

PHILIPPE ARRAOU

**THE CERTIFIED PUBLIC
ACCOUNTANT AND
THE DIGITAL ECONOMY**

PREFACE

Emmanuel MACRON

THE CERTIFIED PUBLIC ACCOUNTANT

AND

THE DIGITAL ECONOMY

Philippe Arraou

President of the French Order of Certified Public Accountants

NOTE TO THE READER

This publication was drafted under the sole responsibility of the author and is by no means to be construed as a doctrine of the Higher Council of Order of Certified Public Accountants. Consequently, the latter may not be held accountable for the statements contained in this publication and the consequences resulting from the implementation of specific measures described in this work.

To Benjamin, Peggy and Antoine,
my children,

To Sol, Diego, Chloé, Estel and Timotéo,
my grand-children,
of three different nationalities,

and to their respective generations,

to whom my thoughts frequently went as I wrote this work,
in the hopes of leaving them a peaceful world,
steeped in the values inherited from previous generations.

Everything changes.

(one of the seven laws of the Order of the Universe in Zen philosophy)

PREFACE

The digital revolution is a total revolution. It is turning on end the way we produce, consume and work. It is transforming professions. It is bringing out entire new branches of activity. It is causing others to go into metamorphosis, by bringing competition to places yet unfamiliar with it, and by challenging traditional business models.

Those who choose to ignore the fundamental shifts under-way or attempt to skirt them are bound to bear the full brunt of their effects tomorrow. The digital transformation holds more opportunities than it does danger for those that embrace it.

That is what the economic players must do today, regardless of the area of activity in which they are now operating. In this work, taking accountancy as its example, Philippe ARRAOU flawlessly illustrates how a profession apparently endangered by computerisation and automation, in that both create competition for it, must precisely draw upon those tools to modernise its offer today and channel human capital toward the areas in which it can offer added value.

A central, local profession that is also supporting enterprises in this major transformation.

The public authorities also have their part to play: supporting those changes. We will not leave professionals, workers and enterprises alone in the face of this major challenge which they must now take up. They have a responsibility: to enable each member of society to seize up on the opportunities offered by the transformation underway.

To do so, we need to move forward, driven by a three-fold aspiration: to free the country, to create new forms of protection and to rediscover the meaning of the long range.

Freeing the country, first. Our society is overflowing with energy. It is teeming with women and men eager to start their own businesses, transform their professions and innovate. However, today, that energy is being stalled by multiple forms of corporatism, administrative rigidity and regulatory complexity. To free the country means to simplify the way in which our economy works; to open up access to new areas of activity and more easily so; and to do away with the restrictions weighing down on those endeavouring to be entrepreneurs, engage in research and create. That is the process which I set in motion with the law for growth, activity and equal economic opportunity. It needs to be carried on.

The second step is to create new forms of protection. They are the prerequisite to giving everyone, and in particular, the most vulnerable, the means for taking risks. The best forms of protection which one can provide - in an economy where everything is moving at a faster pace, and where careers are not linear - are training and individually-tailored rights. Training, both initial and continuing, makes individuals capable of seizing new economic opportunities. Individually-tailored rights, using tools such as the personal activity account or differentiated support for the unemployed - as already experimented with in our regions - make it possible to offer each and every person individual the chance to develop in accordance with their aspirations and needs.

Lastly, we need to learn again what the long range means. This is a shared responsibility. It is shared by businesses, which need to see beyond short-term interests in order to invest in employment and innovation. It is shared by the citizens, which need to be able to commit to enable change over the long-run. The French people are ready, and they are demonstrating this every day, in businesses, associations and society. Lastly, it is shared by political decision-makers, whose responsibility it is to set out a clear,

cogent project that extends stably over time.

Philippe ARRAOU's work bears one essential message: there is nothing inevitable in what we fear. A profession is never endangered when it is striving to reinvent itself. Our economy and our society need to share inn precisely that aspiration.

Emmanuel Macron

FOREWORD

"It is a great pleasure, Minister, to welcome you to the Congress of the Order of Certified Public Accountants... and what a congress it is! Not only because it has posted an absolute record high in terms of attendance [one-third of the profession is with us today] but above all because it is dedicated to the substance of your mandate: digital! What better proof that our profession, a pioneer when it comes to computerisation, dematerialisation, and digitisation is aware of the major changes which the digital transition entails and which, unlike previous technological developments, represents a true revolution: intense, deep-set and irreversible... It is a revolution that entails rapid societal change, in which certified public accountants have every part to play' ".

My personal involvement in the digital transition within the accountancy profession did not start until the 70th congress, less than one year ago. It is no exaggeration when I say that not a day goes by without the question of digital being addressed at one of my meetings or sessions. I do not think that my appetite for and particular interest in the topic are the reasons behind this. It is simply that the topic is on everyone's mind. Some will speak ill of it, while others will be its advocates; everyone has an opinion and, most importantly, everyone gives a great deal of thought to it. It is the type of topic on which no one can remain neutral, from business leaders to economic or political decision-makers. The generally-used term "revolution" correctly tells of the topic's breadth. A change in society! A change in era! My, oh my, here we are in the digital era!

¹ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, 2 October 2015

For the days of forecasts and, even more so, of futurism or science-fiction have turned to dust: digital is indisputably here, having slipped surreptitiously into our lives, sometimes unidentifiably, but always part of the whole and indissociable from the rest, like sugar in warm milk.

For those who might deem these comments inflated and call for us to keep our wits about us, the opinion of the knowledgeable, whose neutrality cannot be doubted, should suffice: "Our" 2015 Nobel Prize winner in Economy, Jean Tirole, for instance said: "The digital revolution abounds in opportunities. And regardless of whether we eagerly beckon it in, it will take place, no matter what. Every sector will be affected. It is for this reason that we need to anticipate the many challenges which the digital revolution thrusts at us, so that we can adapt to them, rather than bear their brunt²".

The responsibility of the Order of Certified Public Accountants with respect to its members cannot stop with two and half days of congress, which will have been tremendously beneficial in raising awareness about the issues in any of those yet uninformed, but proved inadequate when it comes to bringing about concrete change.

The day after the congress, upon returning home, the issues remain at large for the participants. Even worse, they have become problems, when they were not before the congress! And what can be said of all those who did not come to the congress, and form two-thirds of the profession?

Now, many questions have emerged: How should we go about this? How does one become a digital certified public accountant? The question triggers anxiety in smaller practices, which have neither the required specific skills in-house, nor adequate financial resources to entrust the responsibility to a consultant.

² Jean Tirole, *Economie du bien commun* [The Economy of the Common Good], PUF, May 2016

My function at the head of the French accountancy profession has done a great deal to help me understand the dimension of the problem, and I humbly recognise that, had I remained comfortably within the walls of my practice, snugly set in the French provinces, my outlook would in no way be what it is today. With the benefit of that realisation, my thoughts go to all of my colleagues across the profession, and in particular to those who do not sense the groundswell building up today and which could well wipe out everything along its way, like a tsunami. It is for them that I decided to sum up what I see and hear as I take part in interviews, write, address audiences, and participate in conferences in France and abroad, as well as what I feel and think, by writing this book.

Given the responsibilities vested in me, I have made it my duty to very solemnly call everyone's attention to the issues, so that each and every practice can make this digital revolution its own. A bend lies in the road ahead. A bend for the profession overall, as well as for us all, individually. My fear is that some will not take it, and fall by the wayside. In this topic, the digital transition, there is a risk that our profession will fracture, and we can see the extent of this risk in the divide that is growing deeper and deeper between all of us each day. As other topics are also developing in a way that tends to divide the profession, the time has come to respond and mobilise, so that we can prevent fragmentation that would bring weakness with it. Of this, I am acutely certain.

Certified public accountants, individually and perhaps for the first time in their history, are faced with a challenge, and the way in which they respond to it will determine nothing less than their fate. I am aware of the bearing these words have.

It is for this reason that the profession's presiding institution, the Order of Certified Public Accountants, has the duty to be active and initiate action on behalf of all. I am pleased that the elected heads of the National Council have agreed to institute an action plan on the digital transition. An imperious necessity, the plan must be far-ranging in scope.

Indeed, this transition will not come about with the snap of a finger: it calls for a particular effort that has nothing in common with the changes we have experienced up to this point.

I stated as much in my opening words, prior to the 2015 Congress: *"In an uncertain world, our future depends not only on our primary resources or our economic capital, but on our ability to understand and anticipate change"*.

Digital is an opportunity and not a danger for our profession. The Order's duty is to provide support to accountancy firms so that this new paradigm is an opportunity for all. Let us approach digital through the prism of the opportunities opening up to us, in order to rethink our economic model and our future.

Gaston Berger's legacy to us includes this thought: *"Tomorrow will not be like yesterday; it will be new, it will depend on us; it is less to be discovered than to be invented"*³.

Who would have thought that his theory would one day apply to accountancy professionals? And yet... here we are! Let us mobilise to bring our profession forward, reinvent it and give it even more value. We have everything to gain from this.

How I regret that I am not thirty years younger!

³ Gaston Berger, *Phénoménologie du temps et prospective [Phenomenology of Time and Prospective]*

PART I

The Digital Economy: A World in the Throes of Change

Chapter 1

A WORLD IN UPHEAVAL

Digital is taking on more and more importance in our everyday lives.

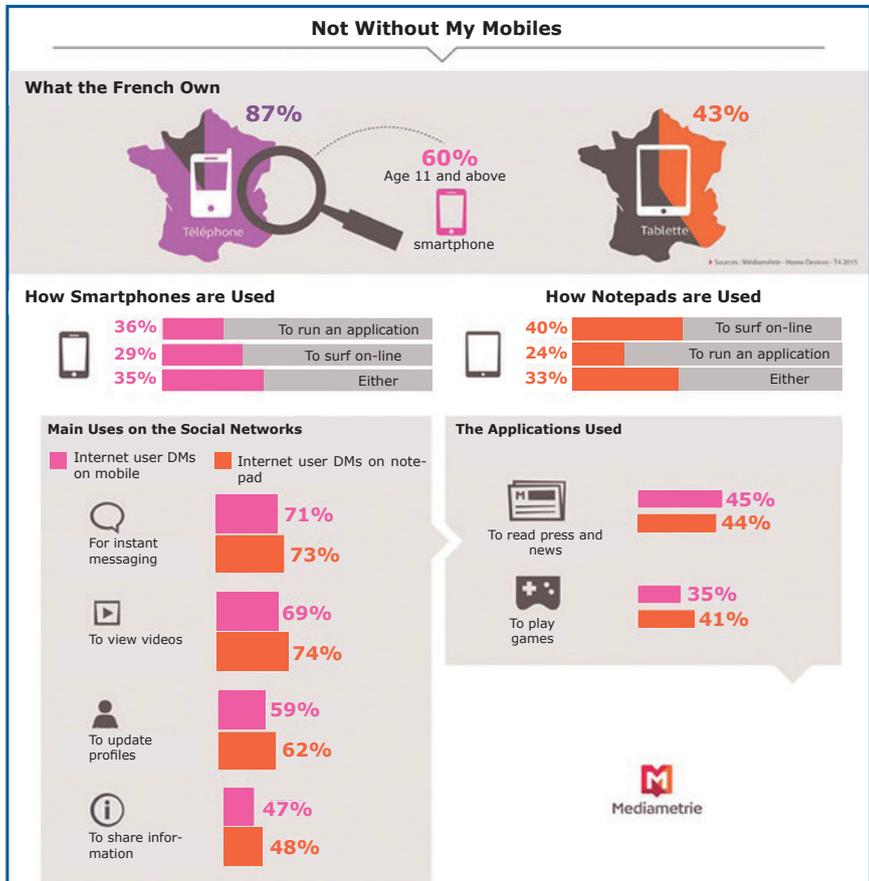
Digital is omnipresent for everyone, not only for the youngest amongst us. In the words of Michel Serres, the latter live IN their computers, which are no longer tools, but instead an integral part of their lives. The social networks have become an integral part of their everyday, as their continuous connection with their "friends" illustrates. This is a young population which sees SMSs as old-fashioned, and communicates using a variety of messaging media around the clock: tens, and sometimes even hundreds of messages per day. The generation that came into being with the computer has learned how to live WITH it. That which was but a tool has become a vital necessity: we are no longer able to do without it.

The next few figures speak for themselves and effectively illustrate the omnipresence of digital in our everyday lives:

- Each household owns an average of 6.4 screens (television, computers, gaming consoles, notepads, portable media players, mobile telephones);
- 60% of the French population is equipped with a Smartphone;
- 68% of the French report connecting to the Internet every day;
- 61% of Internet users connect from a mobile device;
- 1 billion active users have been recorded per month on gmail, 75% accessing the service from a mobile device;
- 1 out of every 5 transactions is completed via a mobile device.

Another trend has become characteristic of our contemporary society: the power of video. The chart below shows that 69% of Internet users view videos via their mobile phone.

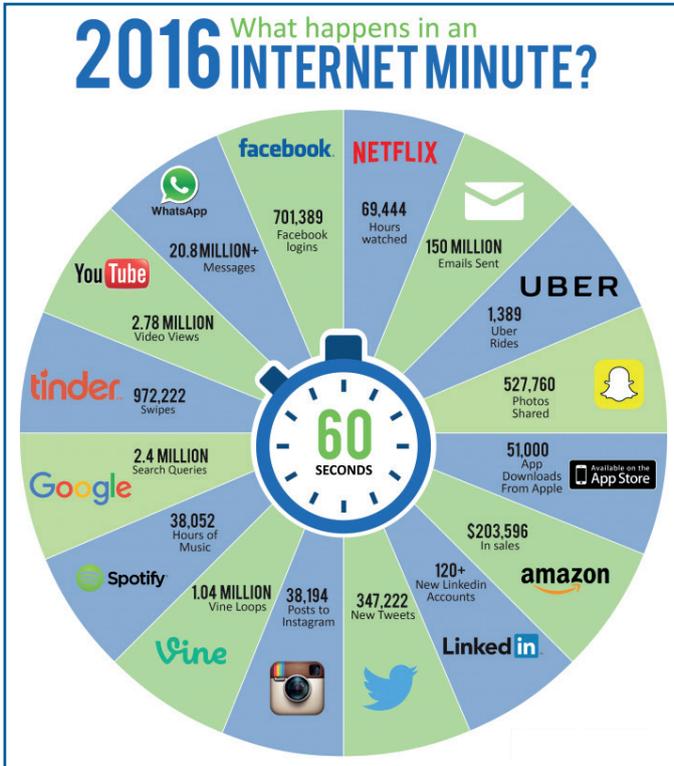
SMSs and e-mails have become obsolete: 71% of Internet users prefer to check their instant messages via mobile.



Source: Médiamétrie – Study on Mobile Telephony and Services – Q4 2015

At the level of the planet, out of the 7.4 billion of us living on Earth, 3.4 billion, or nearly half of the total population, are Internet users.

What happens on the Internet in one minute's time speaks volumes:



Source: Excelacom, 2016

These figures help grasp the magnitude of what is happening:

- More than 2 million Google searches;
- Nearly 3 million videos viewed on YouTube;
- Nearly 70,000 hours viewed on Netflix;

in a single minute!

Something important is taking shape and give us every reason to believe that we have changed society.

The advent of digital has shaken many a legacy player and industry to their foundations, forcing them to adapt, and in some cases even transform profoundly, to continue to exist.

Most of the changes we are experiencing today are connected with intermediation mechanisms and with the Internet, from Uber in transport to Google in advertising, Netflix in video, Amazon in commerce, Airbnb in holiday rental, etc. As Jean Tirole points out, no business sector is untouched.

James Burke, British science historian, stated some thirty years ago: *"Every time there is an improvement in the technology with which people and ideas come together, major change ensues."* Time has proven him to be right.

Banks, insurance enterprises, medical professions, legal professions, education, communications agencies, automotive manufacturers and many others are on disruption's "hit list".

Disruption! The word is out of the box. A term that has come into pervasive use, it tells of the "creative destruction" coined by Joseph Schumpeter and offering a reminder that there can be no real creation without destroying part of the past, and that this destruction must be accepted.

The question we can legitimately raise is: how did we reach this point?

The answer is quite simple: the advent of new communications tools and dematerialisation brought about the opportunity to achieve the aim of consumer or customer satisfaction in different ways.

How?

- By restoring more purchasing power to them: downward pressure on prices through unbounded competition, and furthermore, yet unseen information transparency ;
- By giving consumers access to superior products or services unknown to them and unlimited in inventory;

- By enabling round-the-clock access to consumption, free from opening hours and geographic constraints;
- By facilitating payment using an on-line mode.

Consumer activity will never be the same. The purchasing act is now executed within new paradigms, in an extremely streamlined manner, based on service: accessibility, availability, and choice have become the rules of B2C and commerce in general.

Bertrand Duperrin, one of the foremost specialists of digital in France, offers the following definition of the digital transformation: *"making things simple, pleasant, engaging and efficient for the customer and employee, at each contact point"*.

It is thus indeed a new conceptual approach that needs to be implemented, geared at innovation, and at all levels.

Let us quote Peter Drucker: *"The greatest danger in times of turbulence is not the turbulence - it is to act with yesterday's logic."*

THE END OF HISTORICAL MONOPOLIES IS NEARING

In every sector, the digital transition has shaken up the historical landscape, despite its having been shaped over time. From now on, not a single enterprise will be able to assume that its business model is safe from challenge. Today, businesses are expected not only to offer products to customers, but also and perhaps more so, an experience, something that whisks them away to another world.

That is what the new economic players are doing, as they wage their challenge on the well-established leaders on each market.

When Free came on the scene with a new business model based on an exclusive on-line sale offer, it contributed to breaking down the informal alliance that had developed between France's three telephone operators, which had restricted any competitive room for manoeuvre by offering significantly lower prices.

When Free came on the scene with a new business model based on an exclusive on-line sale offer, it contributed to breaking down the informal alliance that had developed between France's three telephone operators, which had restricted any competitive room for manoeuvre by offering significantly lower prices.

The same can be said of Blablacar, the newly-arrived competitor to mass transit, in particular trains, with its alternative carpooling offer, at prices two to three times less expensive. The SNCF countered with its IDVROOM service, but probably too late. Things are moving ahead at full throttle!

Experiments like those above take on the form of what has come to be known as "uberisation", meaning the sudden emergence of a player capable of channelling and supporting a transformation in usage patterns.

I am in the habit of saying that, had taxis anticipated the use of geolocalisation and new technologies, Uber would never have come into being and its founder would probably have taken an interest in other activity, like a cuckoo that takes up quarters in another nest.

These new digital economy players are intermediaries, who take position between professionals and their clients, by providing a benefit to both groups. Jean Tirole very rightly refers to these as "bi-face platforms", in that they structure the interface between supply and demand, and enables them to take action.

The client is given the opportunity to take advantage of an offer under easier conditions. The professional, meanwhile, finds appeal in the influx of new clientèle, at a time when business is not booming and agrees, in exchange, to share its margin. These platforms are communication and

technology professionals, but by no means are they professionals of the business in which they operate.

The concept is always the same and illustrations abound.

To wit:

- The world's leading bookseller (Amazon) does not own a single bookstore;
- The leading name in room rental (Airbnb) does not own a single hotel;
- The leading seller of taxi services (Uber) does not own a single car;
- Etc.

It always boils down to the same thing: technology returns power to the consumer. The customer is indeed the king and is very well aware of it. He is willing to pay if he sees the service as both useful and satisfying. This assumes thus a personalised offer that addresses a specific need.

The offers which I refer to as "traditional" from enterprises that have not integrated the technologies are outpaced. However, will those enterprises long remain out of the running? Of course not. They will not let themselves wither away, and a response is to be expected from their end. However, that response will need to come quickly. Like the Paris taxi network G7, which came out with its own geolocation application just a few months after Uber came to France.

Service offering platforms have caught everyone by surprise, but how long will they last? The question has every right to be asked. The response, meanwhile, will depend entirely on the ability of the challenged enterprises to resist and respond. Without any financial reserves to stand up to the shock wave, and in order to invest, traditional enterprises will go extinct and the platforms will have won the game. If they can respond quickly, however, there is good reason to think that, given equal conditions, the consumer will prefer to deal with a professional rather than with an

intermediary. The platforms' future could thus be jeopardised. In the meantime, however, they will have brought a new stimulus to our economy and our society. We can be grateful to them for it.

It is thus urgent that we take action across all business sectors, especially those that have not yet experienced their "uberisation", which is surely just around the corner!

How can we learn the lessons this experiences have to offer? How can we use these new technologies to our benefit?

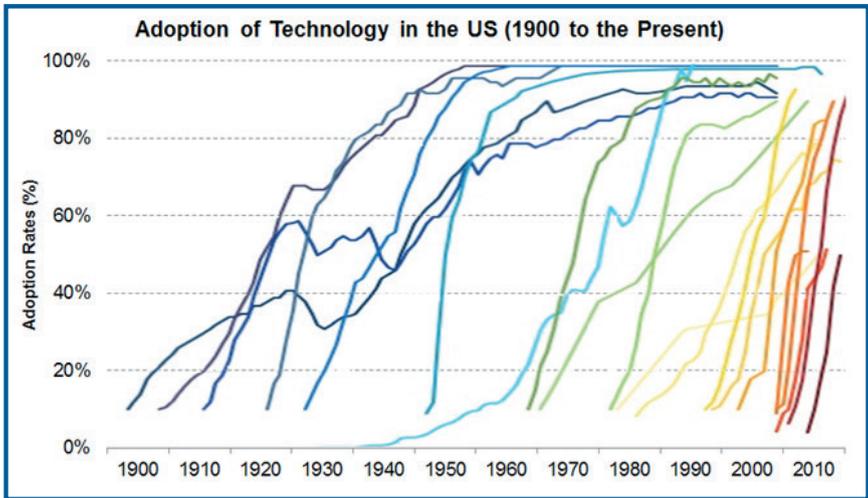
INNOVATION IS GAINING SPEED

As an introduction to the profession's last congress, I spoke out as follows: *"Beyond the phenomenon's sheer magnitude, what is striking in this digital economy is the speed with which things are changing".*

While the telephone, first unveiled in 1878, took 75 years to reach the 100 million user point across the world, only 16 years will have been necessary for the mobile telephone, unveiled in 1979 to hit the same point, 7 years for the Web, launched in 1990, and 4 years for Facebook, the record being held by the application Candy Crush Saga, which needed only 1 year and three months to reach the same threshold, after being launched in 2012.

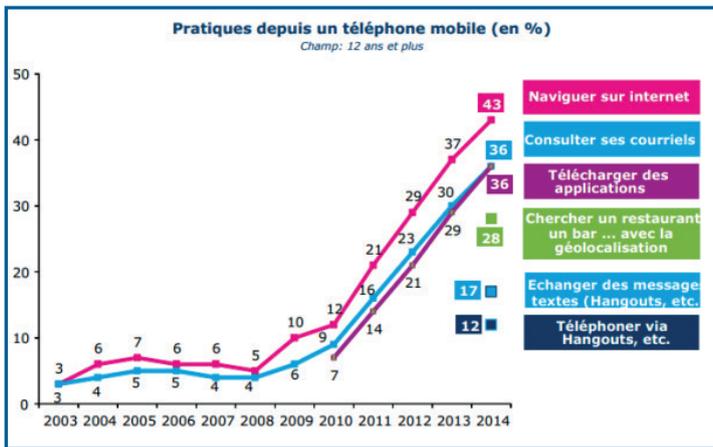
The graph below shows the time it takes for an innovation to reach a 100% adoption rate in the United States. The television versus notepad curve alone tells us everything we need to know about how innovation is gaining speed.

Technology adoption time:



Source: BlackRock

This graph shows an interesting phenomenon: never over the course of history has the adoption of new technologies been as swift as it is today, the only exception being the television in the 1950s. Although this graph, published on the BlackRockBlog website, refers to the United States, usage patterns in Europe are very much the same.



Source: CREDOC, Surveys on "Living Conditions and Aspirations"

Everything is moving very quickly! It is no longer possible for enterprises to spend months analysing their market, subjecting their offer to tests, adjusting their organisation, resources and processes, unless they want to run the risk of becoming marooned. The strategy long adopted by the leading players, namely to improve products and services by optimising their organisation, thereby lowering costs and improving quality, no longer appears adequate for maintaining hard-earned market share.

We have shifted from incremental innovation, meaning gradual innovation that does not profoundly change the operating procedures in existence at the time of their emergence, to disruptive or breakthrough innovation that replaces a technology already found on the market. Digital photography is one flagrant example of this. Kodak will have found this out at its own expense, having failed to make the right strategic decisions and having lost its leading position due to failure to anticipate technological evolution, which almost caused its complete extinction.

THE DOMINATION OF TODAY'S MAJOR DIGITAL ENTERPRISES

▶ THE GAFA

The quartet of major digital economy enterprises, Google, Apple, Facebook, Amazon (GAFA) alone amounts to 1,722 billion dollars. That is 1.5 times our CAC 40 and more than the entire Paris Stock Exchange, or the 336 listed enterprises that make up France's capitalistic world. If we add Number 5 American enterprise, Microsoft, to that mix, France's market capitalisation would be outstripped by 15%⁴.

Google's market value, at over 377 billion dollars, is equal to Argentina's GDP; that of Amazon is equivalent to that of Kuwait's GDP, at 200 billion dollars.

Google has decided to move out of its sector of origin and is taking position in transport (Google Cars), energy, medicine, information transit (taking part in the Elon Musk low-orbit satellite Internet project and sub-marine cables).

Facebook entered the Top 5 and Amazon the Top 7 in Millward Brown's listing of the Top 100 Most Valuable Global Brands. It should be noted that eight of the world's "top ten" brands come from the world of the Internet, technology and telecoms. Visa and McDonald's are the only two exceptions, as "survivors" of the old economy.

⁴ L'Opinion, 23/12/2015

2016 Top 10 BrandZ Most Valuable Global Brands:

2016 Rank	Brand	Category	Brand value 2016 (\$M)	Brand value change	2015 Rank
1	Google	Technology	229.198	+32%	2
2	Apple	Technology	228.460	-8%	1
3	Microsoft	Technology	121.824	+5%	3
4	AT&T	Telecoms	107.387	+20%	6
5	Facebook	Technology	102.551	+44%	12
6	Visa	Payments	100.800	+10%	5
7	Amazon	Retail	98.988	+59%	14
8	Verizon	Telecoms	93.220	+8%	7
9	McDonald's	Fast food	88.654	+9%	9
10	IBM	Technology	86.206	-8%	4

The figures are dizzying! They confirm the changes we see in our economy and in society. The day belongs not to those who produce, but to those who control information: he who owns knowledge has the power! One thing is for sure: we small consumers are dependent on these Internet giants. How could we imagine even an instant doing without the tools which they have made available to us? It is impossible: we have woven them into our daily lives, and are no longer able to do without them, whether in our work activities or personal lives.

The speed with which this propagation has taken place is staggering. The impressive results listed were all secured in just a few years' time. The major industrial corporations have become overwhelmed by enterprises sometimes founded by children in their garages. The story of Mark Zuckerberg and Facebook is the most emblematic of this. The method used is gentle, yet devastatingly effective. An exchange platform "just for friends" is provided to all free of charge and people rush in to create their account and communicate about their private lives, tastes and plans. Surreptitiously, the data are archived and algorithms set in motion. Without anyone having suspected what was brewing, Facebook suddenly emerged as the world's Number 5 in terms of market capitalisation! When the initial model was entirely free of charge! How is this possible? In reality,

Mark did not share his entire "business plan" with us. He forgot to specify that the data that transiting via the platform would be made commercially available. What commercial company is not interested in finding out what stirs the sensibilities and interest of its target population? None! All enterprises are thus potential customers for data. More specifically, as purchases of space on which they will be able to display targeted and personalised advertising. And there you have it: an all-new business model. A brilliant idea, waiting to be uncovered! Facebook's more than one billion users across the world have become, unsuspectingly, the focus of commercial negotiations and perfect targets for modern-day advertising. No more need for 4 x 3 billboards along public thoroughfare. Today, technology makes it possible to enter the everyday lives of consumers, the very territory of their receptiveness -- which is far more fruitful ground.

What of Google? Its model is just as underhanded. A fantastic search engine made available free of charge is a more than attractive offer. Who does not use Google when in search of information? All of us, or almost, use the site. It has to be said that the result is impressive. In a split second, the answer to any question, or any word searched appears on screen, as though by magic. How convenient! This access to information at any time and on any topic is one of the characteristics of our society today. The technological progress this implies is absolutely fantastic and we can only back it. One question remains to be answered however: how could a search engine available free of charge turn into a profit centre, to such an extent that it posts the world's highest market capitalisation? Quite simply, by selling the data. By selling "clicks", i.e., the action by which a consumer is taken to a business' merchant site. As Facebook learned, any enterprise is ready to pay to be in contact with its prospects, and counts that expense as part of current expenditure.

The difference compared with traditional prospecting work lies in the fact that the method is no longer the same and that technological tools have replaced traditional commercial contacts.

Looking to cement their position as forerunners in the field of artificial intelligence, Apple, Facebook and Google have no intention of sitting

back and relaxing at this point -- they have no hesitation about taking over start-ups, in increasingly innovative areas. One of the most recent acquisitions took place when Apple chose to take over Californian start-up Emotient, which developed facial expression analysis technology to recognise emotions. It is a technology particularly attractive to advertisers, which wish to measure the impact of advertising by e-merchants, and has been tested by physicians in assessing the signs of pain in their patients.

The GAFAs' success story will definitely not end there!

We have one very recent demonstration of this with Amazon's most recent "idea": delivering groceries within the hour! In France, the service will be available to Parisians only, probably only at the start, and premium subscribers, at a cost of around 40 Euro per year. By taking this step into a new domain, Amazon revealed its intent to grow and its determination to move beyond its initial perimeter.

The GAFAs' initiatives in all directions are encouraged by customer demand; according to a survey by Capgemini Consulting over January-February 2016⁵, 44% of mobile subscribers state that they would be ready to change mobile operators if Google, Facebook or Apple decided to enter the sector.

The main reasons listed include:

- 48% of those surveyed cite better service quality;
- 23% would look forward to a personalised service offer.

This shows that actual and perceived quality of service are primordial to all consumers.

⁵ Survey taken with 5,776 mobile users in France, Belgium, Germany, the United Kingdom, the Netherlands, Norway, Spain and the United States

▶ THE NATUs

In another example illustrating the digital economy's innovation and speed: just as the world had come to realise the nature and impact of the GATAs, the NATUs came on the scene.

The four greatest success stories of these past two years, the NATUs (Netflix, Airbnb, Tesla, Uber) saw their market capitalisation increase from 3% to 10% of France's CAC 40 in just 24 months.

Airbnb, which has around 600 employees yet owns not a single room, posts market capitalisation equivalent to that of its competitor Accor, which has 3,700 hotels and over 180,000 employees.

Uber, which has 1,500 employees and cannot claim ownership to a single taxi, has market capitalisation estimated at around 69 billion dollars, 1.5 times greater than that of France Télécom Orange, with 165,000 employees. Just a few years after its arrival on the scene, it became the world's top non-listed company.

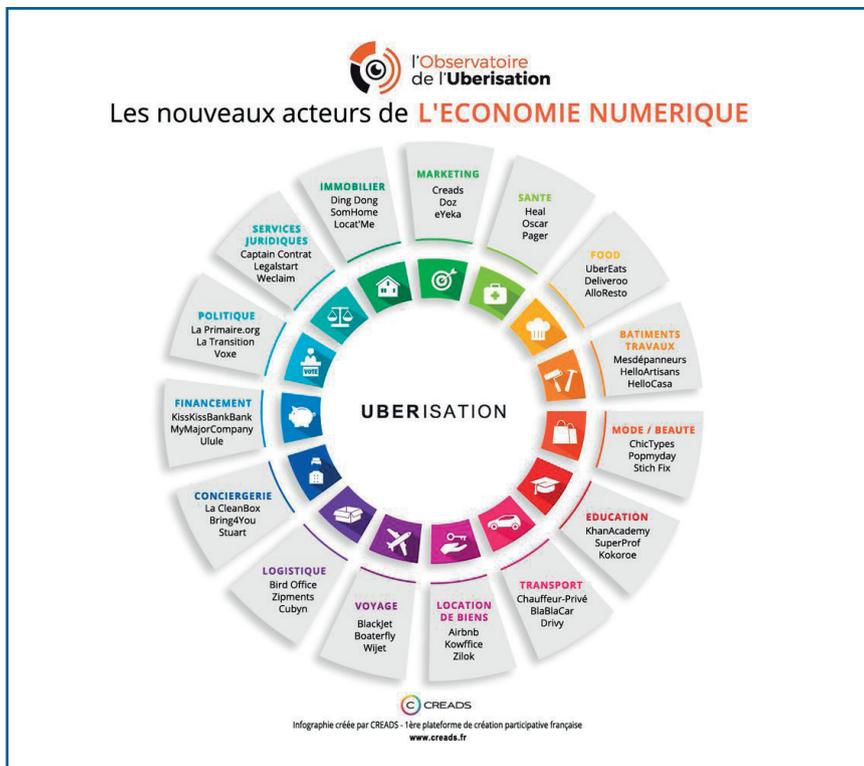
Uber (unlike Google) can boast success in China where, thanks to billions of dollars pitched right and left, and an alliance with the national giant Baidu, it has made a name for itself. It has also just made a 1 billion dollar investment in India. All of this was done concurrently, of course -- this just goes to show how quickly things are moving!

Netflix, one of the few old-economy players in this league, distributing a catalogue of films originally on good-old VHS videotapes, gained world leadership with a pay streaming platform. It should be noted that Netflix is also the producer of successful content such as "House of Cards", and the more controversial "Marseille" in France. Netflix already posts 65 million subscribers across the world, and has made it a goal to reach 180 million subscribers in some 200 countries and territories by the end of the decade. In France, Netflix is already home to 10 million subscribers.

These are just a few examples of globally successful start-ups that went

from zero to the heights, thanks to their boldness, brazenly rivalling with the long-standing giants, despite all of the latter's know-how and experience.

The infographic below effectively shows that many sectors have already been impacted by the digital economy's new players.



▶ A CLOSER LOOK AT THE UBER MODEL

Let us come back to Uber's story:

"Uber is one of the competitors of a new kind; intermediation platforms establish themselves between professionals and consumers, connecting them up and, along the way, sharing margin with producers.

The term "uberisation" has emerged. It has come into widespread use and not a day goes by without its being heard. But just what does it entail? According to Maurice LEVY: "It is the idea that you wake up one morning, and find out that your legacy business has vanished..." It happens to those who did not see change coming or failed to take action early enough, and suddenly find other players on their own markets⁶.

Uber's story was sparked by an actual experience in its founder's life. When, on a snowy day, the 8th of December 2011 to be exact, Travis Kalanick found himself stranded on the streets of Paris without a taxi in sight, he decided to create the platform that would satisfy his unmet need.

Uber put technology to use for the needs of customer satisfaction: using the geolocation of a mobile digital tool, e.g., smartphone, to improve the customer experience, thanks to:

- a price announced up-front that rules out unpleasant surprises, even in the event of heavy traffic;
- simplified payment, in that users have provided their credit card details in advance;
- shorter waiting times thanks to geolocation;
- publicly-viewable feedback, in which users can rate their drivers;

⁶ Philippe Arraou, Introduction to the Opening Plenary, 70th Congress of the Order of Certified Public Accountants, 30 September 2015

- and those little perks that make all the difference: a bottle of water, candy, cell phone chargers, etc.

In short, true quality of service, in line with user expectations, and top-notch experience!

That's how Paris taxi drivers, which up to that point enjoyed a monopoly situation, woke up one morning to find themselves with a cumbersome new entrant that had come to compete with them on their very turf. The historic taxi enterprises did not see anything coming and, mesmerised and powerless, could only watch Uber's rise from the sidelines, before going on to challenge it.

Uber would probably have not have come into existence had taxis made geolocation technology part of their everyday tool-kit and had customer satisfaction held a more central place in their concerns.

All of these success stories share two points. They stem from technological innovation, and their commercial development knows no borders. Their success has been such that their technologies have shaped a new society. And yet we are still only at the start of the digital era!

Chapter 2

THE TECHNOLOGIES THAT WILL IMPACT OUR EVERYDAY

CLOUD COMPUTING

A few years ago, cloud computing was a topic for insiders - namely, IT specialists - only. Today, the situation is very different, in that cloud computing, also known simply as "the Cloud" is part of our everyday lives without our even understanding how. Our e-mails, pictures, music and all the information we share are stored in "the cloud". The Cloud is an external data storage and hosting server that does away with the need for hard drive and replaces servers in enterprises.

In other words, and according to the NIST⁷, the Cloud is "a model enabling ubiquitous, on-demand access to a shared pool of configurable computing resources". In other words, it is an off-shoring of IT infrastructure.

The technology was not a revolution per se when it comes to service rendered, the aim being to store data and be able to provide it on demand. It is, however, the starting point for a real breakthrough. People no longer store data on their hard drive, at home, and agree for it to be hosted elsewhere, in an off-shored archiving model. The business rationale is enticing: away with technical issues, malfunctions, breakdowns, risks of loss, theft, destruction, etc. However, disguised under the cape of convenience, it is in fact a mechanism of de-possession. The contracts are written in reassuring terms that make it possible for everyone to sleep soundly. Fine.

⁷ National Institute of Standards and Technology

But what becomes of our data? Are the stored data truly secured? Can we be certain that no one will be able to view them? Or, an even more daunting perspective, that no commercial use can be made of them?

All of these questions are on everyone's minds, and the psychological leap is not an easy one to take. The content of the United States Patriot Act and its possible ramifications are enough to make anyone move from doubt to fear. The resulting legislative framework enables the US authorities demand that any information held by an American company be handed over to them, even when the said data come from abroad, or when the enterprise in question is established abroad. A few months ago, we saw how difficult it was for Apple to oppose the law, and the situation was similar a few weeks ago, when the terrorist attacks took place.

Consequently, a European enterprise using software produced by a publisher from the country, itself using the services of a US enterprise to host data on the Cloud, would be at risk of losing the confidentiality of its own data. Our legislation in French or even in Europe cannot play on equal footing. The situation cannot be left as is. Even if the French software publishers that work with our practices have assessed the risk at hand and assure us of their inviolability, we are in a situation of dependency, which we had not known since the advent of micro-computers since the start of the 1980s.

To entrust the storage of all our data, those of our clients, our messaging and our management to an outside service exposes us to risks, against which even the best contractual guarantees will, at best, only be usable to initiate proceedings before the law, in the event of violations, much to the delight of our solicitor friends.

It would be far more reassuring if certified public accountants themselves could hold the keys to the infamous clouds, or at least, contribute to writing the terms of reference, or even only be involved in compliance checks. This is an undertaking to be entrusted to the profession's institutions, not only

national but also international. It would be a splendid undertaking for the IFAC, the global federation of all national institutes and all international organisations!

BIG DATA

"Ask any Chief Data Officer to define big data and he will start looking at his shoes. In reality, there is a very good chance that, for every person you ask, you will hear a different definition⁸".

The trouble people have defining big data is due to the tremendous variety of players who have taken hold of the expression, each connecting it back with their own objectives and interests. The Web's giants (Yahoo, Google and Facebook) were faced very early on with issues as to how they could best manage their very large volumes of data, and were the first to deploy cloud-type technologies as a result. According to Gartner, the US consultancy and research firm specialised in advanced technologies, big data encompasses a family of tools that respond to a three-fold issue: the large Volume of data needing to be managed, the wide Variety of information emanating from a diverse resources, and a specific processing Velocity that must be attained for data collection, storage and use. It is the so-called rule of the "3Vs".

The phenomenon known as "big data" (in French, "*données massives*") refers to the flow of data on the Internet resulting from the democratisation of high-speed connections. The phenomenon's magnitude is such that it can be considered an economic value in and of itself. The ability to make use of the data turns the material into a form of economic wealth. The heightened importance of Big Data is such that the World Economic Forum in Davos (Switzerland) deems that it is now a new resource, comparable to oil from the economic standpoint. Within that context and as the boundaries of business activity are shifting, the enterprises destined to be

⁸ Big Data Ges Persona, MIT Review, October 2013

the most powerful in the future will likely be those that have successfully taken advantage of the data available.

To do so, flawless knowledge of computer resources is fundamental. Human intellectual capacity is not enough to take in all the data produced daily. Furthermore, data can come from extremely diverse sources and deal with entirely different topics, without any apparent interconnection. It is precisely the ability to put data together and take advantage of seemingly unrelated data that makes the difference. Moreover, big data enables real-time integration, shifting the world into a model of constant immediacy and thus responsiveness, every minute of the day.

To illustrate, now that it is possible to follow hundreds of millions of people on the social networks daily, some financial analysts have begun gauging how humanity feels at various points in time to draw conclusions about the pessimism or optimism found across the population. They then use the metrics in trading shares. In another example, it has become possible to estimate inflation by instantaneously compiling the prices posted on the sites of supermarkets throughout the world. In yet another instance, pandemics can be tracked as they progress across the world, based on user search queries.

As there is a flip side to every coin, however, big data cannot be all bliss: there is necessarily a trade-off. The question which the technology opens up is obviously that of how to provide protection for privacy. Consumers' personal data can be used for purposes to which they may have objected, had anyone sought their opinion. Furthermore, above and beyond the purely commercial aspects, legal infractions of all kinds, from identity theft to personal account hacking, can occur. Data can be used not only in a less than discrete manner, but also, when it comes down to it, for villainous purposes, with potentially very significant economic consequences, in the event of very large-scale use.

Another fear comes from risk of manipulation of the global or local

markets. There too, when it comes down to it, there is a real possibility that information - accurate or fallacious - can be released at a given place and time, so as to influence such and such a decision, and for the sole purpose of deriving profit from it.

In this respect, the fact that certain influential individuals can already, in a single Tweet, influence the course of the stock market or a enterprise's purchase volumes, gives reason to believe that, if by chance, those individuals' accounts were hacked, the consequences could be devastating. This aspect is all the more relevant at a time when multiple market-related decisions can be made within a very short lapse of time, and in more or less automated fashion. Purchase or sale orders can be issued concurrently, in very large numbers, without man's action being necessary in the least.

Lastly, big data revives the confrontation between the political and the economic. The political community, especially in democracies, is particularly slow to adapt to economic change. The most striking proof of this is the difficulty with which the political leaders of many countries integrated the fact that the world is changing, and that the factors that might have prevailed or operated in the last century can no longer do so today. The result is a decrease in the hold which political power has on economic power. As the political does not work in step with the economy in an attempt to shape it, sooner or later, the latter inevitably gains the upper hand and further deteriorates the credibility of the political. During that time, the Web's giants wage merciless warfare, seeking hold of ever more data for their bases.

And contrary to what some may believe, the rise of big data has only just begun. It offers an infinite range of possible applications.

Today, the battle of big data has changed in nature: it is no longer only a matter of processing structured historical client data, but rather of deploying intelligent predictive tools to anticipate customers' future needs. French banks, in particular BNP Paribas and Société Générale,

have initiated workstreams in this area. The race for big data has begun.

This can be seen in the fact that "data scientist" is now one of the most sought-after job profiles, and will be featured at the Datajob annual trade fair in Paris (and throughout the world), the fourth edition of which will be taking place in 2016.

Data analysis, via KPIs (Key Performance Indicators), is used to shape supply and positioning strategies, based on the observed behaviours of visitors to specific websites. The most recently-adopted tools make it possible to go even further, using "IT Tracking" to identify visitors by their IP address as they log in. These data are of simply tremendous value: to wit, Google AdWords (advertisers pay to have their copy displayed on Google) makes it possible to push relevant content to interested parties.

By 2020, the value of European consumers' personal data could reach around 1,000 billion Euro, according to Boston Consulting Group estimates. The Government, meanwhile, has assessed the market at 9 billion Euro in France alone within the next five years, promising the creation of 137,0000 jobs.

This is thus indeed a trend that spans all of society and is relevant to every citizen, insofar as each supplies data, without knowing or intending to do so, and become targets of reprocessed data, in their position as consumers. One could say that the process has come full circle. The system is a pernicious one, but also devastatingly effective.

This race for data has implications for all businesses. Consequently, it has implications for certified public accountants. First of all, with regard to their own needs, as accountancy practices are businesses that have to be managed like any other and cannot persist away from modernity. Implications also exist with respect to their clients, whom they must advise, and only with an in-depth understanding of the issues can they do so.

For the macro-economic potential it holds, big data should even involve

our profession's national institutions. In 2015, the Order of Certified Public Accountants launched its project Statexpert, a database like no other that provides statistics based on the information that transits through the profession's fiscal and social data declaration portal, jedeclare.com. This is a concrete illustration of what the digital economy can bring about, and which would never have been possible otherwise.

THE BLOCKCHAIN

The blockchain (indeed a chain of blocks) has been hailed as the next big revolution, one that will "uberise the uberisers", and is capable of revolutionising multiple fields of the economy and society, if its proponents are to be believed. What is the blockchain?

The blockchain is an information storage and transfer technology that is transparent and secure, and operates without a central control body.

The Bank of England, central bank of the United Kingdom, defines the blockchain as "a technology that allows people who don't know each other to trust a shared record of events". In other words, the blockchain can, in theory, enable individuals to do without a traditional trusted third-party, which does away with intermediaries, and thus infrastructure fees, hence the system's ingeniousness.

The French legislator, in its 28 April 2016 Order⁹, defines it as "a shared electronic ledger system".

Each transaction is recorded in a block, the authenticity of which is certified not by a trusted third-party such as a bank, but by global user community members who solve math problems using powerful computers. Once the block has been validated, it is recorded in the long chain formed by all the blocks, from the start. The ledger is considered impossible to violate, as the computing power needed to alter it appears impossible to bring

⁹ Order 2016-520 modifying the Monetary and Financial Code

together. Several thousands of copies of the register would need to be falsified concurrently.

The blockchain technology originated with the attempt to launch the infamous cryptographic currency, "bitcoins", so that there would be an alternative means of exchange to money - it is thus understandable that banks are following the project very closely and readily investing.

The R3 banking consortium and some 15 of its members, including BNP Paribas and Natixis, announced on 10 August 2016, the use of blockchain technology for trade finance, with the creation of a prototype for letters of credit, the most frequently used means of reducing payment risk on transactions between importers and exporters, guaranteeing over 2,000 billion dollars in transactions each year. Managing them generally requires paper documents, which are both cumbersome and costly. *"Trade finance is a significant source of revenue for banks, but its central role for global trade has been hindered by its inefficiencies"* explains the R3 Consortium.

Trade finance amounts, according to the Boston Consulting Group, to nearly 45 billion in annual revenue for banks. The use of the blockchain must make it possible to simplify the letter of credit process all the while enabling greater transparency and security for all parties involved. By placing transactions on private shared book, players can track the data in real time. The letters of credit are signed and guaranteed electronically. The aim is to reduce the processing cost of commercial transactions by approximately 15%. The main expected advantages, however, are the convenience and simplicity offered, the result of which should be to ramp up the use of letters of credit.

Blockchain technology is so creative that many have compared it to the dawn of the Internet in the 1970s, when the principle of the TCP-IP protocol first emerged. Considering that it took more than 30 years for the latter to come into widespread use, there is good reason to believe that we have not yet seen any of what these blockchains have to offer, eight years after their inception.

The applications of the blockchain to everyday life are starting to mushroom: for instance, enabling and securing remote voting, securing medical data, industrial patents, land deeds, connected objects, etc. A tremendous number of projects have started to come into being: in education, for instance, as fake diplomas and doctored résumés started to re-emerge, the young start-up Bitproof offers to assign each diploma a unique key, the number of which is encrypted into a blockchain, making diploma fraud impossible as a matter of fact. It is difficult to imagine what could stop this system from expanding. Except perhaps abuse or fraud...

The story of Ethereum offers many lessons in this respect. Founded by a young Canadian of Russian descent, Vitalik Buterin, this alternative blockchain, which uses ether as its reference currency, is controlled by a foundation based in Canada and marketed by a commercial company based in the Swiss canton of Zug. Last 30 April, a knock-out initiative, TheDAO, brought together a collective of investors who pledged 150 million dollars in a single day, in the form of 11.6 million ethers, to be managed according to the rules of a "smart contract", the reference code of conduct by which the vaunted society operated. The days of bliss were short-lived however, when on 17 June 2016, TheDAO fell victim to a nightmare scenario, in which a hacker took advantage of a crack in the system and made away with the equivalent of 50 million dollars! Clearly, the blockchain system is not as inviolable as its advocates, which see the code as having the authority of law, would like us to believe.

This example, like many others, effectively demonstrates that the digital world has specific security needs. The need is pressing and urgent, as it needs to be satisfied with each newly-occurring accident, whereas the traditional economy had instituted its security systems long ago.

Security is one of the major thrusts in this book, and one to which I come back frequently, as I feel it should stir something in every certified public accountant. First of all, in light of their role with their clients, who will not fail to ask them questions, if they have not already done so; they will need to have an opinion in order to advise a cautionary approach that still leaves enough room to see opportunities.

Responses to security needs will come about quickly, as blockchain technology is not going to stop. It has only just begun and is, little by little, entering every sector of activity. The insurance sector is one example. Enterprises such as Lloyds or Allianz have already expressed their interest and determination to get experimentation started AXA has invested 55 million dollars in the start-up Blockstream, the developers of which are the largest contributors to the Bitcoin protocol and which will enable, for instance, interoperability between different blockchains.

The fact that insurance enterprises are looking into blockchain today is because the technology makes it possible to break free from the phases of declaration and build new automated insurance systems via the Internet without intermediaries, based on "smart contracts".

Smart contracts are self-directed programmes that automatically executed the conditions and terms of a contract, without requiring human action. By automating contract execution, they make it possible for both the insured and insurers to break free of declaration phases: forms, claims, verification, compensation release, etc. The blockchain, by serving as an automated trusted third-party, opens up to the way to a decrease in structural costs, all the while improving the reliability and speed of the decision-making process.

The example use to illustrate insurance models based on smart contracts is that of so-called index-based or parametric insurance, or insurance connected with an index, such as temperature of rainfall levels. The smart contract concluded between the farmer and the insurer can stipulate that payment is made after thirty precipitation-free days. The contract is sustained by reliable external data, like that of the national weather service. Payment is released after thirty days of drought, without requiring the input of an expert or a declaration from the insured party.

The advantage of setting up smart contracts in a blockchain lies in the guarantee that the contract's terms cannot be modified. As Primavera de Filippi, a researcher at CERSA (an offshoot of CNRS) and the Berkman Center for Internet & Society at Harvard University, "*a smart contract is*

software, a blockchain application. We tend to liken them to contracts, but they themselves do not have any legal authority. Smart contracts are but a technical application of a legal contract".

To date, the use of the blockchain can be divided into three categories:

- Applications dedicated to asset transfer, primarily for monetary transactions;
- Smart contracts;
- Registry operations, to guarantee traceability.

The last item can be considered a threat to the certified public accountant profession. It is our function as "trusted third-party" that could be shaken up here. Without its having come into being yet, and trying to imagine how far progress could go, let us imagine a blockchain which a business would share with its customers for its sales invoices. The latter would log on to download their purchase invoices, which would be directly incremented in the accounts, without human action, or even accounting software. The same is true of banking slips. Not much more will be needed in order to finalise the accounts, based on an automation, with traceability guarantees. By doing away with human intervention, the system does away with the need for a code of ethics, designed to deter dishonest behaviours. This is conditional, of course, on the machine's configuration having been designed in an ethical manner. This example shows that the weak chain is indeed the human being, while the machine only executes the commands given to it. In many respects, it can turn out more reliable, which is both comforting and worrisome. How far will progress go? Will machines replace man? It will not replace the certified public accountant, but will most definitely remove many of its current tasks.

ARTIFICIAL INTELLIGENCE

Out of the many major technological strides being made today, one needs to be watched particularly closely, and may even call for advance action: artificial intelligence.

According to experts, artificial intelligence may turn out to be as powerful a revolution as was the mobile telephone in recent years. The technologies we refer to as "cognitive" were born of the field of artificial intelligence and make it possible for machines to execute tasks which only humans could complete until recently.

An article in French daily *Le Monde*¹⁰ reported that the American law firm, BakerHostetler, had purchased a tool specially dedicated to corporate bankruptcy cases. The tool includes questions asked in natural language and looks for the response in thousands of legal documents. It offers a pinpointed response, substantiated using rationale derived from existing texts and concrete case studies, in far less time than would have needed the most competent humans on the topic.

Artificial intelligence also operates through bots or chatbots, which are invisible robots that find their way into messaging services or SMSs to offer customised services via actual conversations.

The "virtual valets"¹¹ » anticipate needs, answer questions, ask questions and recognise sentences.

The news media are starting to use them to personalise their content; one example is television channel CNN, which has established itself on Facebook Messenger. In France, it is the free daily *20 Minutes* that is aspiring to inform you about the topic of your choice every time you connect to Facebook. Looking for the latest news from Euro 2016? Just go to the "Instant Discussion" tab on your Facebook page, type in *20 Minutes*, then enter your selected keyword. Users can say nothing more than hello,

¹⁰ 27 May 2016

¹¹ Article by Eric Scherer on LinkedIn, "*Au-delà du mobile*" [Beyond Mobile]

and the bot will respond. Its creators insist that there is no point in trying to throw it off - the bot has a response to every question.

Admittedly, in order to gain the services of robot, one must invest, and invest a lot! This explains why it is primarily the GAFAs that have set out on the race for artificial intelligence. Using massive start-up take-overs as their strategy, the Web's giants are waging a merciless war against one another.

Apple just acquired, in August 2016, for the tidy sum of 200 million dollars, the start-up Turi, specialised in machine learning, or the ability for a machine to learn on its own and respond in accordance with patterns detected in the big data gathered. In a few months' time, Apple acquired no fewer than four major start-ups in the field of artificial intelligence. This aggressive business strategy echoed that of its competitors, Google, Amazon and Facebook. Each person finds their own key to intelligently analysing the mountains of data gathered each year. Martin Rugfelt, a specialist on the matter, explained that *"artificial intelligence consists of creating computerised systems that combine the storage, research and synthesis capacity of a computer with the best of human intelligence, namely, our ability to understand and reason"*.

Artificial intelligence thus creates systems that do more than analyse data, and can learn from experience, or from their own mistakes. The tremendous implications this has for trade are easy enough to imagine. Apple's decision to take over Turi was anything but a matter of chance. Having gained hold of a technology that analyses user behaviours, Apple knew it would be able to aim its advertisement or product recommendations with pinpoint accuracy.

Building from its own data analysis, a site like Amazon will be able not only to recommend articles similar to previous purchases, but also foresee customers' preferences and relieving them of the effort of having to think about what they wish to buy.

In May 2016, Google kicked off a new mobile messaging service based on artificial intelligence, to answer users' questions. Its most significant project to date, however, remains Google Car, an autonomous, driver-less vehicle which, if marketed on a large scale, would denote the ultimate victory for artificial intelligence, being capable of replacing man.

Facebook decided to join the fray in August 2015, when it started testing a personal Messenger-based assistant known as "M", similar to that of Google, and which could eventually take on tasks which individuals usually handle, such as making train reservations or booking a restaurant table. In September 2014, Mark Zuckerberg's firm made no secret of its aspirations by initiating FAIR (Facebook Artificial Intelligence Research), a research centre dedicated to artificial intelligence and headed by Frenchman Yann Le Cun. The structure has since established bases in New York and Paris.

This handful of explanations makes it easier to understand why the Internet's giants became involved in full-fledged warfare to dominate the artificial intelligence market. Their futures depend entirely on this new technology's success.

These new undertakings are frightening in more than one way. It is difficult to see the boundary lines. Are there any bounds at all? Will machines outpace man? Therein lies the central challenge of this research endeavour. Aldous Huxley's "A Brave New World" appeared to be science fiction in 1931, but could turn out to be a prophecy less than one century later. For artificial intelligence is progressing at such a quick pace that concrete outcomes are expected in the short-term and possibly very short term. We have entered a new era - the digital era.

AUGMENTED REALITY

Wikipedia describes augmented reality as referring to those IT systems that make it possible to superpose a virtual 2D or 3D model over the perception we naturally have of reality, furthermore in real time. It refers to the various methods that make it possible to embed virtual objects into a sequence of images in a manner true to reality. It is used to alter visual perception by superposing virtual images on actual images. There exist many such applications and they extend into ever more areas, from video games to play-based learning, cinema and television (post-production, virtual studios), industries (conception, design, maintenance, assembly, steering, robotics and telerobotics, implantation, impact studies, etc.), medical or... virtual treasure hunts!

A striking example of this is offered in Nintendo's latest game, specially produced in conjunction with Web giant Google: Pokemon Go has made the top stories in the news these past few weeks, all across the planet.

The technology it uses is none other than augmented reality: an interactive combination of real-world data and virtual data, in real time, and in a 3D environment. The success story so widely relayed by the media has grown to staggering proportions: as I write, the number of users recorded in the United States alone has reached 21 million. It is also a success in stock market terms, as the publisher's market capitalisation swelled dizzily by 23 billion dollars in a few days' time.

Augmented reality extends to arenas far wider-ranging than games, and has been brought on board to serve marketing and business strategies as well. For instance, using vocal and facial recognition, it can turn using a product or service into fun, or heighten both the immediate and lasting impact of a given customer experience. People can for instance project a new haircut onto their face, test out a piece of clothing, model a product or home, test a service, etc. McDonald's, which is looking for new ground on which to fight competition and make customer experiences more appealing, has chosen to focus on children. What could be better than to have electronic chips placed under the in-restaurant furniture, so that,

while enjoying a hamburger, children can use their parents' smartphones like virtual cars on a course virtually located on each table.

Visiting a museum can now be done to comments and animation around each work, livening up the entire exhibit experience. La Réunion des Musées Nationaux, the public institution that manages French heritage, made the leap several years ago, rolling out a series of gaming platforms for its visitors to enjoy all along their pathway.

The European programme "SmartCities" brings together nearly 250 cities in Europe with more than 100,000 inhabitants, according to a study by the European Parliament.

As the programme's definition and objectives state, the aim is to implement innovative urban project management mechanisms to transform cities, drawing upon every available resource (sensors, connected objects, etc.) to analyse and manage the public environment more effectively. The digital era has thus also made its way into our everyday lives.

THE HERALDED END OF TELEVISION

The media world, too, is in the throes of change such that it can be likened to a revolution. One need only look at the number of daily newspapers in France: whereas in 1900, there were more than 600 (60 of which were in Paris), there are only 88 today, specifically 18 national dailies, plus 4 free, and 66 regional dailies.

Distribution channels have taken off in the last three decades, with the arrival of the specialised press, weekly papers, ever greater number of radio stations, expanding TV offer, digital publications, etc. All of them use the same business model, based on advertiser financing. Yet the number of advertisers out there is limited and budgets very sharply down since the last economic crisis.

Audiovisual, which dug the grave of newspapers by capturing their advertising revenue, is currently experiencing the same fate, with competition from WebTV and other on-line publications.

However, the challenge does not stop with the business model: it is in terms of content that the question of use is now being asked. Canal+'s pay model may well have been retailored to the market, with a multi-broadcast offer, Video on Demand (or pay-per-view), streaming (whether legal or illegal) or other offers, like Netflix or Apple TV have ushered in a new way of consuming.

Just what purpose do television programmes, and consequently the grids into which advertisements are inserted, serve in an environment where viewers can now put together their own programmes from their very armchair? A special report, then a match, rounding out the evening with a concert, plus a programme for the manga-loving son and the hunting-aficionado grandfather, each on a different screen. Indeed, not only are television programmes expected to fade out -- the very device on which they were watched is also slated for extinction. No longer is there any need for such a bulky, imposing piece of furniture: family members each have their own personal screen(s), whether a notepad, PC or smartphone, which do the job very handily. Ask young couples today whether they have a television at home. The digital era implies new modes of consumption, new models and new behaviours.

Chapter 3

NEW MODELS AND BEHAVIOURS

In the final days of May 2016, Emmanuel Macron started the door-to-door campaign for his new movement, "En marche! " on Facebook Live, the social network's live video tool. Earlier in the year, it was François Hollande who gave the technology a try, with "Periscope", a tool intended as a competitor to Facebook, which he used to broadcast his meeting with the employees of showroomprive.com. In the United States, President Obama is the one giving the medium a spin. Is this not modern? Who would have imagined such a trend a few years ago?

Yet in each of the aforementioned cases, the technology was used only in an attempt to give off a modern-day air, and many of the possibilities it offers were left untapped. The Internet is a tool that can take politics into a new era and bring about effective participatory democracy through the dynamic and interactive relationship it enables. The functionalities of dematerialised communication could be implemented to fill the gap between politicians and citizens, and get the latter involved in political activity. A major step forward could be enabled by the Internet, revolutionising politics in every country. While the final decision will be up to the elected officials, I would like to say that such a move would be an excellent development, and even one which I feel is urgent.

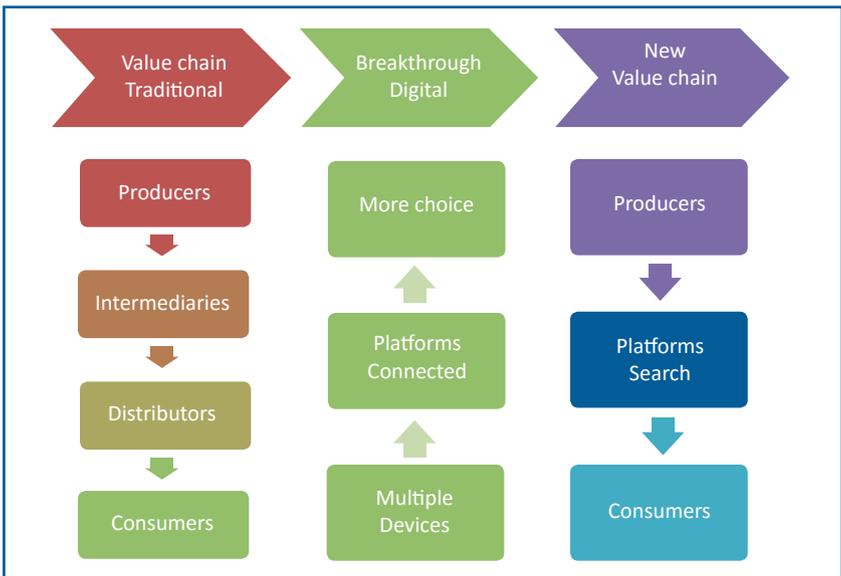
In Japan, Snapchat users (150 million users worldwide in June 2016, according to Bloomberg) can, prior to purchasing a product, scan it and ask their contacts whether they have used the same and, above all, what they think of it.

I chose those two examples because I see them as revelatory of the secular changes underway. There are many more. Let us remain on economic ground, nonetheless.

"With this new digital economy, new paradigms are entering the marketplace¹²."

THE NEW ECONOMY

The emergence of new technologies, including cloud, and the rapid development of digital interfaces have made it possible to directly connect supply with demand, thus modifying the value chain as the chart below shows.



¹² Philippe Arraou, Introduction to the Opening Plenary, 70th Congress of the Order of Certified Public Accountants

As a result, for many years now, consumers have been able to find second-hand equipment on "Le Bon Coin", fund projects thanks to "kisskissbankbank" or sell their train tickets on "trocdestrains".

The new economy can be observed through various prisms:

- the platform economy;
- the collaborative economy;
- the new consumer, an informed and on-line figure;
- the customer experience;
- Generations X, Y, Z and on...

▶ THE PLATFORM ECONOMY

Last 19 April, national daily Le Monde published an article entitled "The platform economy, or the stealthy industrial revolution". The title was particularly well-suited to an economy in which the Top 15 businesses operating under the model are now estimated at 2.6 trillion dollars!

According to the author, *"the boom experienced by the platform model is an unprecedented change in economic paradigm. We need to understand that we are experiencing a shift from a model that derives its value from products to a model that derives its value from the ecosystem it enables"*.

Vivek Badrinath, DGA in charge of Marketing, Digital, Distribution and Information Systems at Accor Group, said in 2015, in reference to the Group's digital transformation: *"We want to extend our expertise in the hotel sector to the customer experience as a whole, drawing upon every digital source of leverage available (mobility, personalisation, pathway fluidity, big data), in order to become true travel companions to our customers"*.

In other words, Blablacar and Uber are not the only players showing an interest in the customer experience, but also brands as long-standing as Pizza Hut, which on its homepage, asks customers, *"What can we do for you today?"*. We are worlds away from the initial pizza home delivery

offering! Certified public accountants, who provide a service to their clients far more than do pizza-makers, would do well to make the latter's homepage query their own.

In a very short period of time, we have moved from Web sites the purpose of which was to introduce enterprises' activities, like a showcase, to merchant sites, then to interactive sites that build bonds with a population that has already started buying. The amazing communications tool that is the Internet has gradually turned into a place for distribution, economic exchange, consumer activity and, broadly speaking, a marketplace.

Now, we refer to "platforms": the term is eloquent, indeed symbolising both intermediation and a coming together. These are immaterial platforms, and yet generate economic flows that are anything but virtual. This is the new economy. Will it do away with the old one? In any case, it is giving it a very rocky ride. Will it be fleeting? It is rather our impression that these are only the first steps toward a new world. Like helpless onlookers, we watch as the initiatives born of fearless imaginations achieve ever more astonishing progress. Creativity is gaining the upper hand, in a trend that is reassuring in a sense, seeing how worn and weary our Western society has become. Yet at the same time, no one can say what the next stages will be, nor where the path we are taking today will lead in the future, and this necessarily stirs concern in us.

▶ THE COLLABORATIVE ECONOMY

The new economy is one that is developing in a direction never seen before, made of sharing, both outside enterprises, with customers, and inside them, with the employees. We share information, we share data and we share responsibilities, in a spirit of healthy give and take. The technology that enables us consequently has an influence on the way society works, facilitating solidarity and good citizenship. There too, we are certainly in for many more surprises.

- Collaboration with the consumer

One of the key characteristics of the digital economy is that it has made it possible for projects based on never-before-see concepts to come to life.

Shared product use has always been found in our society, but within limited boundaries, for instance in families, between friends, neighbours, members of a consortium, etc. The Internet's unlimited communication technology added a new dimension and unprecedented impact to sharing. Once the mechanics of finding other individuals became facilitated, the only thing left was to structure it. This was where the platforms came in: seeing a business model to be taken advantage of, they turned it into a business. Hence the concept of the digital economy.

Let us take the example of Blablacar, a splendid French success story and emblematic figure of the collaborative economy and symbolic of the profound changes underway today. Sharing a car with a driver who is alone and has room in his/her vehicle, along with other passengers with limited or no resources, has always been done, via mechanisms varying in sophistication. In my day and age, it was known as hitch-hiking, and involved standing on the roadside and beckoning to passing cars (I hope that this explanation, intended for younger audiences, will have brought a smile to the faces of the elders). Later, communication became organised, people were able to get in contact with one another via a standard procedure, and there are no more hitch-hikers on our roadsides. The Internet enabled

better organisation and thus greater safety. While it can be said that sharing, social ties and environmental protection are all rooted in the same concept, the three did not come together and take on an economic dimension until an intermediate structure came about, established itself between the players, added the new idea of compensation, even minimal, and took a commission for itself as payment for its service. This is what is commonly known as the "collaborative economy" today.

The so-called "collaborative" sector is home to several types of platforms:

- platforms that offer individual consumers the opportunity to share the use of a product or service, the most widely-known example being Blablacar. However, consumers can also share a parking space (parkodom.fr), a machine (lamachineduvoisin.fr), rent out their own car (drivy.com), etc.
- Platforms that link up individual consumers who provide one another with services without financial exchange: for instance, garden maintenance in exchange for car mechanics works, etc.
- "Co-working" spaces are also collaborative models that host enterprises and/or associations and provide them with offices, in exchange for a small financial contribution. In such cases, the idea is to create both social and professional ties.
- Lastly, this list would not be complete with mention of crowdfunding platforms, which could be more officially termed as "participatory funding", a system in which citizens join together to share funding for a project, which can be association-based, commercial or economic in nature. What is striking about this new type of funding is not so much the slightly quirky collective approach designed to make up for the traditional banking system's shortcomings, but instead the fact that a community comes together around a project. Those who contribute to the project are obviously going to pay particularly close attention to the endeavour which they have helped fund, hoping that it will succeed, if only to ensure that they recover their investment.

They will even become customers to the project, and opinion-leaders, helping it to succeed. A group of "friends", to use the Facebook terminology, or a community, forms around the project to help it on its way. The collaborative economy creates ties of a new kind and offers responses to some of the traditional economy's shortcomings. As this collaborative culture develops, it will assuredly have much more to offer, for all types of activity, including the most traditional. For instance, creating a family around the enterprise, taking care to include one's own customers and suppliers can lead to a certain degree of self-sufficiency, in which stakeholders' reciprocal interests become guarantors to the operation's smooth functioning overall, doing away with dependency bonds, in particular with respect to short-term fund-providers, generally banks. Facebook will have at least offered the benefit of changing our society by offering to create communities of "friends", who do not necessarily know one another, but come together around an idea, a passionate interest or a project. This is another example of a concrete and beneficial development in communications technologies.

Our Minister of the Economy and Digital Affairs, Emmanuel Macron, made no mistake about this, stating on 29 March 2016, at the 3rd Conference on Crowdfunding: *"Crowdfunding is an area of innovation in and of itself, and is the bearer of a dynamic for usage, regulation and technology. The funding raised via the platforms responds to very real demand and offer a new solution for economic players not always able to find opportunities when relying on other forms of funding"*.

The collaborative economy also characteristically symbolises sharing and may well herald the end of individual property. It is no longer necessary to own something in order to use it. This has become so much the case that a term was coined to describe it: the "Nowner" generation was born of the contraction of "no owner"... Why own a car if I can find a private

individual or professional who will share his at a reasonable price? This collaborative, sharing economy offers an advantage: it restores greater purchasing power to everyone. To those who share their cars, by offering them financial income, and to those preparing to use them for a nominal fee, who are spared having to make a weighty purchase. This is indeed a new mode of consumer activity and a whole new society.

- **Collaboration within enterprise walls**

Where enterprises are concerned, the digital revolution has sent organisations and management systems into upheaval. The traditional organisation mode, with a hierarchy, top-down information channel, and centralised decision-making process, despite having always proved its worth, is now being challenged. The new models are based on collaboration, through digital technologies. The time has come to usher in the horizontal model, which gives priority to working in project mode, amongst colleagues. Information circulates freely and is no longer held only by the tip of the pyramid. The CEO's new function is no longer to be behind employees, supervising them, but to be ahead of them, to encourage them to come along.

Fundamental change can also be seen in work conceptions, thanks in particular to the mobility which new tools offer. People work more and more frequently from home, or in "co-working" spaces, with several people sharing a single space, such that they engage more easily in interaction and collaboration. These new approaches move today's workers away from traditional "salaried employment". In reality, these are people who operate independently, committed to a project and unbound by ties of subordination.

This trend needs to be taken with a grain of salt however, as it cannot develop in all business sectors. Moreover, the need to structure any given activity is inherent in all enterprises. A balance most needs to be struck between the need for an organised structure, and respect for a degree of

autonomy and empowerment which individuals seek. The future of each enterprise will depend on its ability to achieve this. There is good reason to believe that the longer-term future of businesses will depend on their ability to face this change which can also be deemed a revolution.

▶ THE NEW CONSUMER

The new consumer is digital: he buys on-line, and no longer wants to make a mere purchase, but instead demands an experience, engaging in dialogue with the brands and placing high expectations on them.

In this new paradigm, the consumer's position when it comes time to engage in consumer activity is no longer quite the same. *"Today's consumer does not wait, does not queue, and is not dependent on store opening hours to make a purchase: he consumes when he needs to, and when he feels like it, meaning all the time."*¹³

According to a study by the Forrester Consulting Firm carried by the Wall Street Journal, approximately 190 million American consumers, or more than half the population made one or more purchases on-line in 2016.

The French, meanwhile, spent 64.9 billion euros on-line in 2015, a figure up by 14.3% over the year, according to FEVAD data. It should be noted that this increase is owed to the number of purchasers, up by 19% insofar as the average annual shopping basket amounted to only 78 euros, the lowest figure ever recorded. According to FEVAD, this decrease confirms that on-line shopping is becoming par for the course, matching more closely the average amount spent by the French on other merchant channels.

What exactly is changing?

¹³ Philippe Arraou, Introduction to the Opening Plenary, 70th Congress of the Order of Certified Public Accountants

"With easy, continuous access, 24/7, customers can consume round the clock, thanks to the fact that supply is always available. We have received such a point of development in the service offering that this opens the range of choices for the customer"¹⁴ .

Yet Roland Berger Consulting emphasises in its report: *"While 59% of the French make purchases on-line, only 11% of French enterprises sell there, in an example of the French paradox: the population is much more 'digital' than the average European, while the enterprises are far less so."*¹⁵ »

This gives an idea of the room for manoeuvre our French enterprises have.

▶ THE CUSTOMER EXPERIENCE

This brings us to the infamous "customer experience", which according to marketing professionals, needs to be restored to its previous magic, as it has become central to the success of the most prominent enterprises. But what about the customer experience?

In their work published by Editions Eyrolles, "The Customer Experience", Laure Body and Christophe Tallec summarised it as follows:

"It refers to all of the interactions perceived by the customer before, during and after purchase. This new customer experience paradigm encompasses the experience as a whole and does not focus solely on the characteristics of the products or service, or the benefits which consumers derive from it, but on those aspects that maximise what happens during the decision-making, purchase, consumption and even post-consumption periods. (...) To be truly customised, distinctive and memorable, a customer experience must be lasting and tap the emotions"¹⁶ . "

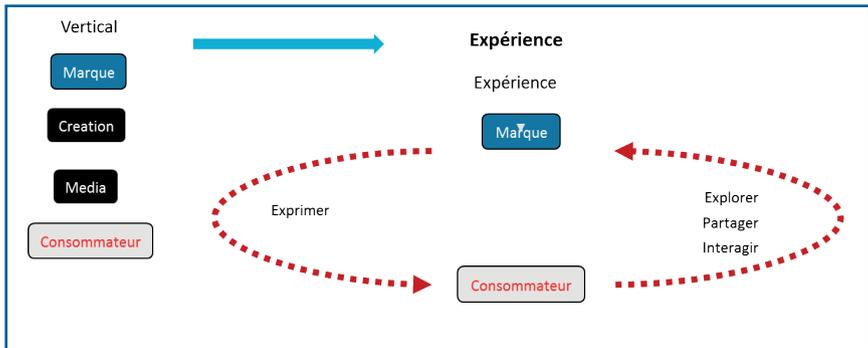
In other words, it is no longer about creating and commercialising a physical object, but on making it possible for the customer to enjoy a

¹⁴ Philippe Arraou, Introduction to the Opening Plenary, 70th Congress of the Order of Certified Public Accountants

¹⁵ www.rolandberger.fr/media/pdf/Roland_Berger_Du_rattrapage_a_la_transformation

¹⁶ Introduction to « *L'expérience client* », Laurence Body Christophe Tallec, Eyrolles

unique experience, from the first visit to the website, to after the sale.
The brand/consumer relationship has been profoundly changed.



"The consumer must understand what to buy and why to buy within the first 15 seconds. If not, you've lost them". This is a quote from Parisa Zander, Director of Worldwide Merchandising for Microsoft.

The Observatory on Digital Mobilities, run by Keolis in partnership with Netexplo, has uncovered 7 sociological trends about travellers expectations: Below are three of them, which I see as essential in that they reflect the consumer that is also our client:

- consumers demand simplicity;
- consumers demand speed, defined as speed and instantaneousness.
- consumers demand results.

In a *Les Echos* article published in June 2016, then Deputy Chief Executive Officer and now CEO of AXA, Thomas Buberl, spoke in the following terms: *"Client expectations have changed a great deal -- today, their points of comparison are Amazon, Apple and Facebook. It is no longer possible to sell insurance contracts without also adopting the customer experience model. This makes all the more sense as our profession, by nature, serves a community of individuals in which mutual assistance between members could become a reality. (...) Our profession needs to*

*re-invent itself: our competitors in the future will not only be those we have today, but also Google, Facebook, Amazon and Apple. All of the aforementioned have shown their interest in insurance*¹⁷. "

Globalisation is not merely the taking down of national borders: it makes it possible for any individual to enter any area of activity, even without any knowledge of the latter. That revolution is disruptive. And whatever the ultimate outcome, it can already discourage customers, who find themselves the target of constant prospecting.

▶ GENERATIONS X, Y, Z AND ON...

Sociologists like to classify, segment and categorise, and even if demographers challenge them on the dates somewhat, it was in 1991 that the concept of Generation X (born between 1960 and 1980) first appeared, in a Canadian work¹⁸ designating the generation just after the baby-boomers. For these young adults born in a world with every convenience, the reference points are complex: the economic crisis took over from the Cold War, and the profusion of media sources (an increasing number of television channels, free radios, CDs, and portable listening devices of all kinds) opens the way for technological transformation.

It was in this endlessly broadening realm of possibilities that the following generation was born (between 1980 and 1995): Generation Y, standing for "way" or "why". That generation, now in the workplace and consequently in our practices, challenges and wants to know the reasons behind every instruction received. These are "digital natives"¹⁹, with new expectations of their workplace and of enterprises. While they continue their education an average of three years longer than did their counterparts thirty years ago, they have more trouble finding jobs. When they do land a position,

¹⁷ To find out more, go to: <http://www.lesechos.fr/finance-marches/banque-assurances/0211047624124-t-buberl-axa-nous-ne-pouvons-pas-etre-la-uniquement-pour-regler-des-factures-2008247.php?jLimidrdcwX6J0rp.99#xtor=EPR-130>

¹⁸ Douglas Coupland "Génération X: Tales for an accelerated culture"

¹⁹ Marc Prensky "Digital Natives, Digital Immigrants"

they prefer skill over authority, see competition as a source of progress more than as a danger, are not willing to sacrifice every last bit of their private lives, are in search of meaning and recognition, and sign with the highest bidder.

Generation Y has unquestionably impacted the way we manage and structure our work, and not only will their children, Generation Z (born after 1995) do so even more, but already form our pool of potential clients. This is a generation also known as "Generation C", *"characterised not so much by its appetite for connectivity, but more so by the reasons for which its members connect and for the ties they develop thanks to that connectivity"*²⁰. In short, these are ties used for sharing. Google is not the "friend" they believe it to be. What they are looking for, they find in their communities, whether a means of travelling (Blablacar), or a media (Youtube, Peer to Peer). I referred earlier to the prevalence of usage over ownership. This is a generation that uses technology (bots, the Internet of things) solely as a means of jointly simplifying, enabling and enhancing experiences.

If I had to point to one picture to sum up this generation, it would be the "hackathon"²¹, in which individuals "hack" (as a means of development) to the pace of a "marathon" -- a hackathon has even been made part of our 71st Congress in Brussels, and definitely prove an attraction.

Let us not forget: Generations Y and Z are our customer base! There is no doubt that they will expect more from their certified public accountants than accountancy alone, which they have every intention of handling themselves, with the help of a user-friendly digital tool.

That being said, and as regards the possible generation gap that might

²⁰ Bruno Caille in *"L'influence de la Génération C sur son environnement et sur le monde du travail"* [The Influence of Generation C on its Environment and the Working World] - Les Echos.fr idées débats

²¹ Wikipedia (French): "The term hackathon refers concurrently to concept, occurrence and format of an event in which a group of volunteer developers come together to engage in collaborative computer programming, over a period of several days. It is a creative process frequently used in the field of digital innovation".

separate us, I cannot help but recall an article read recently and which I would like to cite in part here. Written by Antoine Amiel, founder of the enterprise Learnassembly (a Digital University), it sums up the issue perfectly, in my eyes: *"Every day, I am stunned to see that these thousands of 'digital natives' do not know how to use the tools provided to them to structure their digital lives, from intelligence to e-reputation, job search, big data, connected objects, 3D printing. In all the above areas, we are dealing with young people whose understanding does not go beyond that of a 5-minute general audience sequence on the national evening news".*

While digital uses are far more developed in younger generations, offering the illusion of great digital maturity, it is not so certain that they have an understanding of the underlying issues. Like a magician pulling doves from his hat, "digital natives" are masters at digital grandstanding, reeling off impressive chains of tweets, snaps and #mdr posts. Yet such digital tricks and turns do not run very deep in the end; they very quickly go out of fashion, like MySpace, Tumblr and so many others did.

Is it meaningful, then, to raise the question of the digital culture in terms of generations? (...) The generational question keeps "seniors" from having to question themselves, removing from their view that which they do not want to make the effort to understand. (...) The use of digital should not be seen as synonymous with digital skills. Digital skills, like all skills, are gained through courses, learning, and perspective on the ways in which they can be put to use. "

Let us not mix the digital culture up with digital skills! Using Facebook ten times per day does not mean an individual knows how to manage a Facebook page or put together an effective social network communications strategy!

The digital generation should not be defined by the simplistic lines of an age group, but by an understanding of the digital world and transformations taking place. All of which opens digital up in notable fashion to those older than the generation of "digital natives"!

Some of the greatest philosophers, observers and analysts of our world's

metamorphoses are not "digital natives; two prominent examples are Michel Serres, author of the renowned "Petite Poucette" or Jean-Michel Billaut, who in 1978 founded Atelier BNP Paribas, a centre dedicated to technological intelligence and analysis of new technologies, and is one of the pioneers of the Internet in France.

With these words, I hope to have brought solace to any of my counterparts who feel the topic is not of relevance to them and thus leave digital to the young practice members, while they primly await retirement. This is a matter for and about all of society, and by no means a space reserved for young people only!

A WORLD OF LIBERTIES DEFIANT OF REGULATION

The new platforms benefit from the lack of regulation specific to the digital economy. The rules are surely on their way. For the time being, however, we are in a period of legal vacuum, where a new space has developed, thanks to the Internet's technologies.

The most widely-known example of this is offered by Uber taxis. Initially, the platform took position on the professional market, primarily through private chauffeurs non-licensed to work as taxi drivers, yet offering passenger transport services in their cars. There was no way their offer could meet with anything but success, much to the dismay of the taxi industry! The second wave, which specifically hit the private consumer market, came in the form of Uber Pop. Born of the American culture of unbridled freedoms, Uber ignored national regulations and operating license law, and offered private individuals the chance to use their vehicles as a means of paid transport. With that, the doors were thrown open, and private individuals who neither met the conditions nor held the accreditations necessary to engage in passenger transport, at least the regulated country that France is, were ushered into the profession. We are not alone in this, however, and Uber has come upon major problems in many countries, to the extent that it was even banned from operation in Germany.

The difference with Blablacar is significant, in that the latter offers cost-sharing, nominal prices and clearly advocates for the collaborative economy. It had to, in order to reach a target audience of individual consumers. By keeping potential revenue below a specific limit, these drivers run no risk of seeing their activity be construed as "professional". The approach is thus entirely different from that of Uber.

Another liberal concept that is struggling to adapt to our French rules: the legal concept of labour and the employer-employee relationship. True to its liberal spirit, Uber provides work to self-employing individuals, asking them to maintain a status as non-salaried workers. As a result, the number of licensed professions has risen. As French labour law does not apply to Uber, there are neither employer charges, nor employee-related issues, both of which are haunting fears for any enterprise operating in France.

Today, however, the URSSAF (French office for the self employed) has "come back to bite" Uber, deeming that, since its 'service providers' are dependent on it for work, there does exist an employer-employee relationship, and thus, that employer contributions can be demanded of it. This approach is contrary to the spirit of Uber's contracts, but is typically French and unsurprising to anyone familiar with the culture that drives URSSAF and its civil servants to hunt down the slightest opportunity to re-classify contractual relationships, for the sole purpose of levying contributions. To the contrary, it would have been a surprise had URSSAF not undertaken such action, as the new digital economy flies in the face of French labour law and the rules resulting from it: concretely, it side-steps them by offering a commercial contract rather than a work contract.

Uber is by no means in a class by itself; rather, it represents the new conception of work that characterises contemporary society. There is, of course, vulnerability, unpredictability and uncertainty with regard to the future. No one is forced to play by these rules, however. It is the model offered, and every individual can take it or leave it. The phenomenon is gaining magnitude and there does not appear to be a way to turn the trend around. Perhaps it is best interpreted a response to the rigidity of our

labour law? Excessive efforts to protect make the object more vulnerable. The new economy is sweeping through society, making its strong gusts felt throughout, and sending many traditional economy models to the archives. There is good reason to believe that people's conceptions of work will also undergo major transformations in the digital era.

▶ A CLOSER LOOK AT THE TAX SYSTEM

What can be said about the tax system and its historical model, except that it has become outdated?

The rules for calculating income tax are not suited to the digital economy I refer here not to indirect taxation, VAT, which is applied objectively and in compliance with international regulations. The goods or services sold in France are subject to French VAT, even to enterprises not based there. In contrast, this is no longer true of direct taxation, meaning corporate profit tax. The definition of "permanent establishment", which can be used to tax a foreign company in a country, even when it does not reside there, based on specific material evidence of its presence, such as occupying premises, for instance, is entirely unsuited to the digital economy, which does not need a physical location to engage in business. The virtual world enables remote offices and knows no borders.

One of the characteristics of platforms lies in their having limited assets. These are primarily immaterial, yet at the same time can be extremely high in value. As they can be located in any country, mobility becomes a very real option. Why establish headquarters in a country with high taxation, when it is possible to do so in another, where taxation is low, or even non-existent?

Digital platforms consequently operate in a manner ideally suited to tax optimisation, fully in keeping with the law. This approach is even one of the defining components of the digital economy. However, it also has a tendency to make competition unfair. The platforms create competition with traditional businesses, which unlike them are subject to tax, further

to traditional and historical tax policy. The resulting competition can thus be said to be unfair, in that it makes it possible to offer lower prices, yet not be subject to tax on the profits earned.

Let us look back at the case of Uber for a moment, against which I have absolutely no negative pre-conceptions, but wish to use as an effective means of better understanding this new economy. Even though Uber owns a subsidiary in France, Uber France, the said entity declares only a minute percentage of its revenue in the country. The system is ingenious, as in reality, the French subsidiary does not issue invoices for any of its rides. It is a Dutch subsidiary, Uber BV, which takes responsibility for receiving payment, then pays approximately 10% of the resulting revenues to the French subsidiary as a commission enabling it to bear its commercial expenses. Uber BV, meanwhile, takes a 20% commission on the rides it invoices, but in exchange pays a sizeable fee to another subsidiary registered in Bermuda, well-known tax haven, for the right to use Uber's patent. The benefit of going through a Dutch enterprise is rooted in the tax agreement signed between the Netherlands and Bermuda, which does not call for any deduction at the source, when France would have lifted 33.33% of the payment received, had the contract been signed with a French company, as our country does not have a tax agreement with Bermuda. Once again, Uber is not an exception to the rule. The story of Airbnb is all the news as I write, the news having just gotten out that the company paid only 69,168 euros in profit in 2015. That same method is the one chosen by most of the digital economy's giants.

As the tax authorities in every country have them on their radar, and because they wish to preserve their business model, they embarked on a "virtuous approach" with the administrations. Not to pay tax, but to ensure that others do: they have all, in the very recent past, started providing information thanks to the traceability of their transactions. Consequently, those working for the platforms, slaving away for their salaries, will not escape paying taxes in their country. Is that an amusing,

or a cynical reality? And to go even further in showing their goodwill, and unintentionally taking the irony of the situation to its height, some platforms have agreed to pay a local tax when it is only nominal. Airbnb, for instance, is now willing to pay the municipal tourist tax on overnight stays, but lest anyone become too concerned about its well-being, the tax is obviously billed to the guest!

The other problem which the digital economy raises is taxation of individual users. Renting a room out to passing tourists, a vehicle, or any other form of property, obviously generates supplementary income, which individuals obviously do not report when filing taxes. Our fiscal rules do not see the situation in the same manner. Up to a certain level, income is considered ancillary, and beyond that level, is seen as professional income. In both cases, it is subject to tax. The challenge for the tax authorities lies in identifying this non-transparent activity. Hence their relationship with the platforms to secure information about service providers, and their kind cooperation, knowing all too well that they will be granted a certain degree of slack in exchange. For now...

This fiscal injustice can be remedied from the national level: the aim now is to find a response at the international level, and to agree on rules that would apply if not to all countries, than at least to most of the economies in which on-line consumer activity is a reality. The territorial source principle in profit tax is the focus of debate today in every country. It is unacceptable that these players, who pay no taxes whatsoever, be allowed to compete with our traditional businesses, which do pay tax. Consumer activity modes are admittedly changing, but the upheaval caused by the new rules is weakening enterprises and, in many cases, forcing them to shut down, in particular smaller businesses, taking numerous jobs with them as they go. This implies all the less tax income for the State. This injustice where tax is concerned cannot last.

Certified public accountants have their part to play. First of all, by serving as a voice from the ground, and reporting on what they see in their customers'

organisations. However, we can also generate and put forth ideas. It is our duty to develop closer ties with the public authorities and provide them with our knowledge of tax legislation so that new and just regulations can be developed. This work needs to be carried out at the European level, and I am very pleased that our 2016 Congress is taking place in Brussels and will be dedicated to tax policy. It will be the opportunity for us to deliver to the European authorities our proposals, developed in close connection with our sister institutions, including our German and Italian counterparts. This work will also need to be done at the global level, and the efforts underway at the OECD on the topic hold a great deal of promise. It is the responsibility of the profession's global organisation, the IFAC, to do everything in its power at this level and take up the issue of tax policy in the name of: its connection with accounting, the commitment of certified public accountants in fiscal consultancy, and the profession's ethical rules, which can meet the legitimate expectations of the public authorities.

DATA PROCESSING FOR COMMERCIAL PURPOSES

Can it be said that data have become just another form of merchandise?

The Web's giants have realised that this is the case and information has long been the lifeblood of the economy. It is information that makes it possible to accurately target consumer populations, offering them solutions tailored to their specific identified needs. Non-targeted, uninteresting advertising messages are a thing of the past. Today, brands can recognise their customers on each of the terminals from which they connect. As a result, they can address them less frequently, but also more appropriately. Their offers are better-suited and less invasive.

Behind the entertaining and endearing aspect of information-sharing, the social networks collect a wealth of information that is then connected up with our private data, on Facebook, without our having been asked to give much consent, we provide our birth date, place of birth, areas of

interest, etc.... and the algorithm is set to work, providing our information to the businesses that wish to receive it and are willing to pay for data which they can then use for commercial purposes. ²²

After all, have we not all tacitly agreed to have our data put to use? The phenomenon we are seeing today is the direct result of the no-charge model applied for most services on the Internet. We cannot be so naive as to believe that platforms are making such huge investments, motivated only by the desire to provide us with free services. In a world where the economy is omnipresent, there is necessarily a flip side to the absence of charge. There is no economy without exchange. As money is not used to secure the service, it can be said that the Internet economy is a bartering economy. What is the currency of exchange, though? Quite simply, it is, for us as consumers, our private lives.

When we take advantage of free access to a database to conduct research, we disclose information and tacitly agree for it to be used for commercial purposes. Similarly, if you want to book a hotel or trip on a search engine, you will automatically start receiving information on your various mail accounts about the same topic. Along the way, in record time, the information regarding your search will have been sold. There is no point in getting huffy about it or crying thief: by using the service, we step into the game and implicitly agree to play by its rules. We just need to know it's happening!

²² Philippe Arraou, Prestige Conference of CPAs (Certified Public Accountants) on the digital economy in Quebec, February 2016.

E-REPUTATION

The Internet, in its world wide web rationale, has given rise to unlimited communication extending out in all directions. Everyone can find out everything about everyone, in a single click. It didn't take much more for acts of solidarity to start emerging between citizens, as they engaged in communication without knowing one another, and sharing information to pass on good deals. Consumer opinions pop up on the Internet like mushrooms.

The most widely-known site of this kind, TripAdvisor, rates enterprises and even offers tourist opinions and consultancy based on consumers' comments. It also serves as a price comparison and booking tool for accommodation and transport. This just goes to show how influential and powerful it is. High ratings given by customers can make the reputation for a well-frequented establishment, while low ratings can have ravaging effects. Communication technology has taken over from the consumer advocacy associations that long existed in our country, and proven devastatingly effective, because of the breadth of information available and its immediacy.

The trend toward rating services or enterprises is not something limited to the hotel sector, and is spreading rapidly. For instance, a new platform, "Avostart", just recently came into being. Developed by the founders of Legalstart (a platform enabling administrative processes to be handled on-line), the tools intended to ultimately rate all 65,000 solicitors working in France on criteria such as price, availability, quality, experience, etc. In addition, Internet users can also ask questions anonymously, the responses to which can benefit the whole of the community. In developing the tool, the founders wanted to foster transparency on the market. They state, drawing upon an OpinionWay survey, that eight out of every ten French people deem that solicitors do not charge fees in line with their budget.

Initiatives such as this one are intended to foster good citizenry and solidarity. They can have extremely daunting effects given the threat they represent for professionals. On the other hand, they encourage virtuous, transparent behaviours. This is most definitely one of the beneficial effects of the Internet, which fosters the development of transparency in our society. It is an appreciable development and each of us absolutely must become part of this movement, especially within the context of a profession. Certified public accountants can expect to be among the very next populations pegged to be rated in this fashion; indeed, there is no reason for them to escape its hold. It has already become the case in many countries, even though they admittedly do not have the same regulations as we do. This is a societal phenomenon and one which we must accept.

As a result of the aforementioned, a new issue has emerged for enterprises: their "e-reputation", meaning their reputation on the Internet. The information that circulates often comes in "rough-hewn" form, without perspective, causing excesses and even disingenuous behaviour on the part of consumers. In any case, this raises real problems as the reliability and veracity of the information available are questionable. We see here the downside of this completely open mode of communication: misinformation is part of the picture and ends up limiting the medium's value by creating doubt. Fake opinions are spreading like wildfire and have become a very lucrative business. Even TripAdvisor has fallen victim to this. In such an environment, e-reputation management becomes a critical issue, whatever the size of the enterprises involved. No one can escape its hold! Transparency has no limits and imposes its rules.

FRAUD RISK

In his January 2015 State of the Union Address, US President Barack Obama declared: *"In the 21st century, America's prosperity will depend on cyber-security"*. With that statement, more an assertion than a prediction, he gave an idea of just how vast the implications have become.

There have been an increasing number of cybercriminality cases.

The resources mobilised by this booming form of banditry are estimated at 400 billion dollars per year. In 2014, 43 million cyberattacks were recorded across the world, or an increase of 43% in one year!

France has not been spared. A 2014 study by the Ponemon Institute revealed that the average cost of cyberattacks in France reached 4.8 million euros, with the record at 19 million, hence an increase of over 20% in one year.

False transfer orders, in a scam known as "CEO fraud", are issued by the company's purported CEO, giving rise to some 100 million euros of lost money each year in France, and losses that range from 72,000 to 17 million euros, based on the claims filed.

The victims are frequently major listed enterprises, but can also include SMEs, VSEs and private consumers: we are all at risk. Philippe Trouchaud, a partner at PriceWaterhouseCoopers in charge of cybersecurity issues, wrote in his book, "La cybersécurité au-delà de la technologie" [Cybersecurity Beyond Technology], published in February 2016: "The issue of cybersecurity is as crucial to an SME as it is to a CAC 40 corporation²³".

Even certified public accountants are hacked! One of the most resounding cases in France hit KPMG, costing its French operations 7.6 million euros. This goes to show that the shoemaker is clearly still slated to be poorly shod. Other cases also captured the news, including the hacked customer records at Orange and TV5 Monde, the NSA scandals, Wikileaks, etc.

²³ Philippe Trouchaud, « La cybersécurité au-delà de la technologie » [Cybersecurity beyond Technology], Odile Jacob 2016

The latest fad consists of freezing computers using a virus, then requesting ransom money to un-freeze them: this is known as ransom-ware. Such cases are increasingly frequent. How should we respond? By calling the police? But, of course! And then, what? What do you think a police inspector or computer systems technician working for the police will be able to do? Not much! We can always call our IT service provider or supplier. The situation will be analysed using by reading through the files, duly recording the blockage and concluding that there is solution in sight. According to the consensus view, the only solution is to pay the ransom. It costs anywhere from 400 to 4,000 to recover decoded data. Hacking victims can then only hope that the virus injected did not do too much harm and that a swift return to the previous operating mode is possible, though this is far from a foregone conclusion.

The world of the Internet is a new "Far West"! No, extortion has not faded out of our society, and the ease with which information circulates is giving it a new lease on life.

There should be no doubt about the benefits of new technologies for any economic activity. However, the risk of fraud should also not go ignored or underestimated. Investment in the information system must include protection for the tools via which information moves. As there is a flip side to every coin, the weaknesses and risks found in even the most advanced technologies do need to be taken into account. One of the characteristics of our society and our enterprises is our total dependency on the information system.

While solutions do exist, they can only be used effectively if there is awareness of the risks and threats at hand. Cybersecurity has become a profession in and of itself, and specialists are highly prized. This is of relevance to certified public accountants as they interact with their customers, but also with regard to their own needs, as their profession requires open data transfer, with inter-communicating information systems, which combine to make accountancy practices the ideal target. In order to avoid experiencing it as a further restriction on our room for manoeuvre, let us look at it as an opportunity to rethink our processes and

improve our productivity by using the latest technologies.

This aspect, like many others, requires that we adapt and, in our practices, carve out new service niches through which to reach our clients.

INTERNET AND DIGITAL SERVING SOCIAL JUSTICE

In the households that make up the poorest 20% of the population, nearly 7 out of every 10 own a mobile phone. How can one not be shocked that it is now easier to purchase a mobile phone than it is to gain access to drinkable water? How can we put the technological revolution to work to enable a world of greater prosperity and solidarity? By fostering inclusion, efficiency and innovation, technology makes it possible for the poor and underprivileged to enjoy a world of opportunities previously out of their reach. In Kenya, for instance, the cost for migrant workers to send funds home has decreased by 90%, since the digital payment system M-Pesa came into being.

In the conclusion to its "2016 World Development Report", the World Bank, through its President Jim Yong Kim, stated: *"The findings of this Report should be used by all who are working to end extreme poverty and boost shared prosperity. The greatest rise of information and communications in history will not be truly revolutionary until it benefits*

everyone in every part of the world."Such an appeal should be met with only the strongest support.

The Internet offers an exceptional opportunity to promote economic development, definitely more effectively so than has been done up to this point.

The World Bank derives three policy objectives from its analysis:

- To create a business environment in which enterprises can leverage

the internet to compete and innovate for the benefit of consumers;

- To ensure that workers, entrepreneurs, and public servants have the right skills to take advantage of opportunities in the digital world;
- To encourage an accountable government that effectively uses

the internet to empower its citizens and deliver services.

These priorities demonstrate that the key components to the development process are taking on ever greater importance as the Internet extends its reach. The reforms needed now will require not only investment in technology, but also a change in mindset, or in any case in conception, when it comes to those models that have always worked well enough, but are no longer suited to this new environment. Let us do as Darwin taught us and adapt!

The issues at stake are of such magnitude and, more importantly, have such ramifications, that the responses to the problems raised by the Internet can be found only at the public and international level. In a context where the Internet's development is entirely dependent on the action of a handful of private enterprises, it is time that the public authorities take up the issues, coordinating the action implemented by the various States.

At the very least, it would in that manner foster greater security on the market and add regulation where necessary. The aim today is to organise matters and perhaps to put an end to the "Wild West"-type situation we are seeing today. I would like to reiterate, in this regard, the need for fiscal justice on electronic commerce.

The European Commission, for one, came to this realisation in 2015, launching its project for a Digital Single Market, with three strategic aims:

- Ensuring access for consumers and businesses to digital goods and services across Europe, by facilitating electronic commerce, improving package delivery and lowering the barriers that limit access to certain on-line services for private consumers;
- Re-working the regulatory framework on telecommunications, the media, on-line platforms and data protection;
- Encouraging investment and innovation in the ICTs by doping better standards, fostering interoperability and promoting the use of big data and cloud computing.

This European initiative is being studied closely, as it is the first of its kind from a public entity and its success in creating a fruitful digital common market would undoubtedly make it an example for others to follow in other regions of the world.

Moreover, in addition to establishing the framework for private action, public action can be improved and supplemented thanks to the Internet.

The three priority areas for action set out by the World Bank in its 2016 Report are telling in this respect:

- to ensure good governance for the Internet;
- to create a global digital market;
- to improve the supply of global public goods, in particular those that contribute to reducing poverty.

This clearly attests to the reach of the Internet and its potential, well beyond the tremendous private benefits generated in a few years' time by the pioneers. That the Internet be assigned a public and social utility target is reassuring. At the least, this effectively demonstrates that the issue is not limited to enterprises and the economy, and has implications for our society as a whole. It also speaks to the fact that we have entered a new era: the digital era.

Thus far, we have seen what were most likely only the Internet's first steps: a great deal remains to be accomplished. While the digital revolution has truly gone into full speed, what the World Bank refers to as its "analogue supplements" remain to be addressed, specifically by: developing regulations that foster the arrival of new players and competition on the markets, and adapting workers' skills so that they can become part of and benefit from the new economy.

The topic is now in the "politicians" hands. It is of significance that France's Minister of the Economy, Emmanuel Macron, stated, on 29 March 2016: *"It is a good thing that a market be regulated, because it gives a secured framework to everyone. Personally, it worries me when someone makes tremendous profits in a sector subject to unclear regulations"*. He went on to promote regulations designed not to atrophy business, but instead, to support it using proportionate rules. This is just another example of the need to strike the right balance.

It is the responsibility of the States to develop digital development strategies that are far more ambitious than current strategies on ICTs and to institute a legal and institutional framework that provides security and as many benefits as possible to the greatest number of people. There is no sound analogue foundation to make the Internet a true vector for economic and social progress in our society, at the global level.

Through what channel could this best be remedied?

The OECD? Definitely, as far as economic and fiscal policy are concerned. The UN? Let's see what it can do! The only condition being that each State would need to first agree to recognise its sovereignty, thus fundamentally changing the way the global order is designed. The G20? Most definitely! The agreements signed by the Heads of the 20 most powerful nations on the planet do give rise to action. It is high time that they take up the Internet and its consequences. How can the Internet fail to be seen as the tool for peace that it is when it brings people together? This will obviously require some rules. However, the effort is well worth it. Even if it appears more a dream than reality, it deserves to be pursued, and remains one of the few options available today.

Then, let us keep in mind that the world is born of our dreams. Walt Disney's motto was: "*If you can dream it, you can do it*".

I will conclude this first section with the words I used to close my speech before Emmanuel Macron, Minister of the Economy and Digital Affairs, when I was awarded the French Legion of Honour²⁴ :

Today's issues go beyond us all, they go beyond the pettiness of our States and go beyond the weakness of the European Union: the digital era and revolution, tax policy, the accounting framework, conduct of business rules, and corporate social and environmental responsibility to name only those issues that impinge on our profession -- all of these refer to a global dimension, and a planetary scale. Let us not underestimate the issues at stake. We are doing nothing less today than bringing together cultures and consequently building peace between populations.

The world is in a dramatic state. That of our Western society is just as dramatic. The solutions remain to be found and invented. Those used in the past will not be able to remedy the problems we are seeing today -- especially those responses based on force. The path of peace is not always the easiest to take, but it is the only lasting one. In conclusion, and as surprising as it may sound, I would like to express my confidence in the

²⁴ 06 July 2016

role of certified public accountants in helping to build peace on Earth, by working with enterprises in their commercial transactions, and along with them keeping alive the values of ethics and general interest, above and beyond vested interests. A fine undertaking lies ahead for all of us, each at his own level. This is a glorious profession and it is our duty to give back to it what it has given to us. Such is, in any case, the meaning I give to my work.

PART II

Our Profession is Directly Affected

Our core business still consists in large part of legacy responsibilities, in accounting and tax policy.

However, our clients have not only other needs, but also other expectations, which are little or unmet by practices, despite their skills. The main explanation is a lack of time when considered with respect to fees: the ever-increasing load of administrative and declarative requirements weighing upon enterprises, fully taken on by certified public accountants, alone use up almost all of our clients' budget fees.

Another reason for which certified public accountants have limited presence on the consultancy market lies in the historical ban on communication and prospecting placed on us as a matter of professional ethics. As of 22 August 2014, that barrier has been removed: the professionals of the accountancy profession may now by Law engage in promotion and prospecting when the aim is to provide information deemed of benefit to the public. The members of the Order may use the same means as any consultancy player and as such fight on equal footing. This is not limited, of course, to consultancy services, and extends on accounting, a market on which we are the only service providers.

I am well aware, having heard as much regularly, that the new regulation is appalling to the vast majority of the profession. To accept it, we must keep in mind that this is the price to be paid to maintain our prerogative to exercise as accounting professionals. It can be referred to as a lesser evil. We need to realize that we are the only profession in the world to hold what is commonly and clumsily known as a "monopoly", and our French system would be eliminated if it did not abide by the general rules of free competition.

In short, it is better that our clients be prospected by our colleagues subject to the same professional ethics requirements as we are, than by solely-commercial enterprises willing to do anything for a contract. Granted, "it's not what it once was" -- and nonetheless, we need to recognise that those days belong to the past.

After all, considering the way other professions are developing, in particular licensed professions, we must acknowledge that ours is faring relatively well.

I would nonetheless recall here the limits placed on prospecting, as per our Professional Ethics Code²⁵ :

"The means used for promotion or prospecting of this kind shall be implemented discreetly, so as to not jeopardise either the independence, dignity and honour of the profession, or the rules on professional secrecy and loyalty toward clients and other members of the profession.

When presenting their professional activity to third-parties, whatever the means involved, accountancy professionals shall refrain from adopting any form of expression likely to compromise the dignity of their function or the image of their profession.

These and any other modes of communication shall be deemed acceptable only where the expressed in a decent and contained manner, and where the content conveyed is free of inaccuracy, unlikely to mislead the public and exempt of any comparative components".

The stage is thus set for our profession to undergo a major change as it moves forward, with a particularly sharp bend in the road to be taken. I would say that we have already come into the curve and that we should have this in mind so as to not end up part of the scenery!

On the one side, our professional ethics regulations have been modified to give us the means to take action fully alongside enterprises, on topics beyond our prerogative when it comes to accounting. This applies as well to consultancy responsibilities taken up as the principal component of any contract, a possibility opened up by the Macron Law²⁶ , without any accountancy involved.

²⁵ Decree 2012-432 of 30 March 2012, Article 152

²⁶ Law for Economic Growth, Activity and Opportunity, 6 August 2015, known as the Macron Act, Article 62

On the other, de-materialisation technology has transformed accounting entry processing techniques, making it possible for certified public accountants to design their customers' information systems differently.

Those two factors combined can be seen as a tremendous opportunity for our profession: an opportunity to develop our role alongside enterprises, giving more room to consultancy, the time requirements of our accounting responsibilities having been lightened, and thus to establish ourselves as an essential trusted partner to CEOs.

It is in this sense that the advent of the digital economy is not a threat to our profession but a true opportunity. Provided, of course, that we grasp its breadth and deftly bring about its conversion. At this point, the vast majority of the profession is still very busy with accounting aspects, even though the techniques have changed. It is all a matter of understanding how to become digital certified public accountants.

Our profession is directly impacted by digital and has most definitely been pioneering in this area. Our ability to fully become part of the service community providing support to enterprises will depend on our ability to enhance our range of offerings, beyond our traditional accounting responsibilities, though these will unquestionably remain our foundation²⁷.

²⁷ Philippe Arraou, during his investiture speech at UNESCO, March 2015

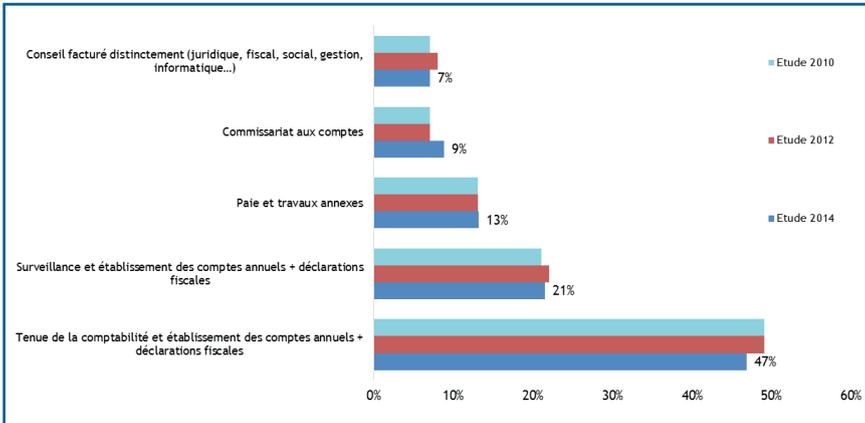
Chapter 1

THE PROFESSION'S CURRENT RESPONSIBILITIES

BUSINESS IN THE PRACTICES TODAY AND INTO THE FUTURE

According to a study by the Accountancy Profession's Observatory in 2014, certified public accountants earn more than two-thirds of their income through traditional accountancy services, nearly half of which consist solely of book-keeping²⁸.

Revenue breakdown by type of service



Source: La gestion des cabinets, étude de l'Observatoire de la profession, [Managing a Firm, a study by the Profession's Observatory], 2014

²⁸ Including drawing up annual accounts and tax declarations

Accounting continues to be the main source of revenue for accountancy practices, with slight variations however, depending on practice size: pure accounting makes for just under 45% of the revenues of practices with more than 20 employees, and over 60% of those with no employees.

Overall, the accounting service as a whole (including revision) amounts to 68% of business at the practices surveyed, peaking at 81% for certified public accountants operating alone.

These figures say quite a bit. They are worrisome, if we consider how accounting entry techniques are developing. Will the profession successfully maintain its revenue derived from book-keeping, which continues to account for less than half of its business today? Meaning nearly six billion euros per year? That is the challenge ahead!

The issue appears to be set out in particularly stark terms, but the trend has been underway for years now.

CHANGE IN AVERAGE REVENUE

Average revenue per client earned by practices without employee (€K)

2002	2005	2009	2011	2013	Trend 2002-2013 ²¹
3.5	3.4	2.6	2.8	2.9	-17.1%

Sources: Observatoire Study, 2014

²⁹ In current euros, i.e., not taking into account the impact of inflation

Average revenue per client earned by practices with 1 to 49 employees (K€)

2002	2005	2009	2011	2013	Trend 2002-2013 ³²
3.7	3.4	3.3	3.3	3.1	-16.2%

Sources: Observatoire Study, 2014

The bottom line is brutally clear: as our traditional responsibilities lose their distinctive nature and prices fall, the average revenue per client has dropped to the same extent since 2002, both in practices with fewer than 49 employees (-16.2%) as in practices with no employees (-17.1%).

While the development of consultancy activities is more than ever a topic of discussion, the percentage of revenue which practices earn from those activities is stagnating at a very low level: 7% in turnover in 2013. It is also interesting to note that this percentage is relatively even across practices of similar size, even though those with more than 50 employees are slightly above the average, with 9% of their revenues from consultancy services invoiced separately, as is to be expected.

Firms often have a great deal of trouble developing their consulting services, at least in terms of turning that into sales revenue. While they are regularly called upon by their clients, they have trouble securing due payment for their services. Certified public accountants "give" consultancy, and true to the etymology, they do so as though without expecting a return. And their clients find it normal that the said consultancy should be available free of charge, as they already pay for the regular tasks, taking it to be part of an all-inclusive package similar to what they might pick up at an open bar.

³⁰ In current euros, i.e., not taking into account the impact of inflation

Another reason not to pay for consultancy lies in the client's sense that "it doesn't cost the CPA anything" to give it: "He surely has the answer and can very well give it to me, as I am already his client! ".

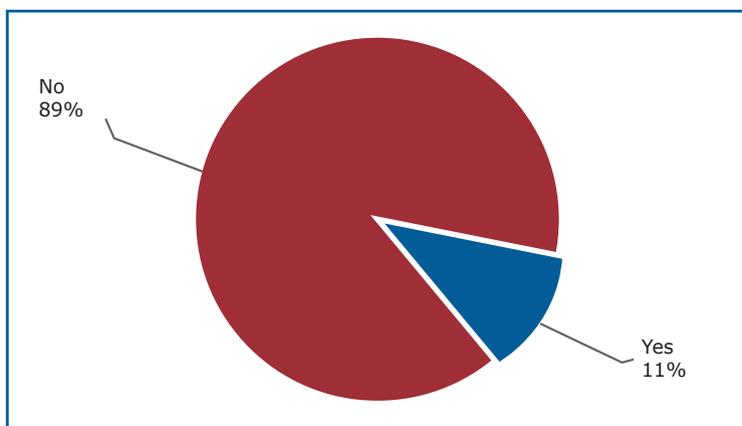
But who is it at fault here? Is it the client, who assumes he has already paid for the consultancy, or the CPA, who goes along with the system and does not know how to sell himself? If the profession does want to make amends, it needs to take up the bridle and bring about a change in mindsets and culture across the CEO community.

OUR MANAGERIAL BEHAVIOURS NEED TO CHANGE

The challenge for certified public accountants lies in effectively professionalizing what they can offer in terms of consultancy, starting with management consultancy, the natural extension to accountancy.

One of the factors explaining why it is difficult to charge for these services can be found in the low proportion of OEC members with a division dedicated to this type of activity: barely 10% of the practices surveyed in this study responded in the affirmative on this point. While the firms are naturally the pioneers in this area, only one-third of those with more than 50 employees has a division dedicated to management consultancy.

Practices with a structured management consultancy division



Source: Enquête de l'Observatoire, 2014

Practices with a structured management consultancy division, by size

	Total	0	1-2	3-5	6-9	10-19	20-49	>50
Yes	11%	6%	9%	12%	13%	10%	17%	33%
No	89%	94%	91%	88%	87%	90%	83%	67%

Source: Observatoire Study, 2014

There is no need to emphasise that the percentages are even lower when it comes to consultancy in areas other than management.

This confirms that the profession's success in developing new areas of service will depend entirely on its ability to implement a new approach.

I have the honour of having been appointed Rapporteur Général of the French CSOEC's 2012 Congress, which will remain an unforgettable experience. Well aware of that our practices were already on the road toward change, I had selected the topic: "certified public accountants as entrepreneurs". Working with a large team of volunteer counterparts who

had taken a passionate interest in the topic, we offered the profession a review of the rules fundamental to any enterprise, those which hold true in our clients' organisations and which should also do so for us.

The first step consists of setting out the strategy and determining the market positioning. The second is to put together the resources that will enable the above, specifically human resources, then production capacity. For the third and final component, which is commercial, we drew up a Guide on Marketing for CPAs, the very first of its kind in the profession and a Bible of sorts for anyone wishing to build a practice long into the future.

While these rules may be new to us, we should not take them as being inflicted upon us. Quite to the contrary, it is important that we look to them with enthusiasm and confidence, in the awareness that they are aimed solely at providing us with work, addressing our customers' expectations, so that we can better satisfy their ever-growing range of needs.

It should be noted in passing that the three following congresses also dealt with practices, leaving aside the technical topics that generally illustrate our work:

- 2013 in Dijon was dedicated to human resources;
- 2014 in Lyon focused on scope and missions;
- and 2015 in Paris was the time to look at digital.

The fact that our profession's national institution has, for four years in a row, dedicated its efforts and resources to the development of firms today, indeed provides that the topic is taken very seriously indeed.

Chapter 2

OUR CUSTOMERS' EXPECTATIONS

The needs of enterprises today have less and less to do with accounting. In contrast, entrepreneurs need to be supported; they need consultancy. Our clients turn to us on an extremely wide range of topics, and we need to be competent in multiple domains, which is a real challenge³¹ !

The scope of certified public accountants' activities now goes well beyond accountancy. CEOs no longer feel the need to call upon an accountancy professional just to draw up their financial statements. It is an overall and general view of the enterprise that is expected of us. Areas such as strategy, management, financing, export, and de-materialisation have become part of the CPA's scope. Those whom we hire today are less and less frequently accounting technicians³².

Let us take some time to look at our clients' expectations. Whereas they used to outsource areas seen as constraints (accountancy), they now seek advice on how to manage their enterprise, improve their performance and secure it for the long term. They want consultancy, support, presence, and dedication. They want added value and say so clearly!

³¹ www.revuegestion.ca/informer/philippe-arraou-il-faut-aujourd'hui-concevoir-de-nouveaux-perimetres-aux-experts-comptables/

³² Philippe Arraou, Prestige Conference of CPAs (Certified Public Accountants) on the digital economy in Montreal, February 2016.

CEOs have multiple needs, as all the surveys show³³, but they also state that they are not satisfied with their certified public accountant. Do they voice their expectations? Not often. And all the less frequently as they pertain to unidentified topics. Yet this is of little importance, because they are real. It is the role of CPAs to be proactive and call their clients' attention first to specific issues, thus helping them become aware of them.

Just offering a service can serve as a catalyst and trigger awareness of the need. Certified public accountants do have a bright future ahead, provided they take that future into their own hands. Ever since our congress on digital, I have been using daily - and sometimes several times a day - as I interact with various counterparts, a phrase that effectively captures the change in our profession as well as its future, with a hint of mischief: "more and more expert, less and less accountant!" referring to the French title "expert-comptable".

For a certified public accountant, providing new services means coming up with an offer of a new kind. It is a process that cannot take place without adaptation. Most of employees in practices today are outstanding technicians when it comes to accounting and tax policy, but lack an all-encompassing view of enterprises. They do not speak the same language as do CEOs and take relatively little interest in operations and "business". This is not intended as criticism: we wanted them to be that way and even trained them to perform purely technical tasks. Up until now, that has been enough to meet our clients' expectations.

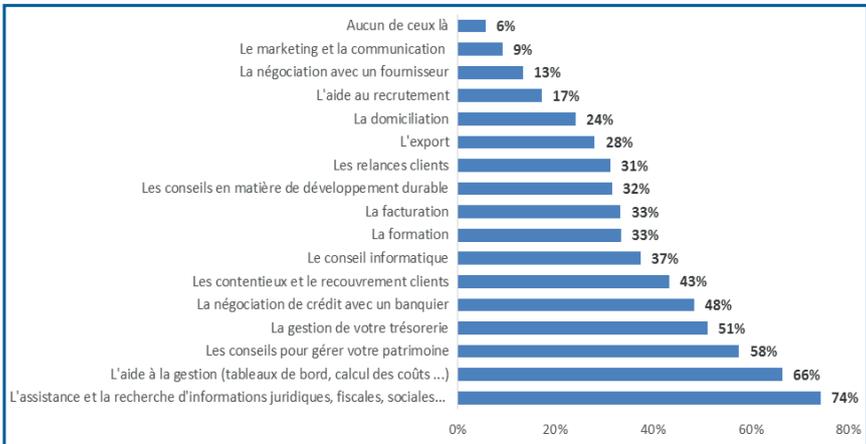
However, the more the training process focused on accounting techniques for pre-paid expenses amounting to no more than a few euros, or consigned packaging, without any more perspective, employees turned into accounting mechanics. In all faith, most of them believe that a balance sheet is erroneous if the last telephone bill is missing, and thus have no qualms about delaying the submission of their accounts to the

³³ In particular, Marché de la profession comptable [The Accounting Profession Market], Ordre des experts-comptables, 2014

enterprise leader by several weeks, until such time as the much-awaited document arrives. They know every account number down to the sixth position, but do not know how to connect basic economic mechanisms up with their influence on the accounts. Their technical proficiency gives them something to lean on, and we should not hold this against them. Instead, it is our duty to train them so that they understand their role and can give meaning to their work, beyond accounting statements. Accountancy practices will not be able to enter a new era without the help of their employees, in other words, without a major training effort aimed at their teams.

To accurately understand the areas on which we need to commit, train, specialise and make investments, let us take a look at the main tasks expected by our clients³⁴, in their own words.

Services expected by VSE/SMEs from their certified public accountant³⁵



This list shows a striking truth: our clients' main expectations come first and foremost in areas very close to our core business.

³⁴ According to a study on the profession, conducted by the CSOEC in September 2014

³⁵ In response to the question: "What do you see as the services an accountancy practice should offer (regardless of whether you currently need such a service)? Check as many responses as apply Source: Observatoire Study, 2014

For three-fourths of the population surveyed, the top expectation was, unsurprisingly: assistance and information-seeking on tax-related, social and legal affairs. This was closely followed by management assistance tools (performance charts, cost-calculation, etc.) for two-thirds of the enterprises.

This is a bitter reality: our client enterprises are not aware that their certified public accountants offer this type of service, unquestionably due to a lack of communication on our part.

Clearly, an all-encompassing service would strengthen the bond between practices and their clients. The security offered by the practice as it takes care of these duties and serves as liaison with the various administrative services involved must come along with concrete support in everyday that facilitates the enterprise's operational monitoring processes.

Let there be no doubt about it: some consultancy services can no longer be optional or ancillary to a primary responsibility, and instead be fully-integrated into the practice's basic offering. Budget development and monitoring for gaps in performance should be incorporated into the account-keeping responsibilities for any prospect, especially in the case of a newly-created business.

Getting involved alongside our clients, with management consultancy tools that enable us to come together with them regularly is the only way to meet their expectation and put an end to the main criticism we hear: *"My certified public accountant? I never see him, or at best, once a year, at account closing time!"*

While entrepreneurs have always approached certified public accountants to entrust them with their account reporting requirements, there is not as much need today and there will continue to be less and less of it.

There are now management tools capable of drawing up accounts on their own, and though these vary in quality, the CEOs are left with the impression that they have met their requirements. Whether this is actually the case does not matter: they are certain and are less and less likely to come to a professional with a request for accounting services.

In contrast, they are concerned about their businesses and want to be provided with management tools. They want more security and need a top-performing information system to help them run their enterprises and make decisions. In addition to those tools, they need an outside perspective and opinion. However, these cannot come from just anyone. In choosing a certified public accountant, the CEO chooses a competent professional, held to specific standards on independence and ethics. Therein lies the certified public accountant's added value, and competitive advantage on the consultancy market.

This function remains little-known, most likely due to a lack of communication. The profession direly needs to make its know-how known to the public. This is no new observation, and I believe I have always heard this since I entered the profession, thirty years ago; this time, however, the problem has manifested in crucial terms, as the environment is no longer the same and our clients have changed.

Let us make the shift and change with them.

Chapter 3

INNOVATION HAS NOT SPARED OUR PROFESSION

A NEW GENERATION OF SOFTWARE

Accounting software came about at a time when very few households in France were equipped with computers. [Need I remind readers that Excel was originally designed to be used by certified public accountants?]³⁶

The continuing emergence of new generations of software contribute all the more to improving our productivity as accountants and gradually deteriorating the value of the core services around which our operating prerogative came into place³⁷.

The abundant supply of accounting software for the VSE market includes solutions from different generations. After an initial generation of MS-Dos software from the 1980s, and a second generation operating under Windows and still in use today, a third generation emerged, known as SAAS ("Software as a Service"), based on products developed for the Web, with on-line software based on the fundamental accounting functions, put together to compete with the second generation. Third-generation software differs in that it is hosted. Every publisher has now adopted the concept of selling not software, but leasing licenses. That, however, is only a step on the way to an entirely new paradigm.

³⁶ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

³⁷ Interview with Philippe Arraou, Gan / Les Échos, September 2015

Today, a fourth generation of even more innovative tools has emerged and is shaking up the way we do business. The products that have come on the market most recently can automate almost all accounting, thanks in particular to banking flows.

This type of software collects bank postings, analyses them, classifies them and, in so doing, generates up to 80% of banking records. It collects files of all kinds, including of course sales. It uses the "photo" function on Smartphones to digitise the documents, turning them into a format suited as much to procurement invoices as overhead expenses.

Moreover, these tools foster not only collaborative work within enterprises, but also with external service providers (public certified accountants and auditors). They are "open" to the outside world, in the same way as telephones are, and are intended to be communicating tools. These new tools obviously give CEOs the impression that they can handle their accounting all on their own, without any training.

The sales strategies adopted by software publishers vary: while some count on certified public accountants to recommend their products, making it a rule not to contact small enterprises directly, others adopt a combined strategy, addressing both enterprises and CPAs. As a result, VSEs can acquire products directly, giving their CPA access to it, or in contrast, CPAs make the purchase and provide it to their customers.

These new publishers have no qualms about directly addressing CEOs. Commercial action of this kind is a threat to certified public accountants, as it is inevitably premised on labelling our services as overly traditional and lagging behind, having failed to integrate the functionalities offered by today's technologies. The example of Uber for taxis illustrates that valuable lesson: it is the responsibility of professionals to use the right tools if they don't want others to do it in their stead.

We are seeing not only a new generation of software, but also a new generation of clients, both very much in step with one another. The knowledge barrier is fading out. The "Internet generation" brings about new behaviours, with the constant use of search engines, instantaneously providing a response to any question, what's more, free of charge. Knowledge consequently ends up within everyone's reach, making everyone stronger, in particular when found face to face with a professional.

We are thus seeing new mind-sets and new behaviours, as can be very clearly seen in those championing projects today. Whereas up to now, they came to us seeking assistance in putting their projects together, sometimes asking that we draw up their business plan, or at least forecast accounts, today, they come show us their documents, already completely drafted using templates found on-line, requesting only that we "give them a look-over", or, in the best of cases, verify them.

In other words, the client has come into power. He knows what he is looking for, or at least thinks he does, the end-result being the same - a more complicated task - for us. Whereas our former clients always recognised that they don't have the slightest understanding of accounting and management, the new ones know everything! They are dead set on this. From that perspective, Generation Y is rather irritating; yet it is nonetheless our responsibility to adapt, as the old saying, "the customer is always right", is now truer than ever. It is up to us to find the anchorage point on which we can build a trust relationship, identify needs and successfully turn them into opportunities for the firm, meaning into service offerings.

What we need to understand is that this generation gives priority to usage, which characterises the new economy and our contemporary society. Every business sector knows this development and is seeing tools emerge that incorporate "knowledge" to the extent of making it available to all, and thereby, democratising professional practices. In this context, it has become challenging to do our jobs, especially for licensed professionals, who sell knowledge, gained through years of study. It is challenging, but not impossible.

Even if they give off the impression of being nothing but gadgets, new technology tools are essential ingredients in all of our lives. We must adapt to the image and communication society in which we now live. Our clients are always on-line, via Smartphone or notepad: it is our responsibility to go move toward them, using their codes and their tools. Basing our know-how and services on modern tools is most definitely the right response if we wish to keep our place on the service provision market, whether in accounting or consultancy. This will be the resolutely optimistic way of seeing opportunities in the transformation underway.

AN OPPORTUNITY OR A THREAT FOR THE PROFESSION?

The digital revolution, by way of the room for manoeuvre it opens up, in particular when it comes to accounting production, has the potential to help practices rethink their organisation to respond ever more effectively to their customers' changing needs. We can expect to save time in processing of accounts and, consequently, be more available to provide services with greater added value to our customers³⁸.

Today's new tools promise to simplify enterprises' everyday management tasks by automating those tasks that generate low added value and making management information available in real time, from performance charts to expense tracking, etc.

Task automation is not merely a likelihood: it is real, current and present. As a result, we must rethink the accountancy model, in an effort to automate the production process, i.e., accounting entry processing. Our publishers already have offers on the market. It is now up to each to choose the product it deems fit, as swiftly as possible, as change is already afoot and what appears novel today will be the wide-spread reality in the very near future, and even the most obvious choice.

We saw that sales revenue from traditional account-keeping services now

³⁸ Philippe Arraou, Les petites affiches, September 2015

generate less than half of the profession's total sales revenue. For the vast majority of practices, it often accounts for more, and sometimes for the entirety of their revenue.

This is why the profession is experiencing such turbulence today. We have entered the turbulence zone and will not come out unscathed unless we keep on course. We will have to keep our wits about us! This will require that we all adopt a strategic approach, with respect to our own clients, as well as with respect to the market. Just as we are all free to see the glass half-empty or half-full, it will be each person's choice as to whether the upcoming change is a threat or an opportunity.

The threat applies to the history of a profession deeply tied to enterprise accounting. The opportunity lies in the new direction our responsibilities are taking, such that we will be able to dedicate less time to accountancy, all the while keeping control over the accountancy information system, and at last dedicate ourselves to customer support, becoming involved in consultancy, which offers more added value to enterprises, as well as to us, not to mention the intellectual stimulation they provide.

How can this new direction be seen as anything but an amazing opportunity for our profession and an invaluable chance which we must do everything to seize? The future of the profession is in the balance, as is, of course, its attractiveness with the young generations.

Accountancy should not be tossed to the wind, quite to the contrary; however, it should not be the sole service offered by practices either. By remaining the epicentre of a practice's services, it must make it possible to develop other services, more visible to clients and thus more appreciated: *"more and more experts, less and less accountants!"*

Chapter 4

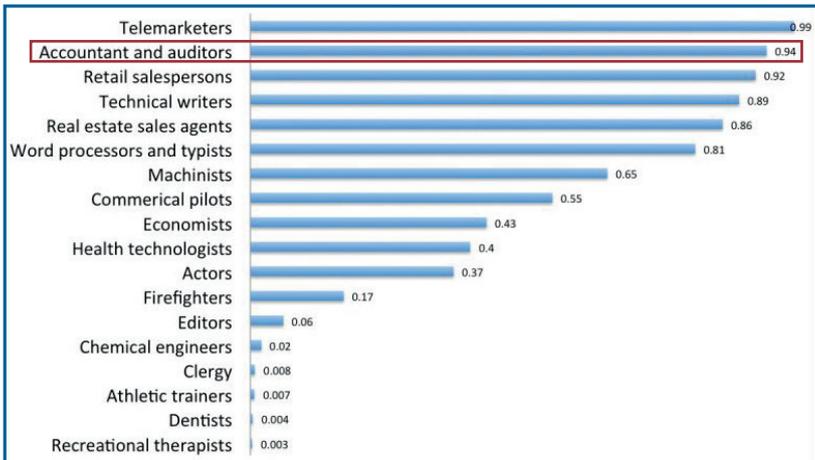
THE FUTURE OF THE ACCOUNTANCY FUNCTION

According to a study published in 2014, 42% of professions are likely to become automated due to digital technology. This means that 3 million jobs could be destroyed in France by 2025, due to the effects of digital alone.

What will become of our profession? Will we be spared? Of course not!

According to a study conducted in September 2013 by Oxford University researchers, our numbers-centred profession is one of those most likely to go extinct within the next 20 years. It would then be 94% performed by automated devices.

Likelihood that robots will take over your spot in the 20 years to come, 1 max.



Source: Business Insider - The Economist.

Another study also caught our attention: in the City of London alone, between 2001 and 2014, 30,000 accounting positions were lost, or twice as much as store cashiers. These signs and testimonials confirm that the very crux of our profession is indeed threatened by automation and digital. Indeed, the digital transition has begun³⁹.

Especially as we have not yet seen the last of the new generation of accountancy software.

In a very recent issue of WE Demain, Laurent Alexandre⁴⁰ published a column in which he announced that there would no longer be any accountants in 2030. *"Let us look at accountants, for instance. 100% of their current activities will be automated and processed using basic artificial intelligence, more effectively than by professionals, by 2030. The changing complexity of fiscal and accounting rules will be better understood and analysed by algorithms than by the best of accountants. There will, admittedly, remain consultancy services for CPAs to fulfil, as they will probably not have been entirely automated in 2030. The digitisation of accounting documents, RFID (Radio Frequency Identification) smart labels for inventory monitoring and tax and social tele-declarations used to be a pre-requisite to the massive influx of algorithms in this world. Soon, all account entries will be produced using native digital data, and CEOs will buy artificial accounting intelligence at very low prices, "metered data", in a "pay as you go" type system known as AIIAS, or Artificial Intelligence As A Service. In the first few years, accountants will point to the shortcomings and sometimes serious errors made by algorithms. This will bring them solace. They will insist on the human and relational dimension of their jobs. Gradually, those defenses will fall away, however, so clear will it be that the accounting process is better and more affordably run by robot than by man. New*

³⁹ Philippe Arraou, Introduction to the Opening Plenary, 70th Congress of the Order of Certified Public Accountants

⁴⁰ Surgeon-urologist and neurobiologist, founder of Doctissimo and CEO of DNAVision at WE Demain N. 14, 2 August 2016

deep learning techniques will make it possible to develop nearly-intuitive mechanisms and bring in a measure of "common sense" to machines. All in all, artificial intelligence will turn out more effective and 100 times less expensive than a flesh-and-blood accountant. Unless their degree programmes are massively reformed, 100% of young accountants in 2030 will be without a job. This does not mean that accountants will be fated to join the ranks of the unemployed: they will be able to take on new tasks. The example of accountants is only one of many that will be shaken by the arrival of almost-free artificial intelligence, capable of out-performing man. The educational system has not grasped the revolutionary dimension of artificial intelligence. A tremendous forward-looking effort will be needed to imagine the world ahead".

This is an unsparing judgement, but there is also no point in burying one's head in the sand. There is nothing to prove that this perspective is surrealistic or even exaggerated. Laurent Alexandre is a doctor. He is not having direct contact with our profession and cannot be suspected of bias. He chose our profession as an example because he sees it as emblematic of those professions impacted by digital.

Rather than barricading ourselves in denial, we would do well to read, "what if he was right?" to get ready. That accounting entry techniques are set to change is an inevitable fact. We can all recall the methods used in enterprises just thirty years ago, before the advent of micro-computers. It is not because methods change, however, that the related raw material will necessarily be phased at the same time. There will always be a need for accountancy and a profession to deftly respond to it. Certified public accountants have a bright future ahead of them, provided that they act ahead of time and align their service offering with the market's new needs.

I am particularly optimistic about the ability of certified public accountants to continue developing into the 21st century in order to provide their clients all the services they need. This is a constantly-evolving profession⁴¹.

As I stated to the Head of Government, Manuel Valls, certified public accountants will face up to the digital challenge in the 21st century by capitalising on the outstanding trust relationship they maintain with their customers to create added value. Thanks to that trust, the digital transition offers some outstanding opportunities⁴².

Alexandre Bompard, CEO of Fnac, in his introductory address to the 67th Congress of Certified Public Accountants in 2012, spoke in the following terms: "Your profession plays a crucial part in the professional accounting economy. You are a necessary part of every enterprise's life, from SMEs to enterprises listed on the CAC40. That place at the heart of business activity and performance offers you a unique standpoint for understanding and thus advising them. "

We have our clients' trust. We have the trust of the public authorities as well. I would add: in every country. Let us not forget that trust is founded on our professional ethics and the independence we have also maintained. We are extremely fortunate in this, as it means that our existence will never be called into question. Many professions, including those of our clients, would love to benefit from such an advantage, as they see the edge of the cliff coming ever closer.

We have an excellent vantage point to know that businesses are shutting down offices or winding up operations entirely.

⁴¹ Philippe Arraou, Les petites affiches, September 2015

⁴² Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

Our function remains, and we are lauded from all corners. However, we are being asked to change. Even though the request was never put forth as such, we need to read between the lines. We vitally need to adapt to our clients' changing expectations and needs. The next move is ours: let us be smart enough to put together a service offering a new kind. We have an exceptional opportunity to take up. We need to reinvent our profession in the role it plays for enterprises. This will necessarily entail reassessing our model.

I am in the habit of concluding my presentations with: *"If there is one thing I regret, it is not being thirty years younger to fully be part of the glorious future that lies ahead for the accountancy profession. "*

PART III

**The necessary road of adaptation
for our practices**

It has become essential to be able to observe, understand and quickly take into account changes in the environment.

The (r)evolution experienced by our profession today is indeed a tidal wave and will leave the landscape around it forever changed.

"In a changing environment, it is necessary to change in order to remain oneself", or so the saying goes.

Since the dawn of time, the wise have reminded us again and again of the inexorability of change:

- *Everything changes (Zen philosophy);*
- *There is nothing constant, if not change (Buddha);*
- *Nothing is permanent, except change (Heraclites);*
- *The law of the world is that of change (Luc Ferry);*
- *Everyone wants to change the world, but no one wants to change the self (Leo Tolstoy);*
- *There are two kinds of enterprises: those that change and those that shut down (Philippe Van De Bulke);*
- *We have the choice between changes into which we are dragged, and those which we will have known to desire and accomplish (Jean Monnet).*

Then, there are those who say the same with a note of humour, the frightful weapon of pedagogy:

- *We must take change by the hand or rest assuredly, change will take us by the throat (Winston Churchill);*
- *In a changing world, it is better to build the bandwagon of change, than to be changing our bandages once we have fallen from it (Francis Blanche).*

The profession is now in the throes - and this is only the beginning - of a change of reference points, values and fundamentals. Already, the first signs of those changes are becoming visible: tighter competition, difficulty hiring and building loyalty in employees, price decreases, eroding profitability, etc.

Most worrisome -- and what convinces us once and for all, as it is the knock-out point -- is client demand. It was very striking to me when one of my small clients left our practice, just after the Congress of the Order dedicated to digital. While the client was entirely satisfied with our services, he still decided to leave us and entrust his accounting to one of our colleagues on the market, which was offering to provide him with management information every month via smartphone - a function we were not yet in a position to offer! Like a child acting up because he couldn't get his way, he decided it was too much to wait: he had seen the toy work and wanted it on the double!

Losing a client is never pleasant, but losing one because our offer is not up to the expectations voiced is cause for concern. You immediately start to ask wonder about the practice's other clients. The worst thing would be for the trend to catch on and cause a mass exodus, as that would mean the end of the practice entirely. If the choice is between changing and going under, I can answer right away!

When the only other option is extinction, the survival instinct kicks in. That is why I have no doubt about the profession's ability to get back on its feet. We have had to deal with challenges before, perhaps not as tremendous as this one, but we have always been able to take them on: technological challenges, when micro-computers first emerged, then when Cloud computing came onto the scene; and later societal, with the changeover to 2000 and the arrival of the euro, not to mention the countless declaration filing requirements placed on enterprises and to which we have had to adapt. Each time, not only did certified public accountants successfully face and overcome the challenges, but they also did so for their clients,

working with them in their transitions.

We will make it through the digital transition, and what's more, we will take the greatest possible advantage of it, helping practices enhance their role alongside clients and in the function they occupy in the economy.

Certified public accountants, which are committed players in the city, are digital transition enablers on which enterprises and the public authorities can count for support. Let it be said!

And as "*charity begins at home*" certified public accountants need to look first at their own practices.

Chapter 1

THE DIGITAL TRANSFORMATION OF ACCOUNTANCY PRACTICES

Only 1% of the profession deems that it will remain unaffected by the digital transformation. What makes our profession stand out, in particular with respect to other self-employing or consultancy professions, is the widespread awareness we have that the digital transition is an inevitable reality that impacts certified public accountants in their organisation, job, customer relationship, etc., and in short, in every dimension of their operations. A very large portion of the CPA population has already taken the plunge into the digital era. It has to be said that the profession was in good hands⁴³.

THE PROFESSION HAS ALWAYS SUCCEEDED IN ADAPTING

Let's take a look back. With some perspective, it can be deemed that the 1990/2010 period was a stable and quiet one for the profession, compared with the revolution underway.

In today's "all-electronic" environment, hand-written account keeping has bowed out to IT resources, which can be traditional systems or integrated information systems. The shift went even further as paper formats faded out to the benefit of electronic records. Thanks to the successive technologies that have shaped and re-shaped our environment, we have gone from recording data by typewriter on sheaves of paper, to collecting bank records and today, transmitting data electronically...

⁴³ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

Without going all the way back to the age of perforated cards, we can say that IT has been a powerful growth driver for the accounting profession. It has enabled us to make tremendous strides in productivity, even though, during that same time, accounting, fiscal and social requirements have grown more complex. Practices have achieved excellent performance over a period of 10-years, with a 30% increase in the number of cases managed per employee: the average of 20 in 2002 had increased to 26 in 2012.

It is no exaggeration to say that this growth has benefited first and foremost our clients, who can now, at far lower prices, have their accounts drawn up or monitored, and most of all, have their document filing responsibilities handled by an outside party.

It may appear an obvious truth, but our professional practice today bears little resemblance to what it was in the post-war period and, as our transformation is gaining speed, there is every reason to believe that, in less than ten years, we will look very different from what we are today. The regulatory reforms underway and the digital revolution will have swept through, probably taking with them those who will have failed to see the need to change, but most definitely offering numerous opportunities to the majority of practices that will have made the effort to take position on the corporate consulting market, with its high demand for added value⁴⁴.

What saved our profession again and again in history was its ability to ask the right questions of itself and accordingly develop and adapt to the business environment and market needs, which are by definition in constant motion. Our professional practice model is not set in stone...⁴⁵

⁴⁴ Philippe Arraou, SIC 343 Editorial, September 2015

⁴⁵ Philippe Arraou, Gan / Les Échos, September 2015

WE ARE EXPERIENCING NOT EVOLUTION, BUT INDEED A REVOLUTION

The CPA of the 21st century does not have much in common with that of the 1980s, who in turn was quite different from the post-war professional. Nonetheless, the speed and force with which digital has manifested are such that those who fail to grasp the implications and change quickly enough could end up extinct⁴⁶.

The impact of technological innovation in the private realm is clear. In the race for technological development, the private realm was always at the head of the pack. The famed CES exhibition does, after all, stand for "Consumer Electronic Show". As we saw in the first section of this work, people have become massively equipped: they make daily and constant use of new tools, from Smartphones to social networks. It would not be an exaggeration to say that we would have a great deal of trouble imagining ourselves without them ever again. What about enterprises?

According to the report Philippe Lemoine submitted to the Government in November 2014⁴⁷, in enterprises, these impacts will become truly cross-cutting. All sectors are affected by these changes: from industry to services, healthcare, access to knowledge, and more.

With digital, new jobs are appearing, and the very concept of employment is changing; people can be, in turn, entrepreneurs, employees, experts, and even all that at once. To cite the report again, the impact of a new technology on the economy and enterprises is gaining intensity and becoming more complex. One example can be found in the effects of de-materialisation, well-known to some sectors already: the Internet is standing in for physical networks of agencies or stores, transaction costs are dropping, and software is being used where data entry staff were once employed.

⁴⁶ Philippe Arraou, Gan / Les Échos, September 2015

⁴⁷ Philippe Lemoine, President of the Forum "Action modernités" and President of Fondation Internet nouvelle génération (FING), submitted his report on the Economy's Digital Transformation on 7 November 2014.

We should also cite the effects of intermediation on business models, with enterprises reinventing their service offerings, and innovative ecosystems coming into place; new players are taking to the stage, between traditional enterprises and their customers, and imposing a new model.

This is not a mere evolution; rather, we are in a phase of revolution, which could even be placed on the same level as that which we saw two centuries ago, with the industrial era or what our ancestors experienced six centuries ago, with printing. The term "disruptive" or "breakthrough" is used to describe the current development. There is admittedly creation, but it is destructive creation. Our profession and enterprises are suffering the full impact of this. The change is taking place all around us and affects us directly.

The reality of the digital phenomenon, both in society and in our practices is truly revolutionary in nature: intense, deep-running and irreversible... It tells of a societal change which no certified public accountant will be able to escape, but which will let itself be tamed. Digital is turning our organisation modes on end, and stimulating our metamorphosis⁴⁸.

▶ THE DIGITAL TRANSITION IS NOT A MATTER OF TECHNOLOGY

The digital transition, a matter of technology? Surely you jest!

The economy's digital transition speaks of a broader transformation of the corporate world. This applies of course to accountancy practices, but also to any entity operating: we are all caught up in this adventure together. In a practice, all the functions are on-board: production and its corollary, quality, human resources, commercial and strategy.

⁴⁸ Philippe Arraou, excerpt, Opening Address at the 70th Congress, Paris, September 2015

To imagine that we will become digital CPAs by simply changing the hardware and software in our practices would be to delude ourselves. We, of course, do need tools, and cannot do without them. They can help us bring our customer relationships forward, in particular as regards data transmission, and information reporting. However, they will not change our business model and will not turn us into digital CPAs. Similarly, having an e-mail address and a website will not be enough for us to make our digital transition. The issues run much deeper.

An Accenture⁴⁹ study has showed that those enterprises that embark on a digital transformation see their potential growth double.

The key today lies not in having a "digital strategy", but rather in having a strategy in a digital world. This always brings us back to the same point: the issue is not one of IT, but rather of being able to rethink our organisation so that the digital revolution becomes a driver of growth for our firms.

Strategy needs to be developed considering:

- analysis of the opportunities which digital offers in terms of growth or value creation;
- analysis of consumer and technological trends;
- identified competitors and their strategies;
- ongoing evaluation of the effectiveness of a given digital strategy.

⁴⁹ Quoted by the "Industrie du futur" Committee at Syntec Numérique, in its White Paper "Transformer l'industrie par le numérique" (Transforming Industry through Digital), May 2016.

▶ NEVER HAVE WE BEEN FACED WITH SUCH A CHALLENGE

No different from anyone else, we need shock therapy if we are to break out of our habits, part with long-standing methods, call ourselves into question and change.

In our profession, that shock therapy is provided by the risk of losing clients, and no longer being in-step with their demands. It is important to live with one's time and, consequently, take on the modernity of technology today. I have said it once and I will say it again endlessly, as long as I see people unthinkingly confuse the current phenomenon with other changes in our profession: tools are not everything and will not make the digital transition alone.

We need them and count on our suppliers to provide us with innovative and high-performance products. However, that technology then needs to be put to use to fundamentally re-think our model and come up with a new function with our clients. A fine challenge!

- **Adapting, taking on the new challenges**

We no longer have the choice. The number of practices offering their clients ancillary services (tele-transmission, management consultancy, social consultancy, etc.) increases with each new year: our regular studies confirm this. Concurrently, the drop in demand for pure accountancy services is proving to be the rule.

At the same time, the Accounting Profession's Observatory shows that for more than ten years now, practices have not, by and large, seen an increase in the revenue they earn from consultancy. The share of their revenue from traditional services has remained steady, and even risen slightly, where the smallest consultancies are concerned. Their offer has hardly changed at all. The key word is: adaptation.

As Charles Darwin is often quoted as saying, "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change".

The challenge we face is tremendous. Today, our profession is some 150,000 people strong. A large percentage of this group focuses solely on account entry. This type of service, offering low added-value, is furthermore destined to fade out of the picture due to automation. Training and up-skilling for our teams thus emerge as the key success factors in repositioning our profession.

As worrisome as this may sound, we should instead rejoice in the fact that we are still in control of our fate, thanks to the opportunities which the digital revolution offers and which the reforms we have initiated put within our reach⁵⁰.

New tasks will most definitely come into being, and will form as many new challenges for our profession. In accountancy alone, it will be our duty to come up with our clients' information system, guide them as they select their new tools, ascertain the consistency and veracity of the information reported, and ultimately submit the financial statements. Even if we are no longer involved in the account production process, it is still our responsibility to be able to manage and analyse it, whatever the method used to record account entries.

As information systems evolve, a central role can be seen for us: ensuring that they are reliable and safe. This is nothing new; we have always been accepted responsibility for what we do. What has changed is that even when account-keeping is not entrusted to our practices, we will nonetheless be expected to certify the reliability of our clients' accounts and, more generally speaking, of the enterprise's information system.

Security, too, is becoming an issue that must be integrated in the everyday. Enterprises are now victim to attacks and are exposed to acts of vandalism if they do not set up security measures. It is the CPA's responsibility to

⁵⁰ Philippe Arraou, SIC 343 Editorial, September 2015

open up the topic, ask the right questions and offer advice, without necessarily being a cyber-security professional. I will come back to the topic of security later.

- **Our profession has strengths to boast**

The accountancy profession has outstanding strengths on which it can capitalise:

- The renown of top-level training, the highest when it comes to accounting and finance, crowned in France by a State Diploma that is particularly appreciated and recognized;
- The professional ethics that place restrictions on us also offer security to our clients, and thus give us a considerable competitive advantage on the consultancy market, alongside non-regulated professions;
- The power of the "certified public accountant" brand, much like a stamp of quality, is the result of a long-standing legacy, passed down over the generations;
- The trust which our clients place in us, constantly confirmed by opinion surveys, giving us a prized position alongside CEOs and attracting us the envy of many other consultancy professions;
- The trust which the public authorities, too, place in a profession which they see as a key bridge to the corporate world, counting on it to offer security not only to the market, but also to the State, thanks to its commitment to quality accountancy, and consequently, in tax collection;
- Our ability to bring security into a world where the de-materialisation of exchanges is rightfully a source of concern and fears...

These strengths position certified public accountants as the preferred partners to enterprises. It will be up to us to showcase them, to bring our range of responsibilities forward and lay claim to a function that is entirely new in conception. By extending the scope of our action beyond accountancy, we can and must be our clients' Administrative and Financial Directors.

By becoming the AFDs to SMEs and VSEs, we will make it possible for our customers to focus on their core business and be "rid" of the rest. The certified public accountants of the 21st century will be the outsourced support function centre for SPE/VSEs and, de facto, the preferred advisor to the entrepreneurs we serve⁵¹

⁵¹ Philippe Arraou, Les petites affiches, September 2015

Chapter 2

THE PRACTICE OF THE FUTURE

Our practices must change, adapt and move forward in order to remain alive, and this will require a new methodology that re-positions the professional activity of certified public accountants with respect to a shifting environment. The shift from accountancy to consultancy needs to be laid out, and the transformation from CEO and accountant obsessed with organising the practice, into a dynamic consultant permeable to client developments⁵².

As Rapporteur to the Congress in 2012, I was able to chart a new course, choosing the theme "the certified public accountant as entrepreneur" to spur each and every practice to adopt an entrepreneurial approach, in quite a revolutionary move for a licensed profession, and consisting of: a corporate strategy, market positioning, brand, service offering, marketing, human capital, expanding skills sets and markets, new organisational modes, etc. The Higher Council has been working with all its might for the past three years to bring out the practice of the future, and the 2015 Congress on Digital will be the culmination of this far-reaching undertaking that engages our profession as a whole⁵³.

⁵² Philippe Arraou – March 2010

⁵³ Philippe Arraou, during his investiture speech at UNESCO, Paris, March 2015

Let us stop for a moment to look at practices today.

The level of training which accountancy practice employees can boast says a great deal about our skills⁵⁴:

- No degree, lower secondary school certificate, CAP (vocational aptitude certificate), BEP (vocational studies certificate), or equivalent: 10%;
- Baccalaureate or Vocational Certificate: 25%;
- Bac+2: 28%;
- University Degree > Bac+2 38%.

In other words, nearly two-thirds have received training not exceeding two years beyond the Baccalaureate.

As to the functions held, the following positions are found:

- Assistants: 20%;
- Accountants, Managers: 54%.

The account production functions, meaning those jobs directly threatened by the technological tidal wave and evolution of the business, currently account for more than three-fourths of employees in practices.

Cross-comparing this data, it becomes clear what the profession is today, and consequently, just how much effort will need to go into training before the profession can make its digital transition. We still have a ways to go before this new profession, much-awaited by our clients, and eagerly advocated for here, becomes reality.

Engaged players, working in the beating heart of both the economy and society, we stopped being "book-keepers" long ago. Full-fledged "digital professionals", we now manage de-materialised flows, aggregate data and return added value to our clients through consultancy⁵⁵.

⁵⁴ Omeca, *Portrait social de branche & quelques éléments pour la prospective sectorielle, Branche professionnelle des experts comptables & Commissaires aux comptes, Observatoire Prospectif des Métiers et des Qualifications*, [Social Branch Snapshot & Key Facts for Prospective Research on the Sector, CPA and Audit Professional Branch, Forward-Looking Observatory on Professions and Qualifications April 2012, p.25

⁵⁵ Philippe Arraou, excerpt, Opening Address at the 70th Congress, Paris, September 2015

MORE AND MORE EXPERT... LESS AND LESS ACCOUNTANT

The future of our profession holds a value ramp-up, as we move into "full-service" and consultancy. In a relatively unstable digital world, we need to embody a form of security thanks to our professional ethics and our multi-disciplinary expertise, sustain our clients' trust and the close relationship that makes us the preferred source of advice for entrepreneurs in France⁵⁶.

▶ **FROM ACCOUNTANCY TO "FULL-SERVICE"**

The term "full-service", common in other industries, refers to offers in which enterprises are ready to take on all management task for a given client.

It goes without saying that a lot more will be needed than accountancy, including responsibilities not always the most flattering for CPAs. What counts, however, is that the client feel flattered by the service. By outsourcing management, CEOs are able to focus on their core business, whether this be in crafts, commerce, industry or anything else. We know that most of our clients did not study business administration and it is their nemesis. By offering to rid them of that responsibility, we will do them a great favour. People are waiting for us to come on board and embark on an approach already very well-engrained in Anglo-American society.

The concept of full-service requires a different state-of-mind from book-keeping and, most importantly, a different level of involvement with our clients, being alongside them, close, and perhaps even with a degree of complicity. Naturally, all of this needs to take place in a manner consistent with our rules on independence, and by no means should the certified public accountant be vested with decision-making power. Our scope of services should be as broad as possible, though never over-stepping the bounds into the decisional realm.

⁵⁶ Philippe Arraou, Gan / Les Échos, September 2015

Like an Administrative and Financial Director, the independent professional should see to it that the organisation is managed soundly, in all areas. He will ensure that the CEO is provided, in real time, with high-quality information, the key foundation to good decision-making. The Consultancy function will continue to be preponderant, but will be supplemented by a global execution function.

Practices will thus be able to handle their clients' general administration responsibilities, issue sales invoices and monitor collection, check supplier invoices and prepare settlement, manage cash, look for financing, etc., in short, do all the "housekeeping".

This type of service package will appeal primarily to VSEs, but also to SMEs, when the CEO is faced with management issues due to lack of time, knowledge or human resources. This is outsourcing of enterprise management, plain and simple. Who better than a certified public accountant to take on this responsibility. We have the capability to do so. The only real question is: do we have the determination?

We will need to, as it is in the profession's interest to look into what is an already-mature market. Others are already on it, but we enjoy a considerable competitive advantage: we have already won over the CEO's trust.

Certified public accountants will not be able to enter the field of "full-service" unless they make it part of their practice's strategy, aimed at consultancy and multi-disciplinary service. There is, in other words, an effort to be made, to secure a concrete commitment and professional approach that requires resources, tools and communication.

We also need to keep in mind that more than 20% of CEOs report calling upon another service provider because they did not know that their practice was capable of offering this type of service, and as many confirm that their practice never offered them services of that kind.

These figures attest to the significant potential that exists for developing new responsibilities within the existing clientèle. Rather than going out to find new clients and offering them traditional services, as they have always

done, certified public accountants would do well to take care of their own clients before others do so in their stead. The first source of wealth for a practice, the gold mine that remains little-explored if at all, is first and foremost the existing client base.

▶ MOVING FROM BOOK-KEEPER STATUS TO CONSULTANT

When the clients of certified public accountants are asked about what they expect from a practice, they very clearly explain certain needs, in particular as regards consulting and support, assistance with management and expansion, etc.

In contrast, while certified public accountants for the most part do want to engage in consultancy, many of them still express reluctance.

Yet consultancy is a profession in and of itself, and cannot be seriously performed when "crammed in between two balance sheets", meaning when there are no other priorities.

Despite the apparent similarities with their core business, consultancy and support differ radically on technical and organisational aspects from traditional accountancy responsibilities (book-keeping, revision, payroll/social affairs, legal affairs, etc.). It is up to us to take them up in a professional spirit, for we should not forget that we are not alone on the market and that our competitors are well-established. Like any professional activity, this requires a strategy and a specific skill, which comes with training, commitment and, of course, time.

Make no mistake about it - this is a new direction for certified public accountants, and since the Macron Act, which authorises us to engage in consultancy as principals, the door is wide open. It will be the responsibility of each of us to determine how much growth potential our practices hold, depending on our skills and appetite. The certified public accountant business is now more open, and this is all the better! For us, and for our clients.

We have always worked to serve the economy, even though our current responsibilities no longer look very much like they did twenty years ago. As our transformation gains pace, we feel confident that we will be, in just a few years' time, very different from what we are today. Regulatory reforms and the digital revolution will have confirmed and consolidated, by then, our role as leading consultant and provider of support to enterprises⁵⁷.

Louis Deplanque, professor at the Paris School of Commerce and Industrial Arts, in an old treatise dating back to 1846, asserted: *"Accountancy is often confused with book-keeping [...]. The accountant (in the broadest sense of the term) must be an administrator, economist and finance person, all at once. The book-keeper can be but a man of order, and classification. The former will have imagination to come up with tools, and discernment to sift through and employ them correctly. The latter will be able to be content with an analytical mind, which will give him a clear sense of each role, meaning the role each account plays in all the operations it will befall him to record⁵⁸.*

Seen from that perspective, is the digital revolution not aspiring to return to the accountant his historical role?

The certified public accountant must remake himself and become both coach and consultant, giving clear priority to customised consultancy. We

⁵⁷ Philippe Arraou, excerpt, Address before Manuel Valls, Prime Minister, 70th Congress, Paris, September 2015

⁵⁸ Is the accountancy profession uberising, or is this a beneficial transformation? - Press Releases - Informaticien.be

have not yet broached the idea as to which responsibilities can be uberised. The profession's gradual automation is probably of greater concern to accountants than the arrival of possible Uber that might want take perch in the accountancy profession. This does not, however, mean that the major changes announced for the profession previously are any less imminent. Let us see automation as a source of development for our profession, freeing us from fastidious and repetitive tasks, so that we can focus resolutely on the consultancy market.

▶ FINANCIAL INFORMATION SPECIALISTS

Accounting is, in the end, but a tool, and not an end in and of itself. Certified public accountants must teach their clients to use accounting as a full-fledged management tool and offer them performance tracking charts to better manage their organisations.

Using those tools, certified public accountants will be able to develop their range of services into the future, to provide support to organisations and work closely alongside them in their everyday operations. They will give the figures a voice, interpret them and, in so doing, naturally show the way to decision-making.

Their knowledge and understanding of enterprises place them in a prime position, which, when combined with their financial proficiency, make CPAs the preferred advisor to any CEO, and the best qualified to provide the insight they need to grasp the situation at hand and guide them toward the right decisions. Our function with our clients cannot be seen in any other way.

While this has always been the case, our challenge today is to ensure that it does not remain limited to analysing financial accounts at year-end, but plays out throughout the rest of the year as well. This implies tools, of course, but also a different mindset, so that we can become more involved with our clients', interacting at regular intervals, is possible monthly, and at least quarterly, depending on the enterprise.

Making the figures talk has never been as strong a reality as it is today, with the tools of the new generation. It is a way of maintaining an ongoing tie with our customers and thus building a closer relationship. Being a digital certified public accountant means offering the same kind of communication and closeness to clients as can be found on the social networks. Networks need to be fed with information regularly and each of the members with personalised data as frequently as possible.

We are recognised as the professionals of financial information, and our clients count on us to be at their side on that ground. We should not have any qualms about providing them with information round the clock: they will thank us for it!

This consultancy function is absolutely fascinating, and certified public accountants can derive a benefit from this type of situation: becoming a pillar in their client's lives!

▶ PLUS, A SPECIALIST IN NON-FINANCIAL INFORMATION

In addition to the support we provide to clients' in accounting, tax issues, social affairs, administrative responsibilities, etc., we also look after our clients' 'corporate citizenship' dimension. As such, our ability to provide non-financial information has become a truly high-stakes issue for our profession. The time has come for certified public accountants to step outside the boundaries of financial information and provide enterprises with global support, for all their needs.

Our profession boasts a very large number of benefits. We already operate within enterprises and as such are their main advisors. Our expertise is bolstered by our ethical rules, independence, practice standards, quality control, and professional accountability, all of which are seen as guarantees by our clients. Global support, or "full-service", will truly be the key challenge for our profession in responding to the needs of enterprises, in particular the smallest ones, and to contribute to the development of our nation's economy⁵⁹.

⁵⁹ Philippe Arraou, during his investiture speech at UNESCO, Paris, March 2015

Several terms can be used to describe more or less the same reality: non-financial information, extra-financial information, integrated reporting, and surely still others. For the purposes of simplicity, let us use that of non-financial information.

Certified public accountants must pay particularly close attention to non-financial information. Who better to talk about enterprises than us? Who can do so under conditions better than ours, with professional ethics and rules? As I stated during my speech at Palais Brogniart on 17 December 2015, during the day on "Accounting in the face of Climate Change: Challenges and Prospects"⁶⁰: *"Initially, in 1945, our profession's scope was limited to accounting and tax policy. Our profession originated to bring security to enterprises, to the economy in general, and to the State. The aim was to certify a fiscal base used to determine taxes. That is how the profession came about. An ethic and rules of ethical behaviour for professionals were thought up, but their ultimate aim was not to protect the profession. They were requested by the public authorities, to bring greater security to the nation's economy. That is why we were put in charge of helping produce financial statements, so as to depict enterprises as faithfully as possible. Today, the need for transparency has become greater and financial statements no longer suffice. It is vital that certified public accountants commit to producing non-financial information"*.

We need to lend our attention to this newcomer to the scene, which goes by the name of non-financial information: by failing to take position, we will leave a vacant spot which others will definitely know how to occupy, giving rise to a new profession.

⁶⁰ Cop21 Labelled Conference - www.experts-comptables.fr/actualite/la-comptabilite-face-aux-defis-climatiques-enjeux-et-perspectives

While non-financial information is relevant only to major corporations, for the time being, those with more than 500 employees, as defined in Article L.225-102-1 of the Commercial Code, since the 24 April 2012 Decree, the requirement threshold will only drop in the future, eventually applying to SMEs and spreading wider and wider.

Beyond the legal requirement, let us not forget the value for the enterprise, plain and simple. Communicating in a different manner about their situation can be of benefit to all enterprises, whatever their size. It is the responsibility of certified public accountants to promote non-financial information, and in so doing, stimulate enterprises not subject to reporting requirements to voluntarily set out on the virtuous road of transparency, by communicating about what they are and do, above and beyond the figures.

CSR reporting is intended as a means of providing information about what happens in enterprises in three areas: economic, social and environmental. While enterprises do enjoy a great deal of latitude in putting together the said report, a survey review of the information published to date shows a tendency toward homogenisation. Enterprises report generally on those aspects required by the law, so that they are sure to be in compliance on aspects not reflected by the financial statements.

Non-financial information, however, can go further than CSR reporting and touch on other themes. The idea is to develop the enterprise's narrative, engage in the infamous "story-telling" so as to unveil what goes on inside, let out some secrets, list objectives and describe the intended road toward them, and broach the essential topic of human resources, in short, provide that information which is not found in the financial statements, and makes it possible to better know the organisation.

This type of approach is indispensable. What do financial lenders do when an enterprise comes asking them for credit? They pull out the annual accounts, forecast accounts and other related financial information, then

set them aside to be processed mechanically, at a later time, by their bank's analysis tools, then take the time availed during the meeting to ask a whole flurry of questions with the aim of understanding the enterprise and getting to know its CEO better. For what purpose? To find anchoring points for the possible trust relationship developing.

Financial analysis is indeed important in creating trust, but it alone is not enough. An enterprise is, first of all, an adventure involving people, and it is important that information be provided about the women and men who dedicate themselves to ensuring that it runs smoothly. Trust needs human factors that go beyond the financial. Enterprises that anticipate this need and provide a report illustrating their organisation and telling its story will do all the better.

Of course, the idea is not to say just anything. When standards are lacking to draw up the report, it will be very tempting to do some "window-dressing". This is why it is important that these reports be drawn up by certified public accountants, professionals subject to regulations, and bound by the duty to remain independent from their clients, and who incur their responsibility with every service they provide. Familiarity with an enterprise and its leaders will be invaluable to producing an objective and credible report. This is a new direction for our profession, one which we must take, and which is, without a doubt, a very fertile ground on which to expand our practices' business.

The certified public accountant will first be the person introducing clients to this new need and raising their awareness about the benefits of presenting non-financial information. We will need to put our teaching skills to work, as demand will not come on its own.

Secondly, we will need to come up with the action plan. Before broaching the possibility of a report, we will need to trigger a dynamic in the enterprise so that it finds itself on the virtuous road toward a new future. We will need to help it develop targets that will in turn enable it to define a path

toward better performance. Indicators will be selected so that it can better measure its own progress. It goes without saying that this information may well prove useful as introductory material for outside figures just getting to know the organisation. The certified public accountant, uniquely knowledgeable about the organisation, will prove invaluable in setting out the strategy and choosing the indicators.

The final step will consist of drawing up the report. This will not necessarily be the responsibility of the CPA; the organisation itself is entirely capable of taking on this task. However, the CPA's contribution will be very helpful during the document conception stage, as well as possibly with formatting.

It is important to keep in mind that, depending on the organisation's size, non-financial reporting may be subject to auditor approval, insofar as it is information that will be provided to the public. In other words, it deserves the closest attention and demands the utmost professionalism.

The first benefit of non-financial information lies in the fact that it engages organisations on the road to transparency. Who can claim to be familiar with an enterprise based on its financial statements alone? While the financial structure and business operations can be understood based on the latter, nothing is known of the organisation or of its objectives.

Today's society, burgeoning with communications tools, has developed a strong demand for transparency. Everyone wants to know everything, and the race for the latest and most comprehensive information possible is run round-the-clock. Enterprises stand only to gain from adopting this approach, and stepping forward to respond to this expectation. Transparency will only foster better business performance, as it will contribute to building trust. In the B2C world, information-hungry consumers will be more inclined to buy products if they know where they were produced and if the company has held itself to set ethical principles. In B2B, organisations have everything to gain from creating a stakeholder community, including their customers of course, but also their suppliers,

financial providers, employees and shareholders. Providing information about the organisation regularly will make it possible to keep up the connection with the community and contribute to giving it life.

Clearly, this approach is a restriction as well, which the organisation places upon itself. It is important to dedicate time to sharing this information and using the communications channels that exist today: a lively and interactive Internet, for one, but also the social networks (Facebook, LinkedIn, Twitter, etc.). Time is money to an organisation. However, that money should be seen as an investment, not an additional expense. Indeed, that communication offers an obvious return, as the community that the forms around the company brings it to life. Even barely extrapolating, I could say that the budgets previously dedicated to advertising can be shifted to non-financial information and social networks, as they have the ultimately have same end-purpose: to get people talking about the organisation.

We need to remember that: *"Certified public accountants can now offer CSR support as the principal component of a service contract. This is a fundamental change. "*

"The CPA can contribute to engaging or initiating thinking or action. He can bring the enterprise to greater awareness and spark it to start exploring issues or take action. How can enterprises be made to take an interest in CSR? Looking beyond the costs which such an approach entails, what return on investment can be expected? The main benefit here is the ability to communicate, meaning to enable enterprises to provide information of some kind other than financial information. We are entering a world of transparency. Enterprises are expected to provide a maximal amount of information about their practices and what they are experiencing, if only for their clients. The latter expect to know whether the products provided are compliant with specific ethical or social rules⁶¹. "

⁶¹ Speech by Philippe Arraou, Palais Brongniart, 17 December 2015

► ON THE ROAD TOWARD GREATER INTER-PROFESSIONALITY

We are furthermore pleased that the certified public accountants and certified court and legal professionals are able to exercise their professions within a single structure, and offer their clients a comprehensive multi-disciplinary service. This provision, for which we had dearly hoped, being a long-standing demand from enterprises, will make it possible for us to at last truly give material form to the concept of inter-professionality⁶².

Once again, inter-professionality will abide by the ethical standards specific to each profession and I would emphasise moreover that it is but an option. This form of pragmatic inter-professionality consequently carries no risks for anyone whatsoever⁶³.

Inter-professionality is nothing new to certified public accountants. They have always been general practitioners to enterprises, and thus structured their practices in such a way as to include a wide variety of skills. Their brand of cohabitation is designed for the sole purpose of providing a comprehensive service to enterprises.

Alliances with professionals not belonging to the OEC, however, was strictly forbidden, due to professional ethics considerations. With the new regulation allowing share capital to be opened up to the market (no more than 25%), it became possible for non-CPAs to become part of our practices. When Order 2014-443 was published on 2 May 2014, that limitation was removed and it became possible to fully open up the capital of accountancy practices, subject however to one condition: that OEC members continue to hold at least two-thirds of the voting rights.

Another barrier remained, however: some professions were regulated, specifically in a way that did not allow them to join forces with other professions, even within the same legal operating entity. The provisions that made it possible to develop alliances within holding structures,

⁶² Philippe Arraou, excerpt, Address before Manuel Valls, Prime Minister, 70th Congress, Paris, September 2015

⁶³ Philippe Arraou, Les petites affiches, September 2015

SPFPL (Sociétés de Participation Financière de Professions Libérales) cannot be said to have been a rousing success, and did not respond to the aim which certified professionals joining forces can have: offering end-to-end service.

That was the aim behind the Macron Act of 6 August 2015, in Article 65. It will have taken all the determination of a Minister to maintain the new provision, bringing certified public accountants into the realm of inter-professionality, which was originally reserved for the legal professions alone. The Minister's firm belief, anchored in a clear vision of the future of B2B service providers, gave him the strength to withstand the attacks that rained on him during Parliamentary debate. We can be grateful to him for this.

Will the new framework shake up the B2B service landscape? Most likely not, at least not in the immediate future. I think that it will help create firms of a new kind in the upcoming years. Interprofessionality was designed for the future, and will certainly be addressed more at the future generation, which will be able to see its benefits when they form their practices. This will be true of individual practices, which will be allowed to join forces from the start, and put forth an all-encompassing service offering, including accountancy, legal counsel, bailiff and notary in a single space.

As to accountancy firms, interprofessionality has always been a reality, and one which they successfully implemented. The limits set by the professional ethics of accountancy have caused them to create distinct, dedicated legal entities, placing them under the same banner, if not commercially, then at least with shared interests. The Macron Act opens up a new arena, in making it possible for them to combine their operations in a single legal structure registered with the OEC, but also with other professional orders, which can prove valuable.

It should be noted that the concept of interprofessionality contained in the 6 August 2015 law gradually shifted toward that of multiprofessionality described in the 31 March 2016 Order. The fine distinction between the two terms can be better understood by looking at the professional ethics rules. The intention is not to create a new profession, and thus new rules for professional ethics. Each profession will maintain its own rules, while co-existing in a single legal entity. This is not a merger, but the institution of a parallelism. That shading makes all the difference. Interprofessionality was thus dead upon arrival, but did give rise to multiprofessionality. Long live multiprofessionality!

As this book was in preparation, the decree announced in the Order is yet to come. It is said that the final details are being worked out, a process that understandably takes time. It is important now to anticipate any operational issues which the new structures may encounter in order to prevent them from turning into stumbling blocks. The responses will be written directly into the decree, the publication of which is by no means in doubt, a deadline having been set in the Order: 1st July 2017. Where there is a will, there is a way! Even though a handful of disgruntled do hope things will go back to what they once were...

▶ **A PRACTICE WITH EXPERTISE IN "THE CUSTOMER EXPERIENCE"**

Our profession has an ear out ... To the society to which it is an integral part, to our environment which as never experienced such change as it is today, and to our clients, of course.

Yet what do clients today expect from their certified public accountant, now more than ever? What do they tell us? That accounting for accounting's sake is not enough; that they need to be able to understand the transformations underway; that they need to be able to focus on their core business and their expansion, meaning they need to be able to outsource enterprise support functions and find high-quality multi-disciplinary consultancy; they need to receive support in the everyday,

in the form of quick and straight-forward responses to their questions! In short, they are less and less in need of an accountant, and more and more in need of a certified expert⁶⁴.

For us to meet that need, a number of barriers will need to be taken down. The reforms we conducted were one attempt to do so, in particular through the provisions of the Macron Act pertaining to our profession. The French certified public accountant of the 21st century must be able to support the entrepreneur in each aspect of the everyday⁶⁵.

"The customer experience" is first and foremost a matter of making each client feel unique and giving the sense that the service provided by the practice is uniquely suited to that specific personal need, which differs from that of other clients to the practice. We all have the impression that this is what we are doing already. But let us be honest with ourselves and set our own house in order. If our clients have report dissatisfaction of any kind, then there must be a source and a gap to fill. Moreover, our clients no longer behave as they used to. We will not be able to escape the fast-spreading trend of "public rating" and will thus be judged openly by our clients.

The social network culture came with the famed "Like" on Facebook (thumbs up) or... "Dislike" (thumbs down). This mode of communication between friends has become part of consumer activity itself and clients use and sometimes abuse it to their heart's content. They now behave like Roman Emperors of the comment-making world, doing and undoing product, brand or company reputations on their own. This ability is a daunting weapon and it is every company's duty to give the utmost importance to its e-reputation.

"We have shifted from a period during which products were rare, to one in which clients are rare -- from a consumer society to a reputation society, in which the client has all the cards in hand⁶⁶".

⁶⁴ Philippe Arraou, excerpt, Address before Manuel Valls, Prime Minister, 70th Congress, Paris, September 2015 and Interview with Philippe Arraou, SIC 339, April 2015

⁶⁵ Interview Philippe Arraou, SIC 339, April 2015

⁶⁶ Christian Barbaray, « Satisfaction, fidélité et expérience client », [Satisfaction, Loyalty and the Customer Experience], Dunod 2016

While they may have been foundational, the marketing models of yesteryear have had to undergo change. The marketing mix made of the infamous 4 Ps - Product, Price, Place (distribution) and Promotion (communication) - turned into the 4Cs in the 1990s (consumer, cost, convenience and communication) before reinventing again, in multiple variations.

The customer experience is ultimately a two-fold concept.

An enchantment component, first of all, meaning the ability to invent, sell and above all, buy the product or service of which everyone can dream. This is accomplished through narrative, a genuine story, such as the passing down of ancestral know-how, which provides reassurance and lends credibility, or in the worst case scenario, a story that is made up from start to finish.

However, it is also and above all a set pathway in which the "target" is identified well up-stream, and followed far downstream, with minute tracking of each unpredictable event that might break the spell and duration of the adventure with the brand!

Website design provides, better than lengthy speeches ever could, an illustration of the issues at stake in the customer experience - in this area, the terminology used is UX (User eXperience) and UI (User Interface).

A website today can no longer be a mere a showcase for a company. It needs to be considered an investment and thus be expected to generate a return, indeed ROI (Return on Investment). Our practices need to make that marketing culture to take another look at their website, if they have one at all...

The technique consists of making visitors enter a "conversion tunnel". The term 'tunnel' is used because the aim to lose not a single visitor out of all those who come to the site, while 'conversion' refers to the ability to turn the visitor into a customer.

Web marketing theory is thus studied down to the slightest detail. First of all, the visitor's attention needs to be captured. In the fewest number of

clicks, the visitors must be attracted to the "landing pages", very attractive spaces specially designed to show up in search engine query results.

Thanks to SEO (Search Engine Optimization) techniques, visitors presumably find what they are looking for via the search engine (a match between terms and the related descriptions) at the URL in reference (webpage address in a browser).

As there is no SINGLE typical profile, marketing makes use of the "persona" technique, with typical consumer profiles. Behaviours, expectations, barriers to purchase, influencing factors, codes, culture, semantics, etc. will all be subject to study in order to identify visitors as accurately as possible.

First and foremost, the aim will be to keep the rebound rate down -- rebound refers to visitors' rebounding from page to page, having failed to find (quickly) that which they were looking for... having failed to be retained. The instrument is known as CTA, or Click to Action. It is out of the question that a visitor should part without having been invited to do something: complete an action to sign up for a newsletter, download a white paper, a pdf containing advice, asking a question stirred by an enticing ad (a "customer promise") ...

This process has visitors fill out a form which will go straight to the sales / prospecting department. Visitors are ... prospects!

The next steps in the sequence are easy enough to imagine: visitor > prospect > customer. However, the process does not stop there.... customer > loyal customer > ambassador!

As we will have all realised by now, ambassadors send out the right messages over the social networks, influence relationships, and qualify new prospects... These techniques are now very widely used and the experience of each user is tested and traced using the infamous cookies which a European Directive now makes it necessary to adapt (but who would refuse?) and other KPIs (Key Performance Indicators) devised by the Google Analytics family.

I do see that these marketing and sales techniques cannot be applied to an activity like that of an accountancy practice. Let us look at the situation from the client's perspective. Of course, our clients are not consumers buying products for immediate consumption. That being said, most of our clients have such clients in turn, meaning that they are subject to this culture for their own activity. They enter this world and adopt the rules in effect. How can they not pass their "digital" behaviour on to their suppliers? That which was initially a trend reserved for a handful of insiders, is spreading little by little to become the general code. That is indeed the problem which our practices face. We need to adapt to our clients' world and that of their own clients. It is in this sense that web marketing is also relevant to certified public accountants.

We have all the cards in hand to embark on the "customer experience" approach and satisfy expectations. However, we fall short on one front: communication, hence the need for us to engage in at least a minimum level of marketing.

At the top of the list of new topics and areas which certified public accountants must explore are communication and marketing. Admittedly, the professional ethics resulting from the post-war period made these prohibited territory; as a result, many OEC members not only are not proficient in them, but in addition are approaches which they reject, as this is not their culture.

Likened to ordinary sales, they are synonymous in the minds of many with decline, or at least a lack of honour and dignity. It is obviously important to remain within the limits of our rules of conduct and not engage in marketing action that can be described as base dealing. This is one reason for which it is important to regularly refer to the "Certified Public Accountant's Marketing Guide" written by the Order in 2012 and updated since.

In a world where all companies communicate with their environment, certified public accountants too need to communicate, if only with their own clients to inform them of everything they can do for them. The customer experience starts with this entryway.

▶ **A DYNAMIC, COMMUNICATING PRACTICE**

Each practice must take a true entrepreneurial approach, a relatively revolutionary move for a certified profession, with: a business model, market positioning, brand, service offering, marketing system, human capital, service and market development strategy, new organisation modes, etc.

Certified public accountants are free to set out the development strategy best suited to their practices and likely to expand their business, provided that this does not happen at the expense of their colleagues in the profession as a whole.

This does not mean that there is no place for niche strategies, specialisations, low-cost approaches etc. There is room for everyone in our profession; its diversity is a strength, as there must be, for each client, a practice that operates on the same wavelength and addresses the specific needs expressed⁶⁷.

To provide consultancy services requires planning, foresight and above all integration into a broader strategy, which can only be the result of prior reflection and a decision which we will refer to as the "practice plan"⁶⁸.

A "practice plan" is a document that needs to be formally stated, setting out the practice's destination and roadmap for the years to come. It proceeds from long-term thinking and is ultimately aimed at developing the enterprise and securing its lasting future.

⁶⁷ Excerpt, Interview with Philippe Arraou by GAN on Digital

⁶⁸ Missions d'accompagnement et de conseil : mode d'emploi, [Support and Consultancy Services: A User's Manual], Ordre des experts-comptables, June 2016

The "practice plan" is founded upon:

- The Strategic Vision -- Where do we come from? Where do we want to go? Where do we not want to go? What challenges do we have to take up? What targets have we set ourselves?
- A Strategy -- How do we intend to take up those challenges, and pursue those goals? What human resources will we use? What kind of organisation do we see? What production processes do we plan?
- Collective challenges, limited in number so as to be sure we can focus on the essentials, and bring consistency to the project;
- Individual targets, which will make it possible to mobilise practice employees in the change process;
- Communication, first within the practice, but also outside, aiming at prospects, and above all, geared at clients and partners, so that they can be aware of the change in focus.

Communication thus becomes the logical next step in the strategy, which needs to lead to action, and thus to identifying a positioning on the market by third-parties.

The address delivered by Alexandre Bompard, CEO of Fnac, at our 2012 Congress, says a great deal in this regard, as he described the change he was in the process of triggering at his firm: *"I am convinced that a transformation as deep-set and, in the view of some, as radical, as this one, cannot be a success unless it is the focus of sweeping communication. Communication to the outside community, of course, and as you have seen over the past year, we have strived to bring visibility back to our brand, we have communicated through posters, working to provide proof of our new development and new services, communicating as well and, I was going to say, probably and most of all, with our teams, to bring them on board, show the breadth of the work they do and restore their pride in their employer. "*

The Fnac's experience is replete with lessons to learn. Whereas in the collective imagination, it was perfectly-positioned as leader of a distribution mode that can be termed "traditional", it found that it had to destroy that image so that the public would understand it was capable of providing the same service as its new-economy competitors, first of all, Amazon. Easier said than done. Yet Fnac pulled off its challenge and was thus able to stay alive - otherwise, it may well have gone under.

How can we not extrapolate from this experience a lesson for our profession and draw a parallel? Our image is deeply anchored in the collective imagination, but in connection with a product which the public no longer wants to purchase. Not because it does not need it, but because the way in which it consumes it has become different. The public needs to be brought to the understanding that the "traditional" practice, with which it is familiar and trusts, can also fit into a new operating mode.

The message can even be enriched. If the "new service" is sold or provided by an "old-economy" business that has experience and is recognised for its professionalism, this remains better than with a start-up that has just gotten on its way, and may or may not be in existence one year down the line.

Certified public accountants can take up communication with a great deal of confidence. They have a considerable advantage in that they can communicate on their certification, a full-fledged brand that reflects a tremendous range of qualities and benefits compared to any competitor from the consulting market. It is for this reason that we need to enter the field of communication keeping a tight grasp on our culture and our ethic, and not giving into whatever requests come in from advertising agencies that may have seen in our profession a juicy market since our professional ethics changed. While we may need them, not all of their proposals are good for the taking. One look at the advertising messages now used by some practices is enough to become convinced of this. In our profession's ethics is enshrined the importance of dignity, a quality with which our services deserve to be provided. We must remember this.

▶ BUT ALSO EXPERTS IN DIGITAL

Who would think that a certified public accountant could be competent in the area of digital to the extent of offering a service? Answer: our clients! While we may have had doubts about our own ability to embark on such tasks, our clients know that they can count on us, which both makes sense and is reassuring. Who knows enterprises and their organisation better than certified public accountants?

Who better than a certified public accountant can give independent advice as to the best organisation to adopt and the best tools to integrate? We have been widely chosen for this, sometimes not having realised it.

Our own clients are waiting for us around the bend, asking us to help them in the digital transition, support them in their development, and advise them so that they can clear this stage. How can we meet those expectations if we have not experienced the above for ourselves, as CEOs?

We need to fully engage on the road to de-materialised practice. This should in turn enable us to implement the same at our clients' organisations and thereby enjoy a new medium for our relationship and communication. This is why de-materialisation is now essential as we provide our customers with support. We must set the example and keep one step ahead of them so as to support and guide them. A new world is opening up, and we need to step into it enthusiastically and confidently. Accounting is obviously being shaken, as de-materialisation changes the very way it is executed; certified public accountants will nonetheless remain central figures and remain present alongside companies. They may need to rethink the way they organise their customer relationship. We need to be up to the challenge of earning our clients' trust, and responding to their needs, which engages us today on the road toward de-materialisation, which we should see as a new responsibility in and of itself: certified public accountants must be the agents of the digital transition⁶⁹.

⁶⁹ Philippe Arraou, excerpt, Address before Manuel Valls, Prime Minister, 70th Congress, Paris, September 2015

Not only are our clients counting on us to support them in their digital transition, the highest public authorities in our nation are too. Our Prime Minister stated on 1 October 2015, at our Congress in Paris:

"To purchase and adopt digital tools, enterprises - in particular VSEs, and craft workers - need to receive support. They need to be offered solutions in the very near future, for the stakes in terms of competitiveness are high. On all of these tools, we need to work together! We await your responses! Come to us with your proposals and let us move forward together..."

Certified public accountants have become fiscal experts, social experts, experts in management, corporate social responsibility, and financing. Tomorrow, they will be experts in digital... You may have to change your name one day! I leave the debate in your hands⁷⁰".

What profession can boast having the trust of both its customers and the public authorities! This is a godsend! The market is waiting for us and it is our responsibility to step forward.

Of course, not every member of our profession will be in a position to offer these new services and take on all their clients' operations. Some professionals will know how to proceed and do so. One thing is certain, however: our clients will not agree to any digital transition support without the approval of their certified public accountant. With our knowledge of their organisations, history, culture, objectives and plans, combined with the independence of our advice, we will offer invaluable perspective. At the very least, it will be our responsibility to size up the opportunities which digital can hold for our clients.

The dematerialisation of enterprise organisations directly impacts the way we work, and any of us will be able to provide the required services, provided the new mindset has been established in the practice. In contrast, it will be more challenging to form an opinion on transformations to the manufacturing chain, the shift to a new market, for example, turning

⁷⁰ Manuel Valls, Prime Minister, Excerpt, Speech at the 70th Congress, Paris, September 2015

away from traditional production to start producing connected objects. However, our experience of the business world, the cautious approach that has become our second nature and our familiarity with client enterprises will entitle us at least so have some idea of the risks and opportunities available.

Certified public accounts must take an interest in the digital economy, so as to best support their clients in the decisions they make. To declare themselves incompetent would be suicidal. Let us bear in mind that our client can be even more at a loss than we are before this challenge, and that they need us, in a new way.

▶ ENABLING SECURITY

Our profession came into being over seventy years to bring security to our clients, to the the economy and to our country.

The rules we have on regulation and ethics have no other purpose than to ensure the best possible quality for our clients. That security-enabling function has consistently been confirmed by the legislation, most recently last year, with the Macron Act, which authorises us to engage in consultancy as our principal business. The new provision needs to be seen as reflecting the legislative body's desire to ensure that, on the consultancy market, there are professionals governed by ethical rules.

Today, our security-enabling function demands that we be in line with the contemporary environment and, more specifically, to the digital economy, due to dematerialisation.

- Reasserting our role as trusted third-party

Certified public accounts, who are truly trusted third-parties in business relations, have established themselves at the heart of a virtuous circle that includes such stages as simplification, dematerialisation and transparency.

Certified public accountants are the leading advisor to entrepreneurs

and, in more than 90% of cases, enjoy their clients' trusts⁷¹, which is the greatest treasure in our profession. This is a tremendous responsibility, in particular today, as the crisis experienced by the European economy since 2008 is first and foremost a crisis in trust.

The real economy is that of finance, which invests, exports, hires... at every stage of a company's life cycle, one indeed already finds certified public accountants. That presence can become all the more prominent, if they learn to evolve with the increasingly far-reaching and complex demands of their clients and know how to advise them⁷².

Our economy's move into the digital age must contribute to reasserting our role as trusted third-party, a role which the public authorities have steadily reinforced over the past 70 years⁷³.

It is up to the public authority in each country to provide the responses that will help us adapt to the needs of the new economy, consumer and market. How can that security be brought about and how can we, as certified public accountants, play our role in enabling security within the economy?

Most of our friends and neighbours across Europe have taken action to step up the trusted third-party role for our colleagues. Taking example from Germany, many other nations are extensively revising the tax filing deadlines for clients of accountancy professionals, thus encouraging taxpayers to seek the support of a trusted professional, improve tax genuineness and bring greater assurance to practices working on mandatory reporting documents. Would we not do just as well to transpose that practice to France⁷⁴?

⁷¹ 2014 TNS-Sofres survey for the Accounting Profession Observatory

⁷² Philippe Arraou, Les petites affiches, September 2015

⁷³ Philippe Arraou, SIC 346 Editorial, September 2015

⁷⁴ Philippe Arraou, excerpt, Address before Manuel Valls, Prime Minister, 70th Congress, Paris, September 2015

The trusting environment that needs to be encouraged in our country will develop if certified public accountants are always ready to respond when companies need help meeting regulatory requirements⁷⁵.

This plea has not given rise to action as of yet, despite the very warm welcome it received from the Prime Minister.

The 31 December 2015 tax declaration campaign has been extremely trying for our practices, and despite having initiated discussions on the very next day after the Congress came to a close, we had to wait until the last minute to be granted not an extension of the submission deadline, but a mere two-week tolerance measure in the event of delay. We know that the initial grounds for the extension are no longer relevant, as the aim was to encourage tele-filing, an option that has since been phased out. It nonetheless remains that our practices' everyday operations have not become any simpler following this. Quite to the contrary, in fact, as new declarations have come into being.

The ever-increasing pressure has made our practices into places riddled with anxiety. Our colleagues having more and more trouble coping, and are looking for ways out of our offices, so as to be freed from the need to deal the stress of filing deadlines. Timeline management has turned into a high-wire act, and it has become impossible to comply with labour regulations during tax filing time. We cannot let this situation stand: our practices need greater peace of mind.

We deserve full-fledged status as "trusted third-parties", not flowery discourse or grandstanding. In essence, the Prime Minister was asking that the status given to our counterparts by many countries across the European Union be duplicated in France, with particular reference to Germany, an extreme case, in that tax statements filed by accountancy professionals may be submitted up to one year late, as compared to only five months when submitted by professionals themselves. In Belgium,

⁷⁵ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

the deadline is 30 September for accounts closed as at 31 December. The dates themselves are of little importance. What the profession deserves is a differentiated deadline. A tax statement filed by a professional is in no way comparable to one that comes directly from an enterprise. It requires more time, as our responsibilities include the notion of due diligence. We need more time than does an enterprise. It is that little bit more that we are demanding, once and for all, so that we do not have to wait until the day before the filing to finally be granted a governmental favour, out of kindness of its heart.

This year, a technical pretence was used to reject our request. It was too late for the date of receipt to make a difference, between those submitted by enterprises and those submitted by practices. I hope that I will never hear such grounds be cited again and that a technical solution will be found. In the age of digital and personal identification, as I see it, there can not be much difficulty involved in implementing a procedure that identifies individuals using technology, especially when declarations are submitted via the profession's portal, Jedeclare!

If I had just one wish for the profession up to the end of my term, that would be it, so convinced am I that this is what the profession needs!

- [Digital trusted third-party](#)

We are natural candidates for fiscal trusted third party status because of our involvement in securing the tax base and tax collection process in our country. By the fact that we operate under the authority of the Minister of Economy and Finance, it is even in our profession's legislative DNA.

However, the trusted third-party role is not limited to tax-related responsibilities alone. The security-enabling role entrusted to us and described above binds us in all aspects of our action, in all services provided to our clients, and is indeed part of our responsibility as a profession.

Hence it is a matter of course that a special function be opened to certified public accountants, as "digital trusted third-parties".

This impinges on us because our rules of practice were designed so that we could bring security to our clients. Security-related questions are emerging today with respect to the digital economy. How can we bring security to de-materialised exchanges? I am convinced that certified public accountants can play a part in enabling security, but only if the legislation is re-written. The digital economy cannot be adequately addressed using the tools of the old economy⁷⁶.

As this issue touches upon our legislation, it also refers to the authority governing us.

I have frequently had the opportunity to bring this up in recent months, with different Ministers and their departments. The question I am putting before the State's most prominent leaders is as follows: "In this digital era, where do you place security?" What are you doing to protect consumers, markets and our national economy? ". The question hits the mark, of course, and all involved state their concern, but the responses provided are evasive, due to the novelty of the subject, as well as to its starkness, probably.

We probably "haven't seen anything yet", when it comes to on-line abuse of trust. That day will come, rest assured. The "Wild West" setting which I described in the first section exposes the weakest to the abusive practices of the strongest. It is without any doubt the responsibility of the elected officials to provide protection and security, whatever the country they serve. They must answer one question, however: which market players contribute to building security and what tools do they use?

This is not such an easy question to answer in a world where everything still remains to be done. The first reflex would be to think that they need to be invented. But why invent that which already exists, and needs only be adapted? I will admit to a weakness: I believe that we are the professionals

⁷⁶ Philippe Arraou, Prestige Conference of CPAs (Certified Public Accountants) on the digital economy in Quebec, February 2016.

who can bring security to the digital economy.

Our professional ethics system was crafted at the height of World War II, to help rebuild our nation, with a function clearly geared at security. While circumstances are no longer the same, the expectations are not very different: the need is for responsible professionals, held to strict rules on independence and ethics. Why should a profession be reinvented if it already exists? Especially when it is already so closely involved with enterprises?

Certified public accountants have their part to play in the digital economy, as enablers of security. Perhaps it should become mandatory for enterprises to call on them? That is what a number of crowd-funding platforms decided, when they chose to reject any projects submitted with provisional financial statements not drawn up by a member of the OEC. The public authorities could do the same in multiple areas, including tax statements, following in the footsteps of other European Union Member States.

With the advent of digital, there is an outstanding opportunity for the profession to become a recognised intermediary, enjoying all the benefits that come with our service. An extended deadline is one. Others remain to be developed, for instance as pertains to mailing official documents. How can postal submission of pay slips be secured? How should electronic invoice collection be organised? Can these technical arenas be left entirely in the hands of commercial companies? Would we not be creating even greater security gaps if we did so? Can general interest concepts be brought into the debate about dematerialised data exchange? Who should be entitled to attest to the actuality of a dematerialised document? Who can hold accountability for the archiving of dematerialised documents and, more importantly, their subsequent return?

All of these questions have the same response: the certified public accountant! For theory to turn into practice, however, the profession needs to ensure that it uses only tools with the highest level of security. I elaborate on this topic in the final section of this book. Then, it will need to secure official status: that is the aim of my action with the Ministry of

the Economy and Finance, asking that the function "digital trusted third-party" be created.

In the introduction to this work, I expressed my concern about the place of the certified public accountant in the digital economy: this status would provide a satisfactory response to the problem. To date, however, no such status exists, and more time will most likely be needed before it can. I wish to open the path to my successors, wishing them well in their endeavour, for the profession is in dire need of this change.

▶ LOOKING TO THE CLIENT BUSINESS MODEL

For a long time, if not from the start of our industrial age, innovation set out to develop new products or processes in an effort to improve on existing reality. The digital approach is radically different. The new generation does not take into account that which already exists, and goes straight for the gut -- it strives to create value.

The business models on which entire industrial segments and enterprises slowly built up their model have been blown to pieces.

I already mentioned the circumstances under which Uber came into being. Allow me to go into greater detail to illustrate what the digital approach means. It is because one day, someone said: *"It takes too long to secure, costs too much and is too complicated to pay for in cash -- all of this makes for very dubious experience thrust on me, and the service quality (smile not included) is borderline. There has to be another way"*. That someone was ready to develop the other way, from scratch, giving consideration first and foremost to the customer, offering added value for which people would be ready to pay, and a reasonable price that would still be enough to enable all those involved to earn a living, thanks to a streamlined, automated process.

"Going from business plan to business model", is another way of answering the simple question: where does the added value lie?" The answer is not to be sought in the unwieldy examples of the present. The idea is not

to destroy that present; it will be enough to ignore it, which comes out to the same in the end. The technologies used today will necessarily be disruptive. Dematerialisation will be the keystone for providing responses of a new kind, with digital solutions.

George Colony, CEO of Forrester Research Institute, a consulting firm listed on the Nasdaq that works with companies on their digital and technology strategy⁷⁷ made no mistake about it, when he asserted in front of his top management: *If you can't understand the new world of digital, fire yourself, or build an executive team that is digital first: when problems arise, the first solution is always digital.*

Make sure there is a technie on the board of directors. Figure out where the business will be most disrupted, and send the digital troops there. Don't spread them everywhere -- go where the fight is. "

To truly understand the concept of business model, we can look at the approach taken by consultant Alexander Ostwalder, in his thesis published in 2008 and used again in a reference work⁷⁸ written with a professor from the University of Lausanne, Yves Pigneur. The business model is aimed at identifying where and how value can be created, by analysing an enterprise's ecosystem.

⁷⁷ <https://go.forrester.com/>

⁷⁸ Business Model Generation Self-Publishing, 2009

The Business Model Canvas

Study conducted on behalf of:

Study conducted by:

Date:

Version:

<p>Key Partners</p> <p>Who are our key partners? Who are our key suppliers? What resources are acquired via our partners? What are our partners' core businesses?</p> <p>PARTNERSHIP AIMS</p> <p>Optimising and achieving savings Mitigating risks and uncertainties Gaining physical resources or opportunities for activity</p>	<p>Core Activities</p> <p>What key resources are needed for: Our value proposition? Our distribution channels? Our customer relations? Our revenue sources?</p> <p>CATEGORIES</p> <p>Production Problem-solving Platform/network</p> <p>Key resources</p> <p>What key resources are needed for: Our value proposition? Our distribution channels? Our customer relations? Our revenue sources?</p> <p>TYPES OF RESOURCES</p> <p>Physical Intellectual (brands, patents, data, rights) Human Financial</p>	<p>Value Proposition</p> <p>What value do we provide to our clients? Which client needs do we satisfy? What client issue do we help solve? What offer do we make to each customer segment?</p> <p>CHARACTERISTICS</p> <p>Novelty Performance Customisation "Mission to accomplish" Design Brand/Recognition Price Cost-Cutting Risk Mitigation Accessibility Use/User-Friendliness</p>	<p>Customer Relationship</p> <p>What relationship does each customer segment want us to establish and sustain with it? Which relationships have we already established? How are they incorporated into our business model? What is their cost?</p> <p>EXAMPLES</p> <p>Self-service Personalised assistance Dedicated personalised assistance Communities Co-creation</p> <p>Distribution Channels</p> <p>Through which channels in our customer segments do they wish to be reached? How are we reaching them? What degree of integration do our channels enjoy? What are the most profitable? How do we integrate them with customer preferences?</p> <p>PHASES</p> <p>purchase of our products and services? 1. Awareness-raising How can we make our offer more widely-known? 2. Assessment What can we do to help customers assess our value proposition? 3. Purchase How do we facilitate customer</p>	<p>Customer Segmentation</p> <p>Who are we creating value for? Who are our main clients?</p> <p>EXAMPLES</p> <p>Mass markets Niche markets Segmented markets Diversified markets Multi-sided platforms</p>
<p>Cost structure</p> <p>What are the most significant costs for your business model? Which key resources are most costly? Which key activities are most costly?</p> <p>IS YOUR BUSINESS MODEL MORE:</p> <p>Cost-based (low cost structure, low prices, maximal automation, intensive outsourcing)? Value-based (focused on creating value, top-end value proposition)?</p> <p>SAMPLE CHARACTERISTICS</p> <p>Fixed costs (salary, rental, public service) Variable costs Economies of scale Economies of range</p>		<p>Revenue sources</p> <p>What added value are our customer willing to pay for? What offer are they paying for currently? What is the difference in payment type? How would they rather pay?</p> <p>TYPES:</p> <p>License Brokerage fees Advertising Subscription Loan / Rental / Loan-Lease Listed prices</p> <p>SET PRICES</p> <p>Dependent on product options Dependent on customer segment Dependent on volume</p> <p>VARIABLE PRICES</p> <p>Negotiation (bargaining) Profitability management Real-time market</p>		

Analysis is run based on a matrix, the Business Model Canvas, which takes apart each component of value.

The Canvas' Nine Building Blocks (from left to right)

- Key partners: strategic partners with their own motives for being part of the business model;
- Cost structure: structural costs needed to run the business model;
- Key activities: key activities needed to implement the business model;
- Key resources: key resources to guarantee the business model's feasibility;
- Value proposition: value proposition as submitted to the market⁷⁹ ;
- Customer relationship: relations developed with customers;
- Distribution channels: communication and distribution channels used to reach clients and offer them the value proposition;
- Customer segmentation: customer segment(s) targeted by the value proposition;
- Revenue sources: cash flow generated by the business model.

We know full well that it is no longer possible to build strategies for the long term. With the digital transformation, the decision-making time has become shorter and action is devised within the short term scale. Consequently, we need to use analysis tools suited to the market's volatility and necessary speed which any company must now implement.

Certified public accountants are in every way legitimate to look at their clients' business models. First of all, because they already have some of the keys to understanding in hand, thanks to their expertise in finance and accounting. Secondly, because they have the skill to facilitate the change management process, in terms of organisation, management, human resources, and quite simply, strategy.

This makes for a dynamic way to enter the digital economy, and develop new services. Of course, this will not be possible without appropriate internal resources.

⁷⁹ The value proposition, at the centre of the canvas, is defined by the eight other factors

▶ NEW SKILLS IN DEMAND

As the profession transforms and its service offering along with it, our practices' human resources will need to also align.

As readers will recall, according to the latest study from the Accounting Profession's Observatory, pure accounting continues to generate 48% of sales revenue for practices with fewer than 50 employees.

As a result, our profession is going to have to embark on a deep-set revamping of its skills, in each practice. In a new model, where human relations will regain their stripes as we work alongside CEOs, employees will more than ever be the keystone in the customer relationship. The challenge of skills transformation will thus be absolutely decisive, considering that our practices currently dedicate three-fourths of their teams to account-producing tasks.

In order to keep pace with the inevitable shift in their profession, practices will need to adapt their skills, qualitatively and even quantitatively. This implies answer a whole range of questions: which skills will be needed in the future? How can they be developed? Is it preferable to build the skills set of existing employees or hire others? Should practices continue to hire professionals with certified accounting skills, training them in the new service areas, or look for profiles from different backgrounds? How can practices go about hiring and integrating different profiles? How should they be managed? How can their loyalty be secured?

This is a very important component of the digital transition. This is relevant to all practices. This is relevant to the Institution, as well, which has the duty to work alongside the practices and be of benefit to them.

The training programme developed by our training institute, the CFPC, now needs to be enriched with specialised-designed models. There are significant needs. First of all, there is a need for awareness-raising, through short-term programmes. There is also a need for longer-term training, the aim being indeed to trigger a change in mind-set in all those working at our practices.

Their proficiency in accounting techniques is an asset that needs to be put to work. In the very short term, it will no longer be demanded by our clients. Nonetheless, it will remain valuable in enabling an all-encompassing approach to enterprises. There will be an information system, the reliability of which will need to be guaranteed, and accounting is part of this. And there will need to be an understanding of that information, along with analysis. Accountants have just the right approach to this type of activity, provided that they remember to step back and gain perspective. Our employees need to be vested with a mission of an all new kind, made up of more closeness with clients. Training that deals with psychological and human factors will be helpful. It will definitely not solve all the issues, however, and everyone will have to pitch in. The effort will come all the more easily as every individual's job hangs in the balance. The challenge is thus daunting, but also enthralling!

I am particularly optimistic about the ability of certified public accountants to continue developing into the 21st century in order to provide their clients all the services they need. Ours is a constantly-changing profession, which has never faltered in the face of the challenges encountered along its way. Accountancy can look ahead to a bright future⁸⁰.

⁸⁰ Philippe Arraou, Les petites affiches, September 2015

▶ PROFESSION: DIGITAL CERTIFIED PUBLIC ACCOUNTANT?

Just what does it imply, to be a digital certified public accountant? It would be impossible to answer the question by looking for a definition, or taking part in training (no such thing yet exists, and those interested in earning a degree in the field will have even less luck). Taking into account all of what has been set out in this book, up to this point, I would say that it is a matter of mindset, more specifically, of being "open-minded". When one walks into Google Headquarters in Paris, it is a striking experience to come upon a sign that reads like a company slogan and can hardly leave one unruffled: "Be open". Indeed, it is all about opening up.

This reminds me of a quote from Pierre Daninos, late 20th-century French writer and humorist: *"Brains are like parachutes: they need to be open in order to function"*.

Being open in the digital economy means being connected, on-line at all times and from all places, and in touch with others, with information, with databases, and with one's own information system. The aim is not to be connected for the pleasure of being so, as though for personal purposes, but being connected with the aim of taking advantage of every opportunity the digital revolution can offer.

The first area to benefit can be each practice's organisation itself. Today's communication and connection tools do make it possible to enjoy lower production costs on material tasks. Services, working methods and connection modes with clients will also need to be re-thought.

The second area is the creation of new service areas. De-materialisation brings with it all-new conceptions. Certified public accountants must become originators of ideas for their clients, and be of benefit to them by serving as strategic advisors. To do so, they will need to run intelligence operations on their clients' markets, so as to contribute ideas for possible sources of development.

The digital approach requires that information be shared; however, before anything is distributed, it must first be collected. The speed of operations has become extremely quick, making it a necessity to adapt, and only with the help of digital tools will organisations be able to achieve that adaptation.

The picture could not be clearer: digital certified public accountants do many things, with a scope that extends well beyond accounting. They are flow integrators, who must give meaning to data, in their clients' interests. It has always been our job to getting the numbers to talk. We now need to extrapolate that function to data, in the broadest sense of the term, whether internal to a company, part of the environment, or even entirely removed from it.

Digital certified public accountants need to be very close to their clients, supplying them with a constant flow of useful information in real time, so that they can build their enterprise's history. How can we not see that the digital revolution offers the chance to strengthen our relationship with our clients, and extraordinary opportunity for our profession?

PART 4

The Certified Public Accountants' French Institute Digital Strategy

The prime purpose of the Order of Certified Public Accountants is to execute sovereign powers. However, for nearly twenty years now, the National Council has embarked on producing services for practices so as to help them in their shift. This decision comes at a time full of new developments for practices, but especially at a time of very significant change for the profession, in particular in its scope of action with enterprises, which is becoming broader and broader, due to our generalist culture and demand from clients subject to an increasing range of restrictions. That commitment may come as a surprise, but it is essential: the aim is to ensure that the profession remains united, and ensure that service offerings on the market are more or less the same from one practice to the next. The advantage of collective action lies in the clout it enables, infinitely greater than that which any single practice could enjoy alone, as powerful as it may be. This is why institutional commitment has meaning and must be able to attract all practices, whatever their size and organisation. Pooling of resources through tax contributions helps create collective impact. The profession has every interest in using it.

Of course, the Order's action has its limits and the Institution cannot do everything alone. It is each person's responsibility to take fate into their own hands, and determine the potential benefit of the Order's services in their particular context. In particular, it is the small practices that will gain from this - those that do not have specific resources internally, or adequate means to call upon an outside service provider to help them make the move in a new direction or roll out a new service. Large accountancy firms, in contrast, must also be able to find advantage in this. They pay contributions as do all others, and even have an interest in cost-sharing. It will be to everyone's benefit to take part in a collective action: giving more weight to the profession and thus more clout.

One example is the statement-filing portal "Jedeclare.com". What would the profession be today if our colleagues had not had the foresight to initiate this effort from as early as 1999, and kick it off in 2001? At the

time, there was no tele-filing requirement, but an increasing sense that it might come, and in fact, that it would soon be an inescapable reality. By creating this tool, which serves the profession as a whole, it did us a great service. Namely, it guaranteed us our independence. Without that product in EDI mode, to which all software publishers are connected, we would have had no choice but to use EFI mode, meaning we would have had to log in via the administration's portal, using each client's code. That is how virtually all of our colleagues abroad proceed.

In addition, the collective involvement that resulted from this sparked another virtue. The portal gives strength and power to the Order and thus to the profession. Today, more than two-thirds of enterprises file declarations via the portal "Jedecclare.com". That very impressive figure confirms the role professions play with enterprises. Above all, it gives a certain authority to our Institution in the way it relates to the governing authority, as we are central players. We would not enjoy such a place today had we not expressly set out on this path and initiated investments in tele-filing technology. This is a very telling example of the benefits of collective for the profession, and thus, of the need for the Order's Council members to engage in projects themselves.

The digital transition of our practices is an issue with such ramifications that the Institution has the duty to be present alongside the practices. It is a matter of collective interest, even though it remains true that players hold responsibility for their own fate.

As I tweeted on the 23rd of November last, *"I am not worried about the future of accountancy, but about those CPAs who will have failed to set out on the road to digital transition"*

It is for this reason that, to take up the considerable challenges that lie ahead for our profession, I have decided, with the full support of my Council's members, to initiate a large-scale campaign, aimed at informing, alerting, mobilising and supporting practices. This work, the first opus in that ambitious campaign, proceeds from that thinking.

This campaign to support practices in their digital transition is not the profession's first initiative; it already boasts multiple innovative projects with digital, each further testifying to its vitality. Let us review!

Chapter 1

A STAUNCHLY TECHNICAL PROFESSION

JEDECLARE.COM

When it opened the filing portal "Jedeclare.com" in 2001, the Order clearly showed its intent to make dematerialised production its standard. The profession, in other words, did not delay action until dematerialised filing of tax and social statements became mandatory, as it is today. That it chose to move ahead of time reflects honourably on the accountancy profession, which showed itself to be modern, determined to undertake structural reforms, committed to serving both enterprises and public authorities, able to innovate and, of course, bold enough to make substantial investments, using the Institution's reserves, to set up the filing portal.

Originally focused on the most common declarations, those pertaining to VAT, the portal's scope of application gradually extended, until it covered all fiscal and social statements. The process took time; it was not enough to merely make the decision, or even provide all the necessary mechanisms for documents to be filed. The recipient needed to be able to receive them. This meant reaching an agreement on the content of the tele-filed statement, then drafting the related protocol. Our counterparts were not always as responsive as we would have liked them to be, and a significant amount of time will have gone by between the project's start and today's nearly-complete coverage of the document range.

The software publishers should be lauded here for their efforts, as they came in step with the profession and adapted their products to our portal. There was nothing forcing them to do so, as each player has a specific technical offering. However, by following along, they helped strengthen the profession's positioning overall. While we need publishers who provide innovative products and thereby guarantee our practices' continued excellence, they also need our profession to be strong, and this sometimes requires efforts on their part. Our interests are obviously shared and reciprocal, and it is good that this is clear to all involved.

"Jedecare.com" thus earned its stripes over time, becoming the vital partner to the National Directorates for Public Finance, Social Protection and Certified Collection Bodies, as well as Banque de France and commercial banks. Its future being irrevocably tied to that of fiscal and social declarations, it should continue to exist for some time still, until a relationship of a new kind can develop between enterprises and administrative services, as it probably will in the more distant future.

This initiative by the Order of Certified Public Accountants is a glowing success and we have nothing but gratitude for those who designed it and all those who contributed to making it reality and developing it over the years.

ELECTRONIC SIGNATURE

Electronic signature is no new gadget. It is an essential piece of the dematerialisation mosaic. When a file is created and destined to be sent via the Internet, it must be secured, regardless of the sender, but even more urgently so when the sender is a member of the Order, considering the obligations and accountability that are theirs. What guarantee do we have that a PDF file will not be modified by its recipient? Using today's technologies, it is possible to turn PDF format into Word, and thus to modify the document received. Then, once signed or electronically sealed,

the document becomes an original once again, which is non-modifiable and authenticated. Furthermore, it becomes an original electronic document. It can also be sent electronically, and secured by the mail's signature.

When an engagement letter, report, financial statements or pay slip are sent, to mention only a few stand-out examples, they deserve to be secured.

Practices are exposed to major risk when their employees send pay slips by e-mail to their clients' employees, without taking any action to protect the file sent. The danger is all the greater given that an electronic pay slip requires the use of an electronic signature certificate, with which few are familiar and use.

Electronic signature is, in other words, a tool needed by accounting professionals, and absolutely vital to securing electronic exchanges. By producing reliable and transparent accounting information, certified public accountants generate trust in their clients and, above all, for the latter's third parties, which contributes to securing financing and to the inter-enterprise credit that is vital to economic development and growth. The paper documents produced up to this point by certified public accountants have always been signed by hand, as a means of certifying the work completed. In a dematerialised world, the need for a signature is the same, but needs to be produced differently. The electronic signature that comes along with a file makes it possible to generate an original electronic document and moreover authenticates the identity of the professional who issued it. An unsigned document would carry no identification at all and, consequently, none of the force and authority that come with a professionals signature. Such a document would be commonplace, undistinguishable from and potentially produced by any other. Ultimately, were this approach to become widely adopted, certified public accountants would fade out of the picture entirely. It is for this reason that the members of the Order have every interest in making their electronic signature a requirement on any document leaving their practice in dematerialised format.

This is also the reason for which the Order, considering that each certified public accountant should be equipped with a high-quality electronic signature in line with the standards set in our professional rules, deemed that it had the duty to provide that signature to all members of its profession. "Signexpert" was inaugurated on 10 May 2011 and widely distributed a few months later, at our Congress in Marseille.

Now, a few years down the line, it turns out that this move came early, when compared to the actual custom in practices. Like tele-filing portal "Je Déclare.com", the product was seen as futuristic and heralding an inexorable future. It is nonetheless better to be right too early than not at all; letting a change slip by can turn out to be an error laden with consequences, as it is generally impossible to make up for lost time. In launching the initiative, the Order buttressed the profession's ambition to be a digital economy player, and gave it a tool that enabled it to maintain its place and role.

"Electronic signature probably came too early, considering the pace at which the practices' needs were developing. I predict a bright future for it though, when I see the staggering speed at which the trusted third-party function is developing for our profession, and knowing that it will most definitely continue in the same vein, in a digital world where trust is a crucial parameter to take into account"⁸¹. "

While the electronic signature is one component in the identification picture for members of the Order, it cannot fulfil every need in this respect, and another product was created accordingly.

⁸¹ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

EXPERTPASS

"With the launch of the electronic signature, we started conceiving more broadly of the issue of the certified public accountant's digital professional identity. It is for this reason that we launched the Expertpass last year, a digital ID card for certified public accountants that can be downloaded free of charge to a Smartphone, and which offers numerous and constantly-developing applications⁸². "

To certifiably attest to OEC membership, certified public accountants must be able to show a reliable and secured document. It is for this reason that the Order developed, nearly two years ago, a digital ID card, known as the "Expertpass". Rather than providing certification on paper or member ID card, as would any organisation or club, in the age of dematerialisation, the Order opted for a modern, effective tool.

Downloadable straight to a mobile phone or notepad, the "Expertpass" digital ID card is directly linked up to the Order's registry, making it possible to update instantaneously with each login.

Installation requires a supra number (Order registration number) and a special activation procedure has been developed to guarantee adequate security above and beyond the basic login and password.

Seeing the rousing success enjoyed by the new tool, it was decided that it should be extended not only to trainees and clerks, but also to presidents and directors of management and accounting associations, as well as, most recently, the members of the association for CPAs based in business ECE, "Expert-comptable en entreprise".

In addition to attesting to the holder's place in the accounting profession, the ID card is the digital passkey for all professionals calling upon the Institution's services.

One functionality was developed so that card-holders can, by reading the

⁸² Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

flash code on the Order's sites from the related application, gain access to reserved content and automatically find information pertaining to themselves and their environment, from any computer. Consequently, it is no longer necessary to enter a login and password to access the Order's services.

The identity of the professional found on the "Expertpass" electronic card is contained in the encrypted flash code, which need only be read once to guarantee the professional's identity and enable multiple applications. Consequently, to access the profession's events, in particular the Annual Congress of the Order, it is enough to show the digital ID card. The same goes for participation in a training session or assembly general: the attendance sheet will automatically be filled out as the flash codes contained in each card are read.

Other functionalities have been integrated into the "Expertpass" digital ID card as well. For instance, the contact information of all Order members saved by the cardholder will automatically be updated on the Expertpass as soon as they are recorded in the Order's registry.

Today, the Expertpass application makes it possible to:

- directly access, from a mobile phone or notepad, to reserved sections of the Order's sites and outposts, without password or log-in entry;
- find out about upcoming events offered by the profession and register for them;
- check private messages containing information from the Regional Council, the Higher Council or relevant OEC subscription services;
- ask questions live during events organised by the profession;
- receive personalised notification from the profession and thus be informed round the clock about the profession's news, based on areas of interest.

While the "Expertpass" application is used today only within the profession, there are already plans to deploy it beyond the institutional arena. The Order is working in close conjunction with the State's identification platform "France Connect", so that the ID found in the "ExpertPass" can be used to perform operations with other players and to complete multiple procedures, in particular administrative.

To conclude on this topic, it should be emphasised that this technology offers yet another benefit. Dematerialised identification of members of the Order makes it possible to eliminate the "others", those whom refer to as "illegal". As the identification tool's use extends, this will have an effect on the market and may provide useful to third-parties, enabling them to find out whether they are dealing with a certified public accountant, a member of the Order subject to rules of professional ethics, or an "accounting expert", subject to nothing at all, and a true danger to anyone calling upon their services.

DATA MINING: STATEXPERT AND IMAGEPME

Today, it is on big data that we are making the commitment! By tele-filing their clients' fiscal and social data for several years now, certified public accountants contribute to building up one of the largest VSE/SME databases in existence. The Order of Certified Public Accountants is now giving new life to those documents, taking anonymised data and "making it talk", much in the same way as certified public accountants get their clients' figures to "talk". By pooling resources and material, the Order is helping improve economic analysis in our country and shed light on the impact of legislative measures on the activities of French VSE/SMEs⁸³.

It will have taken two years to go from the launch decision to product roll-out, the implementation process involving extremely complex technology. Producing statistics is obviously not one of the areas in which certified public accountants are qualified, and professionals had to be called in accordingly.

The idea that prevailed throughout the lead-up to the project was simple: the data transiting through the filing portal "Jedecare.com" are a gold mine that must be put to use. We are the real-time depositories of information that reflects the activities of enterprises, not the least of which is their sales revenue, a true barometer of the economy. With greater reliability than any statistical method, and drawing upon data more recent than those released by the Administration, certified public accountants can attest to what goes on at their clients' organisations. This will pertain, of course, only to those enterprises that entrust them with their fiscal and social declarations, in other words, primarily SMEs and VSEs;

Large corporations will slip through the cracks of our analysis. However, that matters little in that they are tracked by other analysts. And when it comes down to it, SMEs and VSEs never fall within the scope of observation

⁸³ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

radars, for one very simple reason: there are too many of them and they are very difficult to pinpoint. By giving a new lease on life to the fiscal and social declarations we produce for our clients, we are generating statistical information on a segment of our national economy that remains little known, and we fully take on our responsibility as a major player in the French economy.

The database having been put together, remained the need to find a way to make it operable. This is how, on 26 May 2016, the Higher Council came to launch "Image PME": Indicators and Metrics on the Management Activities and Employment of SMEs.

Concretely, by mining the data filed on VAT declarations, we are able to observe sales revenue trends and investments. It has to be said that VAT forms hardly contain anything else. However, the information is already valuable and useful in and of itself. Comparing it with the previous year's information, users can derive a variation index. This is precisely where the challenge lies, as comparison is only valid when pertaining to enterprises operating both years, making it necessary not only to eliminate those that have been wound up, but also those founded less than one year prior to the data of analysis. This may be a purely mechanical process, but it is one that requires testing, analysis and the observational skills of a professional to ensure a quality outcome.

The same goes for the subject of employment, based on social declarations, as concerns the number of employees and level of pay.

Once the database has been organised and secured, the information produced can be very rich, for those who know how to make use of the selection criteria available. First of all, periodicity: monthly, quarterly, half-year or annually. Secondly, geographic scope: the zip code makes it possible to share regional or department-wide information, or even information at the level of a city or conurbation. Lastly, the NAF codes, which make it possible to sort by business sector. While the Higher

Council manages outgoing national statistics, the Regional Councils of the Order determine the scope of the local statistics that can be of use to them, when they place their order via Statexpert. These data are available on the Internet, at website www.imagepme.fr. The next step will consist of sending out information via a mobile application, as is only appropriate in this day and age.

We will then move on to analysing annual profit statements. The sheer data volumes are such that we will have to make a selection. We have earmarked 30 indicators, choosing from over 250 pieces of financial data. This analysis is obviously conducted on an annual basis. We produced an initial analysis document on the accounts closed on 31 December 2014, submitting it publicly to Minister Michel Sapin on 15 September 2015, at the event held at Pavillon Gabriel in celebration of the profession's 70th anniversary. The 31 December 2015 financial statements, submitted up to 17 May 2016, are expected to give rise to statistical reporting from September 2016 on. These analyses will then be enriched by the accounts for the year in progress.

Thanks to "Statexpert", the profession can now:

- enjoy an analysis and macro-economic benchmarking tool for enterprises;
- Inform the public authorities about the economic situation in the sectors and territories;
- measure in real time the impact of public policies on VSEs-SMEs.

The tool is still only in its incipient stage, and we can only assume that significant development are yet to come. This is a first experiment for the Order in the field of data operation, within the greater race for Big Data described earlier. It is helpful for the profession in terms of image, and thus communication. The Institution greatly needs a tool of this kind to be able to communicate with all practices. This is one of the many good reasons for every practice to make use of the services at the "Jedeclare.com" portal

and enrich the database in so doing. The credibility of statistical data is dependent on its reach.

CAP PERFORMANCE

The Cap Performance⁸⁴ programme offers another illustration of the Order's desire to lend support to practices, by providing them with the tools that will be helpful to them. Applying those tools is a good starting point in getting ready for the digital transition.. The programme was initiated in 2012 by the Paris-Ile de France Regional Council of the Order and Compagnie régionale des commissaires aux comptes de Paris, then carried further by the National Council of the Order.

The programme consists of three main sections:

- A drafting assistance tool to be used in preparing the practice's organisation manual;
- A diagnostic tool which practices can use to review their performance in a few clicks and receive an action plan. Currently, around ten diagnostic tools are available, covering the main areas of management: strategy, HR, marketing and communication, production, etc.
- A set of hands-on downloadable tools to help practices in their operations, whether in terms of production or organisation. These tools make it possible not only for practices to bring themselves in line with our professional standards, but also to improve their performance.

All of the tools in Cap Performance were incorporated into the Conseil Sup' SERVICES⁸⁵ platform established by the Order.

⁸⁴ www.capsurlaperformance.fr

⁸⁵ www.conseil-sup-services.com

CONSEIL SUP' SERVICES

Kicked off at the start of the term, under the slogan, "Professional practice is changing, the Order is at your side! ", the Conseil Sup' Services platform is aimed at providing practices with the information and tools they need, with an emphasis on practicalities.

Our aim is to concretely help firms in their everyday operations and provide them with support in an environment that is constantly changing, in regulations, services, organisation or tools.

Three Divisions are available to serve professionals:

- A Services Division, to facilitate provision of services;
- A Support Division, to step up the added value which practices offer;
- A Performance Division, to improve the competitiveness of practices.

In order to help professionals fulfil their responsibilities to clients, the Conseil Sup' Services platform offers practical, concrete tools for each new project.

For each topic, certified public accountants are provided with:

- sample engagement letters;
- sample certifications;
- frequently-asked questions;
- practical tools;
- comprehensive documentation;
- and a free information service by telephone or Internet, staffed in particular by teams from Infodoc-experts, our technical assistance service.

On each topic, the platform offers the general public open-access information which enterprises use to identify those services which a certified public accountant could provide, to their benefit.

Today, six types of services are available:

- services to works councils,
- services in tax incentives implementation;
- services relating to the EIRL (limited-liability individual entrepreneur) status;
- services relating to campaign accounts;
- services relating to CSR;
- services relating to ease of access to establishments open to the public (ERPs).

The second component of the Conseil Sup' SERVICES platform is designed to foster support to enterprises by accounting firms following the implementation of new frameworks.

There too, practical tools are provided to professionals in the private section of the site (documentation, FAQ, technical assistance services) to help them better provide support to their clients. The public section of the platform provides enterprises with the information they will need to start working under the new frameworks and their concrete ramifications.

Today, the following frameworks have been developed on the platform:

- Measures for employment in 2016;
- Framework on over-indebtedness;
- Extension of supplementary health insurance;
- the Nominative Social Declaration (DSN);
- the FEC and auditor access to electronic accounting data;
- the Generations Contract;

The third and final section of the Conseil Sup' Services platform is exclusively dedicated to practice performance and contains numerous on-line tools and diagnostic reviews.

Six themes are currently found there:

- Marketing tools: the "Marketing Resources Centre" is a Web space dedicated to marketing for accountancy practices. It is aimed at helping practices structure a straight-forward, effective marketing approach;
- Performance tools: a space including a wide range of performance-optimising tools for accountancy services and practice organisation;
- A Manual for Accountancy Practices: a practical tool that can be used by practices to draft their manual of procedure, now mandatory for all certified public accountants as well as for auditors;
- Performance diagnostic review: a tool provided to practices so that they can identify exactly their strengths and weaknesses, using eight free and confidential diagnostic tools, resulting in a detailed report;
- CSR diagnostic reviews: a tool provided so that practices can incorporate a CSR approach into their organisation's strategy;
- *Mon cabinet CHANGE*: a tool facilitating change management as practices implement their transformation projects.

All the tools found on the Conseil Sup' Services platform and made available to colleagues free of charge via Internet have been very warmly welcomed and proved beneficial.

CONSEIL SUP' NETWORK

The digital revolution we are now experiencing can be seen in the emergence of new schemes with a direct impact on the way enterprises work and interact with third-parties. For instance, interactions that used to take place traditionally are now dematerialised, and new operational and relational modes have emerged with digital.

In this dematerialised and even virtual world, while data exchange has most definitely become smoother, it has not always become more secure.

It is for this reason that the Institute very quickly took action to place certified public accounts in the central position, as a means of guaranteeing security and reliability. As full-fledged digital third-parties, certified public accountants guarantee the e-reputation and exchanges between the players they link up.

It was in this context that "Conseil Sup' Network⁸⁶ " came into being, a technical platform developed by the Order, which makes it possible for the certified public accountant to take action on a current or future client's case file (filling in and validating information) when the said client uses digital solutions run by the Order or solutions from Institution partners.

Conseil Sup' Network offers a secured environment for data exchange. Having logged in, certified public accountants goes to a dashboard area, from which they can administer case files opened by their clients or created with them (filling in and validating information) using the same digital tools. The platform furthermore offers the tools necessary to provide specific services, for instance, issuing an engagement letter and end-of-engagement report.

⁸⁶ <https://network.experts-comptables.org/>

Conseil Sup' Network can be used to track progress under the Business Story tool, as well as offer and assist enterprises in adopting financing and cash management solutions⁸⁷ as well as, in the near future, accounting solutions. Conseil Sup' Network thus rounds out the range of offers made available to certified public accountants and enables them, thanks to digital technology, to offer a new way of delivering innovative services in the fields of consultancy and support.

The Business Story programme is designed for entrepreneurs, enterprise buyers and CEOs not yet benefiting from the support of a certified public accountant and with a plan to develop their business.

The certified public accountants who join the programme, the decision being made on a volunteer basis, register with Conseil Sup' Network. They commit to offer three meetings to project-owners, to provide one or more services: determine project viability, seek financing, assist in the choice of legal, fiscal and social status, and provide support with enterprise organisation and management.

To find and contact a volunteer certified public accountant, project-owners use the directory at www.business-story.biz. Once registered, they can ask to be put in contact with a certified public accountant.

The Conseil Sup' Network network then makes it possible for certified public accountants to access⁸⁷ the case files of clients currently served, as well as the tools made available to them (sample engagement letter, Business Story communication kit, etc.).

This operation has been a tremendous success, demonstrating to any still unconvinced that our clients are in need of modern communications tools. Content is nothing new to certified public accountants. Throughout our history, we have always had project owners come requesting advice, and not paying as long as they were still only thinking about how to proceed.

⁸⁷ The use of these innovative digital solutions, which were made the focus of agreements between the Higher Council and partners, is conditional on the services' being provided by a certified public accountant, or by clients' having been granted special pricing terms.

What was lacking was a modern communication tool that would be capable of offering an excellent image of the profession. That the Internet and image go hand in hand is obvious.

Most of the solutions available on the Conseil Sup' Network platform relate to enterprise financing.

▶ CROWDFUNDING

As soon as participatory funding mechanisms began to appear in France, in 2014, certified public accountants stepped up to secure the budding market and make it possible for enterprises to receive financing outside or in addition to traditional channels.

The Order was a fore-runner, taking part in the launch of the interest-bearing lending platform Lendopolis⁸⁸, with which it first developed a partnership.

Since that time, the "crowdfunding" offer has extended, through further partnerships, with Prêtgo (interest-bearing loan) and Letitseed (seed capital investments).

The Order managed to secure a special role for OEC members: no project submissions are considered unless their provisional accounts have been drawn up by a certified public accountant, who must also provide certification of how the funds were used.

This is nothing new in and of itself, rather an adaptation of our know-how to a different economy. It is, however, an acknowledgement that our profession is able to provide responses to the security needs specific to the dematerialised economy.

The Higher Council did not stop at crowdfunding alone, however, and we have signed agreements with other "connected solutions" which we deemed innovative and capable of enriching the range of CPA services,

⁸⁸ In partnership with *Les Echos*.

or facilitating service provision to clients. In addition to these selection criteria, which cannot be waived, we made a point of selecting only those solutions that give a special place to the certified public accountant.

▶ **SIAGI PRE-GUARANTEE⁸⁹**

To facilitate access to credit, the SIAGI put together a pre-guarantee offer, designed for new project-owners in search of financing. Certified public accountants wishing to secure the pre-guarantee for their client enterprises, upstream from the bank loan application process, send the SIAGI all the documents required for project review, via Conseil Sup' Network.

The SIAGI then issues a pre-guarantee amounting to at least 30% of the credit requested, the said percentage already including a premium in recognition of the certified public accountant's intervention.

Project owners can then go to the bank of their choice with the pre-guarantee which the bank can turn into a full guarantee with the SIAGI, via the usual procedure. This greatly facilitates the dialogue between banks and prospective borrowers!

Our agreements to date cover primarily platforms offering assistance with cash flow management, a service which it is vital that we develop with our clients. We will do so all more effectively with powerful tools in hand.

▶ **SECURITISATION**

One such tool is the particularly innovative and well-secured platform FINEXKAP, which offers securitisation via a fully-dematerialised process, with no personal guarantee and in record time, making it a perfect solution for SMEs, which as we all know does not enjoy easy access to loans for working capital, as we all know. Certified public accountants step in during the financial analysis phase, by providing their client accounts'

⁸⁹ SIAGI is the Inter-Professional Investment Guarantee Fund for Craftworkers.

"aged trial balance". Most of our clients are unfamiliar with the product, as it is recent, and by offering it, CPAs bring real added-value to their services, facilitating the prospective sale.

Enterprises introduced by certified public accountants are offered special pricing terms: the first securitisation operation is free of charge, up to €400 securitisation fees. The special offer is available each year.

▶ **AMICABLE DEBT COLLECTION**

Another valuable tool was made available through the agreement with the French National Chamber of Judicial Officers and its platform Heracles, which enables amicable debt collection, as a means of fighting company payment incidents. As the platform is accessible directly, case files can be sent in dematerialised form, an option unavailable to enterprises without the assistance of a certified public assistant. This is undeniably a new approach for us, with real added value made possible by the digital economy, and substantial benefits for our clients.

▶ **COMPTE NICKEL**

The last tool in this respect is our agreement with the product "Compte Nickel", a payment account for professionals and associations with fewer than 10 employees, and sales revenue not exceeding 2 million euros. Our partnership makes it possible for CPAs to handle the account-opening process on their own, thus bypassing cashier agents or on-line registration, and of course, certifying that all information provided in the application is truthful.

Other agreements are under discussion. The Order's approach consists of demanding a specific function for the certified public accountant, as soon as the tool has been deemed useful to our profession.

AND STILL MORE

Drawing on its expert understanding of enterprises, the profession regularly develops proposals for the Government, including the creation of a "digital account for enterprises"⁹⁰ ". Taking the rationale of dematerialisation and, later, gradual automation of account entry, one step further, the unique digital account for enterprises will ultimately imply a complete revamping of the relationship which enterprises maintain with the Administration, in particular thanks to the intermediation of certified public accountants. As the database of unique accounts will include all information reported throughout the year via the numerous forms completed by CPAs, the Administration will be able to directly cull the information it needs, thereby making unnecessary the very principle of declaration. Certified public accountants will thus be able to dedicate more time to client support, through the consultancy services they provide.

Our society's digital transformation is as much a reality as a collective challenge. One of the two major issues at stake when it comes to competitiveness in this economy can be defined as bridging the digital divide, which persists despite the existing efforts, and turning digital into a source of leverage for steering and improving enterprise performance.

In this regard, I would like to make reference here to our participation in the "digital transition" programme, aimed at raising VSE and SME awareness about the multiple issues at stake with digital, and to stimulate them to develop. The Higher Council of the Order is very proud to take part in this programme's work. In the age of the Internet, where collective intelligence has become the leading economic value, it is necessary that every energy be put to use⁹¹ !

⁹⁰ Presented to Emmanuel Macron on 9 June 2015, at Bibliothèque Nationale de France during the "EurECa" programme

⁹¹ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

Will we see the day when fiscal and social declarations are done away with forever? The idea feels like both a dream and a nightmare. We are all well aware that enterprises head to our firms and practices, to avoid the daunting administrative mass before them. Without going so far as to say that they are our bread and butter, they have largely contributed to the development of our practices. We should not forget either that we were trained in an area of technical expertise, and when we do no more than fill out forms, our services do not gain added value. Our clients tell us as much, and see our fees as an inevitable overhead expense. They would rather receive other services from us, but cannot afford them, due to the limits placed on their budget.

We have every interest in replacing the time spent filling out declarations with services that bring added value to our clients. More importantly, our services would then be of greater benefit to them. It is up to us to take action ahead of the change, making use of the opportunity offered by the digital transition. This is most definitely a break away from the culture long maintained in our practices, which was itself the fruit of years of fulfilling administrative tasks of all kinds for our clients. However, we cannot be content with this and absolutely must take our service offering in a new direction. Did I hear you say "disruptive"?

Chapter 2

THE ORDER'S ACTION PLAN TO SUPPORT PRACTICES IN THEIR DIGITAL TRANSITION

Certified public accountants know full well that digital is going to impact their practices in the years to come. However, they have all the trouble in the world identifying the actual impact and, above all, making the right decisions in positioning themselves.

As I stated in my introduction, it is the responsibility of the Order, and thus its elected leaders, to provide support to all practices in this transformation process, whatever their size and mode of operation, and thus to preserve their interests. Following the wonderful success of the 2015 Congress, which demonstrated the interest professionals have in the topic, it was important that we offer something more, as the effort is far from over in the practices. Quite to the contrary, it has only just begun!

Generally speaking, the main challenge in the next two years to come will be to make sure that all practices are able to take ownership of the reforms across the profession and make the digital and qualitative transition together. Of particular importance to me is our profession's unity; no one should be left by the wayside -- it is in everyone's interest, individually and collectively, that we make this happen.

While it is not up to the National Council to voice opinions on strategic decisions, which are the prerogative of each practice, the Council is expected to ensure that each player in a position to make decision freely and in an informed manner.

All of the profession's Congresses since 2012 have been designed for this purpose, addressing in turn, the certified public accountant as entrepreneur, human capital, new markets and new services, and digital⁹².

I would just like to emphasise that the Order's most recent digital initiatives show that the profession's Institution is fully mobilised on this topic⁹³.

The Council of the Order's elected officers, having convened for their 6 July 2016 session, decided to kick off a large-scale support campaign for practices in the digital transition, enabling them to find the information and tools they need to embark on their own process.

What follows is only a summary of the main lines, as the actual initiatives are still in the process of being defined and prepared.

SUPPORT TO PRACTICES

Enterprises need certified public accountants now more than ever! Certified public accountants, meanwhile, can count on the Order to continue supporting them and serve its function by anticipating developments, alerting to important news and serving the profession⁹⁴.

The central component of the Order's digital campaign consists, of course, of the support offered to practices and their teams. It is important that each and every individual involved be able to receive information and, building from it, understand the issues, in order to make decisions at the level of their practice.

⁹² Interview Philippe Arraou, SIC 339, April 2015

⁹³ Philippe Arraou, excerpt from the address delivered before Axelle Lemaire, State Secretary in charge of Digital Affairs, 70th Congress, Paris, September 2015

⁹⁴ Philippe Arraou, SIC 347 Editorial, January 2016

This is, in other words, an educational, hands-on, concrete approach that is being offered, with only one aim: being helpful to practices.

This campaign will enable practices to approach their digital transition from different angles:

- by becoming aware of the issues;
- by understanding developments;
- by measuring how these developments will impact their practices;
- by defining or adapting their practices' strategy accordingly;
- by tailoring their offer;
- by training personnel.

In practice, a large number of tools will be created. I am pleased that the elected heads of the Council agreed to my proposal that these tools be provided to practices free of charge. The decision to dedicate a reserve fund to digital support for firms was made unanimously at the 11 May 2016 session. The no-charge principle was of the essence given the importance of the issue at hand, on which the profession's future depends. It would not be acceptable for access to information and tools to be reserved only for a happy few. More importantly, it would create fracture within the profession, going against the fraternal spirit that prevails in our by-laws and ultimately would denote a collective weakening. It is very much in the interest of each CPA to be part of a strong, unified and recognised profession.

There are consequently plans to provide to each firm, free of charge:

- awareness-raising materials discussing core issues (newsletters, articles, professional website, etc.);
- short two-hour awareness-raising sessions;
- full-day training sessions for certified public accountants, as well as for their personnel;

- self-administered diagnostic tools available on-line, to enable objective self-assessment;
- on-line change management tools, complete with integrated action plans;
- etc.! For the list remains to be completed!

It is urgent that our practices come on-board, for one very simple reason: our clients are waiting for us to help them in their digital transition, and we will not be able to meet that expectation without having come down the same road ourselves. The alternative would be to leave an entire space vacant, and watch as others eagerly jump in.

I was struck, when opening my own practice exactly thirty years ago, to see that my clients asked regularly to use my fax machine, a new technology at the time, and one in which they had not yet made the then-high investment at the time. This made me realise one thing: it is important to always be one step ahead of our clients if we want to be able to guide them, and above all, keep them, because they will very quickly turn their attention elsewhere.

SUPPORT TO VSEs

Most of our clients are faced with the same need to change as we are. They are often less familiar with the issues at stake and ins and outs of the business, and need help. They need us. Their main ally - the one they can count on - is none other than their certified public accountant. The survey run by the Harris Institute in September 2015 in the lead-up to your Congress, and presented to Prime Minister Manuel Valls, is particularly telling:

- The digital transition of business activity overall is seen by VSE/SME leaders as an important issue for French enterprises as a whole (89%) and, for the majority, as a key issue for their enterprise in particular (59%);

- No fewer than 74% of VSE/SME CEOs in the deem that, over the next ten years, their enterprise will experience a digital transition. Nearly one-third term this transition a "major" turning point;
- The digital transition is seen by VSE/SME leaders as an asset (71%), and six out of every ten CEOs plan to use more and more digital tools in the ten years to come;
- For support in making the digital transition at their level, 80% of VSE/SME leaders state that they trust first and foremost their certified public accountant.

This study confirms, putting an end to any lingering doubt, that the digital transition is a key issue for VSE/SMEs, and that they are counting on their CPAs to provide them with support. Not only is this an opportunity for the profession, but also a duty. We do not have the choice; we must set out on the road to the new economy with all our dedication.

The question then becomes: how are we to offer support services in the digital transition to our clients, when we ourselves are not fully-proficient in the area, and have not received any training? We need to be able to determine and structure our offer around an entirely new service area for our practices.

Understanding this, the Order decided that, above and beyond the support it can lend to practices for their own needs, it needed to provide a model, or at least a methodological guide. Our clients' businesses are extremely different from one another and digital will have varying impacts, depending on each case.

Consequently, it was an approach we needed, made up of needs analysis, diagnostic review and recommendations, first and foremost as regards enterprise dematerialisation in the customer relationship, but also in the relationship with the environment as well.

The commitment is a major one for each practice, if only so that they can hold on to their existing client base! It is also important at the level of the profession, and across the nation, so that we can confirm our role with enterprises, and our culture in general.

It was in this spirit that I started developing ties with the French National Council on Digital (CNNum) and its President Mounir Mahjoubi. The CNNum is an independent advisory commission, the responsibilities of which were set out by Decree, signed by the President of France, on 12 December 2012, extending from the first Council, founded in 2011. Its purpose is to independently issue and publicly release opinions and recommendations on any matters relating to impact of digital on our society. With an unlimited scope of action, the CNNum takes interest in every aspect of society, in particular education, healthcare, employment, etc. The economy obviously falls within its spectrum and an action plan on the digital transformation of SMEs and VSEs is scheduled for release.

It was vital that our profession be involved in designing that action plan, for one simple reason: it is aimed at our very clients. We thus came to the agreement that the accountancy profession would be a stakeholder to the action plan to be launched by the CNNum, with the help of the Government. This will be an opportunity to prove the profession's commitment as a good citizen, serving our national economy. The official launch is expected to take place over the course of October 2016, confirming the urgent need for all to be operational in the very near future, as the communication planned will definitely have an effect and our clients will have questions. This is also a good reason for the Order to issue its service templates and tools.

THE DIGITAL IDENTITY OF PROFESSIONALS AND PRACTICES

I elaborated earlier on the benefits and urgency for our profession to demand "digital trusted third-party status". This would be one way to maintain our status and function in the new economy. However, we will not be digital certified public accountants if we do not have the appropriate tools. This implies tools that make it possible to identify a professional as a member of the Order, with varying degrees of securitisation depending on the needs at hand. It is the Institute's duty to provide them. First of all, because they are vital to our professional practice. Secondly, because the aim is to ensure them total independence: it would not be healthy to depend on outside service providers for these basic tools. In my mind, they must be provided free of charge, or more precisely, be made available in exchange for OEC dues. It is a matter of knowing our priorities when we budget.

Though they already exist at present, and while I did mention them earlier in this work, it is important that they also make their way into the Order's digital action plan, if only to be updated there, or possibly subject to complete review.

▶ COMPTXPRT

When the Order's website was overhauled, the decision was made to set aside one section for the public and make another section private, for professionals only, but also to enable users to each have their own account, with functionalities varying by user profile: certified public accountant, trainee, association member, etc. or basic user not directly involved in the profession.

This is how "Comptexpert" came into being.

By creating an individual "Comptexpert" on the Order's website, users gain access to a personal space, determining their own settings in line with their areas of interest. They can choose, for instance, the professional newsletters to which they wish to subscribe.

Certified public accountants can find information about themselves on the Order's site and have their profile automatically created. Special access rights are granted to those wishing to access the Higher Council's services, which are reserved for certain audiences. For instance, if they belong to a club or subscribe to a product such as Revue Française de Comptabilité (RFC), they can automatically receive information and access the services offered only to subscribers.

By logging in via "Comptexpert", each professional can access spaces reserved only for them, where they will find their:

- selected information feeds;
- alerts;
- favourites;
- event calendar;
- and messaging.

"Comptexpert" is accessed using a login and password, but is also offered to holders of the "Expertpass" digital ID card, who can show their flash code to be read in the information area.

"Comptexpert" is the first level of identification offered by the Institute. It allows access to a personal space and, depending on each user's profile, exclusive services offered by the Order and its satellite bodies.

▶ EXPERTPASS

The digital ID card "Expertpass" is the second identification tool developed by the Higher Council, offering heightened security as compared to "Comptexpert".

"Expertpass" connects directly to the Order's registry upon use, guaranteeing real-time updating. It makes it possible to ascertain that a person filing administrative documents with the National or Regional Councils is indeed a certified public accountant.

It can be downloaded free of charge to a Smartphone or notepad.

Thanks to the encrypted flash code, the cardholder's identity can be verified instantaneously.

For a description of the main functionalities available with "Expertpass", readers may refer to the previous chapter, Section 1.3.

The key takeaway as far as this digital ID card is concerned is that it is slated to become an essential component, indeed a must, in certifying a professionals credentials. Although it is currently used only within our Institute, we are working to make it into a tool that can be used with third-parties, for instance, in the France Connect project.

▶ SIGNEXPERT

The third and final tool developed where digital identity is concerned is Signexpert. Like "Expertpass", "Signexpert" enables facilitated access to "Comptexpert" as well as supports certain administrative processes with our institutions. Its true function, however, is to enable document sealing: users are able to create an electronic original and place their electronic signature on it, with the same legal effect as a traditional signature. Another distinctive feature with "Signexpert" is the ability to complete administrative procedures, above and beyond our institutional environment, with third parties who recognise it as legally valid.

As stated earlier, the Order's electronic signature system was launched in 2011. It has met with only limited success, due primarily to three factors.

First of all, it is never mandatory, and entirely up to user discretion. Furthermore, its implementation is neither automated nor automatic. Placing an electronic signature on a document to secure and identify it requires a bit of additional effort before sending. It doesn't take more to cut a dynamic short.

Another factor probably behind the tool's middling success is the fact that the key is personal, and reserved exclusively for the member of the Order, working from a specific computer. In practices, however, documents are created primarily with fellow employees. The technology required for group signature has been around for a long time, and is known as the "data cache". It is a signature made available to all employees, as required by practice needs.

One final reason, cited by some, is the cost. Though extremely limited, it still amounts to 300 euros per year. This can dampen desires to come on board.

For all of these reasons, the profession has tended to drag its feet when it comes to securing documents sent via the Internet, whether documents or electronic mail. While the tool works flawlessly, few certified public accountants own "Signexpert". To date, fewer than 3,000 keys are in circulation, and definitely far fewer are put to use. When compared to the nearly 20,000 members who make up the OEC, that is a low figure, even taking into account the electronic signature tools other than "Signexpert" which members may use.

And yet, for all the reasons listed above, electronic signature is an absolutely vital component of our professional practices, not only for us, as certified public accountants, but also for our employees. It is for this reason that the Order, in its digital action plan, made the decision to roll out a new electronic signature tool, different in conception. The

technology has indeed developed considerably over the past five years and the latest-generation products are far easier to use than "Signexpert". The specifications will provide, in particular, for signature adaptability to the main accounting and office tool products on the market.

To secure the launch process and its success, the new electronic signature for members of the Order and practice employees will have to be free of charge. All of the aforementioned tools will share a number of end-purposes:

- Identifying members of the Order;
- Enabling the creation of original electronic documents through electronic sealing (invoices, pay slips, certificates, engagement letters, etc.).
- Signing e-documents electronically.

These functionalities will become vital in the new, dematerialised economy. I have already made reference to the fraud risks at hand, in particular regarding identity. It is the role of the Order to facilitate the work of certified public accountants, and thus to promote secured identification for its members. This was one of the reasons for which the Order chose to help implement the France Connect⁹⁵ platform from the very start.

France Connect is a State system that makes it possible to guarantee the identity of a user based on existing accounts for which that user's identity has already been verified.

Thanks to this system, Internet users wishing to complete security-sensitive procedures can log in, using the account they previously created with an identity provider certified by France Connect.

⁹⁵ <https://franceconnect.gouv.fr>

The idea is not to create yet another identity and new account for each procedure. The initiative proceeds from the Government's announced desire to simplify on-line procedures, known as "Dites-le nous une seule fois" ["You only have to tell us once"].

More than an identity provider, the France Connect platform can also accommodate data supply, provided the user has given consent. As a result, if specific information has already been provided or is found on an on-line server, the user may authorise the latter to share it via France Connect or another service, in order to save the user from entering the information again.

For instance, in order to complete a child's on-line registration for an educational activity, all users have to do is go to the municipal website, compatible with France Connect. Those who already have an account with the fiscal authorities, which are partners to France Connect, will be able to complete procedures with the municipal authorities without having to re-enter all of their ID-related data. As the municipality will need the reference taxable income figure to determine the appropriate pricing segment, users will be able to authorise the tax authorities to provide that information to the municipal authorities' on-line service, if desired.

To summarise, the France Connect platform makes it possible to connect up:

- A service provider offering on-line services to users;
- An identity provider with which the user is already registered, capable of guaranteeing identification and authenticating it;
- A data provider, capable of sending information to the service provider, once the user has given consent.

The Order wanted to part of this approach and has been working for several months with France Connect's services to become an "identity provider", a status that requires compliance with the European regulation in effect since 1 July 2016, at all three identification levels: "Comptexpert", "Expertpass" and "Signexpert".

Certified public accountants will be able to use this platform to login to a wide range of on-line services, without having to re-state their identity. The time-savings and convenience will be greatly appreciated by all.

INTERFACE WITH PUBLISHERS IN THE PROFESSION

The relationship with publishers of accounting and accountancy practice management software has changed ever since the Order started producing operational tools such as the tele-filing portal, electronic signature and, more recently, statistics. Our suppliers are sometimes surprised that the Institute goes beyond its sovereign powers and may deem that it is not within its remit to produce tools. It is true that this could interfere with their own commercial strategy, carving a wedge into the global relationship they want to develop with firms.

On the other hand, practices count on their Institution to protect them from any supplier relationship that might put them in a situation of dependency. The expectations of accountancy practices with respect to the Order are very high, very high indeed. This is all the truer as the offer on the accountancy practice market is particularly limited. Four providers in essence share the market amongst themselves, two equipping over 80% of practices. That high level of concentration has created concern in certified public accountants, who are turning to their Institution with the request that it intervene.

It would admittedly have been wise for the profession to have its own IT publisher, as its German counterpart does in DATEV, a cooperative founded in the 1960s, now owned by more than 40,000 practices, and responsible for providing data to more than three-fourths of the nation's practices. Such a system would have been possible in France in the 1980s, as the two major publishers at the time, CCMC and CEGID, had a large number of certified public accountants in their shareholder structure. Unfortunately, they withdrew, having chosen to take their strategies in another direction, and the pendulum swung. Today, these have become private companies, listed on the stock market where the top two are concerned, a situation that definitely stirs a number of questions.

What should the role of the Order be, given these circumstances? How far should we go? What can we do to champion the interests of our firms and serve them? On the one hand, we cannot embark on publishing activities, as this would place us on commercial and competitive ground, not to mention require a substantial amount of capital, and given that our action is entirely sub-contracted to outside service providers. On the other hand, we cannot sit back and do nothing, as practices do need to be protected. We are thus being expected to walk a thin line, but can only take up the challenge.

Past tensions with software publishers, born when the Order decided to launch its own set of tools, are probably the result of a lack of dialogue. That the Order should decide to invest substantial amounts in producing tools could, and should, be seen as a service to publishers, which will be spared the cost of those investments. It is when each party starts investing individually that tensions can arise. Hence the need to talk upstream, and set limits on institutional action.

It is up to us, as the profession's elected officers, to explain the issues at stake and make it clear that the Institution is bound by duty to provide tools to its members. The identification and authentication tools used to ascertain certified public accountant status, for instance, are the responsibility of the Order. It is for this reason that we developed the "Expertpass" digital identity card and a "Signexpert" electronic signature. Furthermore, it is the responsibility of the Order to ensure that its members have access to production tools that are in line with regulations and offer all the necessary guarantees.

It is in this sense that dialogue is vital. The Council has consequently decided to change its strategy with respect to publishers. Before deciding whether we embark on producing tools that might be offered by publishers, we will survey them. Even better, we will consult them using terms of reference, so that they understand what professionals need. By serving as interface and representing all practices, the Order will remain in its institutional role, to the satisfaction of publishers. The ground rules will be clear, however: where publishers fail to provide the tools widely

called for by the profession, the Order will take up its responsibilities and produce them itself. It is vital that our professional ethics standards be abided by and safeguarded. They are, in principle, but we cannot be certain about this unless we are part of the process upstream, developing the terms of reference. An issue such as professional secrecy, in the age of the Cloud and big data, is essential. This is something publishers can understand. Having met with them all, I can assure you that they are open to this strategy and even delighted with it. The future will tell whether our practices' interests will be better served as a result of this.

The Order chose to focus on three topics in its digital action plan, asking that these be made the focus of discussion with the publishers in the very near future. The Order's Commissions and Committees are being brought in to finalise the needs identification process with the practices.

▶ ARCHIVING AND ELECTRONIC SAFE

Further to their security function, certified public accountants must ensure that not only client data but also practice data are adequately stored.

All the publishers on the market claim to be able to provide an archiving tool backed up by their product. However, is the inter-operability of those tools guaranteed? What would happen if a practice decided to change both its software and publisher? The question is a recurring one, as third-generation publishers have captive and closed audiences. In the age of digital,, it is important to re-examine these concepts from end to end. Today, everyone communicates with everyone else, and the name of the game is more flexibility, if not volatility, then it is loyalty.

Accountancy practices need to be able to call upon a reliable archiving solution that is in line with legal data storage periods. Archiving capacity is vital to digital certified public accountants: they must be able to guarantee data conservation and release, respecting the evidential value which electronic documents have.

Furthermore, practices must be able to purchase an electric safe in which

they can store their data in secure fashion, all the while authorising traceable, secured data exchange, or opening access to authorised individuals, employees or clients. This is a necessity for our everyday operations. In a de-materialised world, we must be able to enjoy secure conditions when engaging any working procedures. The electronic safe is useful during the fiscal year as a means of organising data-sharing, while archiving tools make it possible to save the data form previous years, all the while maintaining the evidential value of the electronic originals...

▶ ELECTRONIC INVOICE COLLECTION

The electronic invoice has become a must. The local authorities were the first to signal this, when they required all suppliers to submit their invoices electronically from 1 January 2017, setting thresholds to be enforced over a three-year period, up to full implementation in 2020.

These provisions "line up" with the changes seen in European regulations and the standardisation efforts made by AFNOR.

The accountancy profession has widely set out to meet these requirements, working in conjunction with the administration, at the National Forum for Electronic Invoicing. It made its first contributions by helping establish invoice descriptions, outlining the nature of the data needed for automatic processing, and generally sharing its knowledge of standard practice, on the way to developing the electronic invoice. As with other regulatory programmes, the certified public accountant will also contribute by raising awareness and providing support as these measures are implemented.

Those who believe this is not relevant to them need to take a closer look at their operations. For instance, a small village bakery providing bread to the middle school cannot receive payment if it does not send its invoice electronically, as that is the only channel compatible with the local authorities' management system.

But just what is an electronic invoice? It is definitely not an invoice sent in PDF format by e-mail -- that is merely a dematerialised version of a traditional paper invoice. An electronic invoice can come in one of two forms:

- EDI (Electronic Data Exchange), issued by one smart system to another smart system;
- A sealed electronic document with an electronic signature or server cache, such that the document is secured and its sender authenticated. This document will soon be joined by structured data, so as to enable automated processing.

Both these modes make it possible to directly enter the client's accounts and log through the procurement and supplier account data. This brings us back to the parts in the first section dedicated to the future of the accounting function.

What is the role of the aforementioned baker's certified public accountant? To ensure that the client information system is capable of producing an electronic invoice in line with the terms of reference of the relevant municipality, and consequently, arranging for sales invoice dematerialisation, using the most appropriate system -- all bearing in mind that there can only be one invoice per month. There exist products on the market for this purpose, publishers know how to generate invoices, and the consulting function here will not entail complications.

The challenge we might face, however, will lie in collecting electronic invoices from our clients. In the "paper" world, the supplier sends an invoice to the client; in the "electronic" world however, the supplier makes a file available, and the client must come pick it up. When management software is closed, the communication from one piece of software to the next may not be possible. This is why it is important to ensure interoperability between software. Publishers are going to have to get involved. Were they to remain on the sidelines, it might be in everyone's best interest to ask the Order to produce a collection platform for client

purchase invoices, so as to guarantee that they will be charged directly, through the software. The independence of certified public accountants and the Order's authority could be able to come together for a common cause, by serving as intermediaries. The collection service needed here is identical to that which we already produced to enable account statement recovery from banks. This is a function to be contemplated. To date, publishers assure that communication with the competition will become a reality; however, to err on the side of caution, we at the Order would rather received verified information before making an investment decision.

▶ CLOUD

I referred earlier to the acute concerns which the Cloud raises, when it comes to protecting client and practice data. We are very pleased to receive reassuring statements from the publishers, but still read them with some circumspection. The technology is too recent for an industry that has seen everything. True to the old saying, "*Prevention is the best medicine*", we will act cautiously from as far upstream as possible.

The Order has been working on this topic for years and has developed ties with publishers to keep them informed of accountancy practices' needs. It is in this setting that a Charter of Best Practices was developed by the Order, with some publishers and hosts signing it⁹⁶ thereby committing to the central recommendations, and taking into account the standard professional practices of certified public accountants. That being said, not all of them signed, and work thus remains to be done.

The Order appears here in its role as representative of all accountancy practices, taking their demands and recommendations to those who need to hear them. The Order would also be within its remit if it decided to create its own Cloud, were today's doubts about possible technological weaknesses or operational inadequacies to prove true, or worse, if data security at our practices and our clients' offices were threatened.

A Cloud exclusive to the profession could offer multiple benefits. It would

⁹⁶ The list of signatories can be found at www.experts-comptables.fr.

incorporate the security requirements of all firms, protection in line with our rules of professional ethics, and would be made available to publishers. This would entail a very substantial financial investment, but also one that could be shared. A profession-wide Cloud would also make sense at the international level. A project of this kind could be championed at the European level, by organisations such as the FEE⁹⁷ or EFAA⁹⁸, or the IFAC⁹⁹ at the global level. It, like other ideas listed earlier, is not to be ruled out and will depend on how publishers respond to the demands set before them.

This new strategy with respect to the profession's publishers confirms another function for the Order: its involvement in standardisation is natural and can be beneficial to all. Our status as a governed profession gives us the benefit of a form of authority, and in any case, guarantees that we will always be heard by our governing Minister, at Bercy. The Order's legitimacy cannot be challenged and our experience when it comes to standardisation is tremendous. On the topic of digital, the need for regulation and thus standardisation has been confirmed (see my comments in the first section on the current "Wild West"). For instance, the Accounting Entry Record (Fichier des Ecritures Comptables, FEC) issue deserves to be settled using standards applicable across the board. The uncertainties that remain are as many sources of concern for our practices, as responses from publishers thus far are not reassuring. Our responsibility toward our clients is on the line. This example clearly shows that we cannot rely on "the market", because we are dependent on a system which we do not control. The Order of Certified Public Accounts has many an inspiring undertaking in its future.

⁹⁷ The European Federation of Accountants

⁹⁸ European Federation of Accountants and Auditors for Small and Medium-Sized Enterprises

⁹⁹ International Federation of Accountants: the accounting profession's representative organisation at the global level

STATEXPERT

Having just elaborated on this topic a few pages earlier, I will not re-open it in an attempt to demonstrate what the profession stands to gain from continuing on its chosen path of statistical production.

This action is part of the Order's digital plan. We have only just begun to take position on this topic, and there certainly remains much to be done, in particular in producing statistical information by business sector. We receive more and more requests, for instance from trade federations, interested in receiving statistics by sector and by region. For the time being, we have not committed, but will definitely have to take position shortly. We need to see these requests as the foundation for an intelligent relationship that remains to be built. It is up to us to ensure that this tool serves the profession's image, and consequently, the interests of each firm.

More than a strategy, it is an operating mode that needs to be developed, with the guiding aim of progressing over time. Statexpert is aimed at bringing visibility to certified public accountants, and generating buzz around the profession. It is also a way of addressing the question as to the profession's place in the digital economy.

8 NOVEMBER 2016: THE ACTION PLAN LAUNCH DATE

The Action Plan set out by the National Council of the Order of Certified Public Accountants is far-reaching. It will not come about on its own, but will need the collaboration of knowledgeable parties, actively involved in digital, including the National Council on Digital. It is aimed at giving the profession the place it must continue to occupy in our country's economy. We can hope that this large-scale campaign will prove decisive for the future success of our practices and firms, their teams and their clients.

Come join us on 8 November 2016, the Action Plan's official launch date, along with many prominent digital economy figures, live or webinar... like the good digital certified public accountants you are!

CONCLUSION

This work is now drawing to a close, as is the month of August 2016. A process is coming full circle, while another is just starting. It is time to dive in! We can expect to "see action" on the political front and thus also the societal, in the upcoming weeks and months, and more or less everywhere: in the United States, the United Kingdom, Spain, Italy, France and too many others to mention, as well as, of course, the European Union. There will be changes, varying in magnitude. One thing is for sure: all over the world, the digital revolution will continue its course.

I am pleased to have found the time to pen this work, seeing it as my duty to do so, all the while being aware that its content will be ephemeral. While it focuses on the future, the book is not destined to be left to posterity. Its only value is in the present moment, and it will soon be overtaken by the technological changes that will without a doubt unfold in the very next days, and by the ways in which these are used. *"Everything changes"*, and when it comes to digital, everything does so even more quickly than in any other area.

My only hope in writing this book is to have produced something helpful to my colleagues, by helping them become aware of the digital phenomenon and stirred them to take action in their practices. I see this work as proceeding from my responsibilities at the head of the Order of French Certified Public Accountants. Yet what is valid in France holds just as true abroad, as the Internet uniquely knows no boundaries and builds a globalised world.

Further to my responsibilities in many international institutional organisations in the profession, I have addressed this topic well beyond

French borders, in different languages. That is why this work has been translated into English and Spanish, and distributed on-line to all the institutes with which the Order works... and that is no small population! I referred at several points to the need for an international dimension in our work. It can be no other way in this field. Our profession has managed to come together on technical subjects at the global level, agreeing on standards pertaining to training, professional practice, ethical rules, or accounting itself. There is no reason it should not be able to do so on the topic of digital. This would be a fine opportunity to strengthen the universal spirit of brotherhood in our professional community, help bring nations together, and consequently, contribute to creating peace on Earth.

parraou@cs.experts-comptables.org

CONTENTS

Preface	9
Foreword	13
The Digital Economy: A World in the Throes of Change	17
A world in upheaval	19
The end of historical monopolies is nearing.....	23
Innovation is gaining speed.....	26
The domination of today's major digital enterprises.....	29
▶ The GAFA.....	29
▶ The NATUs.....	33
▶ A Closer Look at the Uber Model.....	35
The technologies that will impact our everyday	37
Cloud computing.....	37
Big data.....	39
The blockchain.....	43
Artificial intelligence.....	48
Augmented reality.....	51
The heralded end of television.....	52
New models and behaviours	55
The new economy.....	56
▶ The platform economy.....	57
▶ The collaborative economy.....	59
• Collaboration with the consumer.....	59
• Collaboration within enterprise walls.....	62
▶ The new consumer.....	63
▶ The customer experience.....	64
▶ Generations X, Y, Z and on.....	66
A world of liberties defiant of regulation.....	69

▶ A closer look at the tax system.....	71
Data processing for commercial purposes.....	74
E-reputation	76
Fraud risk	78
Internet and digital serving social justice.....	80
Our Profession is Directly Affected	87
The profession's current responsibilities.....	93
Business in the practices today and into the future.....	93
Change in average revenue.....	94
Our managerial behaviours need to change.....	96
Our customers' expectations.....	99
Innovation has not spared our profession.....	105
A new generation of software.....	105
An opportunity or a threat for the profession?	108
The future of the accountancy function.....	111
The necessary road of adaptation for our practices	117
The digital transformation of accountancy practices.....	123
The profession has always succeeded in adapting.....	123
We are experiencing not evolution, but indeed a revolution.....	125
▶ The digital transition is not a matter of technology	126
▶ Never have we been faced with such a challenge.....	128
• Adapting, taking on the new challenges	128
• Our profession has strengths to boast.....	130
The practice of the future.....	133
More and more Expert...less and less accountant.....	135
▶ From accountancy to "full-service".....	135
▶ Moving from book-keeper status to consultant	137
▶ Financial information specialists.....	139
▶ Plus, a specialist in non-financial information.....	140

▶ On the road toward greater inter-professionality	146
▶ A practice with expertise in "the customer experience"	148
▶ A dynamic, communicating practice	153
▶ But also experts in digital	156
▶ Enabling security	158
• Reasserting our role as trusted third-party	158
• Digital trusted third-party	161
▶ Looking to the client business model	164
▶ New skills in demand	168
▶ Profession: digital certified public accountant?	170

The Certified Public Accountants' French Institute Digital Strategy173

A staunchly technical profession179

Jedecclare.com	179
Electronic signature	180
Expertpass	183
Data mining: Statexpert and ImagePME	186
Cap Performance	189
Conseil Sup' Services	190
Conseil Sup' Network	193
▶ Crowdfunding	195
▶ SIAGI Pre-Guarantee	196
▶ Securitisation	196
▶ Amicable debt collection	197
▶ Compte Nickel	197
And still more	198

The Order's Action Plan to support practices in their digital transition	201
Support to Practices	202
Support to VSEs	204
The digital identity of professionals and practices	207
▶ Comptexpert	207
▶ Expertpass	209
▶ Signexpert	209
Interface with publishers in the profession	213
▶ Archiving and electronic safe	215
▶ Electronic invoice collection	216
▶ Cloud	218
Statexpert	220
8 November 2016: The Action Plan Launch Date	221
Conclusion	223

THE CERTIFIED PUBLIC ACCOUNTANT AND THE DIGITAL ECONOMY

In an economy in the throes of digital revolution, the ground rules are changing and hold the seeds of new opportunity for those who know how to recognise and seize upon them.

Certified public accountants, which provide support to enterprises day in and day out, are major players in the economy and directly affected by the digital transition.

This work is an invitation to become aware of the phenomenon in progress and a spur to action. Digital needs to lead the accountancy profession to its new calling, by reinventing its function alongside enterprises, on the foundation of its status as trusted third-party.

While admittedly technological, the digital transformation is first and foremost a matter of culture, organisation and, thus, men and women. It provides leverage for progress, innovation, adaptation of range, and personnel development in practices. Digital is an opportunity and not a danger. Certified public accountants stand only to gain from it and, in so doing, anchor their transformation: more and more expert less and less accountant.

This book, written by the President of the French Institute of Certified Public Accountants, is a message of hope that etches out the profession's future lines.



Philippe Arraou is President of the French Institute of Certified Public Accountants. He heads his own accountancy and auditing practice, founded in 1986 in Pau and Barcelona (Spain). Over the course of his career, he has taken on responsibilities, first at the international level, creating a consortium of European firms (ACEE) and the European Federation of Accounting and Auditors (EFAA), then serving at the Company of Auditors, and lastly, at his syndicate, the

ECF, which he chaired for four years. Founder and President of the 'European Tax Advisors Federation' (ETAF) 2015, he is one of the profession's few connoisseurs of international policy. He represents France on the Board of the IFAC, the profession's global organisation.