

Digital technology and changing markets

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Markets and Digital
Digital technology and changing markets?**
Edmond BARANES

INNOVATION AND MARKET CHANGE: A FEW EXAMPLES

- 06 **The new wave of digital innovations is set
to radically change everything**
Xavier DALLOZ

A new wave of innovation is arriving. It's going to radically change everything. In particular, it will reinvent many business sectors. The driving force behind this new wave of digital innovation will be the emergence of a new infrastructure. It will create millions of jobs and add hundreds of billions of dollars to global GDP by bringing 2 or 3 billion people into the market economy. This is an opportunity to create hundreds of unicorns in France and make France one of the leaders in the digital sector. The purpose of this article is to show all these opportunities by focusing on artificial intelligence, LLMs, blockchain, drones, biotech, 6G, quantum computing, holograms, terahertz, sensors, BCI (Brain Computer Interface), decentralised energy, SMRs, massive decentralisation of everything, autonomy of everything, electronic companions, tokenisation, satellite constellations, global communication, CAD, robots, and so on. We haven't seen anything yet. Let's not automate the past. Everything is going to accelerate!

- 14 **Are auctions undergoing a digital revolution?**
Henri PAUL

Over the last four years, the auction market has undergone a number of structural changes linked to digitalization. The auctioneer's profession has been profoundly disrupted by the development of online sales; buyers' practices and profiles have been renewed; and the nature of the items sold at auction has also changed with the appearance of NFT digital works.

The digital shift in the auctioneering profession has been considerably accelerated and amplified by the Covid-19 health crisis from 2020 onwards. In just a few years, auction houses have undergone a profound transformation of their practices to adapt to the digital revolution: live or dematerialised sales, technological solutions (cameras, responsive design, etc.), invested social networks, etc. While in 2019, electronic sales accounted for 34% of the total value of auction sales (i.e. €1,224 billion), this share will rise sharply in 2020 (68%) to reach 75%, or three quarters of auction sales in France in 2021 and 2022. The trend is set to continue upwards in 2022, with an increase of 7% to €3,249 billion.

20 Edtechs: the emergence and sustainability of a new player in education

Marco GAZEL and Julien JACQMIN

The Covid-19 pandemic has highlighted the growing role of digitalisation in education, with schools and universities rapidly adapting to distance learning. This digitalisation has led to the emergence of new players in the sector, edtechs, to improve the learning experience by reducing costs and offering personalised content. However, these start-ups face economic, technological and institutional challenges to ensure their financial viability and integration into the existing education ecosystem. Despite this, they have the potential to generate a lasting impact in the field of education by complementing traditional educational institutions.

25 Using digital technology to combat precariousness

Jérémy FRETIN

New technologies have deeply transformed the way non-profit organizations operate. They have brought in-depth changes in their internal functionalities and the way they interact with their communities, while offering them new opportunities to strengthen their social mission. The author takes a look at several charitable initiatives that have put digital technology at the heart of their strategy, including the Agence du Don en Nature and its digital transformation project to fight against poverty. Technological innovation, while an undeniable and essential support for non-profit organizations, is not an end in itself: it requires a clear strategy, dedicated resources, and must be part of a long-term, continuous improvement loop.

31 NewSpringForMe, the first digital companion for bone marrow transplant patients

Émilie ROBERT

Digital technology is playing an increasingly important role in supporting patients, opening up new possibilities for improving care as part of their healthcare pathway. This type of support represents a real advance, particularly for patients suffering from serious diseases of the blood and immune system, such as leukaemia, lymphoma and aplastic anaemia, treated by allogeneic haematopoietic stem cell (HSC) transplants, better known as bone marrow transplants. NewSpringForMe is a digital platform project offering patients access to a range of tools and specific exercises in the fields of psychology, nutrition and adapted physical activity. The aim of this new tool is to increase the chances of a successful transplant and improve patients' quality of life at every stage of their treatment, right through to their social and professional reintegration. NewSpringForMe is a scalable, personalized solution, entirely financed and developed by the HTC Project thanks to the support of sponsors. Once the pilot phase has been validated, it will be offered to support the clinical teams in hospital.

42 Digital technology: a key factor in the competitiveness of the fashion and luxury sector

Frédérique GÉRARDIN

Digital innovation is a key factor in the competitiveness of the fashion and luxury sector. It is now an integral part of every link in the production chain: prediction, creation, prototyping, automation and robotisation, on-demand production, etc. It is a determining factor in distribution activities, from marketing to sales, with new, very aggressive e-commerce players, operator-producers, and digital technology is

also essential for traceability and environmental labelling. Finally, the web3 opens up the prospect of new markets that players in the luxury sector are beginning to invest in. That's why data management across the entire value chain is becoming fundamental. It also requires upstream work on standardisation and interoperability at national, European and international level.

47 Single price for digital books and emerging business models for online reading

Jean-Philippe MOCHON and Estelle AIRAULT

The emergence in France of platforms for digital reading of manga and webtoons raises the question of how the legislation on the single price for digital books applies to these platforms when they sell digital books with prices denominated not in euros but in digital tokens (often called coins), which may be distributed free of charge or sold at sliding-scale prices.

To answer this new question, the Book Ombudsman has undertaken a vast legal analysis and consulted the industry. His conclusion is that the law of 26 May 2011 on the price of digital books applies to the online sale of digital manga, and possibly even certain webtoons, and that to comply with this law, platforms that use token systems must ensure that the publisher controls the price and that it is transparent. It sets out ten recommendations to give greater legal certainty to new practices and ensure full compliance with the law.

54 New business models in museums: why and how to market digital devices?

Scarlett GRECO

The increasing use of digital tools for which a fee is charged, in an increasingly connected society, is calling into question the production of digital media within French museums. Museums are developing new avenues for dialogue with the private sector and looking for new ways of monetising their activities, but the process is slow and revenues vary. What are these new digital formats? How and why does the marketing of digital tools vary from one museum to another? What role do the Ministry of Culture and the public play in this phenomenon? What existing routes could the museum take to inspire the marketing of digital products and experiences based on its collections? This article answers these questions through four approaches: structural, administrative, behavioural and sectoral.

59 Digital dynamics in migration and re-migration: a geopolitical analysis of opportunities and challenges in West Africa

Charles MBATSOGO

This article explores the growing impact of digital technology on migration in West Africa, with a focus on the opportunities and challenges it presents. It examines how digital technology acts as a catalyst for migration, enabling access to information, the use of online recruitment platforms, and brain drain. It also delves into circular migration facilitated by digital technology, highlighting digital diasporas and return migration. However, challenges persist, including the need for strong digital governance to regulate migration flows and protect migrants' rights. Digital divide and the exploitation of migrant workers are also issues to be addressed. Nevertheless, digital governance holds promising prospects by fostering

innovation, local entrepreneurship, and collaboration between public and private stakeholders.

MARKET, CONFIDENCE AND PAYMENT SYSTEMS

67 Regulation and the digital revolution in the financial sector

Olivier FLICHE

The financial sector has been undergoing a digital revolution for several years. Although fintechs have not really changed the landscape and the bigtechs have not (yet) broken through, the changes in the sector under the pressure of new technologies are nonetheless real and far-reaching. They are still at work, and could be revived by the arrival of generative AI and the development of blockchain-based finance. These changes represent a real challenge for the regulation and supervision of the sector, which is marked by a tradition far removed from technological issues. However, changes are underway in this area too, as demonstrated by the European regulation on digital operational resilience. The future undoubtedly lies in a hybridisation of sector-specific rules and techniques from other horizons, in order to integrate the new objects of control that the future technological forms of finance will constitute.

72 What impact will new trends in payment methods have on the sovereignty and integration of payments in Europe?

Alexandre STERVINO

The world of payments has undergone major changes since the beginning of the 21st century. The changes in usage that accompany dematerialisation and the entry of new players, particularly from the digital world, raise the question of whether European integration should be deepened in the face of the risk of a loss of strategic autonomy in Europe in this area. This has consequences in terms of market fragmentation and disintermediation of traditional players, including banks but also payment manufacturers. Faced with this situation, the central banks' response is based on a three-pronged approach: incentives, by encouraging innovation; regulation, by providing an effective framework for payment players and services; and lastly, public action, by acting as market players themselves, as symbolised by the project for a digital euro in everyday payments.

81 On-board insurance, an irreversible trend

Olivier JAILLON

In this age of digitalization and fragmented usage, the development of in-vehicle insurance is a response to the aspirations of connected consumers, who demand transparency, immediacy and simplicity, both in terms of underwriting and compensation. Offering automatic and systematic protection, in-car insurance secures the user experience while accelerating the spread of new uses.

The growth of in-vehicle insurance also reflects the development of markets that are reaching a high degree of maturity and efficiency. Manufacturers are being encouraged to create related services such as financial protection or financing, in order to generate additional revenue and offset the decline in margins on their core business.

For insurers, this marks a paradigm shift. Formerly actuaries, they are becoming InsureTech players, using the potential of digital platforms, APIs, Big Data and

artificial intelligence to build predictive models adapted to the digital civilisation and the emergence of new risks.

86 The contribution of digital technology to building consumer loyalty
Éric SALVAT

Loyalty programmes have existed since the beginning of modern commerce, with techniques and tools corresponding to each of the eras in which they appeared.

The massification of these loyalty programmes reached its apotheosis in the 2000s.

Since 2010, digital technologies have changed the way customers use their loyalty programmes. (e-Mailings, customer applications, data mining, personalised offers, etc.).

Messages have become more personalised and customer knowledge has improved, but the foundations for the success of these programmes have remained unchanged despite the contributions of digital technologies.

Digital technology has brought change with continuity, but not revolution, as has been the case in other sectors. It's as if loyalty were ultimately an unshakeable and superior social principle. In this article, we will look at how strong digital developments coexist with a return by customers to the very basic principles of loyalty between the retailer and the customer.

90 Trust market and digital identity in banking services
Claire LEVALLOIS-BARTH

The pandemic has demonstrated the importance, for individuals and businesses alike, of having a practical and reliable means of proving their identity online. Against this backdrop, in June 2021 the European Commission published a proposal for a regulation on a digital identity. The key measure is the creation of a European Digital Identity Portfolio. This should enable users to prove their identity mainly via their smartphone, and beyond that to transmit supporting documents and attributes such as an IBAN. They will also be able to sign electronically. Against this backdrop, how can banks position themselves as users, providers of electronic attestations qualified as attributes and issuers of European digital identity portfolios?

COUNTERFEITING, CRIMINAL GOODS AND ILLICIT GOODS

97 The marketplaces of the darkweb
Matthieu AUDIBERT

The darkweb or the dark Internet is the stuff of fantasy. Initially created to circumvent restrictions or censorship on the Internet, its anonymity features have become popular with cybercriminals. Several cybercriminal ecosystems have developed, the most important of which are marketplaces. Marketplaces are online trading platforms for illicit goods and services, generating large financial flows in the form of digital assets. For several years now, governments have been taking account of these hidden cybercriminal activities and are improving their investigative methods to identify the perpetrators of these offences. At the same time, the law is evolving to take better account of these technological developments, in particular by directly targeting the administrators of these illegal platforms.

103 Blockchain and NFTs-Art: the challenges of decentralising the art market
Jorge PALUMBO

In recent years, blockchain has attracted the attention of the art market. This technology has allowed the protection of digital property rights and the guarantee of the provenance of digitized or digital works of art (NFTs-Art). This involved a new form of commerce characterized by decentralization and disintermediation. This new art and market form was only very successful in 2021 through media coverage. For the last decade, it is clearly increasing despite its obvious imperfection. This article aims to analyze how blockchain technology has reconfigured the art market by emphasizing advantages and disadvantages and the opportunities and challenges that its use implies.

109 Building customer loyalty and thwarting police action: drug traffickers' use of digital technology
Clément GÉROME

This article sheds light on the reasons that have led drug traffickers operating in France to invest in digital tools. It shows that changing consumer needs, the need to maintain a permanent relationship with customers in a highly competitive environment and the need to limit the risks of police intervention explain this investment. It also describes the digital practices used by traffickers to promote their products.

116 Digital, counterfeiting and digital goods
François-Xavier de BEAUFORT and Stéphanie LEGUAY

Counterfeiting is a violation of an intellectual property right. It designates, in particular, the fact of reproducing, using or copying, totally or partially, and without authorization: a brand, a patented invention or a work protected by a copyright. Counterfeiting represents a considerable market for products that can harm the health or safety of consumers as well as the national economy. Online commerce appears to be a preferred supply vector. The French and European authorities have put in place various mechanisms to fight against cyber-counterfeiting.

Issue editor

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