly optimistic forecasts regarding sales and development times. Setting up an in-

dustrial production unit invariably entails delays, both in the reception of the equipment and in its subsequent deployment. Inexperienced entrepreneurs may also set unrealistic expectations, demanding either unreasonably large or exceedingly small stakes in the venture. Care must be taken not to increase expenses and investments too soon, before there is a solid base of sales to support the business in the medium term.

Assembling the right profiles will go a long way toward making sure everyone is speaking the same language, translating research discoveries into a viable business.

✓ **EXPAND YOUR BUSINESS VISION**

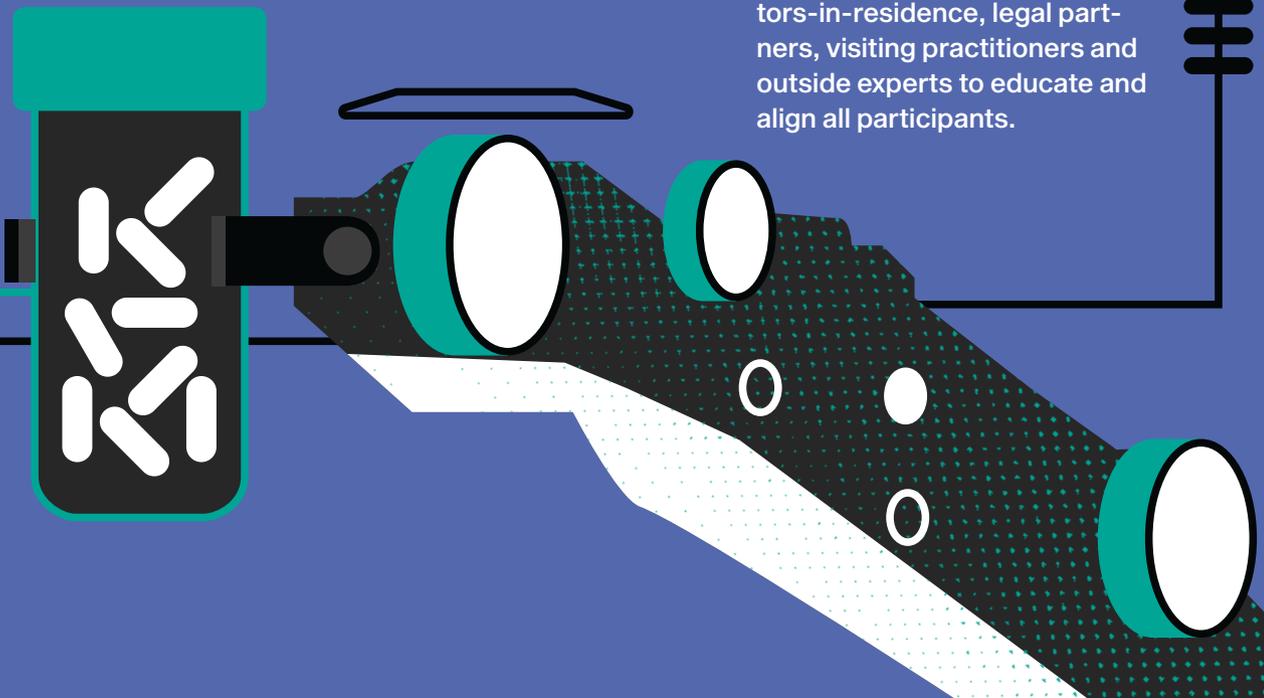
Identify which knowledge, skills and profiles you might be missing, and then complement whatever is lacking by connecting individuals from R&D labs, universities and companies.

✓ **STRIKE THE RIGHT BALANCE**

Economic sustainability and academic quality need not be opposing forces but should be aligned in an integrated vision that also includes social impact.

✓ **ENSURE DIVERSE TEAMS**

Having a mix of profiles – executives with MBAs and academics with PhDs, as well as gender, ethnic and geographic diversity – enhances rigor, relevance and performance. Offer coaching and mentoring through entrepreneurs-in-residence, investors-in-residence, legal partners, visiting practitioners and outside experts to educate and align all participants.





Giuseppe Scionti
CEO & Founder, NovaMeat

As a professor of bioengineering at the Polytechnic University of Catalonia (UPC) working in tissue engineering, I was interested in how I could impact the planet, not just the biomedical field. And who better than a tissue engineer to create an alternative to meat?

We came up with a unique technology to produce a plant-based meat substitute using a 3D printer. Although we started with the technology, we detected a growing trend in alternative proteins and a gap in the market, and we were able to get the timing right for our product.

One early misstep was that I created a prototype of a human ear and took that around to Michelin-starred chefs, who were surprised, to say the least.

But some of the chefs who were doing things in molecular gastronomy saw the potential. The next time, I created a steak and took that around instead. It was small and basic and didn't look much like a steak, but it was an important step. It pushed us to work on things like appearance, texture and other sensorial properties, like taste.

As important as it is to really know your technology, you also have to be creative, flexible and adaptable with it. As soon as we saw there was interest, we pivoted in that direction and have attracted lots of media attention as a result. You have to test the technology many times to make sure it works, but you also have to take risks when the timing is right.

IS THE BUSINESS APPLICATION CLEAR?

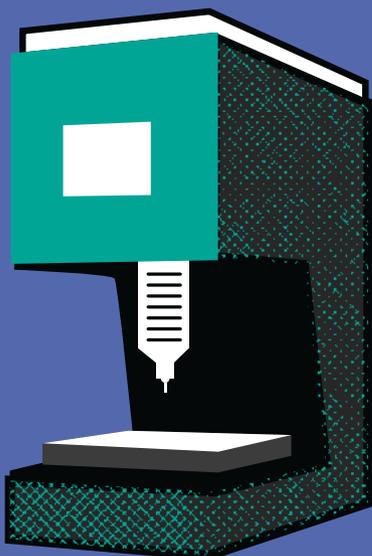
It's important to keep the research aligned with what's relevant for a client.

MAP MARKET NEEDS, USING THE PRINCIPLES OF DESIGN THINKING

- Identify customers who may use the invention.
- Understand and translate market needs into actionable insights.
- Prototyping allows researchers to make rapid iterations and subsequently adapt and learn from what does and doesn't work.

FOLLOW LEAN RESEARCH PRINCIPLES

Great work is frequently achieved via quick iteration and short feedback loops, so you understand the problem and pivot toward improvements quickly.





Charlie Pearmund

Managing Director,
Virtual Bodyworks

We work in the advanced area of medical virtual reality (VR). This is not about playing games; it's about using VR to change behavior, from managing chronic pain to recovering after a stroke. We started with two pioneers in the field – Mel Slater and Mavi Sanchez of the University of Barcelona (UB) – whose research showed that you could trick the brain into thinking the virtual body was real, and once you did that, you could manipulate the body to react in different ways.

Our experiments are done in labs with very powerful hardware. The results are impressive but the hardware is expensive. We prioritized the science in the belief that the VR hardware would eventually become more accessible. That meant sacrificing commercial interests

in the short-term, so we had to rely on grants and other sources of funding. We focused on a smaller number of customers to make sure that they could use this complex technology.

Our wait paid off. In 2019, VR headsets came to market that cost around \$400 and require no laptops, cables or sensors. That drastically reduces our hardware needs. Suddenly, we're much more scalable. We're now in a position to migrate to these headsets and seek more funding.

For us, the secret has been the caliber of our founders and sticking to the science. We've built a client base slowly and added functionalities very carefully. We were also able to read the market correctly for where VR investment was taking place.

PARTNER WITH RECOGNIZED PROFESSORS

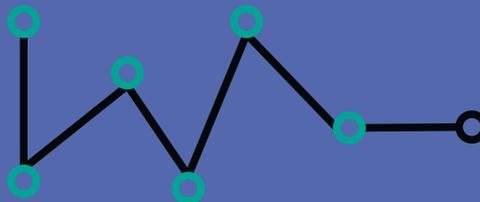
Improve your capabilities by partnering with renowned researchers. Collaboration is maximized when the team size is around two or three researchers.

BUILD A UNIT FOR RAISING PUBLIC FUNDS

Hire a specialist or partner with external consultancies who can help you prepare proposals, etc., leveraging their knowledge and resources of tapping public funds and lowering the costs of you having to do it.

IDENTIFY THE BENEFITS FOR A POTENTIAL CLIENT

Spend time raising awareness and visibility through industry networking events and conferences, laying the groundwork for the market to understand the implications, applications and value propositions of your research.



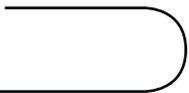
MORE INFO: IESE's Entrepreneurship and Innovation Center (EIC) produces reports and resources with more tips like those contained in "Technology Transfer: Commercializing Discoveries at Research Centers Through Linked Innovation" by Josemaria Siota, Tony Davila et al. Also, the Barcelona Technology Transfer Group (www.barcelonatechtransfer.com), created by IESE with support from the regional government agency ACCIÓ, brings MBA students together with scientists to come up with commercially viable inventions. BTG has been recognized by the AACSB, the world's largest business education alliance, for its efforts in encouraging entrepreneurial thinking and new business creation.



CREDIT: Edu Ferrer

Elena de Benavides

Founder of and investor in numerous startups. “Those who know me say I’m good at creative problem-solving and identifying talent – but they say my Spotify playlist is horrible. Oh well, I love it anyway! I move to a different beat.”





Managing the unknown

Elena de Benavides doesn't let unexpected setbacks get her down. She gets back up and continues innovating. Still under 40 years old, she has already founded seven startups. As proof of her entrepreneurial credentials, she is as happy to tout the fact that "five of them were failures" as she is that two were resounding successes, including one that led to her being named one of 10 young Spanish innovators of the year from no less than the Massachusetts Institute of Technology (MIT) before she was 30.

Benavides has invested in 10 other startups, the majority of which are still alive and in some cases growing strong. Her investment projects are as wide-ranging as Zapiens Tribe, a cloud-based knowledge management tool to improve information flows between people within an organization in order to train them, identify hidden talent

Is now a good or bad time to invest in startups? Serial entrepreneur Elena de Benavides sees the opportunities.

and boost their performance; Rebellion, a fintech offering banking services to Generation Z; and Mimento, an app to print photos from your mobile phone.

She has served as CEO of the International Institute of Phlebology (whose patented non-invasive treatment for vein diseases earned her the previously mentioned MIT distinction). She was investment director at Gala Ventures, a VC investor in early-stage tech startups. And she is currently Open Innovation & Entrepreneurship Lead for Elewit, the new venture arm of REE, the national electricity operator in Spain.

“No one can afford to stay put or stop experimenting. This implies philosophical, cultural and technological challenges”

Throughout all these pursuits, Benavides has had to learn to manage the unknown and take uncertainty in stride. So, when the coronavirus pandemic came along, it represented only the latest in an endless series of challenges that characterize the entrepreneurial journey.

Although some funding may dry up as investors look to place less risky bets, Benavides is not overly worried about the investment outlook, given that not all sectors of the economy or regions of the world are impacted equally. “There will always be winners and losers, in good times and bad,” she says. “It’s not worth waiting to see whether there will be a better time to invest. An opportunity is an opportunity, and maybe even more so when business conditions change in unexpected ways.”

Supporting female investors and entrepreneurs

Early in her career, Benavides learned that one way of reducing uncertainty was to draw upon the expertise and experience of seasoned investors and research-based institutions. For this

reason, she has joined IESE’s Business Angels Network, a community that brings together entrepreneurs and hundreds of active angel investors for networking events and forums, with a special focus on ongoing professional development and educational opportunities. She also serves as a mentor to IESE Women Angels, which promotes investment by women.

Not many are aware such opportunities exist. “At IESE Women Angels, we fully support female investors, sharing our experiences and concerns, and helping them overcome the various obstacles they may encounter during the early stages of their investment.”

Such support is especially valuable in Spain, where less than a quarter of startups are spearheaded by women, less than 10% of startup investors are women, and where female representation in positions of leadership in venture capital and private equity (VC/PE) is minimal.

Moreover, those working in VC/PE typically come from pure finance backgrounds. Benavides faced this additional hurdle when she transitioned from being a young female entrepreneur to working in the VC sector herself. She says that doing IESE’s *Programa de Desarrollo Directivo* (PDD) gave her the “practical understanding of finances, even though I’m not a finance specialist” that she needed and, just as important, “opened my mind and broadened my understanding of the many different facets of a company.”





CREDIT: Edu Ferrer

This broader vision helped her when it came to managing the emotional rollercoaster that startup teams go through, especially when the venture really starts to take off. “It was important to create a space where these peculiar dynamics could be better managed and understood, both between the company and its customers, and between investors and members of the startup team, where building trust is vital.”

Innovating for social impact

She also witnessed how the VC/PE field has evolved dramatically in Spain within the space of just a few years: “We professionalized very quickly. Many people came onto the scene and

the money poured in.” Which wasn’t necessarily a good thing: “Some valuations skyrocketed beyond what was reasonable.”

Having seen the highs and now the lows, some things don’t ever change, she says: “No one can afford to stay put or stop experimenting. This implies significant challenges – philosophical and cultural as well as technological – to completely understand not only the business model but also the social need that it meets.”

This latter point is something that has inspired Benavides from the beginning of her career and that is more relevant than ever in the current environment. “Coming up with a business innovation that improves the well-being of millions of people is how I got my start. Now, with Elewit, we’re looking for sustainable projects that boost the energy transition and that might alleviate the impact of COVID-19 through innovation. I need to really believe in what I’m doing every moment. And this is the moment.” ■

IESE’s Business Angels Network

Active since 2003 in bringing together investors and entrepreneurs, with 250+ startups financed with €50m+ in direct investment.

IESE Women Angels

More than 25 women-led startups have been financed by female business angels since this initiative was launched in 2017.

iese.edu/entrepreneurship/business-angels

ARTICLE BY: Gonzalo Toca

MARKET READY

Digital skills, particularly with AI, as well as entrepreneurial initiative, leadership and communication ability: these are highly in demand, according to a recent IESE study that calls upon universities to better prepare graduates for what today's market wants and needs. With COVID-19 creating an uncertain job market, these young leaders share what IESE's Master's in Management (MiM) taught them about launching a career in 2020.



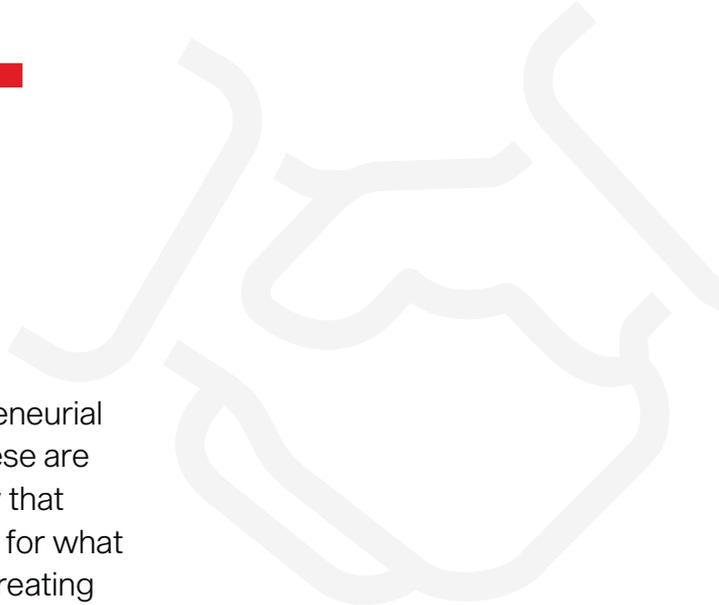
Companies need human capabilities to solve complex problems

Enrico Fausti

Job offer:
Credit Suisse



My Economics and Finance bachelor's degree was quite theoretical, so I was looking for a completely different experience, one that would change my mindset, that was practical and focused on problem-solving, and that would help me grow and prepare me for who I would need to become in the future.



Companies aren't just looking for tech skills – though those are important. AI, machine learning and big data are changing everything, and those of us in the early stages of our careers need to be ready to manage those innovations. Entire areas of trading and asset management are changing fast.

Even so, technology doesn't determine everything. Supply and demand are still the result of human behaviors. Personal relationships and human irrationality will continue to form a core part of financial decision-making and management. Companies also need human capabilities and talented people with social intelligence who are able to come up with smart solutions for the complex problems we face today.

Eventually, I'd like to be a director of an investment bank, but for now my focus is on continuing to learn and understand how to think critically and solve business problems. What's true of senior managers is also true of students: Building a solid base of knowledge will help you go wherever you want.



Companies will only ever be as innovative as the environment they create

Emma Lotz

Job offer: Procter & Gamble

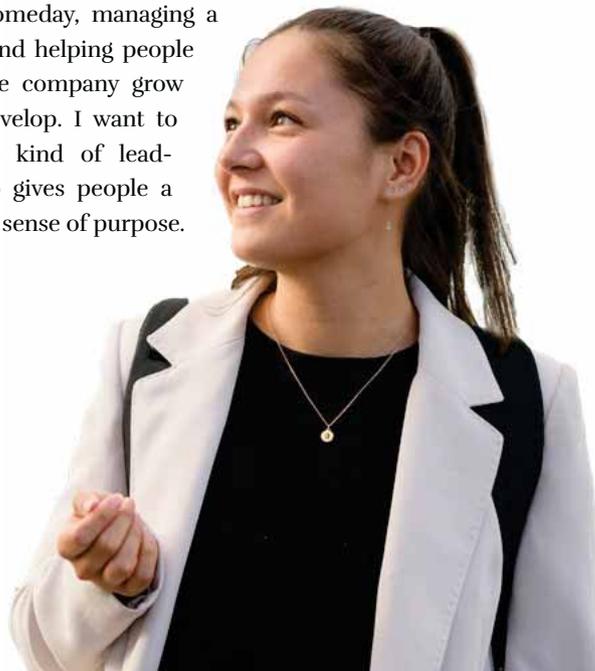
Having studied International Business in France and the Netherlands, I was ready to explore various management fields with people from diverse backgrounds. A career path can go in many different directions, so it's important to know which steps you want to take to reach your own personal goals. Learning how to analyze and see problems from many different angles, without being given the answer, is a vital skill for that path, as is knowing how to network.

Given the extraordinary times we're living through right now, you really need to reflect on the skills that companies will value, and invest in learning. What are your key assets and selling points? Although it may be strange to be starting a career now, it can also be an exciting opportunity to discover new positions and sectors you might not have considered before. Any opportunity to learn can be a dream job. Focus on developing transferable skills in preparation for better times ahead.

I'm comfortable with technology and the online world of work. Companies know that for them to embrace technological change, they increasingly need to recruit and retain such talent. They

know they'll only ever be as innovative as the environment they create, so they are keenly searching for people with critical awareness of the technologies that will become the disruptive forces of tomorrow.

I'm excited to get started. I hope to become a leading expert in my field someday, managing a team and helping people and the company grow and develop. I want to be the kind of leader who gives people a greater sense of purpose.



MiM

at a glance

Average age

23

Work experience

Up to 2 years (average)

Diversity

Participants represent up to
17 nationalities

Recognized

IESE, being part of the University of Navarra, is able to confer a Master in Management certified by the Spanish Ministry of Education.

Growing

After a successful inaugural 2019-20 class, IESE is oversubscribed for 2020-21.

mim.iese.edu

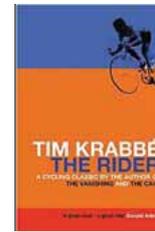
SMART PICKS

Food for thought



Stretch assignment

There are loads of resources to help us cope with the physical, emotional and mental strains of living life and going to work in the age of coronavirus. As the line between work and home blurs, it becomes all the more important that we make time to detach from work. The resources listed here can help you keep your head and stay healthy. But remember, as much as reading about sports or watching an inspirational video with a world-class athlete may offer respite from work, nothing beats getting up, moving around and practicing the healthy habits and regular physical activities highlighted by these resources.



The Rider

If you're a cycling enthusiast frustrated by lockdowns, then this novel by the famous Dutch writer Tim Krabbe, himself a cyclist, might be for you: It's a loving, imaginative and, above all, passionate tribute to cycling, reflecting what goes on inside a rider's mind as he competes in a French bike race. It has been hailed as capturing the highs and lows of the cycling experience in prose, which ends up being no less than an ode to life.



Learning from adversity: A conversation with Pau Gasol

"We can't control the many things that happen to us in life," says the NBA All-Star Pau Gasol, "but we can control our reaction to them." Gasol reacts with positivity, telling IESE professor Santiago Alvarez de Mon that "we can be nostalgic for how things used to be, or we can evolve and grow." During this 50-minute conversation, Gasol also highlights our interconnectedness as human beings and the need for teamwork.

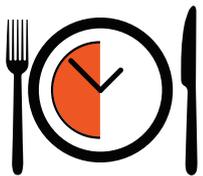


This is one of dozens of live sessions and open-access resources available at [iese.edu/open](https://www.iese.edu/open) to inspire the business community to proactively overcome the crisis.



TheMinimalists.com

In 2011, Joshua Fields Millburn and Ryan Nicodemus walked away from their corporate careers in search of a simpler life. If the lockdowns got you thinking, like them, of “living a meaningful life with less stuff,” then The Minimalists are for you. Their black-and-white site is full of stark truths. Listen to their podcasts or audiobooks while exercising or clearing out the (literal or figurative) clutter in your life.



Intermittent Fasting

Fasting, a spiritual discipline going back to biblical times, has more

recently been embraced for its health benefits. There is growing medical support for intermittent fasting (IF), which, rather than going days without eating, consists of time-restricted eating, aligning meal times with circadian rhythms. So, no late-night eating or snacking, and a later breakfast, which is better for metabolism. When combined with a Mediterranean diet and a healthy, active lifestyle, IF has been shown to lower blood sugar and blood pressure, and enhance brain function, not to mention contributing to weight loss. Something to consider for those looking to shed those quarantine kilos. There are numerous apps to help you create your own fasting plan, track health metrics, keep mood journals, and more. Here are three of the most popular:



- zerofasting.com
- lifeapps.io/apps/life-fasting-tracker
- bodyfast.de



Headspace.com

Guided meditations, articles and videos brought to you by an advertising executive and a sports student turned monk who now work with athletes and business leaders

“to demystify the mystical” and “give you tools and resources to look after your mind.”

FROM MY DESK

By Jeroen Neckebrouck

Assistant Professor of Entrepreneurship



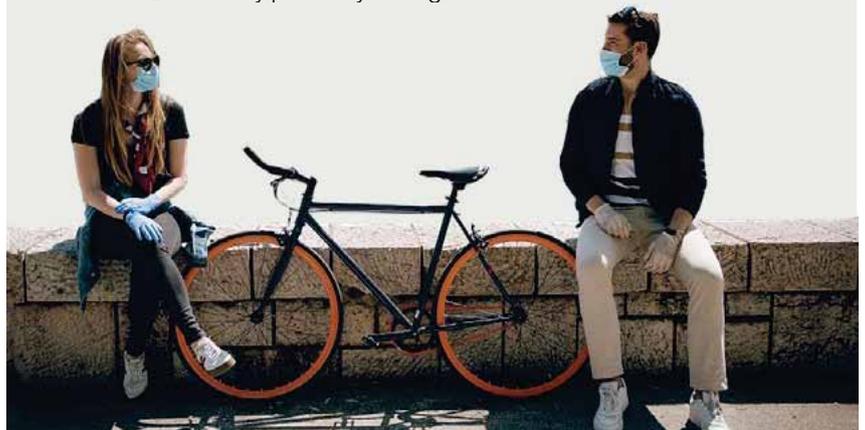
Move it or lose it

Did you miss going to the gym during lockdown? Personally, I missed cycling. The health benefits of physical activity are well-documented, including it being one of the best ways to boost the immune system. It also has psychological benefits. Engaging in physical exercise helps us to switch off, reduces stress and enhances well-being, giving us the detachment from work that we all occasionally need, which will ultimately give us more energy to be effective at work.

In April 2020, at the height of the lockdowns, I surveyed European workers who had been physically active prior to the pandemic to examine their changed habits during the coronavirus lockdowns and the effects on their well-being. Interestingly, 75% of those who maintained some form of physical activity – even in a reduced or different form from what they were doing before – reported having an easier time being able to detach from work.

Continuity matters: Those who exercised more regularly prior to lockdown lost less of their ability to detach when doing physical exercise during the lockdown. So, whatever activity you were doing before, keep doing it. It’s important to develop good habits, especially if we intend to work from home longer term or if there’s another COVID wave and we find ourselves stuck indoors again.

If you’re currently not doing anything, there’s no better motivation than a global health crisis to get started. Experts recommend 2.5 hours a week of moderate-intensity exercise, meaning you should break a sweat but still be able to speak. The type of physical activity doesn’t matter as much as actually doing it. It could be as simple as walking or cycling instead of driving, getting off the bus a few stops earlier and walking the final stretch to work, or taking the stairs. And if it’s not possible to go outside and have physical activity in real life together with others, our survey also showed that being active on virtual platforms where you could at least see others – such as doing yoga virtually with a coach or with others online – is also beneficial. But the key point is: you’ve got to move.



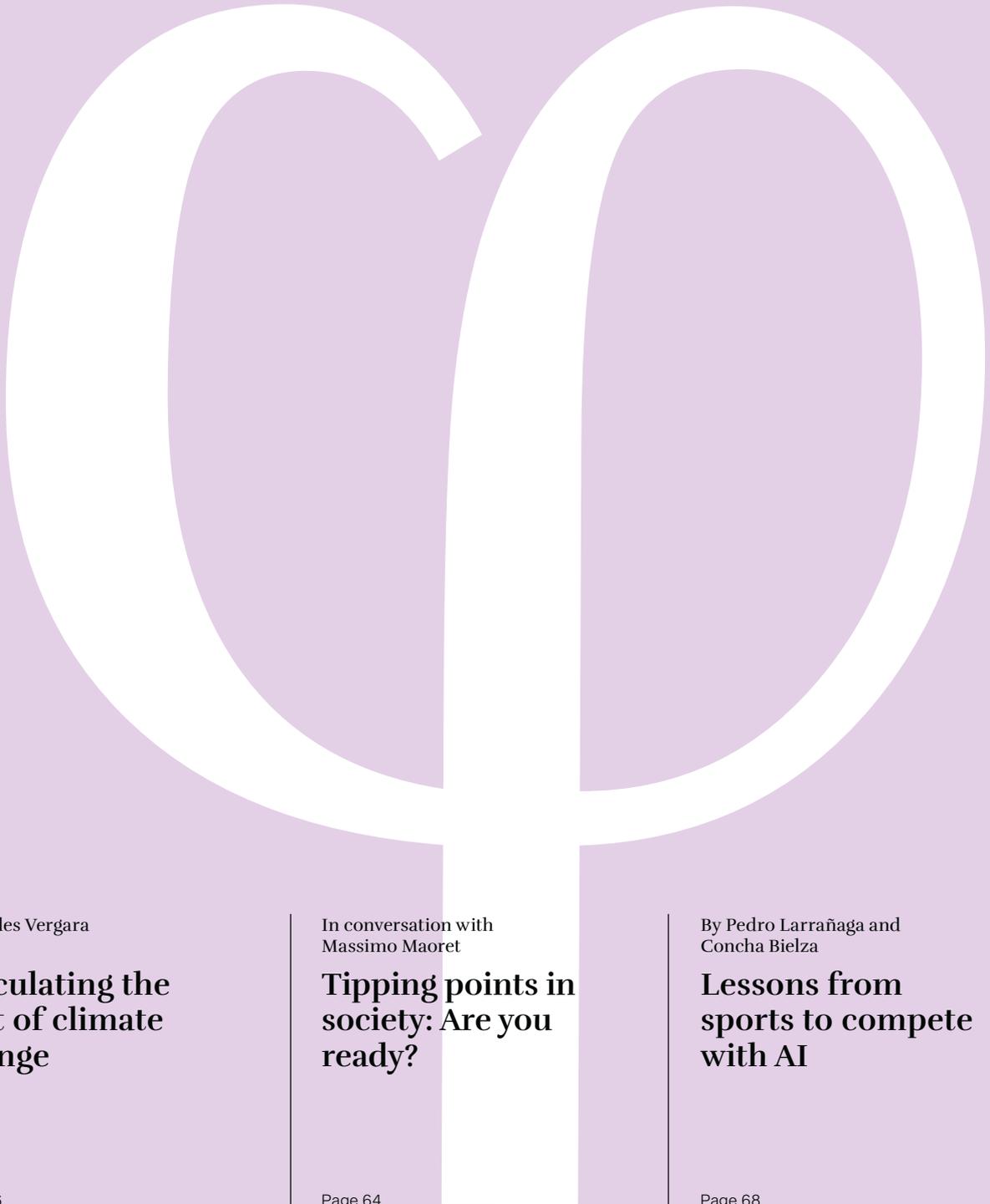


No pandemic should stop **talent**

Covid-19 Scholarships

At IESE, we want to make sure that COVID-19 doesn't prevent promising talent from studying with us. That's why we've launched our COVID-19 Scholarship program, aimed at young professionals interested in pursuing one of our Master's degrees and at high-potential managers working in sectors hardest hit by the pandemic.

KNOW



By Carles Vergara

Calculating the cost of climate change

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In conversation with
Massimo Maoret

Tipping points in society: Are you ready?

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By Pedro Larrañaga and
Concha Bielza

Lessons from sports to compete with AI

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Calculating the cost of climate change

By Carles Vergara

The coronavirus was only the latest disaster to hit real-estate markets. Now is the time to think more, not less, about the effects of climate change on your business.





As companies reconfigure their business strategies in light of the global health crisis, one of the smartest things they can do is factor in climate change, if they haven't already. Climate change was impacting businesses around the world even before the onset of COVID-19, on top of ongoing disruptions related to technology, demographic shifts and globalization. The coronavirus pandemic has amplified all these risks, bringing them into sharp relief.

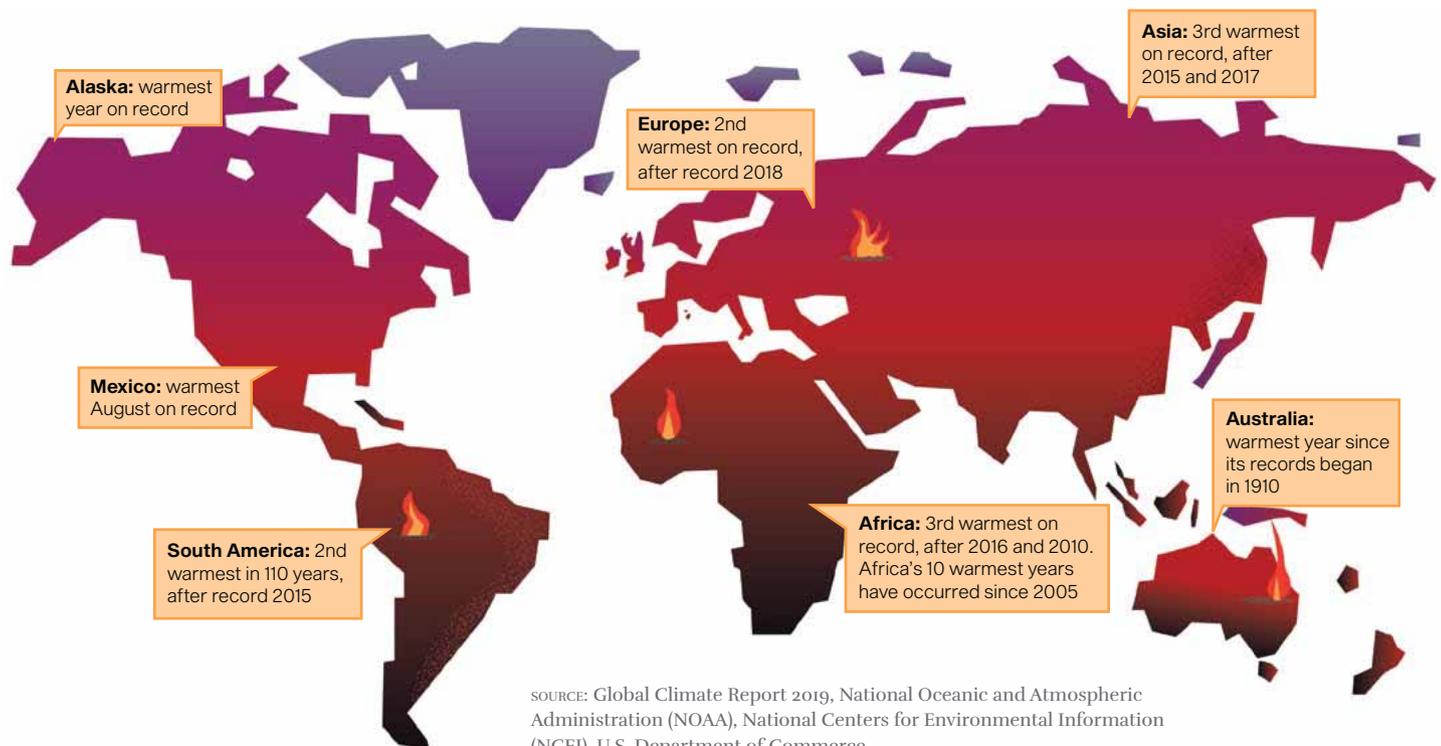
Now, as we find ourselves adapting to what some are calling "the big reset," it's worth considering how to better prepare your business for extreme events. My research on real-estate markets tested by climate change illustrates how companies across different sectors may need to recalculate the costs and their exposure to assets susceptible to abrupt value losses owing to climate-related catastrophes.

The rise of catastrophic events

The rise of extreme events will make some locations that were once desirable places to live, visit, work or trade become less so. Whether pandemics such as COVID-19 or climate-related disasters, recent events have exposed systemic weaknesses that, unless addressed, will continue to afflict certain locations more than others, with direct or indirect impacts on business activity. Real-estate industry professionals, in particular, should be keeping a closer eye on them.

My research with colleagues from the Haas School of Business of the University of California, Berkeley, highlights the consequences of destructive events on real-estate markets, with wide-ranging implications for mortgage lenders and insurance companies, but also for construction companies, developers, urban planners, infrastructure providers, regulators and property owners. Specifically, we studied wildfires in California over two

Significant climate anomalies in 2019



The rise of extreme events will make once-desirable locations to live, work or trade become less so

decades, merging data on fires, mortgages, property characteristics and weather.

Our findings were surprising – though there should be nothing surprising about climate-related events like fires and flooding, which are happening with such frequency that no business should treat them as “black swans.” In California, wildfires have become so commonplace that people no longer talk of a wildfire “season” anymore. They happen all year long and are expected to increase in frequency and severity, owing to warmer and drier conditions.

At the same time, other factors are contributing to wildfires in the state: more homes being built in forested areas; a buildup of brush growth that ends up fueling larger fires; and aging power lines. The latter were directly linked to the so-called Camp Fire in 2018, which destroyed around 19,000 homes and other structures and killed 85 people (with one person still missing). It was the deadliest wildfire in California’s history, the most expensive in the world in terms of insured losses, and it bankrupted Pacific Gas & Electric (PG&E), the utility company responsible for the faulty lines.

Wildfires in other regions of the United States, from Appalachia to Alaska, have also become more prevalent. And many other countries are experiencing similar trends. In Australia, the bushfire “season” that began in June 2019 continued well into 2020. Although January 2020 may seem

like a lifetime ago, the Australian bushfires were the top story in the world until they got eclipsed by COVID-19.

Apart from the destruction of millions of acres of land and thousands of homes and buildings, these events cause important drops in air quality, with smoke in the case of Australia reaching Chile and Argentina. (We don’t have to think too far back, either, to remember the havoc wreaked when the eruption of an Icelandic volcano spewed an ash cloud that closed European airspace, cancelled over 100,000 flights, and disrupted businesses, supply chains and travel during the spring of 2010.)

Flooding events are also multiplying. An OECD study on Cities and Climate Change listed Miami, Guangzhou, New York, Kolkata and Shanghai as the top five cities in terms of assets exposed to coastal flooding, in that order. A two-meter rise in sea levels would mean the disappearance of Miami Beach; with three meters, the land where San Francisco’s airports are located today will be underwater. Tokyo, Hong Kong, Amsterdam and Rotterdam are also predicted to be significantly affected.

Meanwhile, in 2019, England and Wales experienced the wettest February since 1766, when recordkeeping began, causing severe winter flooding and infrastructural damage at a time when more real estate urgently needs to be built to deal with serious housing shortages across Britain.

Tackling the issue

What should business leaders, particularly those in at-risk geographical areas, do to grapple with these extreme (yet largely foreseeable) challenges?

ANALYZE YOUR EXPOSURE. First, recognize that, no matter how remote the issue may seem today, it *will* impact your industry in some way soon. Have you analyzed your exposure to climate-related

risk? Do your competitive advantage and investment decisions include the impact of climate change and, now, pandemics? How are competitors likely to respond to these same risks?

ADJUST YOUR STRATEGIES AND BUSINESS MODELS.

Second, think deeply about how climate change and other extreme events should be factored into your business strategies. Start gathering data that can be incorporated into your business models and can guide your decision-making. By introducing climate change and other risks into your business models, it will be possible to identify new opportunities and avenues for growth.

Changes in location, for example, can create new business opportunities. Locations with once livable temperatures will become hotter, making them more difficult to endure for some people. As a result, the way cities are designed and the materials used in buildings will change. Green buildings will remain attractive, since they offer cost savings on utility bills due to greater energy and water efficiency, and deliver higher property values for developers. How communities address these issues will be vital to their attractiveness.

MAKE REASONABLE IMPROVEMENTS. With regard to the adage of a disaster being an opportunity for change, we found that to be the case in our research.

As you would expect after a fire, we found an uptick in mortgage delinquency and foreclosure rates. However, what surprised us from our data set of houses and mortgages and California wildfires between 2000 and 2018 was that the larger the fire, the lower the level of default and foreclosure. And instead of moving away from the affected area, as is generally the case after a disaster, homeowners continued paying their mortgages and rebuilt homes that ended up having an even greater estimated market value. Based on data taken from one neighborhood,

The bigger the devastation, the more that homeowners are required to rebuild according to stricter codes

homes that were once valued at an average of around \$200,000 were rebuilt and are now worth \$1 million or more.

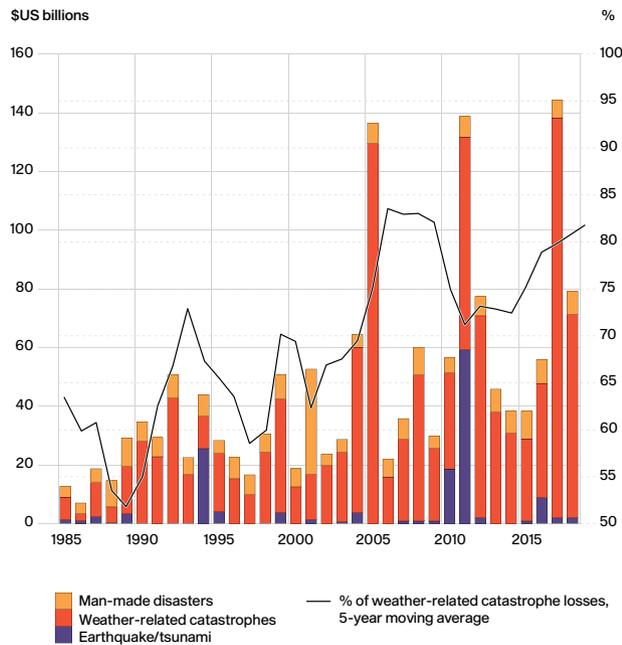
How can this be so? Our research suggests this happens because of externalities associated with large destructive events. The bigger the devastation, the more that homeowners are required to rebuild according to stricter codes and the stricter requirements demanded by insurance companies in order for them to continue granting coverage. These factors work together, leading to the reconstruction of homes that are more modernized in terms of infrastructure, which in turn makes them more valuable.

Schneider Electric's Chief Innovation Officer Emmanuel Lagarrigue noted a similar trend at work in an IESE video talk on the consequences of the coronavirus lockdowns: "We're seeing a lot of innovations in the residential market. If people are staying at home and realizing that their vacations this year will be at home, they're investing more in their homes. In places like California and Australia, where there are electrical grid failures, people are investing in solar storage systems to make

Weather-related insured losses and the number of natural loss events are increasing

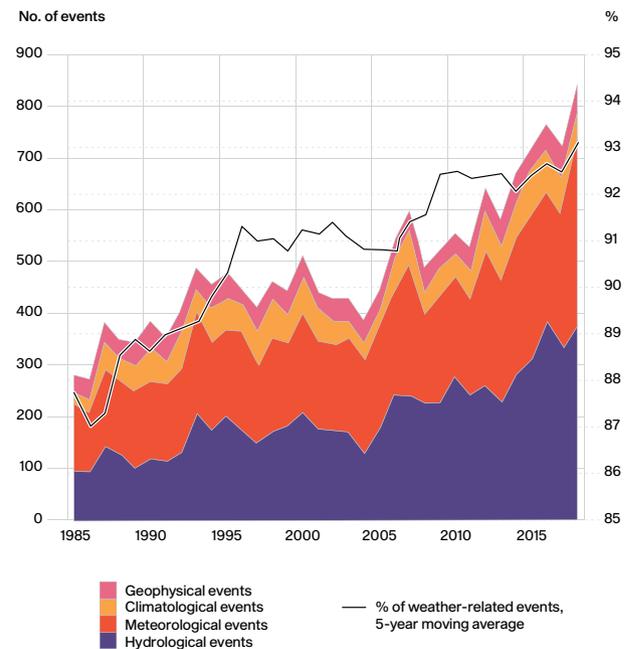
Global insured catastrophe losses

The share of weather-related catastrophe losses has increased steadily to account for over 80% of insured catastrophe losses in 2018.



Number of relevant natural loss events worldwide

The upward trend is accompanied by a growing frequency of weather-related loss events, the number of which hit a record in 2018.



SOURCE: European Central Bank

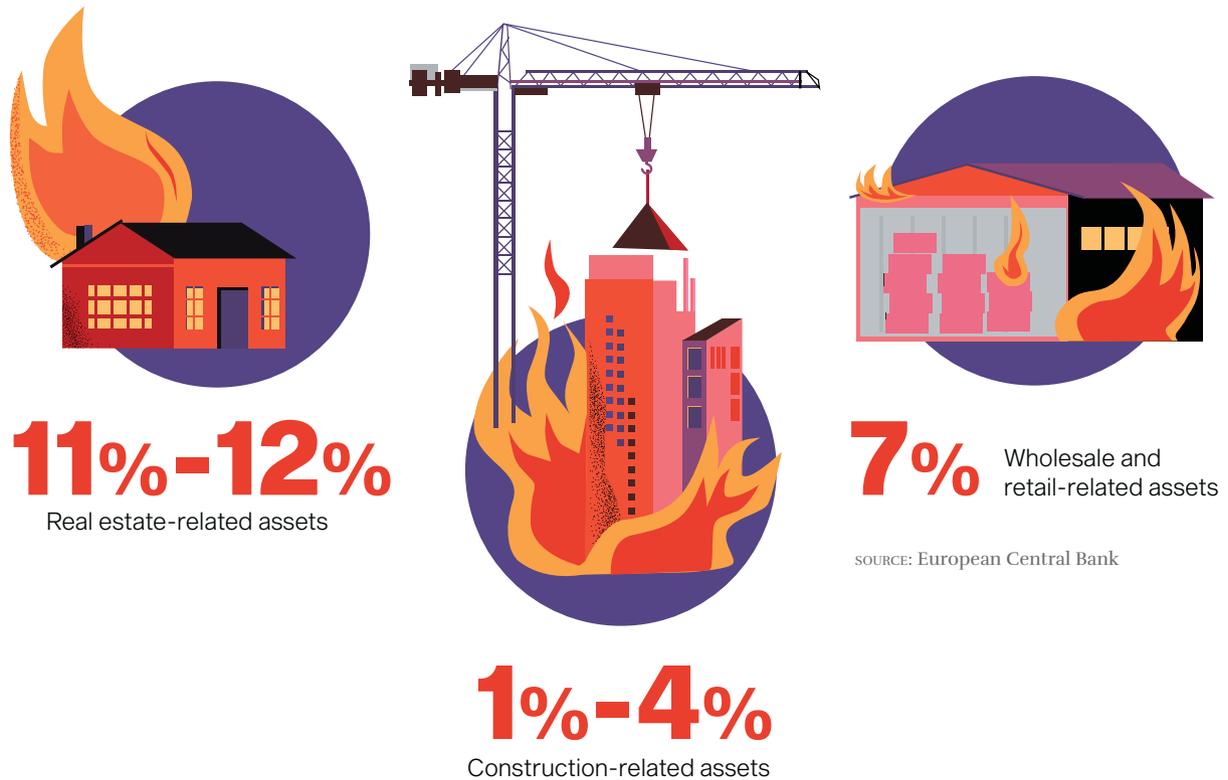
their homes more economical and sustainable. Trends like these have been one of the big surprises of the crisis.”

Bear in mind this dynamic only works so long as there is a well-functioning financial services market to continue to cover costs. The size of recent losses, compounded by the additional costs being racked up from the coronavirus pandemic, casts doubt on the continued ability of financial service providers to absorb more losses. Reinvesting in the same spot may not be the most sustainable solution. There are a lot of ifs – chief among them, whether climate-risk trendlines are improving or deteriorating in a given area.

PLAN FOR THE LONG-TERM RAMIFICATIONS. As the previous points indicate, homeowners and businesses may benefit from making immediate upgrades to account for climate risk, and those who prepare sooner rather than later are also more likely to benefit. That being said, there’s no escaping the fact that, over time, insurance will only get more expensive. In California, state regulators have prohibited insurance companies from dropping policyholders, imposing a one-year moratorium in areas struck by fires. Even so, any such measures are temporary. Insurance rates are still skyrocketing, making insurance less and less affordable for those who need it most.

Sectoral exposure statistics can provide a first approximation of risk

Euro area banks' exposures as a share of total exposures



In some cases, insurers may no longer be willing to insure properties. Without insurance, it will be impossible to obtain a mortgage. This means people will have to pay in cash, which will limit demand. This will have an important effect on mortgage markets and housing prices.

You already see this trend among lenders. JPMorgan Chase, one of the largest mortgage lenders in the U.S., was among the first to raise borrowing standards in April 2020 as the coronavirus lockdown began to bite there, and many other banks soon followed suit, tightening their lending requirements, raising minimum credit scores and demanding bigger down payments, from an average of 6-10% to 20% or more. As one report noted: “At a time when it’s challenging enough to buy or

sell a home due to social distancing guidelines, these changes in mortgage policies will make it even more difficult for many first-time applicants to access funding. It’s an especially cruel position to be in when historically low interest rates means credit is cheaper than ever.” Longer term, this would contribute to a widening of the wealth gap – something that was already at unsustainable levels before the latest crisis hit.

Between climate change and COVID-19, those offering financial services face unprecedented challenges and greater levels of systemic risk. Those working in the industry should be building new benchmarks and doing regular risk modeling similar to the stress-tests developed and carried out by central banks following the 2008 global financial crisis.



The author



Carles Vergara is a professor and head of the Financial Management Department at IESE. He has been a visiting professor at the University of California, Berkeley, where he earned two master's degrees and a PhD in Finance and Real Estate, his main research interests.

Earlier this year, the European Central Bank (ECB) announced that it would be assessing banks, insurance and reinsurance companies, credit agencies and other financial institutions in terms of how well they were approaching climate-related risks and pricing it into the market. The ECB defined three categories of risk:

- **Disregard:** Does your company disregard the risk of climate change, leading you to price risk inappropriately or not keep enough in reserve?
- **Delay:** Have you not gotten around to analyzing your exposure? You may find yourself scrambling to catch up as new regulations and disclosure requirements demand that you report on your exposure or get left behind.
- **Deficiency:** Do your risk assessments ensure sufficient quantity and quality of resources to mitigate the impact and pay for the costs of future disasters?

It's worth reflecting on these in terms of your own business. No one can consider themselves immune.

In his 2020 letter to investors, BlackRock Chairman and CEO Larry Fink was in no doubt: "What will happen to the 30-year mortgage – a key building block of finance – if lenders can't estimate the impact of climate risk over such a long timeline, and if there is no viable market for flood or fire insurance in impacted areas? From Europe to Australia, South America to China, Florida to Oregon, investors are seeking to understand both the physical risks associated with climate change as well as the ways that climate policy will impact prices, costs and demand across the entire economy. These questions are driving a profound reassessment of risk and asset values."

Although COVID-19 has understandably dominated the 2020 agenda, businesses must not take their eyes off the ball and ignore the ongoing, no-less-existential threats posed by climate change. If, as some believe, the coronavirus pandemic reinforces the case for more responsiveness and engagement, and a shoring up of our systems and institutions to deal more effectively with exogenous shocks, then we should expect – and demand – more thorough risk assessments of climate-related events. ■

READ MORE: "Mortgage Markets with Climate-Change Risk: Evidence from Wildfires in California" by Paulo Issler, Richard Stanton, Carles Vergara and Nancy Wallace. Working Paper (2020).

Tipping points in society: Are you ready?



In conversation with Massimo Maoret

Associate Professor of Strategic Management at IESE and European Commission Marie Curie Fellow

To develop sound business strategy, it's important to understand the prevailing beliefs and values of a society, as well as the legal context. Here's why you need to be paying attention.

From climate change to data privacy to global movements calling for institutional reform, the legal environment can change swiftly even without a change in the law, and industries need to be paying attention. Massimo Maoret, an associate professor of strategic management at IESE, recently wrote a paper on this topic with Simona Giorgi (University of Bath) and Edward Zajac (Kellogg School of Management, Northwestern University). In this interview, he explains how public sentiment, beliefs and values affect companies, especially in terms of the enforcement of regulations, and why industries need to keep their finger on the pulse of societal culture.

Your paper talks about “the role of cultural consonance.” What is that?

“Cultural consonance” is the idea that society has specific cultural symbols, beliefs and values, any of which may be more or less prevalent at a specific time. This is societal rather than national culture, meaning that it refers to a specific population rather than to any nation.



ILLUSTRATIONS: JOJO CRUZ

In our paper we study a historical case that can tell us a lot about the present day: the evolution of automobile safety laws in the United States between 1966 and 1980.

In 1966, the National Traffic and Motor Vehicle Safety Act was passed, which for the first time established a federal regulator and a set of safety standards. It was approved unanimously, an unusual event in American history, which goes to show how clearly society saw there was a safety problem on their roads: it was seen as an epidemic, resulting in thousands of avoidable deaths. The law mandated automakers to include several safety features into their cars, most famously seat belts. Automakers weren't too happy about this, because adding these features meant adding extra costs. We can say there was something of a power battle, in the early years, between the federal regulators, enforcing safety features, and the industry, fighting to minimize the safety requirements.

This specific case is interesting because you see a switch in the middle of the power battle. From

1967 to 1972, regulators were able to add and enforce safety standards, which saved thousands of lives. The attitude was that safety was paramount, combined with a general faith in science in the United States, brought about by the moon landing and the Space Race. In society, there was little focus on cost, and the prevalent belief was that you could engineer safety.

But then things changed. In 1973 there was the oil crisis and cost considerations began to creep in more widely in society. The auto industry started to claim that safety could not be unconnected to cost, and that such costs would be borne by the consumers. And they were able to successfully challenge the regulators because "engineering will solve everything" was no longer the attitude of the day; instead, people were worried about unemployment rates and other costs. What happened was a shift in culture.

We used this historical example because it's easier to see some of these transformations in retrospect, and to see that it's not a story about the

technical aspects of the law. It's really a story of a regulatory agency that lost power because the society's symbolic idea of safety fundamentally changed. Similar stories are playing out around us every day.

In your paper, you describe an “undulating battle for relative power, influenced by cultural consonance.”

It's “undulating” because power can shift from one side to the other. And it depends on how society looks at it. So, sometimes we might see that an industry is strong enough to avoid regulation, because of its importance to a country's GDP, for example. Other times the dominant belief might be that because an industry is so strong, it needs to be regulated. And the balance of power can shift. Depending on what's foremost in our minds at a given time, we justify – and, most important, enforce – specific laws; or we don't.

Let's think about regulating Facebook. There's a clear debate about this. Is society more concerned with privacy or more with free speech? If privacy considerations resonate within society, it will be much easier to limit Facebook. But if the common reasoning is more about free speech or fighting terrorism, for example, the ideas that are culturally consonant will allow the regulator to enforce stronger or weaker coercion over Facebook. The important aspect here is that we are not simply talking about passing a law, but the extent to which the regulations will be enforced (or not).

Another example: self-driving cars. Is this a chance to improve productivity and economic efficiency? Or will we be concerned about protecting the jobs of taxi drivers and related industries? Depending on how these ideas resonate with society, we will regulate self-driving cars heavily or allow the industry plenty of freedom.

The interesting thing is it has little to do with the quality of the regulation itself. A law might be fundamentally a “good” law, but if it isn't culturally consonant, it's going to be harder to enforce it.

What are the implications for management?

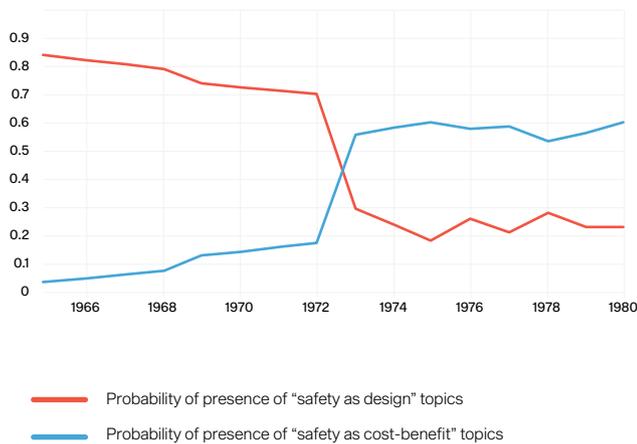
The first step to developing any business strategy is understanding the context around you. We consider the law, of course, and what kinds of regulations are in place. We dedicate less thought to cultural consonance, to identifying the symbols that are relevant at that given moment.

Yes, the economic situation, the markets, the laws are all important. But so is societal culture – our commonly held beliefs and values – and you have to play with an eye on that as well.

To return to the automakers, they were pushing back before 1972, but their pushback didn't really work until afterwards, despite it being a time when the power of the state was waning. They pushed, but their point of view didn't align with society in general.

Tracking “safety as design” and “safety as cost-benefit”

Comparison of topic prevalence in congressional hearings (1965-1980)





You also mention the energy industry.

Energy is very interesting because there is a very strong set of symbols around it. Is energy just the way we make things run? Or is it a way to save the world?

This is another area where we have seen a switch in recent years. We've suddenly started talking about the need for green energy. Despite the fact that we've known what we know about the planet since the 1980s, oil and gas companies are only starting to come under severe pressure right now. And that's because the symbolic systems of our culture have completely flipped. Sure, greenhouse gas emissions are sky-high, but that was true 10 years ago, too, and nobody cared, because those were not the symbols we were attending to then. Greta Thunberg had a much greater impact than hundreds of Greenpeace demonstrations. This

example really demonstrates that you want to stay attuned to what's going on around you, because if you're an incumbent, your position can become risky. But there are also potential opportunities – for incumbents willing to embrace change, and for new entrants.

Take the case of the Danish state-owned power company Ørsted. It was very oriented to coal, oil and gas, but they were able to pull off a remarkable switch in just a couple of years. They are now one of the world leaders in offshore wind energy. They were attuned to the shift in public sentiment, and they leaned in to the change, which is why they are where they are today.

If there is a competitive advantage to recognizing these cultural switches, how should a company go about identifying them?

There are computational tools to analyze culture. Up until now, culture was a hard thing to grasp, but now there are sophisticated algorithms that can go through large quantities of text and extract topics from it. It still requires human oversight, of course, because you need to decide exactly what those words mean. But by looking at the changing topics, you can see how some ideas are changing, or are becoming more or less prevalent. That could give you a head start to see where we're headed culturally. ■

SOURCE: Giorgi, S., M. Maoret and E. Zajac. "On the relationship between firms and their legal environment: The role of cultural consonance." *Organization Science* 30, no. 4 (2019). Massimo Maoret's research activities are supported by the European Commission (Marie Curie Career Integration Grant FP7-PEOPLE-2013-CIG-631800).

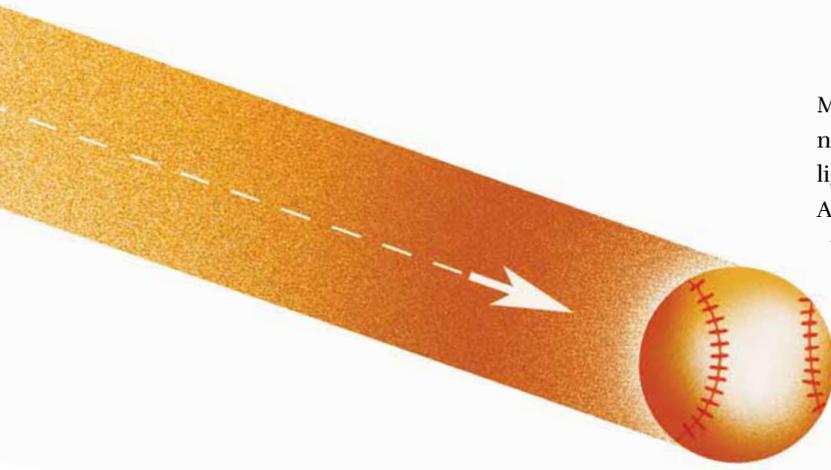
Lessons from sports to compete with AI

By Pedro Larrañaga and Concha Bielza

Sports teams are increasingly leveraging the power of artificial intelligence to enhance their performance. Here are five things companies can learn from them to achieve winning results.



ILLUSTRATIONS: Rauli Arias



When Billy Beane took over as manager of the U.S. baseball team, the Oakland A's, it was a lower valued team. The challenge he faced will be familiar to many businesses (and professional baseball is, after all, just another type of business): How to compete in the big leagues with fewer resources? He couldn't afford to recruit the best players. Instead, he turned to sabermetrics, using statistical analyses to crunch data on player metrics to see which ones bettered the odds of success. Determining that the percentage of players' On-base Plus Slugging (OPS) was a better metric than batting average, he recruited undervalued players with high OPS rather than more expensive players with high batting averages. Subsequently, the Oakland A's rose in the ranks, going on to win a record 20 consecutive games in the 2002 season. Their winning streak – and the transformative impact of analytics on the sport – became the subject of a book that was later made into the 2011 movie *Moneyball*.

More and more companies are realizing they, too, need to embrace AI to stay in the game, as highlighted in a recent study by IESE professors José Azar, Mireia Giné and Sampsa Samila, together with Liudmila Alekseeva and Bledi Taska. Examining U.S. online job postings between 2010 and 2019, the authors found that, while the demand for other computer-related skills remained stable, the demand for AI skills in particular was exploding – by a factor of 10 in absolute numbers and by a factor of four as a proportion of total job postings.

And this growing demand wasn't limited to the IT industry but was found across all sectors and occupation groups, including professional and administrative services, finance, manufacturing and even agriculture. What's more, such jobs commanded a wage premium – 11% on average, going up to an almost 18% higher salary for jobs in administrative and support service sectors. The significantly higher premium for AI skills suggests there is a “real shortage of managers who are able to create and capture value with AI,” state the authors.

Having studied artificial intelligence for more than 30 years, we recognize the need for all professional entities to grow in their use of AI. We have spent our careers researching the many different ways that data can be used to analyze, predict and provide knowledge to optimize decision-making processes and enhance performance. This has led us to partner with Olocip, a firm set up by the Spanish professional soccer player Esteban Granero. We lead an AI modeling and development team for Olocip, offering business and sports clients customized solutions to their performance issues. Here, we share some of the practical applications derived from our professional work and research in this sphere.

Machine learning in sports

Statistical analyses of sports data began as far back as the 1950s, using manual annotation methods. Back then, the term artificial intelligence (AI) was just being coined, and the ability of machines to mimic sophisticated human tasks – like face recognition or making accurate medical diagnoses – was still decades away. It wasn't until recent years that AI evolved to the point of machine learning, not just being able to do complex statistical computations at lightning speed, but identifying patterns in the data, transforming those patterns into models, adapting those models according to incoming changes in the data, performing “reasoning” to generate new knowledge, and then aiding humans in arriving at decisions. This is where AI has become highly valued, especially as it removes aspects of human fallibility, which is where past analyses fell short.

AI has become highly valued, especially as it removes aspects of human fallibility, which is where past analyses fell short

In sports, the two most relevant types of data to be collected are: 1) trajectories, the movement of the players or the ball within the field of play; and 2) events, which can include player actions such as passes or shots, or referee decisions like fouls and cards. But it's more than just collecting and storing the data with the aim of visualizing it, using descriptive methods to depict what has happened in the past, which is often as far as some analyses go. Current machine-learning algorithms enable us to go much further and deeper to: 1) the causal dimension, diagnosing why this has happened; 2) the predictive dimension, predicting what will happen next; and 3) the prescriptive dimension, suggesting what you can do to make what you want to happen next.

Practical applications

When the English soccer club, Leicester City, beat the odds and won the 2015-16 Premier League for the first time in its history, part of the credit was given to the club's savvy use of AI analytics and tools, including the use of wearables to track player movements. Using data-driven insights, training sessions were adapted to the needs of each player, and they honed their play to minimize injuries. Extrapolating from this and other well-known examples, we discuss five main areas where we find AI can contribute to competitive advantage:

SELECTION OF TALENT AND TEAM FIT. When scouting high-potential talent, sports clubs, like companies, are not just interested in analyzing individuals in isolation, comparing one profile with another and judging each relative to their respective past performances. What they really want to know is how that talent might perform within a given team configuration, and how their level of play might develop and improve over time.

There are lots of applications for any employer, where productivity losses linked to absenteeism have been estimated to be just as costly for business as for sport

Predictive AI systems can do this, taking key performance metrics (e.g., assists, shots, goals, ball recoveries, loss of possession, etc.) and, using regression analysis, detecting the key variables and the relationships between them. Finding such correlations can help managers estimate how a certain player might perform as part of, not just the present team, but a future one with a different mix of variables. Crucially, the subjective, biased assessments of talent scouts are removed from the equation. These performance predictions can be complemented with estimates of a player's future market value, helping managers make more informed decisions about player transfers, contracts and insurance against possible losses in player value. AI can also suggest the position best suited to the performance metrics of a particular player, and predict a player's success based on factors such as creativity, inhibition or cognitive flexibility. Knowing all this can really help a coach, or business manager, configure their best team.

PREVENTION OF LOSSES. Player injuries cost English Premier League clubs a record £221 million, according to the Football Injury Index 2019 produced by the insurer Marsh JLT Specialty. AI can help reduce these costs by analyzing everything from training workload and training surfaces to lifestyle habits and even genes. The important thing here is not to produce false positives for certain risk factors. This underscores the need for feeding in reliable, trustworthy data. You need to check the AI is not overestimating risk, reducing the workload without the player actually being at risk, nor underestimating the probability of injury. Some AI systems can quickly and reliably predict recovery time after injury. And the data-driven advice can be tailored to the individual and be more precise, to avoid generic prescriptions like “players should generally avoid play for between 16 and 24 weeks for this category of injury.” There are lots of applications here for any employer, where productivity losses linked to absenteeism have been estimated to be just as costly for business as for sport.

PREDICTION OF RESULTS. Systems abound to predict which team will win a match. Here, the choice of variables makes all the difference. In basketball, the speed of the game might be the relevant factor, whereas in soccer, ball possession or team fatigue based on the number of games played in the preceding weeks might be what counts. Which are the key variables to predict success for the results you want to achieve?

REAL-TIME SOLUTIONS. AI is also able to analyze how certain interventions during play, such as telling players to close gaps or play more aggressively, might change the probabilities of other variables, like scoring a goal. Think of using AI as a virtual assistant, proposing solutions in real time, such as deciding when it may be time to swap out players or even going so far as to recommend how much water players should be drinking throughout the match. FC Barcelona is already piloting such applications in its lower division teams before rolling them out more widely.

6 tips to stay on the ball with AI

- 1. Focus on principles.** You don't need to be a data scientist, but you do need to understand the underlying principles: what is your value proposition to customers, what are the key processes through which you create that, and how could AI help in those?
- 2. Start small.** There are ready-made tools to get managers started using AI. Run pilot projects to understand the possibilities. Once you discover its value, then you can hire data scientists and run more customized, complex projects.
- 3. Build cumulative advantage.** As with many digital tools, AI's power grows over time, through network effects and economies of scale. The sooner you start, the stronger your position will be, making it harder for laggards to replicate.
- 4. Ensure quality data.** Make sure your governance structures give you access to the data you need. If collaborating with third parties, make sure your contracts specify ownership of the data insights.
- 5. Manage algorithms in addition to people.** Learn to manage a portfolio of algorithms, knowing how and in which contexts they work best, and what potential biases they may have. You will be entrusting your teams to make decisions based on them.
- 6. Seize the moment.** With tech costs falling all the time, the barriers to adopting AI have never been lower, while the COVID-19 crisis has made the need for radical business transformation more urgent than ever. Don't delay!

SOURCE: "Why the time to invest in artificial intelligence is now," an online session by Sampsa Samila, can be viewed at www.iese.edu/open. Samila heads IESE's Artificial Intelligence and the Future of Management Initiative, a multidisciplinary project that, in addition to research, will prepare executives to incorporate AI ethically and responsibly into their companies. Go to www.iese.edu/AI-Initiative.

The case study, "FC Barcelona: More than a club, more than data" by Javier Zamora, is available from www.iesepublishing.com.



PERSONALIZED EXPERIENCES. AI is also being used to build stronger relationships with sports fans by offering more personalized, immersive user experiences. Take Wimbledon: the tennis tournament generates game highlights based on measuring player emotion and crowd reaction, and it uses chatbots to answer fan questions and smart assistants to give out ticket information and guide fans around the grounds. FC Barcelona uses AI to address mobility and security needs within its stadium to monitor how and where people congregate. Before the UEFA Euro 2020 soccer championship was postponed due to COVID-19, the Johan Cruyff Arena in Amsterdam was preparing a fully smart stadium, with thousands of sensors connected to seats, stairs, refreshment stands, parking lots and entrances to monitor crowd movements and flows, in order to ensure a smooth, safe, seamless experience for up to 80,000 visitors in and around the stadium.

While AI allows managers to do so much more than they ever could before, it does not and should not replace human beings in the decision-making process; it should be a case of the human and the machine working in sync. The machine can do analyses that far exceed human capabilities, yet those machine-generated insights need to be considered in concert with human experts, who create and feed the computational models in the first place. No matter how intelligent the system, its proposals must be approved by a person who takes the final responsibility. Although technology certainly has a role to play in management, never forget that management, whether of a sports team or of a business, is not something to be left to the sole discretion of a computer. ■

The authors



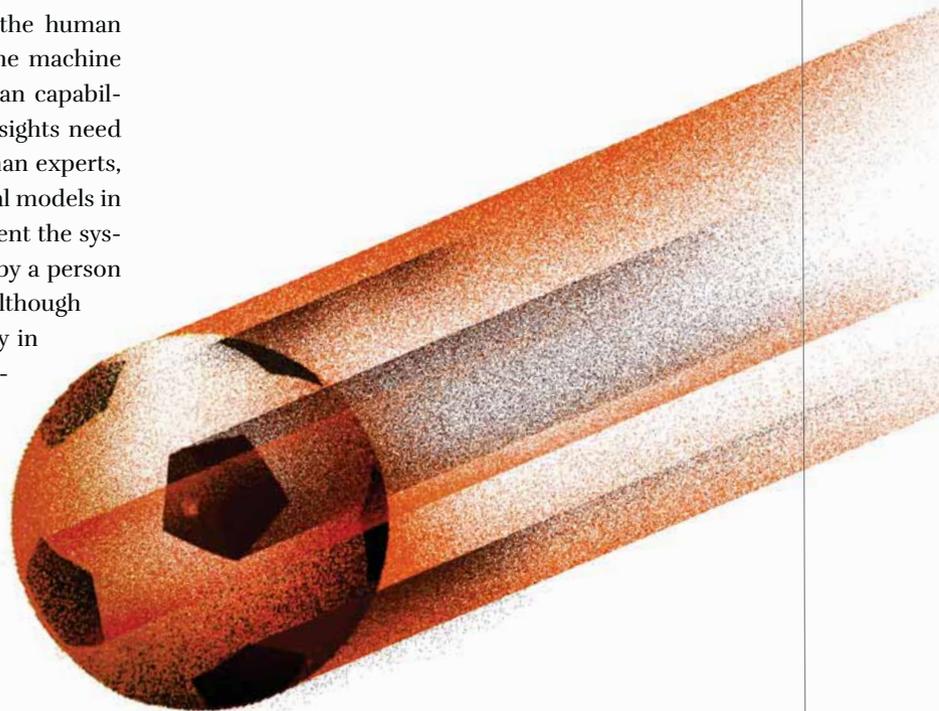
Pedro Larrañaga

is a professor of Computer Science and Artificial Intelligence at the Technical University of Madrid (UPM) where he co-founded the Computational Intelligence Group. He was formerly with the University of the Basque Country where he was a founding member of its Intelligent Systems Group. He is a fellow of the European Association for Artificial Intelligence.



Concha Bielza

is a professor of Statistics and Operations Research in the Department of Artificial Intelligence at the Technical University of Madrid (UPM) where she also co-founded the Computational Intelligence Group. She has won numerous research awards, both from UPM and Spain's Ministry of Education, Culture and Sport.



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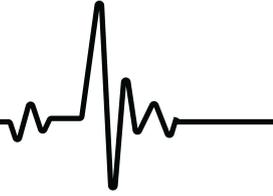


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FULL STOP



Keys to confronting crises

Insights from the front line in the fight against COVID-19 in Spain.

On March 7, 2020, Ana Isabel went to the emergency room at the University of Navarra Clinic in Madrid. She had a fever and a cough, and was having trouble breathing. She was admitted with COVID-19, the virus that was fast spreading across the globe. A week later, the Spanish government declared a state of emergency and the country, like many others, commenced a months-long lockdown.

The hospital had been expecting just such a case. In late February, the global healthcare agency Joint Commission International (JCI) had upped its infectious disease protocols, advising the Spanish hospital to prepare itself as the coronavirus made its way west from China to Europe. Northern Italy was already under quarantine.

Anticipating problems is the first key for dealing with a crisis, says Jose Andres Gomez Cantero, general director of the University of Navarra Clinic, with hospitals in Pamplona and Madrid. As the saying goes, an ounce of prevention is worth a pound of cure. Having been alerted, the Clinic immediately adopted extra protection measures and mobilized stakeholders in advance.

They worked out contingency plans with their infectious diseases unit. “We had already been building protocols to prevent outbreaks of Legionnaires’ disease and other infections,” says Gomez Cantero. “And we had already been working with our nursing services in preventing infections via catheters and intravenous tubes.”

Thanks to those previously laid foundations, after COVID-19 hit, the contagion rate among Clinic healthcare workers ended up being 7% and the mortality rate among admitted patients was 5%, compared with the national average of 20% for both.



Redoubling their efforts

Ana Isabel’s lungs failed. She became the Clinic’s first patient to be put on a ventilator in the ICU. The Clinic expanded its capacity, making 300 beds available in Pamplona (although only 200 were ultimately needed). In Madrid, the expansion was organized around three units: ER, Hospitalization and ICU. ER was expanded to 33 places. The number of single-occupancy rooms was tripled. And the ICU quadrupled in size, annexing part of the surgery recovery area.

Even so, the end of March and beginning of April were “the most difficult times we have ever experienced,” says Gomez Cantero, recalling at one point there were more than 20 patients waiting to be admitted to the ICU and only nine free beds. Staff had to get creative, using nasal cannulas to provide oxygen to patients without a ventilator. This may have contributed to the lower mortality rate at the Madrid hospital, he says.

“Everyone pulled together for the greater good”

Ingenuity and flexibility flourished across all departments. The clothing service repurposed reusable Gore-Tex gowns, initially designed to be worn over surgical pajamas, to make new masks, hoods and neck coverings to protect workers and avoid infections. The laundry service increased shifts to keep up with the need for protective equipment.

The Clinic had already used ultraviolet lamps to disinfect rooms for years, and these came into their own for disinfecting rooms with COVID-19 patients. Also, through their links with the university's Pharmacy Faculty, they were able to (literally) get their hands on extra supplies of sanitizing gel, which they also distributed to others.

All staff were repeatedly tested for COVID-19. Gomez Cantero proudly reports that, “No doctor at the Clinic has been infected since the end of March, and no healthcare worker since the end of April.”

We're all in this together

Cooperation involving all stakeholders is another key. All personnel – from doctors and nurses to cleaners and maintenance staff – were enlisted in the effort.

After receiving the first COVID-19 patients, “everything accelerated,” says Gomez Cantero. “We met daily to organize care based on the number of patients in Pamplona and Madrid.” Another committee made up of department reps from infectious diseases, preventive medicine and occupational hazards made decisions at each step. The Clinic also coordinated with other area hospitals and with the Health Department.

In Pamplona, a COVID-19 unit was established, involving experts in pulmonology, internal medicine and infectious diseases but also others from oncology and cardiology who wanted to collaborate. They lent support to Madrid, sending beds, medical supplies, pharmaceuticals and even willing staff.



Jose Andres Gomez Cantero:
Anticipating problems, protecting your people, and working in close cooperation with your stakeholders are essential in times of crisis.





Josep Valor and Ines Alegre

Going viral

A second pandemic has raged in parallel with COVID-19: FAKE NEWS

Even before the arrival of the coronavirus, trust in traditional sources of authority – the government, scientific experts, mainstream media – was down, while dubious information, “alternative facts” and memes shared by family and friends were where people put their faith. So, when COVID-19 hit, although there was plenty of accurate healthcare information to be found online, users weren’t looking for it. Instead, many turned to their favorite social media influencer. IESE professor Josep Valor writes about this in his Media Matters blog with Carmen Arroyo: “There’s a gap in social media that needs to be filled by doctors who are also savvy social media users.”

Recognizing this, the University of Navarra Clinic published a series of video Q&As about the coronavirus on their media channels, which racked up hundreds of thousands of views.

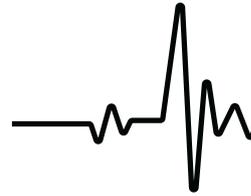
Besides this need for more medical experts to make their voices heard online with the facts, there’s also a need to combat confirmation bias – i.e., tending to believe news that’s consistent with your prior

beliefs, regardless of whether it’s true or not – as a recent study by Josep Valor and his IESE colleague Ines Alegre attests.

They asked individuals to self-identify their political persuasion, and then showed them 40 news headlines, some real, some fake, asking them to judge which was which. As suspected, individuals tended to rate a news item as being true if it confirmed their political beliefs, even if it was actually false. However, when asked to judge the veracity of an item that was far from their own political beliefs, people were more likely to call it correctly. The suggestion is, “perspective helps.”

The study also found that self-described liberals and conservatives differed in their ability to spot fake news, owing to the extent they exhibited dogmatism, which the authors found to be more the case in their sample of U.S. conservatives than liberals. So, when trying to discern the snake oil from the science on the coronavirus, before you click and share, take a step back and exercise more critical thinking, especially if you lean conservative.





The day Ana Isabel was discharged was an emotional moment for all, which the Clinic shared on social media



Everyone pulled together for the greater good. It was not uncommon to see renowned surgeons whose operations were on hold taking orders from more junior doctors in charge of coronavirus patients.

Still, some things couldn't be delayed, even with a crisis. "One of our COVID-19 patients gave birth but she couldn't see her baby until after she had fully recovered three weeks later," says Gomez Cantero. A new proton therapy unit at the Madrid Clinic went into operation, treating its first cancer patient on April 17, at the height of the crisis. In Pamplona, 13 critical transplants were carried out, despite the pandemic.

At the end of April, Ana Isabel was discharged, which gave everyone a much-needed morale boost. "She was our first patient to go through it all, from ER to the ICU, the first to be placed on a ventilator, and the first to be removed from one. Seeing her leave on her own two feet really lifted our spirits."

Not everyone was so fortunate, however. In cases where patients succumbed to COVID-19, the Clinic found ways to accommodate family members being present with

their loved ones during their final days – a level of palliative care that earned them positive recognition from the World Health Organization for still delivering humane, effective, compassionate care, even under exceptional circumstances.

Another way that Gomez Cantero has seen people expressing solidarity is in relation to the cooperative effort of the healthcare and scientific communities around the world – from China, Singapore and South Korea to Italy and the United States – in sharing their knowledge of the virus, learning from each other's experiences, and working together on clinical trials in the pursuit of a vaccine.

He hopes this spirit will continue. For their part, the Clinic is embarking on new lines of infectious disease research. "We must be prepared for new pandemics," he says, "because, as we have seen from this experience, preventing the next new outbreak will be easier than trying to cure it." ■

Jose Andres Gomez Cantero (pictured center) with members of his executive team.



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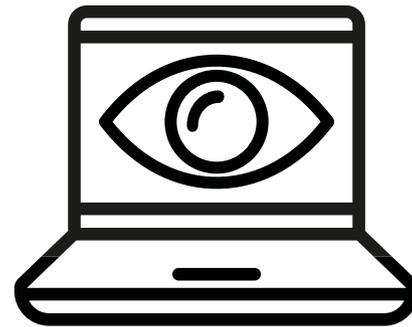
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