Abstract

Objectives. In this paper, consumer behaviour is analysed following the criterion of behavioural economics and how it affects digitalisation, and the current change in consumer trends.

Methodology. It is based on a search of behavioural economics studies and theories arising within this field, such as the Nudge Theory. Having gained an understanding of consumer behaviour, this was taken to the digital arena and the different ways of obtaining information from users to learn about their behaviour in this area and its impact, were analysed.

Results. By studying behavioural economics, the conclusion was that there are differences with classical economics, which asserts that people’s decision making is rational, while behavioural economics argues that we are influenced by many aspects. This taken to the world of digitalisation translates as the great importance to companies of collecting data from users in order to learn about them and be able to predict their behaviour.

Limitations. There are few studies on behavioural economics within the digital field, and there is less information on consumer behaviour online as offline.

Keywords: Behavioural economics; behaviour; data; information technologies, consumer.

JEL codes: B41, O33.

Santos, I. (2019). Consumer behaviour and new consumer trends vis-à-vis the ICTs, *Esic Market Economics and Business Journal*, 50(3), 599-620. Doi: 10.7200/esicm.164.0503.4

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文章摘要

研究目的：本研究按照行为经济学的标准分析了消费者的行为，分析数字化如何影响其行为，以及当前消费趋势的变化。

分析方法：本研究以行为经济学的研究文献，以及该范畴的理论（例如轻推理论）为基础而进行的。了解消费者行为后，研究将其引入数字领域，分析了用户获取信息的不同方式，从而了解他们在该领域的行为及其影响。

研究结论：通过行为经济学的研究，我们得出以下结论：它与古典经济学之间存在着差异，证明了人们的决策是理性的，而行为经济学则指出我们是会受到多方面因素的影响。把此结论引进数字化世界后，此则对各企业收集用户数据以便了解用户并预测其行为时极为重要。

研究局限：现时在数字领域内，有关行为经济学的研究仍然稀少，有关网上消费者行为的信息不及离线消费的信息多。

关键词：行为经济学、行为、数据、信息技术、消费者。

JEL 分类号: B41, 033。
Introduction

As a result of phenomena such as globalisation and digitalisation, as well as the economic crisis that began in late 2007, companies and organisations have undergone profound internal changes in order to adapt to changing environments, in which there is a great deal of uncertainty. New environments are now being observed and new solutions demanded, which require professionals that are capable of facing these new challenges.

Information and communication technologies are part of our current technological culture. In the last ten years, the increased use of devices such as mobile phones, computers and tablets, together with e-commerce and the development of apps, has brought about a societal change, in how we work, purchase products, gain information and relate with one another (Relaño, 2011).

In addition to e-commerce, ICTs have facilitated the processes of many other activities. For example, it is possible to file an income tax return from home, study for a degree online without having to attend classes in person, and pay by mobile phone in many establishments without the need to carry cash (Díez, 2018).

Graph 1. Use of ICTs by people aged from 16-74 2010-2018. Percentages (Spanish National Institute of Statistics, 2019)

As Graph 1 shows, the use of ICTs has more than doubled since 2010. Consumer behaviour has changed, consumers have now become minor specialists through the many information sources available to them.
Thanks to ICTs, the producer and the consumer have become closer and more interconnected, hence the importance of studying and finding out about the consumer and the new technologies. It is very important to determine the variables that affect the consumer’s purchasing process, in the environment as well as each individual (Barruñas, 2016).

The study of consumer behaviour changes as their behaviour itself changes. The act of shopping is no longer the only important thing, everything surrounding it is also important.

1. Study of consumer behaviour

Schiffman (2010) defined consumer behaviour as behaviour exhibited by consumers when seeking, buying, using, evaluating and rejecting the products and services that they expect to meet their needs.

In the 1960s, the study of consumer behaviour was innovative in the field of marketing and there was very little research; therefore, it started to borrow concepts developed in other areas such as psychology, sociology or anthropology. Many of the first theories of consumer behaviour were based on the idea that individuals act rationally to maximise the benefits to them. However, it was later shown that individuals also tend to buy on impulse or be influenced by their environment (Schiffman, 2010).

Consumer research is of great importance, since it allows market specialists to make intuitions or anticipate consumer needs, in order to better satisfy the consumer (Schiffman, 2010).

1.1. Behavioural economics

Traditional economics has always been based on the idea that people follow a strictly rational model in making their decisions, but it has not been able to fully understand human behaviour. It has therefore progressively integrated aspects from other branches, psychology in the main and lately even neuroscience, in studies on economic behaviour and consumer attitude, in order to better understand the decision process of people in situations of uncertainty (Kahneman and Tversky, 1979).

Behavioural economics explains that the decisions people make are influenced by the cognitive, social and emotional aspects that condition them (Kahneman and Tversky, 1979).

In the field of behavioural economics, the studies by Daniel Kahneman and Amos Tversky (1979 -2000) are worthy of mention. They initially focus on the field of psychology but over time contributed to economic research.

This economic thinking argues that humans are not well described by the rational agent model. However, it considers it wrong to classify them as irrational, since our behaviour does not fit a definition of irrational as such (Kahneman, 2012).
Studies on behavioural economics focus mainly on understanding the functioning of human thinking, in order to better understand how people's brains work in decision making. (Thaler, 2018, p. 23).

Becker (2012) noted regarding the study of individual behaviour that on certain occasions it is not individual response that matters, but rather aggregate behaviour. Since there can be differences in how Germans and Americans respond, or between people who attended a university compared to others who attended a different one. For Becker, this was a fundamental difference between psychology and economics.

Two systems have been differentiated that are involved in people's mental processes. System 1, which corresponds to fast and intuitive thinking and System 2, which would be slow and deliberate thinking (terms originally proposed by psychologists Keith Stanovich and Richard West, 2000). System 1 acts fast and automatically and includes the innate skills that we share with other animals, which are instinctive and often totally involuntary; for example, turning around when we hear a loud noise behind our back. System 2, however, is related to making decisions where an effort to pay attention is required, otherwise the activity will be a failure. For example, looking for a relative outside a train station in a crowd requires more specific concentration (Kahneman and Tversky, 2003).

Both systems interact with each other: “when System 1 runs into difficulty, it calls on System 2 to support more detailed and specific processing that may solve the problem of the moment. System 2 is mobilised when a question arises for which System 1 does not offer an answer” (Kahneman 2012, p. 25).

This is shown in Figure 1 below, where we see the difference between the two systems in a schematic and more visual form.

With this, the attempt was to give a sense of “the complexity and richness of the automatic and often unconscious processes that underlie intuitive thinking, and of how these automatic processes explain the heuristics of judgment” (Kahneman, 2012, p. 16).

The figure of the so-called Homo Economicus, born from the traditional economic models, was questioned, referring to people as impartial beings who always make optimal decisions, as if they were economic experts (Thaler, 2015).

The popularity that behavioural economics has gained in recent times can be interpreted as a revolution against the ideals of classical economics. But in reality, behavioural economics is taking economic thinking back to its origins (Thaler, 2018).

Many authors have already taken the fundamental role of psychology in economics into account. Clark (1918) wrote 100 years ago: “The economist may try to ignore psychology, but it is sheer impossibility for him to ignore human nature. If the economist borrows his conception of man from the psychologist, his constructive work may have some chance of remaining purely economic in character. But if he does not, he will not thereby avoid psychology. Rather he will force himself to make his own, and it will be bad psychology” (1918, p. 4). These words remain valid to this day.
One of the conclusions of Falah Mohammad (2019) in his paper on factors affecting consumer decision-making behaviour when purchasing organic products, was that psychological factors are the most effective in the buying decision-making process, in addition to the social factor.

The fact that we want to use a theory as the basis for achieving different objectives, on the one hand, to find out what optimal behaviour is, and on the other hand to predict real behaviour, is a problem. The ideal is to consider theories that are based on data, not axioms, but without giving up the first theory, since it is also necessary in economic analysis (Thaler, 2018).

“If the economy does develop along these lines the term ‘behavioural economics’ will eventually disappear from our lexicon. All economics will be as behavioural as the topic requires, and as a result we will have an approach to economics that yields a higher $R^2$” (Thaler, 2018, p. 32).

1.2. Decision making

1.2.1. Prospect Theory

The prospect theory was developed by Kahneman and Tversky in 1979, in their study of decision making, with the aim of understanding human attitudes to risky decisions.

The study of the attitudes that human beings take in situations of uncertainty has always been a topic of maximum interest for economists (Tversky and Kahneman...
2007, Levin 2006, Kreps 1995). In all the choices we make throughout our lives there is a degree of uncertainty, the study of human behaviour seeks to optimise the decision process (Kahneman, 2012).

For economists, the purpose of this theory was to determine how decisions should be made and to explain how the econ’s decision-making process worked (Kahneman, 2012). Econ comes from the term *Homo economicus*, i.e., “economic man” in Latin; it was first used in the 19th century by critics of the work of John Stuart Mill (Persky, J. 1995). The econ is defined as an individual who always makes optimal decisions, as if they were an expert economist, and is never influenced by the temptations of the environment. This was the human behaviour described in neoclassical economics (Thaler, 2018).

The authors Kahneman and Tversky as psychologists did not manage to understand the bases of a theory based on human rationality, and therefore began to conduct different studies with which to understand intuitive choices, far from attempting to explain rational or more correct choices. This resulted in the Prospect Theory.

### 1.2.2. Nudge Theory

The term “nudge” was defined by Thaler and Sunstein (2008) as: “any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. (...) Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not. (Thaler and Sunstein, 2008). A nudge translates into Spanish as a “little push”, referring to the nudges or small impulses that make us choose one or other option in our day-to-day choices (Thaler and Sunstein, 2008).

This theory is the result of the ideas that have been discussed on behavioural economics, and of studies on how different factors influence consumer behaviour.

The decisions that people make are often triggered by inertia. There are other causes that trigger such inertia towards certain choices.

Once such cause is “status quo” bias (Samuelson and Zeckhauser, 1988), which explains that people tend to remain in their current situation and often find it difficult to change. For example, if you start watching a programme on a particular TV channel, it is very likely that when the programme ends you will continue to watch the same channel, even though you only need to press a button to change it.

In conclusion, we humans really are “creatures of habit”. One of the main causes of status quo bias is lack of attention, and therefore the choices we make “by default” act as important nudges.

Framing is another cause of selection inertia in people, in other words, the way people are told about problems influences their decision.

A good example is the situation that the teacher found herself in when placing foods in the school canteen. From her experience, she knew that the students’ food choices varied according to where the food was placed. If she placed fruit in a more visible place, she observed that its consumption was higher than when she placed it.
further away from the teacher. In this case, she would be what is termed the “decision architect”, i.e., the person who constructs the context in which decisions are made, and therefore can influence them in some way. Here, there is the dilemma of what the teacher should do in this case, placing fruit in such a way that the children are encouraged to eat it, and placing junk food further away where it is less easy for them to choose it, the justification being that this is beneficial for them. However, even so, this is still influencing her students’ choices to an extent, which could seem unethical. But we assume that the decision architect will always have to choose how to frame a decision, even if she had decided to place it at random, she would be taking the decision not to encourage healthy eating in their students, with it being within their reach (Thaler and Sunstein, 2008).

Decision architects can intervene in small details to which we do not attach importance, but which have great impact on people’s subconscious; this is the idea of “everything matters” (Thaler and Sunstein, 2008).

“They have shown that people can be fooled by how a question is framed. And they have shown that similar people in different contexts may behave differently” (Becker, 2012, p. 78). In our daily lives we meet many decision architects, from the person who chooses the design of a restaurant menu to the way an office is laid out. These are details that affect people’s behaviour without their really being aware that their choice has been manipulated in some way.

In other words, nudges help people make the decisions that are best for them and that will make their lives much better.

1.2.3. Libertarian paternalism

Although decision architects promote an environment where people make the best and most beneficial decisions, is it ethical to influence people’s decision making?

It is difficult to classify nudges as manipulators, since the concept of manipulation is very complex and can take many forms (Wilkinson, 2013).

The libertarian paternalism movement argues that people must be completely free in their decision making, but at the same time considers it legitimate for decision makers to influence people’s behaviour in order to make their lives better. The concept of paternalism does not seek to impose or prohibit the free choice of people, but to guide them towards making the best decision; this is termed giving a “nudge” (Thaler and Sunstein, 2008).

However, many people believe that people’s choices should not be influenced even if beneficial to them and argue that people must make mistakes and take risks (Sunstein, 2017).

In our daily lives we are constantly subject to decision architecture, from going to a restaurant and choosing a dish from the menu to our choice of bank account.

The question is whether decision architecture affects us in a positive way, or, conversely, is harmful and exploits us.
2. The digital consumer and new consumer trends

People are the focus of digital evolution; the habits of digital life go hand-in-hand with technological development. In order to understand what is happening in digital development, we must find out about the lifestyles of people and the use they make of it (Fundación Telefónica, 2018).

We have experienced a process of gradual adaptation with the use of the Internet and e-commerce. Progress has been quite fast. At first, we started buying things like air tickets or booking hotel stays, and gradually made the leap to buying more personal or everyday objects (Puromarketing, 2019).

The arrival of the new information technologies (ICTs), has led to a change in consumer behaviour. We are now faced with new consumers, who are much better informed and who, thanks to the Internet and social networks, can find a multitude of opinions on the products they want to buy and offer their own (Barrullas, 2016).

Graph 2. Evolution of e-commerce income worldwide from 2014 to 2021 (Fundación Telefónica 2018)

| Year | Income (Millions of dollars) |
|------|------------------------------|
| 2014 | 1.336                        |
| 2015 | 1.548                        |
| 2016 | 1.845                        |
| 2017 | 2.304                        |
| 2018 | 2.842                        |
| 2019 | 3.453                        |
| 2020 | 4.135                        |
| 2021 | 4.878                        |

*2019-2021 are predictions  **Millions of dollars (US)

2.1. Behavioural economics in the digital world

Today’s increased use of information technology (ICT) means that we make many of our decisions in a digital environment. We can now perform hundreds of actions through websites or mobile apps, from buying clothes to opening a bank account; and in this digital context it is easier to make poor decisions, since there is a great
A fundamental issue is the importance of ethics in establishing these nudges, following the abovementioned ideals of libertarian paternalism. They should lead consumers to the best option, but this is not always the case.

The original purpose of the digital nudge is to simplify and reduce obstacles to guide user behaviour in a desirable way (Weinmann, Schneider and Vom Brocke, 2016).
Mirsch, Lehrer and Jung (2017) gave the Amazon.com application as a practical example. On the product pages Amazon emphasises product-related elements. In doing so, choice architecture intervenes in drawing the user’s attention to related articles. This emphasis can lead to an additional purchase, which was not originally planned by the user.

3. Data analysis

Information technologies are part of our lives. With the development of e-commerce and the various applications that it provides for our daily lives, their use has become essential. This means that through these technologies we are constantly generating data about everything we do, what interests us and what does not, and even where we move, which translates as valuable information for companies to analyse.

This massive data set generated by each user is called Big Data. This term was first used in the 2000s, popularised by Mashey (1998) in the scientific field. These data are analysed and organised in order to eventually be interpreted by companies to learn much more about consumer behaviour.

The social networks play a fundamental role in datafication, as they collect large amounts of information on users. For example, when we “like” something that appears on apps such as Instagram or Facebook, this is recorded, and even the length of time we have been looking at the item, the sort of people we relate to, and the brands we follow are recorded (Sánchez, 2013).
Graph 4. Number of Facebook users active monthly from the third quarter of 2018. (Kinsta statistics, 2019)

3.1. Datification

Datification is the name given to the collection and subsequent transformation of information into data for analysis. The IT (information technology) revolution is evident in all aspects of our lives, and although it is true that the technical part has been given more weight, we have recently focussed on the information branch (Mayer-Schonberger and Cukier, 2013).

Some of the most generated data is from geolocation; information that was much more difficult to acquire in the past. Many of the objects we use on a daily basis now have chips incorporated, through which companies can monitor their location and consequently their users. Mobile phone apps are an example of this. They collect the location of users and use this information to recommend nearby restaurants, hotels or whatever they might be interested in at the time.

This type of data is very valuable to companies, as they can analyse people’s behaviour and tastes and thus improve their services or products, focusing and personalising them much more precisely thanks to all the information they have about the consumer. Location data can give information on many things, from a traffic jam on a particular road to the nightlife in a specific area, or even how many people have attended a demonstration.
However, the commercial use of geolocation could be considered most important. The datafication of location has given rise to new uses, from which new value can be created. (Mayer-Schonberger and Cukier, 2013).

The idea of datafication is the objective of many of the social networks that we use today. Datifying our relationships, moods, tastes. They take intangible information from our lives, to then transfer it into data and use it.

“Facebook datified relationships, Twitter enabled the datafication of sentiment by creating an easy way for people to record and share their stray thoughts. LinkedIn datified our long-past professional experiences (...) turning that information into predictions about our present and future” (Mayer-Schonberger and Cukier, 2013, p. 62).

All the immense amount of data that is currently recorded provides us with a new panorama of reality. But the simple mass collection of data on people’s behaviour is not enough to identify opportunities. Companies have to observe, analyse and find out, to achieve what is known in marketing as insights (Antevenio, 2017).

“Insights are human truths that allow us to understand the deep emotional, symbolic and profound relationship between the consumer and a product. (...) It has the capacity to connect a brand and a consumer in a way that goes beyond the obvious and not just sell” (Quiñones, 2013, p. 34).

Such insights, help to provide a more humane vision of the consumer, making brands and products take on very valuable intangible value for consumers (Quiñones, 2013).

Behavioural economics also plays a role in aspects of the digital economy. Jonathan Hilton Stahl Ducker, founder of Edufintech, highlighted in a BBVA conference in 2018 the transition to the digital economy with the help of behavioural economics; that it is no longer useful simply to analyse data that show how a person behaves. “You also need the ‘behavioural’ part and to understand the symbolism of the person; and also the part of how I present the product to them so that they take it and it does not remain in a bias alone” (BBVA Open Innovation, 2018).

3.2. Reality Mining

Reality mining is defined as: “quantifying and modelling long-term human behaviour and social interactions, by using mobile phones and wearable badges as sensors that capture real world face-to-face interactions” (Madan, Waber, Ding, Kominers, Pentland, 2009, p. 1).

In other words, this refers to processing the large amounts of data that come from mobile phones with the aim of extracting predictions about human behaviour. In one of the studies that they conducted, they were able to identify people who had contracted influenza before they had even noticed it themselves by tracking their movements and call patterns. This ability to detect epidemics could save millions of lives in the future (Mayer-Schonberger and Cukier, 2013).

The aim of reality mining is to obtain characteristic information about people’s attitudes and social relationships from so-called “honest signals” that reflect
unconscious behaviour. The study of these behaviours can serve to obtain sociological information non-intrusively (Andradas and Ju, 2010).

Although many people do not like the idea of leaving a digital trail through their activities, the objective of reality mining is the opposite. In other words, more and more actions are recorded, from physical activity to interactions with other people. The aim is to predict, thanks to algorithms, aspects such as the course of diseases and help in human health.

Google Dodgeball collects the information provided by terminals to determine the geographical location of their users and give information by SMS on the location of possible friends who are nearby. And like this example, there are many more of a multitude of companies (Andradas and Ju, 2010).

But the ideas that focus on social issues must be highlighted, such as the use of mobile phones to control epidemiology and consequently the spread of disease through human relationships, the detection of severe psychological disorders through conversational analysis or even being able to detect diseases such as Parkinson's thanks to movement sensors (Andradas and Ju, 2010).

3.3. User privacy

Information is power, and much of the data collected contains personal information.

The increased concern about data privacy has been one of the most controversial issues in the past year (Fundación Telefónica, 2018).

The question is whether data protection laws and regulations are still relevant in an era of mass data. If the problem has changed, so should the laws that regulate it.

The Internet has enabled the increase in rights such as freedom of expression and freedom of information. But in turn, it has brought risks to fundamental rights such as data protection and the right to privacy.

The social networks are double-edged swords, they have a very positive side that allows us to connect with people from all over the world and exchange all kinds of information, photos and videos, but all the information that we put onto networks can be counterproductive in the long run (Alcó, 2015).

Massive data has rendered ineffective the main technical and legal mechanisms that existed to protect the privacy of individuals. In the past it was easy to determine data considered personal and it was easier to protect it. Today, even the most insignificant data collected can reveal an individual’s identity. The danger lies not only in the vulnerability of privacy, but in the information that can be deduced from such data (Mayer-Schonberger and Cukier, 2013).

On May 25, 2016 the General Data Protection Regulation (GDPR) came into force, which considers “the protection of natural persons with regard to the processing of personal data is a fundamental right” (Regulation (EU) 2016/67).

However, it was not until 2018 when the GDPR became mandatory. From then on, companies began to send thousands of emails asking us to renew our consent,
which we were not aware that we had given, and informing us of changes in privacy policies (Fundación Telefónica, 2018).

In conclusion, the right to be forgotten is based on two main rights: The right to data protection and the right to privacy. This right arises as a response to the problem of the existence of personal information on the web with no expiry limit, which constitutes a threat to the free development of the personality (Mieres, 2014).

4. Experience economy

In 1998, the authors Pine and Gilmore in their paper “Experience Economy” spoke of the emergence of a new type of economy, the experience economy, “characterised by a type of consumer focused on the search for and experience of a series of sensations, memories and moments qualified as extraordinary and memorable” (Moral, 2012, p. 5).

The main idea of the experience economy is the fact that a series of emotions and feelings are related to a product that increase the value of the product or service, giving it a more personalised and differentiated character.

These experiences can be physical, emotional, intellectual or spiritual. It is crucial to know how to develop them, since companies not only try to sell a product but also to generate a sentiment and link the consumer to an experience, as a key factor of competitiveness.

4.1. Experience marketing in the digital era

The concept of experience marketing has its origin in Schmitt’s papers (1999, 2003) “Experiential Marketing” and “Customer Experience Management (CEM)”. Both papers deal with the importance of involving the customer emotionally. Consumer experience is the interaction between the consumer and the product, so that it impacts on the subject in a pleasant way. It constitutes a personal experience, in which the customer will evaluate their experience comparing their expectations with the stimuli received (Moral and Fernández, 2012).

Marketing is undergoing a transformation due to the new digital environment in which customers move. We are in a new era in which companies must adapt as quickly as possible if they want to remain competitive. Digital marketing has a fundamental role to play in this task (Sainz de Vicuña, 2008).

“The new communication strategies are changing the way we reach younger consumers. In the end, researchers are suggesting the need to extend additional research on new communication models that impact on the behaviour of millennial consumers” (Dones, Flecha, Santos, López, 2018, p. 527).

The objective does not differ from digital marketing to analogical marketing (offline). Its contribution remains the same: helping the company to be
customer-oriented and trying to satisfy them in what they really value” (Sainz de Vicuña, 2008, p. 75).

Experiential marketing has also entered the digital world. It uses new technologies to offer new types of experiences that will appeal to customers (ZenithBlog, 2017).

I will highlight the main trends that we find in this type of marketing in the current year (2019), (Gregorio, 2018):

1. Video marketing: the presence of videos in marketing campaigns will intensify, providing benefits such as enhanced visibility, increased impact and added value for the user, facilitating user interactivity and improving engagement between brand and customer. In this area, new developments are emerging such as 360° videos and virtual reality.

2. The incorporation of IGTV into Instagram: incorporating this new video format in the application exclusively for mobile users, which allows longer videos to be viewed, has relaunched it as one of the most powerful marketing channels on the Internet.

3. Chatbots: these are computer systems with artificial intelligence that enable simulating conversations with the customer, so that they can raise queries and solve complaints. They allow savings in personnel costs, more efficient and fast interaction with the customer and even convenience for some users. This is a system that is increasingly being implemented on websites and will be further refined. Chatbots are becoming a part of the sales world, In the area of education chatbots also have great growth potential, such as the UNED (Spain’s open university) chatbot, which serves as a virtual teacher to support students (Fundación Telefónica, 2018).

4. Voice Search: being able to interact by voice with different devices is a trend that companies are increasingly considering. In addition, new devices have been added such as Google home and Amazon’s Alexa, which extend the use of voice to a great variety of possibilities.

5. Influencer marketing: Influencers are known people with a great number of followers on their social networks, impacting 60% more than traditional ads (Del Castillo, 2019). Therefore, many brands use them to promote the products and services through social networks.

Companies’ knowledge of new trends places them at an advantage over their competitors (Gregorio, 2018).

5. Conclusions

The study of consumer behaviour from a psychological perspective, accepting the reality of people as beings who make mistakes in choosing and reaching a tipping
Consumer behaviour and new consumer trends vis-à-vis the ICTs

point in differentiating optimal behaviour from real behaviour seems essential to understand human attitudes to choices made in situations of uncertainty. It breaks with the classical theory that was based on rational behaviour by people, which resulted in erroneous theories due to a failure to consider the intuitive factor of choices.

This factor, which belongs to System 1, is key, since we are starting to consider the complexity of unconscious actions and their importance in decision making.

In my opinion, behavioural economics has become the main form of economics because it most closely matches reality. Habitual behaviours detected in people, such as risk aversion or risk seeking, depending on our choice context, evidence the accuracy of behavioural economics.

This leads us to consider the importance of the environment in which decisions are made, and the factors that surround it. The possibility of being able to set “traps” for our brain’s System 1 to encourage us to make choices flags up the importance of the libertarian paternalism movement. It is considered very necessary to use these nudges as an aid to better decision making, since a completely neutral environment without influences is impossible.

The role of the decision architect is always going to be how to design the framework in which a decision is made. Even if stockists of large stores decide at random where to place products on a shelf, they make the decision not to put the best quality or the cheapest products in places where they know that people will look more closely and pause to look harder, and therefore they have already decided that they will not encourage people passing through that aisle to buy the best options.

However, with the advent of the ICTs a new consumer has emerged, with different behaviours and needs. Today, all companies are in the race to be pioneers in offering their customers the most personalised and up-to-date services. Just as behavioural economics used to be based on studies conducted on groups of people to detect their behaviour, now with the new technologies it is much easier to gather information on consumers because users leave behind data on their lifestyle, which is then used by companies to personalise and improve their products or perfect their marketing strategies. For example, Amazon suggests products that may be of interest based on previous searches.

This information is also used by companies to conduct their marketing strategies and to personalise their services as much as is possible. The ability to influence has been taken to the highest level, we are now interconnected and the opinions we pour into networks can reach anybody anywhere in the world.

In other words, although the way in which the customer interacts with the consumer has evolved dramatically in recent years, being able to find out details on consumers, in order to develop an environment conducive to customer acquisition, remains the objective of brands. Today it is not enough to be aware of the place on the supermarket shelves most looked at by customers in order to place products. Now, for example, their tastes must be discovered through their social networks or lifestyles and the places they regularly visit, with the information provided through the apps that they use on their mobile phones.
This change in the ICT society can be double-sided. Although the fact that an application can control our location is an intrusion of privacy, by contrast, most people find it very useful to have a GPS on our mobiles to show us how to get somewhere, to warn us about traffic and redirect us to a faster route, to recommend a restaurant with our favourite food near home or tell us about special ticket promotions for an event we regularly attend.

Therefore, the use of our data is often necessary for us to receive personalised services.

The question is how legitimate it is to gather our information and how it is used. In my opinion, we are in a stage of “adapting” to the technological era and gradually there will be a balance of the benefits provided by the analysis of our data and the consequences this entails. This starts with the legal updating of these aspects, which is already starting to take place, since many laws have become outdated vis-à-vis this new digital reality.

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