

COMPRENSIÓN DE LECTURA

Apellidos:

Nombre:

Marca con una X lo que corresponda:

- Alumno/a **OFICIAL** (Indica el nombre de tu profesor/a tutor/a durante el curso 2017-2018: **Grupo:**)
- Alumno/a **LIBRE**

INSTRUCCIONES PARA LA REALIZACIÓN DE ESTE EJERCICIO:

- Duración: **75 minutos**.
 - Este ejercicio consta de **dos tareas**. Deberás realizar las dos.
 - En la tarea 1 deberás leer un texto y completar cada hueco con el extracto correspondiente.
Obtienes: 1 punto por cada respuesta correcta; 0 puntos por cada respuesta incorrecta o no dada.
 - En la tarea 2 deberás leer un texto y completar cada enunciado con una de las opciones dadas (A, B, o C).
Obtienes: 1 punto por cada respuesta correcta; 0 puntos por cada respuesta incorrecta o no dada.
- Muy importante: al final, comprueba que has elegido una sola opción (como en los ejemplos); si eliges dos opciones, se anulará la respuesta para ese ítem.**
- **No escribas en los espacios sombreados** destinados a la calificación de las tareas.
 - Sólo se admiten respuestas escritas con **bolígrafo azul o negro**.

NO ESCRIBAS AQUÍ

PUNTUACIÓN DEL EJERCICIO: ____ /18

CALIFICACIÓN: Superado No Superado

TAREA 1 - 8 puntos: Read the following article about how architecture affects our feelings and emotions. Note that some paragraphs are missing. Match the gaps (1 to 8) and the paragraphs (A to H) by writing the correct number next to each paragraph. Number 0 is an example. You will get 1 point per correct answer.

THE HIDDEN WAYS ARCHITECTURE AFFECTS HOW YOU FEEL

“We shape our buildings and afterwards our buildings shape us,” mused Winston Churchill in 1943 while considering the repair of the bomb-ravaged House of Commons.

[0]

Yet urban architects have often paid scant attention to the potential cognitive effects of their creations on a city’s inhabitants. The imperative to design something unique and individual tends to override considerations of how it might shape the behaviours of those who will live with it. That could be about to change.

[1]

One of the conference speakers, Alison Brooks, an architect who specialises in housing and social design, told BBC Future that psychology-based insights could change how cities are built. “If science could help justify the value of good design and craftsmanship, it would be a very powerful tool and transform the quality of the built environment,” she says.

[2]

This case was not an outlier. The lack of behavioural insight behind the modernist housing projects, with their sense of isolation from the wider community and ill-conceived public spaces, made many of them feel, in the words of British grime artist Tinie Tempah, who grew up in one, as if they’d been “designed for you not to succeed”.

Today, thanks to psychological studies, we have a much better idea of the kind of urban environments that people like or find stimulating.

[3]

“This adds a layer of information that is otherwise difficult to get at,” said Colin Ellard, who researches the psychological impact of design at the University of Waterloo in Canada. “When we ask people about their stress they say it’s no big deal, yet when we measure their physiology we discover that their responses are off the charts.”

Another oft-replicated finding is that having access to green space can offset some of the stress of city living.

[4]

How so? One theory is that the visual complexity of natural environments acts as a kind of mental balm. That would fit with Ellard’s findings in downtown Manhattan.

The importance of urban design goes far beyond feel-good aesthetics. Growing up in a city doubles the chances of someone developing schizophrenia, and increases the risk for other mental disorders such as depression and chronic anxiety.

The main trigger appears to be what researchers call “social stress” – the lack of social bonding and cohesion in neighbourhoods.

[5]

It sounds counterintuitive: surely the sheer number of people makes meaningful social interaction more likely. Social isolation is now recognised by urban authorities as a major risk factor for many illnesses. Is it possible to design against it, to build in a way that encourages connection?

[6]

In 1975, the Project for Public Spaces transformed the way people used the Rockefeller Center in New York City by placing benches alongside the yew trees in its basement concourse (instead of the originally wanted people-repelling spikes). The architectural firm Snohetta has followed a similar principle in Times Square, introducing long sculpted granite benches to emphasise that the iconic space, once clogged with cars, is now a haven for pedestrians.

One thing that is guaranteed to make people feel negative about living in a city is a constant sense of being lost or disorientated. Some cities are easier to navigate than others – New York’s grid-like street pattern makes it relatively straightforward, whereas

London, with its hotchpotch of neighbourhoods all orientated differently and the Thames meandering through the middle, is notoriously confusing.

[7]

A visible manifestation of this are the “desire lines” that wend their way across grassy curbs and parks marking people’s preferred paths across the city. Ruth Dalton from Northumbria University sees them as part of a city’s “distributed consciousness” – a shared knowledge of where others have been and where they might go in the future – and imagines how it might affect our behaviour if desire lines (or “social trails” as she calls them) could be generated digitally on pavements and streets.

[8]

PARAGRAPH	GAP	
A. At the Conscious Cities conference, Kate Jeffery, a behavioural neuroscientist at University College London who studies navigation in rats and other animals, made the point that to feel connected to a place you need to know how things relate to each other spatially. In other words, you need a sense of direction.		
B. Greater interaction across the disciplines would, for example, reduce the chances of repeating such architectural horror stories. In the 1950s, 33 featureless apartment blocks in St Louis, Missouri quickly became notorious for their crime, squalour and social dysfunction. Critics argued that the wide open spaces between the blocks of modernist high-rises discouraged a sense of community. They were eventually demolished in 1972.		
C. Last month, the Conscious Cities Conference in London considered how cognitive scientists might make their discoveries more accessible to architects. The conference brought together architects, designers, engineers, neuroscientists and psychologists, all of whom increasingly cross paths at an academic level, but still rarely in practice.		
D. One of the first to try was the sociologist William Whyte, who advised urban planners to arrange objects and artefacts in public spaces in ways that nudged people physically closer together and made it more likely they would talk to each other, a process he called “triangulation”.		
E. She is getting at a point that architects, neuroscientists and psychologists all seem to agree on: that successful design is not so much about how our buildings can shape us, as Churchill had it, but about making people feel they have some control over their environment. Or as Jeffery put it at Conscious Cities, that we’re “creatures of the place we’re in”. Welcome to the new era of neuro-architecture.		
F. Andreas Meyer-Lindenberg at the University of Heidelberg has shown that urban living can change some parts in people’s brain, which has previously been linked to early-life nerve-racking experiences.		
G. Some of them have attempted to measure subjects’ physiological responses in situ, using wearable devices such as bracelets that monitor skin conductance (a marker of physiological arousal), smartphone apps that ask subjects about their emotional state, and electroencephalogram (EEG) headsets that measure brain activity relating to mental states and mood.		
H. Vancouver, one of the most popular cities to live in, has made a virtue of this, with its downtown building policies geared towards ensuring that residents have a decent view of the mountains, forest and ocean to the north and west. As well as being restorative, green space appears to improve health.		
I. More than 70 years on, he would doubtless be pleased to learn that neuroscientists and psychologists have found plenty of evidence to back him up.	0	✓

PUNTOS: / 8

TAREA 2 – 10 puntos: Read the following text on the use of algorithms and choose the best option (A, B, C or D) for each question. Write your answers in the appropriate box (only one answer in each box). The first one, number 0, is an example. You will get 1 point per correct answer.

<p>0. Algorithms...</p> <ul style="list-style-type: none"> a. are obsolete. b. <i>make predictions.</i> c. have disappeared. d. can be in danger. 	B	✓
<p>1. According to the text, algorithms...</p> <ul style="list-style-type: none"> a. are there to delude people. b. embody misinformation. c. are always harmless. d. can be wittingly unlawful. 		
<p>2. Trading algorithms...</p> <ul style="list-style-type: none"> a. stand for the old financial risk model. b. are one and the same thing as financial risk models. c. can turn out as harmful as financial risk models. d. represent a new way to predict financial risk models. 		
<p>3. Over the last decade...</p> <ul style="list-style-type: none"> a. the demand for developing an algorithm has changed its very essence. b. algorithms have been aiming at more abstract markets. c. algorithms have covered more specific targets. d. algorithms have had a wider span of control in big markets. 		
<p>4. We, the people, are unaware of big data models...</p> <ul style="list-style-type: none"> a. because we are reluctant to take part in data compilation. b. even though we unknowingly participate in them. c. in spite of knowing the details behind them. d. because the average person is hopeless when it comes to technology. 		
<p>5. In recent years, we have been able to find out...</p> <ul style="list-style-type: none"> a. how algorithms serve as a way in which companies bend rules in their favour. b. how algorithms have contributed towards supervised tracking down of criminals. c. that it is difficult for repressive regimes all around the world to access such data. d. the law view of the subject and the actions taken. 		
<p>6. The fact that it took a few years to uncover the VW case...</p> <ul style="list-style-type: none"> a. can promote actionable doings that might go unnoticed. b. might mean there is another financial crisis coming up. c. prevents shareholders from having to resort to algorithms. d. confirms that you always have to face the consequences for what you do. 		
<p>7. More algorithms are expected to keep on going...</p> <ul style="list-style-type: none"> a. even if they are there to deceive citizens everywhere. b. since Internet companies all strive to watch for customers' needs. c. provided that they always reach their targets with impunity. d. because in the end they will become legal tools of marketing. 		
<p>8. The main problem concerning supervision of illegal algorithms...</p> <ul style="list-style-type: none"> a. goes beyond companies themselves. b. is the sharp rise of misleading information spread around. c. begins at the core of corporations. d. lies in their classified nature. 		

Apellidos y Nombre:

<p>9. According to the writer, there is still hope to control algorithmic harm...</p> <ul style="list-style-type: none"> a. based on skilled technology handled by impressed users. b. as long as data is processed by professionals. c. though after the fact and at a certain cost. d. because some of them have already been detected. 		
<p>10. To tackle the situation, the wise thing to do would be...</p> <ul style="list-style-type: none"> a. to watch for unlawful behaviour and adapt penalties accordingly. b. to stiffen penalties for developing injurious algorithms. c. to find profitable ways that make up for the losses. d. to uncover the algorithms that prove harmful before they start to act. 		

PUNTOS: / 10

How can we stop algorithms telling lies?

Lots of algorithms go bad unintentionally. Some of them, however, are made to be criminal and designed to deceive. Algorithms are formal rules, usually written in computer code, that make predictions on future events based on historical patterns. To train an algorithm you need to provide historical data as well as a definition of success.

We've seen finance get taken over by algorithms in the past few decades. Trading algorithms use historical data to predict movements in the market. Success for that algorithm is a predictable market move, and the algorithm is vigilant for patterns that have historically happened just before that move. Financial risk models also use historical market changes to predict cataclysmic events in a more global sense, so not for an individual stock but rather for an entire market. The risk model for mortgage-backed securities was famously bad and the trust in those models can be blamed for much of the scale and subsequent damage wrought by the 2008 financial crisis.

Since 2008, we've heard less from algorithms in finance, and much more from big data algorithms. The target of this new generation of algorithms has been shifted from abstract markets to individuals. But the underlying functionality is the same: collect historical data about people, profiling their behaviour online, location, or answers to questionnaires, and use that massive dataset to predict their future purchases, voting behaviour, or work ethic.

The recent proliferation in big data models has gone largely unnoticed by the average person, but interacting with large bureaucratic systems now involve an algorithm in the form of a scoring system. Moreover, the technology introduced into these systematic decisions is largely opaque, even to their creators, and has so far largely escaped meaningful regulation, even when it fails. That makes the question of which of these algorithms are working on our behalf even more important and urgent.

At the bottom layer of algorithms, intentionally nefarious and sometimes outright illegal ones can be spotted out. There are hundreds of private companies that offer mass surveillance tools. They are marketed as a way of locating terrorists or criminals, but they can be used to target and root out citizen activists. And because they collect massive amounts of data, predictive algorithms and scoring systems are used to filter out the signal from the noise. A recent undercover operation by journalists at Al Jazeera has exposed the relative ease with which middlemen representing repressive regimes in Iran and South Sudan have been able to buy such systems.

The most famous malicious and illegal algorithm we've discovered so far is the one used by Volkswagen in 11 million vehicles worldwide to deceive the emissions tests. And although it seemed simply like a devious device, this qualifies as an algorithm as well. It was trained to identify and predict testing conditions versus road conditions, and to function differently depending on that result. Clearly, it was designed to deceive.

The VW cheating started in 2009, which means it went undetected for five years. What else has been going on for five years? Which companies are currently hoodwinking regulators, evading privacy laws, or committing algorithmic fraud with impunity?

Indeed it might seem like a slam dunk business model, in terms of cost-benefit analysis: cheat until regulators catch up with us, if they ever do, and then pay a limited fine that doesn't make much of a dent in our cumulative profit. That's how it worked in the aftermath of the financial crisis, after all. In the name of shareholder value, we might be obliged to do this.

Barely a year ago, Google was fined €2.4bn for unfairly placing its own shopping search results in a more prominent place than its competitors. A similar complaint was levelled at Amazon by ProPublica with respect to its pricing algorithm, namely that it was privileging its own, in-house products – even when they weren't a better deal – over those outside its marketplace. If you think of the internet as a place where big data companies vie for your attention, then we can imagine more algorithms like this in our future.

What organisation will put a stop to the oncoming crop of illegal algorithms? Does there yet exist such an organisation? The answer is, so far, no. Even more to the point, though, is the question of how involved the investigation of algorithms would have to be. The current nature of algorithms is secret, proprietary code. They're so secret that most online scoring systems aren't even apparent to the people targeted by them. That means those people also don't know the score they've been given, nor can they complain about or contest those scores. Most important, they typically won't know if something unfair has happened to them.

I'd still maintain there's hope. One of the miracles of being a data sceptic in a land of data evangelists is that people are so impressed with their technology, even when it is unintentionally creating harm, they openly describe how amazing it is. And the fact that we've already come across quite a few examples of algorithmic harm means that, as secret and opaque as these algorithms are, they're eventually going to be discovered, albeit after they've caused a lot of trouble.

What does this mean for the future? First and foremost, we need to start keeping track. It's time to gird ourselves for a fight. It will eventually be a technological arms race, but it starts, now, as a political fight. We need to demand evidence that algorithms with the potential to harm us be shown to be acting fairly, legally, and consistently. When we find problems, we need to enforce our laws with sufficiently hefty fines that companies don't find it profitable to cheat in the first place. This is the time to start demanding that the machines work for us, and not the other way around.

Adapted from *The Guardian*