



# Felix

The Student Newspaper of Imperial College London



# EDITORIAL

## CONTENTS

EDITORIAL	2
NEWS	3-4
COMMENT	5-7
POLITICS	8-11
UNION	12-13
ARTS	14-15
FASHION	16-19
MUSIC	20-23
FILM	24-25
GAMES	26-27
CONSTITUENT UNION	28
INVESTMENT	29
SCIENCE	30
SUSTAINABILITY	31
FOOD	32-33
WELFARE	34-35
HANGMAN	36-37
PUZZLES	38-39
SPORTS	40

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## Brexit Day: The Show is Over

I still haven't finished watching Netflix's *The Witcher*. Despite my best efforts to procrastinate as hard as possible, I have not yet quite found enough uncommitted time to actually sit down and watch it all. Partly, that's because certain episodes can be quite harrowing - I genuinely took a break after the ending scenes of episode three left me rather disturbed. Maybe I'm just weak-willed and should be culled from the gene pool.

But that sense of horror, revulsion, and morbid fascination did not put me off - just affected my pacing. I still find myself creeping back for another taste of epic fantasy mixed with a sort of gothic horror vibe.

Strip that drama from the show, and it'd be decent - but lacking something. With it, I look forward to devouring more. Upon finishing, though, I'm sure I will feel a little relieved to have escaped that irresistible attraction to the morbid, the sense of not being able to look away. That's why films like *Saw* or *The Human Centipede* exist, too.

That's also how I think we all feel about Brexit, if we're being honest with ourselves.

The last few years have, frankly, been a f\*cking trainwreck for British politics. We've seen weak Prime Ministers, an all-enveloping stagnancy and lack of satisfaction with the status quo, and a complete lack of any real impetus to change those things. I think most people reading this feel broadly unrepresented by even the party they voted for. How many of you simply voted for the 'lesser evil', whatever you consider that to be? How many genuinely feel



in-sync with the majority of the politicians in your respective parties? Even if one or two seem to speak genuine sense to you, the rest are utterly useless and ineffectual twats. Don't deny it.

And so we've trundled on, with a sort of obsessive inward-facing self-introspection that hasn't been the focus of British politics in some time. It's been drama on our own home soil, and it's been some of the biggest drama on the continent. That's not totally normal for us. It's been quite a while since we were this plagued with doubt; the character of Britain's political discourse, to me, seems to have devolved into resembling more the self-conscious thoughts of a preoccupied teenager than a mature and established state.

It's been a bit horrific, really, having to face ourselves, our own flaws, our own errors. Very un-British, to have such a turgid and quivering upper lip. Maybe it'll all turn out okay, a learning process for the new generation.

But now the drama is 'over', so to speak. Not on the political level, of

course - there's still lots to do there. That is a hot, hot mess. But in terms of how this reaches down and affects our daily interactions, the long wait is finally over. We're out. It's done. Bish-bash-bosh. The debates and arguments that have fuelled discourse - both externally and, I think, internally to ourselves - for so long are moot.

For three years, we all stood at the edge of a foggy cliff, not knowing whether jumping would result in flight or death. The arguing about what to do has been vital, but it has also forced us to look into the void, to question and define ourselves, and that's affected us as a society and as individuals.

Harrowing, yes.

But also just a little bit addictive. A bit morbidly fascinating.

With the date set, I noticed a distinct drop-off in the number of furious rants I witnessed on social media. While I'm sure many who consider themselves political pundits are still furiously typing away, keyboard warriors to the last, the average person has suddenly gone quiet where before they

were just so freaking opinionated. Nobody - I repeat, *nobody* - wrote anything on it to Felix this week; our editors took up the mantle instead. That is genuinely shocking.

Partially it's because it feels that there isn't much point to arguing anymore. But, really, there is. If someone really cares about Brexit on a political level, there is still so much to do, and plenty to argue about.

No, I think it's because that dark addictive drama is over. It's no longer fashionable to take a side, it's no longer an ongoing cultural war, it's no longer about self-questioning and defining the direction of a generation. It's no longer such an attractive mess. It's just a very politically involved one. It has to do with things like tariffs. That is definitely more boring than calling the big B.J. a dickhead and getting 32 likes. Good one.

And, just like I anticipate finishing *The Witcher* to be, it's a bit relieving to finally set down our well-worn pitchforks and torches.

I do worry a little that burning ourselves and our political fervour out now will allow the current government to enact legislation that otherwise wouldn't go unquestioned (Human Rights Act, anyone?) However, I think it's necessary. This is the quiet little cry and moment of clarity and peace you have after a big argument with your partner, or after getting a bad exam result back. Cathartic, but necessary. But we can't let it go on too long, without falling into a sort of placid depression that ultimately is more damaging than the internal war we've faced could ever be.



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# NEWS

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## Imperial-built Space Probe Ready for Launch to the Sun

*The Solar Orbiter spacecraft will carry a magnetometer built in the Department of Physics*

### NEWS

**Adrian LaMoury**

*News Writer*

Next week will see the launch of Solar Orbiter, a European Space Agency (ESA) mission designed to study the Sun and solar wind. Onboard the spacecraft is an instrument developed by scientists and engineers in Imperial's Space and Atmospheric Physics group, part of the Department of Physics.

The 1800-kilogram spacecraft will fly within 42 million kilometres of the Sun, inside the orbit of Mercury. Via multiple gravity assists around Venus it will rise out of the ecliptic plane, relaying the first images of the Sun's poles. The

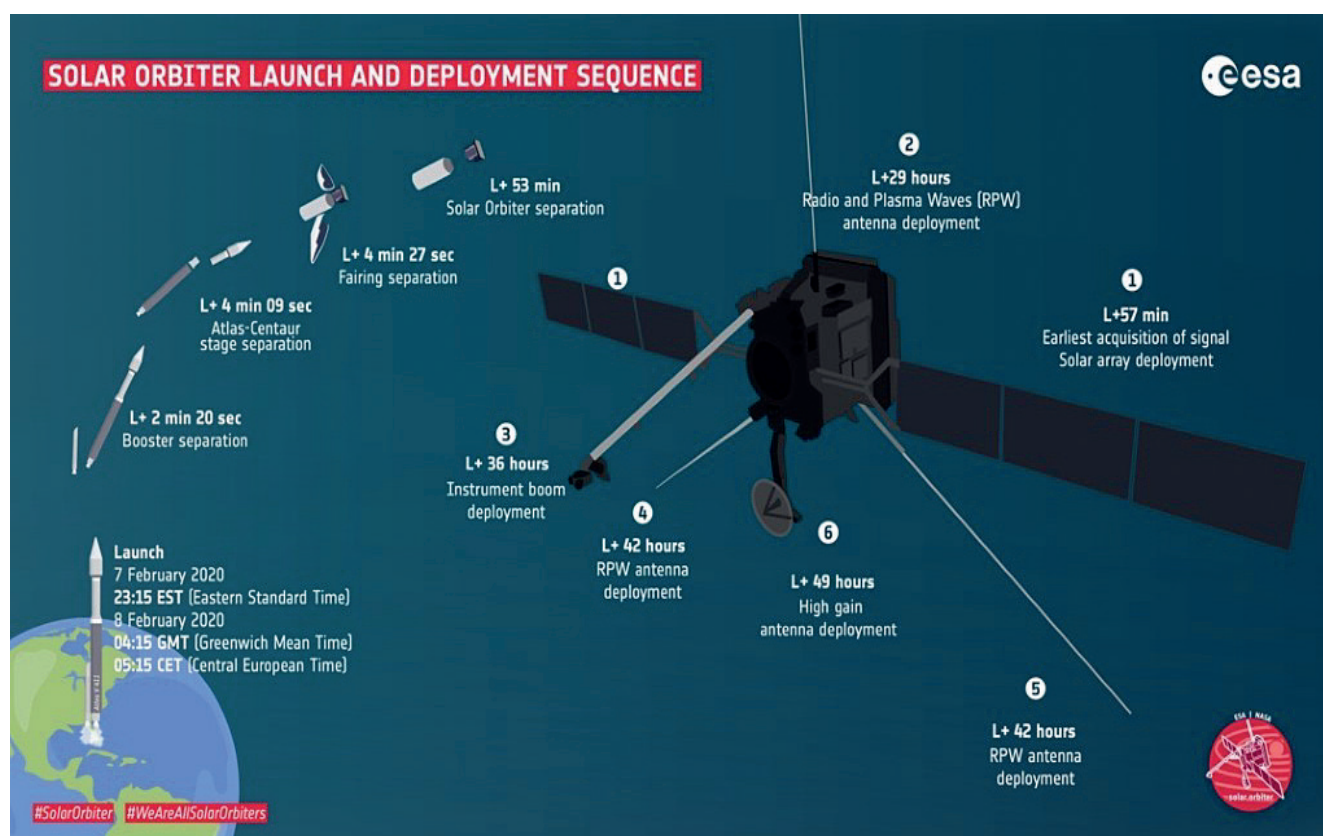
Imperial-built magnetometer will provide in-situ measurements of the Sun's complex magnetic field as it is carried out into interplanetary space by the solar wind – a constant stream of charged particles blowing off the Sun. Solar Orbiter will compliment and work in tandem with NASA's Parker Solar Probe, launched in August 2018.

The magnetometer is one of ten instruments onboard the spacecraft. Solar Orbiter is notable as an ESA mission with significant UK contribution; as well as Imperial's instrument, it also carries a Solar Wind Plasma Analyser built by the Mullard Space Science Laboratory at UCL, and the spacecraft itself was assembled by Airbus Defence and Space in Stevenage.

Launching from Cape



An artist's impression of the Solar Orbiter in flight // ESA/ATG medialab



Timeline of planned launch sequence // ESA-S. Poletti

Canaveral, Florida, on a NASA Atlas V 411 rocket, the launch window is scheduled to open on February 8th, 4:15am GMT. The possible launch window lasts three weeks, for two hours per day. These are the times when the Earth's rotation and position relative to Venus allow the rocket to follow the required trajectory. Exactly when within the window it blasts off is uncertain - delays to the launch are common and can occur due to adverse weather conditions or minor technical issues.

Understanding the solar wind is important for forecasting space weather. This is the set of phenomena experienced as the solar wind impacts and interacts with Earth's

magnetic field. It is responsible for the formation of the aurora, but in extreme events can also cause mass power grid failures and disable GPS networks. Such events have occurred in the past – for example, in 1989 a severe geomagnetic storm caused a blackout across Quebec for over nine hours, costing their state-owned energy company an estimated \$13.2 million.

As is often the case with scientific spacecraft, the journey to launch has been a long one. While the first technical proposal for the magnetometer was drafted in 2007, the mission itself was proposed by the scientific community in 2000. "It's been a rocky road, and there have been times when it's been quite

# NEWS

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hard to keep enthusiastic,” Professor Tim Horbury, principal investigator for the magnetometer, told Felix. “Of the places in the UK that build space hardware, we are by far the smallest. There is an issue about making sure we keep right expertise in the room.”

“It’s very easy to get 80% of the way there, but it’s very difficult to get the final 20%, and that has been the case all the way through,” added Senior Instrument Manager, Ms. Helen O’Brien. Both Tim and Helen are travelling to Florida for the launch, where they will be in the company of around two thousand scientists and engineers, each anxiously standing by to provide urgent assistance if any problems arise. However, once the rocket has safely left the ground the celebrations will begin. “There will be multiple parties... it’ll be like the Oscars – whose post-launch party do you go to?”

As well as staff, many Imperial students have worked on Solar Orbiter throughout the course of its development. One such student was

Maxsim Pudney who first became involved in space instrumentation through a UROP during his second year as a physics undergraduate. Following

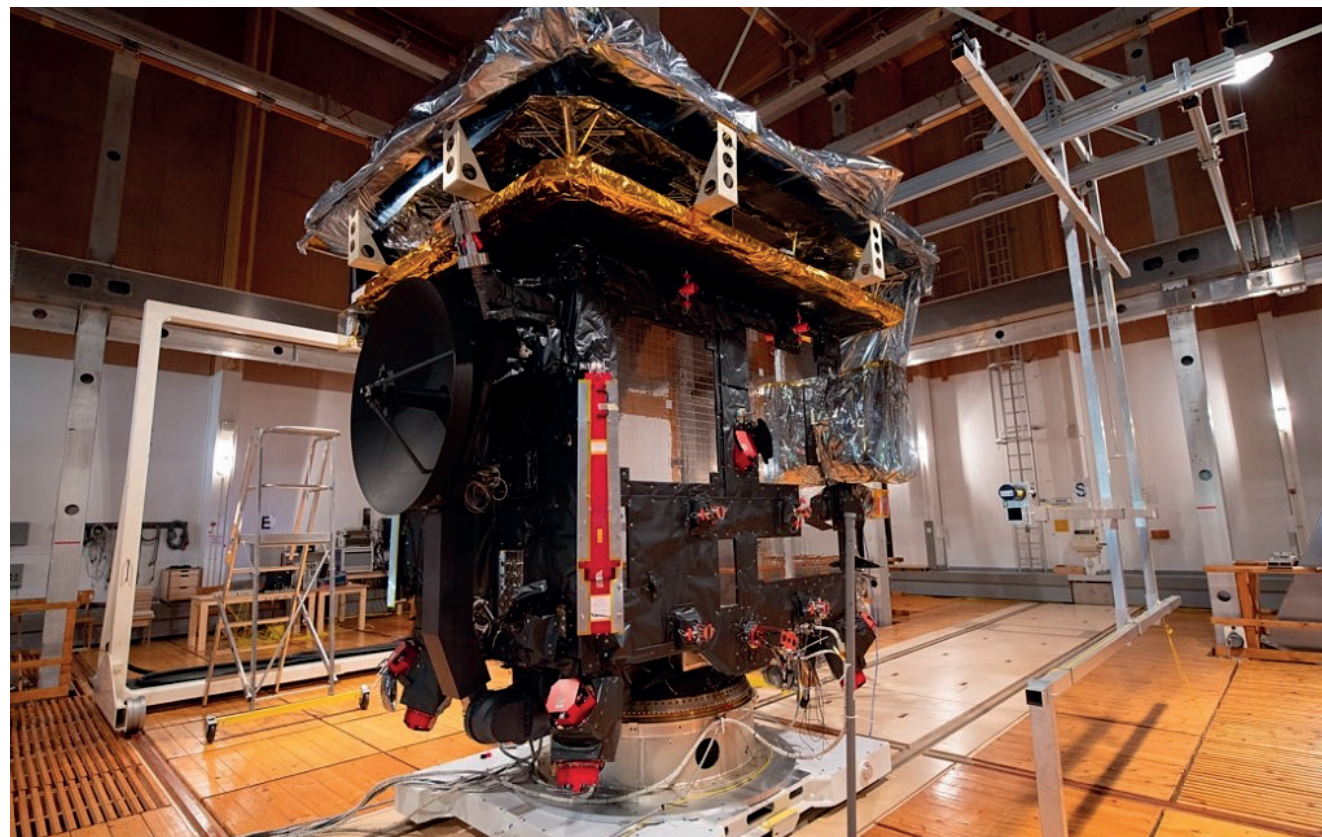
this, he completed work experience at Airbus (then Astrium), and later a PhD joint between Imperial and Airbus. His project, completed in 2014, concerned

Solar Orbiter’s ‘magnetic cleanliness’ – how the magnetic fields generated by the spacecraft can affect the extremely sensitive magnetometers.

Since completing his PhD, he has continued to work on Solar Orbiter at Airbus and will also be on the ground in Cape Canaveral. Speaking to Felix, he said “after the launch, I am looking forward to continuing my work on the mission with some assessment and modelling of the in-flight data, which will mean from the start of my PhD in 2010 to finish in 2020 I will have worked on the mission for 10 years!”

One of the first instruments to be turned on once in space, the magnetometer is expected to return its first data within a few days. The launch will be live streamed on YouTube by NASA, and updates posted on Twitter by Professor Horbury @SolarOrbiterMAG.

*Felix will publish a follow-up, technical-focused article on the Solar Orbiter and the MAG in the Science section in the coming weeks.*



The spacecraft undergoing magnetic field simulation testing in Germany // ESA-S. Corvaja

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## COMMENT

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# Should the UK allow Huawei to build our 5G infrastructure?

*Comment writer Andy Wang argues that giving Huawei a role in our telecoms infrastructure is not simple a question of national security but also a moral one*

## COMMENT

**Andy Wang**  
Comment Writer

On Tuesday Boris Johnson approved the use of Huawei equipment in “non-core” parts of UK’s brand new 5G infrastructure, on the advice from British security services that “all risks are manageable”. This makes the UK one of two Five-Eye countries which didn’t issue a blanket ban on Huawei’s involvement in network infrastructure; it also aligned the UK with many EU countries, like France and Germany, who welcomed technical involvement from the Chinese telecommunication giant.

This decision came after intense lobbying by the US, urging the UK to ban Huawei from having a role in the development of its next generation 5G telecoms network. Trump used several different official channels to try to convince or threaten British officials to drop their plan of opening the doors to Huawei. Unlike American counterparts, UK security agencies have long been cautiously optimistic about Huawei’s involvement in the UK’s communication backbone.

GCHQ, the British signals and communications monitoring agency has audited Huawei’s products over the last several years. Reading their published annual report from 2019, one would think that Huawei is simultaneously Su-

pervillain number one who epitomises the art of covert surveillance and utterly incompetent without the competency to hide any backdoor at all. The report lambasted Huawei’s code quality and questioned their “basic engineering competence”. In a single version of Huawei’s firmware, the auditors discovered 70 duplicate copies of 4 different versions of the same dependency library critical for cryptographic operations, OpenSSL, with the oldest one originally written 20 years ago. In any case, GCHQ provided “limited assurance” that Huawei does

**“Huawei is just one of many pawns that willingly facilitated China’s moral race to the bottom since Xi’s rise”**

not pose a serious security threat.

Given the fact that Huawei’s software is full of vulnerable code, and that China is an “adversarial state actor”, it is difficult to ask the public to trust Huawei with their private information. The good news is: we don’t need to. Thanks to end-to-end encryption based on open standards, open source implementations and open collaborations,

Huawei’s 5G network devices aren’t capable of snooping on the content of private communications over the internet. Ironically, all three past Home Secretaries have expressed a desire to ban end-to-end encryption because it “protects terrorists” – displaying a shocking lack of cybersecurity knowledge.

So, it’s all well and good and we can all enjoy the world’s most advanced 5G technology right? Absolutely not. Disappointingly, the spirited debate on Huawei has focused almost exclusively on the national security aspect, with ethical considerations tossed aside. When Facebook’s dodgy business with Cambridge Analytica was exposed, Mark Zuckerberg became the pariah of the Internet and people were vocal about boycotting Facebook (how many actually did, of course, was a different story). While Huawei’s ethical deficit far exceeds what Facebook could ever have done, they have largely dodged the public spotlight.

Several years ago, Cisco came under fire for providing network devices to a Chinese censorship programme. Now the Chinese government has sought cooperation from Huawei and the capability of the Great Firewall has increased rapidly over the last few years. It is now by far the world’s most sophisticated censorship and mass surveillance programme, monitoring all outbound internet traffic in real-time. As indicated in leaked Xinjiang

documents obtained by International Consortium for International Journalists (ICIJ), visiting too many foreign websites is a sufficient transgression against the regime to be thrown into a re-education camp.

Much like the Metropolitan Police recently, Huawei is also quite enthusiastic about the use of automated facial recognition. Huawei is a major provider both of the technology itself and the supporting network equipment for AFR cameras, which has been deployed across China. One of the possible uses for Huawei products advertised on their website is tracking people’s movements across multiple cameras in real-time, obtaining the subject’s identity and exactly where the person has been at precisely what

time. With Huawei’s help, the Chinese dystopian reality may soon render Charlie Brooker’s Black Mirror fantasy into mundane thriller.

More broadly, Huawei is just one of many pawns that willingly facilitated China’s moral race to the bottom since Xi’s rise to power. While perhaps attitudes towards China are still positive relative to the international treatment of apartheid-era South Africa that experienced sports boycotts, Olympics expulsion and disinvestments, the CCP has gotten away with its behaviours too easily. Huawei’s success at gaining a foothold in the UK market is yet more material to be used by the CCP in the whitewashing and moral laundering of its way of governance. The British response should be an alarm bell,

a loud and clear call that we are not fine with those who rub shoulders with repressive regimes.

Code can be audited, vulnerability can be fixed, backdoors can be discovered, and hardware can be replaced; but you can’t patch a moral vacuum. The profit Huawei will make from the UK market will come out of the pockets of ordinary Brits, and much of it will be invested into surveillance, censorship and suppression. Cheap and fast 5G, as wonderful as it is, cannot justify the position we find ourselves in. I hope very much I’ll be proven wrong, but the government’s decision may well be one we’ll all come to regret.



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## COMMENT

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# I'm (Not) Dreaming of a White... Uprising?

*Actor Laurence Fox and his comments brought him both criticism and praise. Has the white-shaming rhetoric gone too far?*

## COMMENT

**Sung Soo Moon**

*Comment Editor*

There's been controversy about actor Laurence Fox's comments regarding race in the past couple of weeks. It seems that both sides of the debate seem bitterly passionate about their stance and Fox's opinions have resonated with many. The issues surrounding race and the formalism in which there may be debate has not come to a consensus in all members of the society; we are in some transient period where racial issues are addressed but remain a grey area. In general, the inevitability of discourse will lead to new ideas replacing the old.

Fox's media attention started with a Question Time programme where he clashed with mixed race university lecturer Rachel Boyle who argued that the treatment of Meghan Markle by the press was racism. Fox said it's not racism and

**"The demonization of traditional masculine values with no given alternative leads to resentment"**



Everyone ready to have a civilised conversation about race // Wikimedia

that Britain is "the most tolerant, lovely country in Europe" and that accusations of racism are "boring". Boyle hit back calling Fox a "white privileged male", and Fox exclaimed that Boyle was herself being racist to him by saying that.

Another incident concerning Fox was the comments he made about Sam Mendes' WWI epic, 1917. The film portrays Sikh soldiers who fought along British forces, and Fox said in James Dellingle's podcast that it "diverted" him

away from the story and was "institutional racism" to be forcing diversity in the movie industry. Fox has since then apologised for this comment and to the Sikhs that he offended, as it is a historical fact that many Sikhs as part of the Indian Army fought and died in the Great War. Fox has since acknowledged this and apologised.

The reaction to Fox's initial comments and continued media attention demonstrates that he is not alone in his views, and his opinions certainly have

resonated with people. That opinion being that political correctness has gone too far, and white (straight male) people are at the receiving end. We are witnessing the release of white frustration after supposed suppression by a leftist society.

The story so far: the white guilt narrative entered the social conscience and had by-products like fashionable white supremacy and extremism which have been brewing under the surface. Progressive and left ideas aren't readily challenged by those

**"We are witnessing the release of white frustration"**

who oppose them, as society is still unsure of the implications of race and how to deal with the notion of systematic institutional racism. This has led to outspoken people who are outraged at the progressive attitudes and "snowflakes" who are sensitive about political correctness. The non-PC voices unafraid and unadulterated by the pressures to conform are singled out and emphasised, where Fox's comments were labelled "refreshing" by many. Thus, begins a white renaissance, not conforming to the white guilt rhetoric. Straight white men feel under attack for who they are, and it's not like they're going to take the back seat on this. The demonization of traditional masculine values with no given alternative leads to resentment towards those who only criticise. Due to the changing tides in the world, many are disillusioned further, leading to the incubation of dangerous ideas on all sides.

The world has become a more inclusive place very quickly—within a generation, the attitudes that have changed are immense, from race, to sex and sexuality, and other minorities in the

workplace, the media, and culture. This shift in power and media attention is causing unrest, as traditional ideals and norms are brought to scrutiny with no time to react. With the internet facilitating more extremism and amplifying like-minded views on all sides, it traps people in perpetuating confirmation bias on all sides of the spectrum, arguably a consequence of liberalism. Fox represents this—outspoken and unafraid of seemingly controversial comments, and the support he has had is evidence that these are the kinds of incidents we will see as a reaction to the movement. I expect an uprising against white 'repression'.

Unless we can talk about race and racism in a manner that everyone can agree on, any progress is impossible. The two strains of thought cannot exist harmoniously in unison, and thus can only induce further conflict. After a very eggshell laden path towards our modern attitudes of race and related topics of debate in which many people are conflicted, we will see more instances of outspoken opposition against the norm. Laurence Fox is not alone in this opinion that white people are unjustly villainised in the mainstream narrative. White rage will confront and there will be consequences.

## COMMENT

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# Has Science Gone too Far? The Results Might Shock You!

*A close look at how we find meaning in the modern world, and whether we need to rethink the way we go about it*

## COMMENT

**Nick Manrique**

*Comment Writer*

Thanks to scientific thought, today's world is one of rationality and unprecedented material comfort, without which I probably wouldn't be sat in the warm writing this article. The path of history since the dawn of the scientific method has been marked by both an intense development of our productivity and a general trend towards greater secularism, the former of which has culminated in our familiar global capitalism. This development has provided benefits far beyond those already mentioned, but it has also led to some terrible events and hitherto unimaginable levels of exploitation. Here, I'm not going to talk about any of that. Instead, I'm interested in how all this plays with our most fundamental desire: meaning.

If there's one characteristic which unites all humans, it's an implicit acknowledgement of the absurdity of their condition. It confronts us every time we stare at the stars and feel powerless; it rears its head whenever we contemplate life beyond our subjectivity. We can't live like this, of course, and so we've always managed to find ways to comfort ourselves. The most obvious of these is spirituality, which has often manifested itself as



Pope on the ropes // @assdesign

some form of religion. The belief in something greater than man, which ought to be intrinsically unknowable, is powerful: when we accept a limit to the agency we can *a priori* exert over nature, we psychologically relieve ourselves of precisely this limitation. What's more, this acceptance comes with free meaning, since

**“...our desire for meaning translates into a lust for consumption”**

if we can have faith in something transcendent then we absolve ourselves of the responsibility. But as we challenge previous limitations and come to exert greater agency over

nature, the predicate for this belief starts to fall away.

As science comes to the fore in history and a more secular society begins to emerge, we come to understand more about the world, so the need to fill the gaps with such thought seems to diminish. But, as you may have guessed, I'm not sure that this is the case. Sure, our objective knowledge is at an all-time high, but the more we learn, the more complex and unknowable the world appears to become. Capitalism moves in tandem with science, and along with the wealth it generates come odd new phenomena. The commodified form of social relations estranges us from ourselves; our connection to our products seems increasingly tenuous. In short, objectivity is not enough. We need to find

room for transcendence somewhere in all this, and interestingly capitalism itself has provided an answer. Through the very same mechanisms which alienate products from labour, commodities take on meaning beyond themselves via their social position in the market. In essence, commodities come with transcendence for free, and so our desire for meaning translates into a lust for consumption.

If seeking the transcendent is one way out of an existential crisis, then another can be found in ourselves. Living in communities where we understand our position and relationships can give us the tangible comfort of belonging. I feel most at ease when I understand myself as part of a whole, and not in isolation – perhaps I would have made a poor Romantic hero. In pre-industrial

society, life was dominated by the local, and as such it could be intuitively understood. Today's world interacts with the old idea of the community in a subtle way, but I'd argue that there are two main things which shape it the most. On the one hand we have the Internet, which creates opportunities for totally new kinds of community, no longer separated by space. On the other we have globalisation, which has shrunk the world market-wise and people-wise, allowing for greater contact - and exploitation – between people than ever before. In both of these cases, people become acutely aware of their relative size in this new global community, and this leaves them with two inevitable questions. How do I fit in here? How can I continue to feel meaningful agency? How indeed:

the answer is not clear in general, nor is it uniform. Either way, our method for finding comfort in our communities has to change as those communities do. For the moment, history is moving faster than philosophy.

Where does all this leave us? It would seem that the development of science and capitalism has today left us in a curious existential position. It has simultaneously secularised and objectified life itself by attempting to replace divine transcendence with the joy of an Apple product. It has also fundamentally changed the way that our communities operate, forcing us to rethink how we live and feel together. These effects aren't disjoint either, and their interactions become more intricate by the day. Given this, society has a question to answer: are we OK with this? Seemingly, many people say no. The recent resurgence of reactionary conservatism and populism could be understood as a reaction to the theft of meaning.

Maybe none of this really matters. After all, what is the real difference between an effigy and an iPhone? And how can we know how our communities will continue to evolve under the present conditions? But I think that the wave of reaction we see today can, at least in part, be understood as part of a historical shift in how we find meaning in the world. If that's the case, then we owe it to ourselves to find it better.

# POLITICS

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## India's economic turmoil: A future superpower or a Nationalist paradise?

Politics writer **Nehaal Pillai** summarises the events that have led to India's current economic turbulence.

### POLITICS

**Nehaal Pillai**  
Politics Writer

Economists from all over the world have consistently predicted that India will become the world's largest or second largest economy. However, its economic growth rate is slowing, and social unrest is rising. This article serves to explain and analyse the history of India, its economic potential and issues that hinder it from achieving the status of an economic superpower.

#### History, British colonialism, and independence

For the majority of the period between the 1<sup>st</sup> and 18<sup>th</sup> centuries, the Indian subcontinent possessed the largest economy in the world, only trading places with China, which was of a similar size. However, during the arrival and occupation of India by the British Empire, the Indian economy stalled and became very insignificant on the global stage. Once India achieved its independence from the United Kingdom in 1947, the newly founded Indian Government followed a protectionist economic regime. The reasoning for this was that India had suffered the horrors of colonialism such as slavery and famine, so it did not wish to subject any other nation to what it had experienced. It had minimal trade with other nations, nationalised its main industries,



How history has shaped India's economy // Lokmat

and set out its economic plans every 5 years – a method of governance often associated with communism. The country also introduced soviet-inspired laws, with its main partner throughout much of the 20<sup>th</sup> century being the Soviet Union. Such laws included the License Raj, a large system of licences and regulation which were required to be followed to set up and

run a business, which essentially functioned as a bureaucratic binding of red tape. Although following the style of communist nations, however, India was not a communist state. For example, it supported free markets outside of its core nationalised industries. This is essentially a mix of the worst of capitalism and the worst of communism.

#### Post-colonialism

In the latter half of the 20<sup>th</sup> century, the Indian economy grew at a slow pace similar to other communist countries with a primarily agricultural economy. However, in 1991, the year the Soviet Union collapsed, India lost its largest ally and trading partner. 1991 was the year in which India experienced its slowest economic growth since

independence. In addition to this and other external factors such as rising oil prices, India was very close to defaulting on its debt. Thus, the Indian Government turned to the International Monetary Fund (IMF) for a bailout loan. The IMF agreed to grant a \$1.8 billion loan on the conditions that India would open to international trade and deregulate its economy.

In response, India relaxed its strict trade policies, privatised its inefficient industries and decommissioned the License Raj, allowing for much more ease in starting and running businesses. Hereon India could be classed as a primarily capitalist nation with free markets. Following this, the Indian economy skyrocketed, effectively doubling its GDP every 5 years – an economic miracle for a large country only seen before in previous decades by Japan and China. Thanks



Mumbai and other cities experienced an economic boom post-independence // Flickr

**“Although economically similar to other Communist nations, India was not a communist state; it supported free markets outside its core nationalised industries”**

to this growth, hundreds of millions of people have been taken out of poverty. Just between 2006 and 2016, over 271 million people came out of poverty. Moreover, cities in India began to experience a massive infrastructure boom due to increased economic prosperity. The south Indian city of Bangalore became the India's IT capital and the global centre of outsourcing, Mumbai, India's largest city, is now one of the top 15 wealthiest cities in the world (despite high income inequality) and is in the top 3 cities with the highest rate of skyscrapers being built. Most major cities improved infrastructure by the construction of modern transportation systems, i.e. metro rail systems. Trade with other countries also improved, with high levels of foreign investment entering the country and defence deals being signed with other powers such as the United States and Russia.



# POLITICS

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## India's economic potential

Despite the horrors of British colonialism, India did gain a few advantages because of this. Firstly, it is the world's largest democracy. Secondly, it is the second largest English-speaking nation in the world after the United States. With English being the primary language of international business, this is very advantageous. Additionally, India was left with a British style legal system, despite the presence of corruption. Overall, on paper, the Indian legal system can be seen as very similar to that of a western democracy. This means that the core legal framework of the Indian judicial system is fair. This is something that is very attractive to a company when deciding whether to set up operations in a country. It can also be seen in the WJP Open Government Index where India ranks 37<sup>th</sup> globally whereas its primary competitor, China, ranks at 87<sup>th</sup> worldwide. In addition to this there are strict laws against intellectual property theft, which encourages business confidence when deciding to start business in a new country. Also,

due to more extreme protectionist policies and abrupt actions by the Chinese government, many businesses have looked for other locations to relocate their manufacturing hubs. For example, Samsung has moved all of its smartphone production from China to India and Vietnam, and Apple has also begun manufacturing phones in India. India has the potential to become a global manufacturing hub for low- and medium-end mass-produced products because of its large young population.

**“India ranks 37<sup>th</sup> globally in the WJP Open Government Index, whereas its primary competitor, China, ranks at 87<sup>th</sup> worldwide”**

## Limitations to India achieving its economic potential

Though India may have great potential, there are many limitations that can hinder Indian growth. Since the Bharatiya Janata Party (BJP), led by Narendra Modi, took power in 2014 thanks to promises that India would become a global powerhouse, Modi has been a polarising figure. He has had some successes such as increasing the ease with which companies can operate within the country. India rose in the ease of doing business index from 132<sup>nd</sup> when he took power to 63<sup>rd</sup> globally. Many of the country's bureaucratic policies and red tape regulations were also removed. In addition to this, since he took power more Indians have begun to use bank accounts and cashless payments, which has lowered corruption in welfare payments as citizens are directly paid without possibility of corrupt officials retaining owed cash. However, despite these smaller successes, many large social and economic issues have arisen during Modi's premiership. The largest mistake being the 2016 demonetisation crisis.



India protests the controversial Citizenship Amendment Act // *The New Yorker*

## Failed economic policies

In 2016, in a sudden surprise move to destroy the shadow economy and the amount of “black money” in the country, Modi's government announced that all 500 and 1000 rupee notes would be rendered worthless and that all citizens would have to go to banks to exchange these notes for new 500 and 2000 rupee notes. While the move had good intentions to catch those who had black money, the policy was a huge failure, with cash shortages being present throughout the country and businesses not being able to run due to this liquidity crisis. Thus, the effort to curtail the shadow economy also failed as over 99% of the old notes were submitted, which suggests that those handling illegal money managed to convert it into the new notes. Due to this move, the Indian economy slowed down by several percentage points and many jobs were lost. Another major failure was the introduction of a tax on foreign investors that would see them

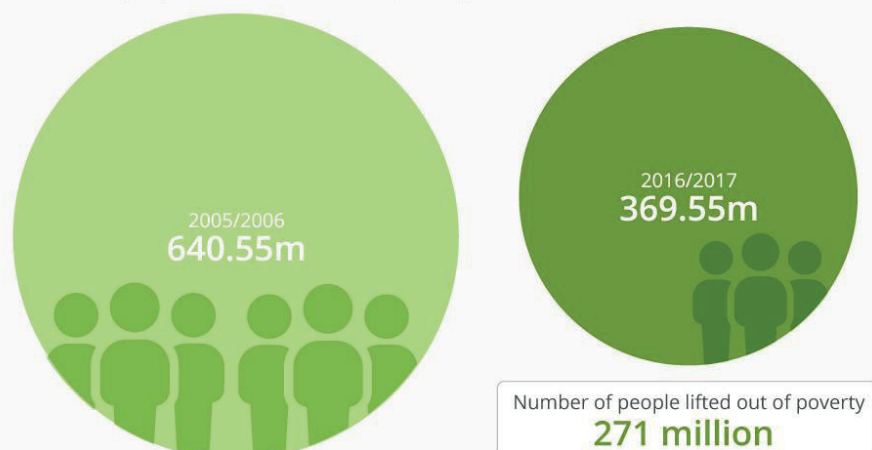
being taxed 40% to do business in India, despite India having one of the highest import tariffs in the world among major economies. This heavily backfired and caused the worst Indian stock market performance in 17 years. The tax was retracted from law within a month because of the potential loss in foreign investment that could occur. Furthermore, a General Sales Tax was introduced to make all the states within India essentially a single market and allowing interstate trade to be easier. However, as with demonetisation, this policy was heavily criticised for the method via which it was implemented. Because of this tax, many small businesses shut down or were put into financial difficulties. Despite these huge blunders by the Indian Government, Modi's BJP won a landslide general election in 2019 – primarily attributed to a weak opposition and a huge misinformation propaganda campaign carried out by “IT cells”, indirectly controlled by the BJP's Public Relations arm.

## Divisive social policies

Since Modi's election, sectarian violence has been on the rise and extremist Hindu nationalism has also risen. This can be seen by the lynching of Muslims for consuming beef – a sacred animal in Hinduism – in the northern Hindi belt states. Other radical policies occurring because of Modi's government is the nearly 6-month internet shutdown in the union territories of Ladakh and Jammu & Kashmir because of anti-government protests. More social unrest has occurred with protests across India due to the introduction of the Citizenship Amendment Act (CAA), which is a law introduced by the BJP that allows non-Muslim refugees from neighbouring countries in Asia to be given refuge and an express pathway to citizenship in India. However, many believed this to be against the Indian constitution, which implies that India is a secular country with freedom of religion. Thus, this act violated the

## India Lifted 271 Million People Out of Poverty In A Decade

Number of people in multidimensional poverty in India\*



\* Aside from a lack of money, multidimensional poverty encompasses other factors such as poor health & nutrition, water & electricity access, education etc.



Source: United Nations Development Programme

Forbes statista

The number of people in poverty in India, 2005/6 and 2016/7 // *Forbes, Statista*

# POLITICS

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## India's economic turmoil: A future superpower or a Nationalist paradise? (cont.)

Politics writer **Nehaal Pillai** summarises the events that have led to India's current economic turbulence. (cont.)

(cont. from previous page) constitution itself due to its religious discrimination against people of Islamic faith. Millions have protested this bill and the response by the government has included police brutality and more internet shutdowns. The Hindu nationalism created by the BJP's draconian policies has the potential to further slow the Indian economy and cause more unrest.

### Present

Because of Modi's divisive policies, along with an overall global economic slowdown due to other factors such as the US-China trade war, India's economy has slowed down to 4.75% in 2019. Additionally, during the infrastructure boom in the previous decade, many companies couldn't repay their debts to the banks and thus banks were resisting giving out as many loans. Shadow banks began to form and fund projects, and these non-bank financial companies (NBFC) began to give out loans to both companies and individuals. At their peak shadow banks accounted for 1/3 of all loans given out nationwide. A major shadow-bank, Infrastructure Leasing & Financial Services Ltd (IL&FS), defaulted on payments. This shook the Indian economy and had a particular impact in the automotive industry as nearly 65% commercial vehicle sales were from NBFCs. The automotive industry is one of India's largest, employing 35 million people. Due to this collapse of IL&FS, ripples were felt through the economy, car



Mumbai has the world's third highest rate of skyscraper construction // Wikimedia

**“With a predominantly young workforce, large English-speaking population, and a large domestic consumer population, it is entirely possible that India will become an economic superpower.**

sales dropped, and due to decreased demand, an estimated 100,000 jobs were lost. Despite this, consumer spending remains high, with many Indian households still taking out loans which could potentially become a harmful situation if unemployment keeps rising and people begin to default on their payments.

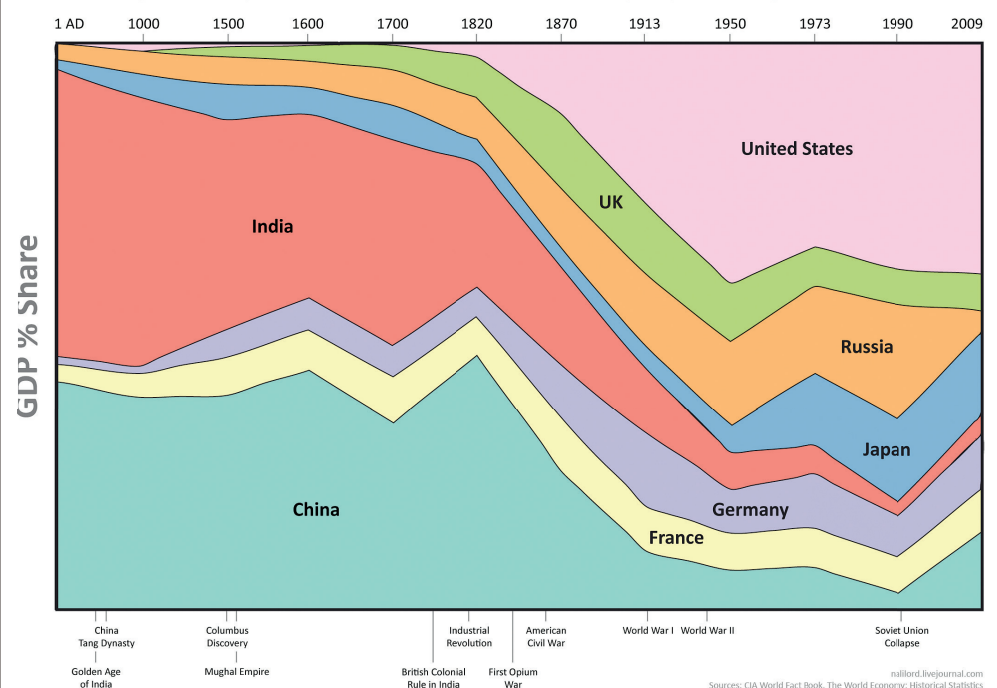
The immediate future is looking bleak; unemployment has been rising since 2017 and the IMF has cut India's 2020 growth forecast from 7% to 5.8%. In addition to this, a general slowing of the global economy, especially in other major economies such as China and Germany, are not beneficial to India's prospects in an increasingly globalised world.

### Conclusion

Ultimately, if global market conditions improve and the Indian Government changes its economic policies, stops causing social unrest, and lowers its import tariffs, India's economic growth will skyrocket again. With a predominantly young workforce, large English-speaking population, and a large domestic consumer population, it is entirely possible and likely that India will become an economic superpower. However, a lot of change is required in order to catch up with the likes of China, the European Union, and the United States sooner rather than in the distant future.

### Balance of Economic Power 1AD — 2009

Great powers GDP percent share of the total GDP volume of all 8 great powers at a given moment in time



GDP % share of the world's biggest economies, 1AD to 2009 // CIA World Factbook



Narendra Modi: India's Prime Minister // Wikimedia

# POLITICS

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## Brexiteers, Remainers, Tories, and Labour Together Should Mourn our Lost Years

### POLITICS

**Calum Drysdale**  
Comment Editor

Today (the day of publication) Britain will leave the European Union. By and large this will be marked not with spitfire displays and ringing of Big Ben but with a restrained hour long countdown projected onto Downing Street and the issue of a commemorative 50p coin. These are not the sort of festivities that are typically brought out when large events occur. Remembering the enormous show of affection and celebration that greeted the wedding of Harry and Megan, two royals that would never ascend the throne, it is astonishing that the leaving of the EU, an event with far greater significance, would not be marked in some way. This reflects the government and many people's attitude that the last 4 years have been an embarrassing display for a nation that considers itself a cradle of democracy. That many foreign publications refer to our Prime Minister as a

**“That many foreign publications refer to our Prime Minister as a ‘Mini Trump’ is yet more evidence of how far we have fallen”**



Post-Brexit, there are dire issues the government needs to address // Public Domain

‘Mini Trump’ is yet more evidence of how far we have fallen.

People that didn't realise that today was the day need not panic. We shouldn't notice any great changes as Britain must remain regulatorily aligned with the EU until the end of the year as part of a transition period during which the future relationship must be worked out.

The challenges that face us now, however, dwarf those that filled meters of print columns while we as nation convulsed, trying to come to an agreement over what all those crosses next to the Leave box meant.

First and foremost, we must look to the state of our Union. The

United Kingdom is not a single nation but rather a collection of four constituent nations all governed by the government of their shared monarch. The ties that bind these nations together, however, are looking more precarious than they have in centuries. The Scottish Nationalists have monopolised the country's Westminster MPs and should they similarly carry the vote in national elections to Holyrood, their devolved legislature, Johnson will find it difficult to deny Nicola Sturgeon her desired Indyref2, a second referendum on Scottish independence. Similarly, the December election was significant

in how Northern Irish constituencies changed hands. Rather than being dominated by the two extreme voices of Unionism and Nationalism, other parties managed to break through and gained seats. However, this marked the first election where Nationalist parties (pro unification with the Republic of Ireland) outnumbered Unionist ones (pro remaining part of the United Kingdom). The end of freedom of movement also has the potential to open old wounds from the days of the Troubles. Many people do not understand the huge place that those years of terror have in the minds of people from Northern Ireland and I

would recommend the BBC series *Spotlight on the Troubles* to anyone seeking to inform themselves about this vital but overlooked part of our nation's history. The long held belief in these regions that Westminster cares only for the concerns of England has only been strengthened by the Brexit result and the Conservatives should not just consider the concerns of the Northern constituencies that 'lent' votes to the Tories, a clear example of factionalism and pork barrel politics, but the whole country that they claim to represent.

Secondly, the issue of social care must be addressed. Successive governments have kicked the issue down the road and the only attempt to do so seriously by the May administration was destroyed by the moniker of the 'Dementia tax'. We as a nation must confront the looming burden that our increasing life expectancy and demographics threaten us with. It has been predicted that following current trends, 1 in 3 people born this year will suffer from some sort of dementia. In 5 years there are predicted to be 150,000 more sufferers and 1,150,000 more by 2050. Unless we as a nation confront this, it will be a black hole in the health budget that could bring down the valuable institution of the NHS. The Prime Minister has been making the right noises, recently claiming that initiatives could begin as early as March, but his insistence that people will not have to sell their homes to pay for care threatens to make

**“The US can destroy a country by leveling it with bombs; Moody's can destroy a country by downgrading its bonds”**

any policy implemented window dressing on the worsening crisis.

Finally, the government should address political apathy. If, as a nation, we cannot convince the youth of the value of our democratic system then the ideology that we preach deserves to fail. School students should be taught how both our political and economic systems work. In 1996, New York Times columnist Thomas Friedman wrote: 'You could almost say that we live again in a two-superpower world. There is the US and there is Moody's. The US can destroy a country by leveling it with bombs; Moody's can destroy a country by downgrading its bonds.' Many readers will struggle to say what Moody's is. There are incredibly powerful forces that define how we live our lives that we have little to no knowledge of.

Today represents the first step of a healing process that we must walk together to do right for the people of the nation.

# Union Page



## Lead the change at Imperial

Nominations for Leadership Elections open at **noon, Monday 3 February**, and now is the time to think about standing for a position.

You could be the next Union President, one of four Deputy Presidents, or even Felix Editor. If you're thinking about standing, we will be having a briefing session about the major roles **every Wednesday in February** at 13:00 in MR4, Union Building. Come and discover what the President and Deputy Presidents do, what compensation the roles attract, and why you should consider standing.

Find more information on roles and key dates at [imperialcollegeunion.org/elections](http://imperialcollegeunion.org/elections).



## What's happening at Union Council

Last week's Union Council meeting saw members debate over two major proposals - halls rent and the introduction of a Working Class Officer. Council rejected the latest proposals in the ongoing Halls Rent negotiations, on the grounds that the financial model that College had presented was still fundamentally the same and certain key details had not been properly explained. This is the second time Council has rejected the proposals. A special meeting will be held in two weeks to further discuss the matter.

The proposal to introduce the new position of Working Class Officer was passed. This position will be elected in the upcoming Leadership Elections.

Keep up with the latest and read more about the decisions made at Union Council at [imperialcollegeunion.org/news](http://imperialcollegeunion.org/news).



## Food is back in FiveSixEight

We are thrilled to announce that FiveSixEight is now serving food again. With renovations complete and many improvements made, all students and staff can now enjoy food in the bar again every day from noon.

There is also a new menu which will be in place for the remainder of the term. You will find some of your favourite menu items reintroduced, including the return of mozzarella sticks. There are new vegan and vegetarian options, as well as a variety of loaded curly fries.

Beit Bars and the Union are grateful for everyone's patience during the kitchen closure.



## How do you experience Imperial?

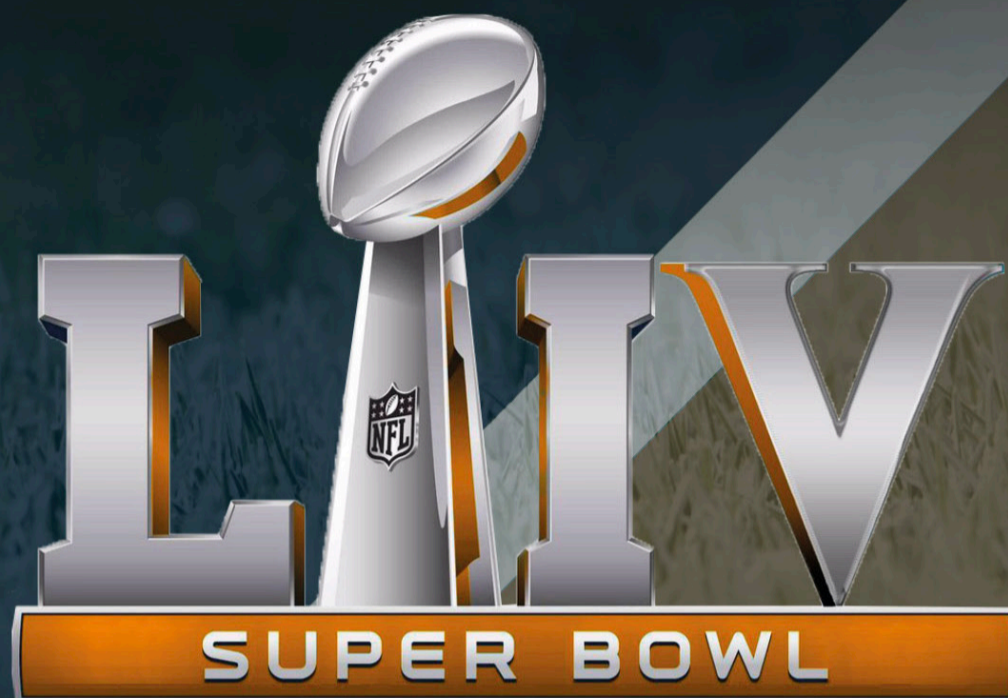
The Student Experience Survey closes on **Monday 3 February**, meaning you only have a few days left to tell us your experiences on life at Imperial. Your responses help give College and the Union a better idea on what we're doing well, how we can further enrich your student experience, and also what we can do to improve.

Due to your responses in the past, we've been able to refurbish Ethos and replace the gym equipment, as well as improve ventilation and aid cooling during the hot summer months in the library.

Whether you are a non-final year Undergraduate or a first year taught Postgraduate student, we want to hear from you. Complete the survey now and enter a prize draw to win one of the 22 vouchers up for grabs at [imperialcollegeunion.org/student-experience-survey](http://imperialcollegeunion.org/student-experience-survey).

# Your Union Events

Friday 31 January



**Sunday 2 February | 21:00-04:00**  
Live in Metric

**31** January, Friday

**Thank Goodness It's Friday**  
Metric | 21:00 - 02:00

**3** February, Monday

**Wine Tasting**  
The Union Bar | 17:30 - 19:00

**4** February, Tuesday

**Super Quiz**  
FiveSixEight | 20:00-22:00

**Games Night**  
h-bar | 19:30-23:00

**5** February, Wednesday

**CSP Wednesday**  
Beit Bars | 19:00 - 02:00

**Club Reynolds**  
Reynolds | 20:00 - 02:00

**6** February, Thursday

**Pub Quiz**  
h-bar | 19:30 - 21:30

**Battle of the Bands (Heat 1)**  
Reynolds | 20:00 - 02:00

**7** February, Friday

**Thank Goodness It's Friday**  
Metric | 21:00 - 02:00

**Karaoke**  
h-bar | 19:30-23:00

**Battle of the Bands (Heat 2)**  
Reynolds | 20:00 - 02:00

[f](#) [beitbars](#) [f](#) [hbarpub](#) [f](#) [reynoldsbarcx](#)

## ARTS

arts.felix@imperial.ac.uk

## The Sunset Limited

## ARTS

**Where?** Boulevard Theatre**When?** Until 29th Feb**How Much?** Concession  
£21-£28**Tesni Haddon-  
McMillan***Arts Writer*

The *Sunset Limited* is confined to a small, sparse apartment and two characters, Black and White. This minimalistic setting could not be in greater contrast to the subject matter of this play for it addresses the fundamental question that has fascinated and frightened people throughout history: Is God real? Tackling such a heavy debate is more than daring and I

was astounded at how masterfully it was explored, although perhaps I should not be so quick to doubt one of my favourite authors, Cormack McCarthy. This play is the debut of his work to the London stage and it did not disappoint.

The performance begins mid-conversation and from the outset, the attitude is sombre and intimate. The audience discovers that the two men are nothing more than strangers, brought together by a chance encounter at the edge of a subway platform. White, played by Jasper Britton, is dubbed a 'terminal traveller', prevented from taking his final journey by Gary Beadle's Black. The two now sit in Black's apartment and ruminate on redemption and the very meaning of life,

which is non-existent for White.

The two men are extreme opposites. Britton's White exudes anxiety and defeat with every word and action. He nervously evades all of Black's questions and physically tries to leave the apartment countless times throughout the performance. However, he is persistently convinced to stay by Beadle's character, Black. Beadle is inviting to both the audience and, despite his defences, White. He is jovial, attentive, and kind, despite White's constant rebuffs. He is also a devout religious character, quite different to the firm atheist that White is revealed to be; one could even go as far to say White scorns religion and so the pair butt heads on this topic constantly.

Due to White's misery and dismissiveness, the audience does not warm to him so readily, but this is not to say that he is actively disliked; he is just adamant in his -albeit bleak- beliefs and willing to defend them. The same could be said for Black, but it manifests in a different way. He is more open and, in a bid to get White talking, we learn a lot about his conversion to Christianity and troubled past. White may refuse to reveal anything truly personal, but it is still evident that he has experienced a pain that changed him too. In this way, we are driven to pity White. His pain drove him not to religion but to the train and it beckons him; Just as the bible remains on the table between the two men throughout their conversation, the noises



Gary Beadle and Jasper Britton // Helen Murray

of the nearby subway are a constant and terrible presence.

The *Sunset Limited* takes a dark look at God through the eyes of depression. Black's humour and brotherly affection dull the blow, but it is

still a challenging watch. To say I enjoyed the play just doesn't seem right but that's what I would say of a good play; a great play such as this is one that gets you thinking during the tube journey home and in the days that follow.

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## ARTS

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## Disney and Dicks: The Fairytale

*Surprisingly earnest when it counts, this one-man musical comedy shows a new type of happy ending*

## ARTS

**Where?** King's Head Theatre**When?** 21st Jan – 8th Feb**How Much?** From £19.50**Syon Lee***Arts Editor*

“Like Disney? Like Cock? Then you’ll love Happily Ever Poofster, the smash hit Disney musical parody!” is the tagline the creators of the show decided to go with and as a frequent consumer of both, how could I not attend this show? I’m happy to report that not only did it deliver on its premise, it did so with

fabulous style, cutting wit, and a huge amount of heart.

Set predictably far, far away, the one-man show follows Prince Henry (Rich Watkins), self-professed “only gay in the kingdom”. In an effort to find his community, his fairy godmother wishes him away to a land much closer to our own - London’s gay scene. Plunging head (or arse) first into the realities of modern-day gay relationships, he must find his true love, expose his truth back at home, and gain acceptance from a deeply heterosexual world in order to have his own happily ever after.

With a production value probably amounting to little more than a night out

in London, the show could have suffered but the incredibly lo-fi set coupled with campy costume choices only focused audience attention on the star of the show. And what a star! Dancing, singing, and... puppeteering his way through the whole production, Watkins never let the energy in the room dip, forging through with sweat-fuelled vigour. Even the audience participation with its panto-esque feel was kept well-balanced and well-spaced throughout the show, preventing it from falling into pure farce. As a testament to his skill in handling the audience, one scene involving an unwilling (and tragically bland) audience member was kept lively and

humorous thanks to some quick thinking and plenty of sass.

The song covers, a selection of Disney’s greatest hits, were bawdy, innuendo-laden affairs. Some songs such as ‘I’ve Just Come Out to the King’ were a stroke of genius and in this particular case, sung far better than the child-Simba currently gracing the Lyceum stage in West End’s own *Lion King*. Other songs such as ‘Part of that Scene’, while funny, may lack some context into the original work. Howard Ashman, the original lyricist, was a gay man living in the height of the AIDS epidemic in the US and finally succumbed to the disease merely two years after *The Little*

**Be prepared for a good time** // Rah Petherbridge Photography

*Mermaid’s* release. There is no doubt in my mind that when Ariel sings of her desire to belong in the human world, it echoed Ashman’s own feelings of alienation in our real world. To parody the song in this particular way was either a tremendous act of subversion or a slight misstep for the show. Similarly, I didn’t feel that ‘Let It Go’, a song already championed as a gay anthem, needed to

be parodied to make the same point as the original song.

One could argue over the finer points of the show such as its focus on the gay sex scene as a representation of a whole LGBTQ+ community, but as a piece of fun, family-friendly entertainment, it hit all the right notes in expressing the importance of explicit representation and acceptance.

## What Will it Take to Break You Out of Racial Ignorance?

## ARTS

**Where?** Omnibus Theatre**When?** 21st Jan – 8th Feb**How Much?** Students £13**Gurdip Uppal***Arts Writer*

The Glass Will Shatter. There is no choice, but it simply will. Eventually. This thought-provoking play forces you to confront and acknowledge the different narratives which surround everyday racism, and no longer view the issue from a distance, protected by a pane of glass. This small, 3-woman cast combined with well-timed and

impressive light work, kept the audience steadily engaged throughout, and never gave you a chance to get too comfortable before suddenly changing the tone of the scene.

The opening scene sets the mood for the rest of the play with its use of symbolism to depict the traumatic dreams which the main character, Rebecca (Josephine Arden), is still experiencing. She dreams vividly about what happened in her classroom almost 10 years ago with a troublesome student, Amina (Naima Swaleh). We engage with Rebecca’s character and sympathise with the kind of struggles which she must have been through after the event, but soon

we step past the glass and watch the scenario objectively. We retrospectively see how Rebecca struggles as a white teacher to relate to and understand issues of faith and culture between her, Amina, and her fellow teaching colleague, the latter two of which are Somali.

The characters swiftly move the set around to switch us from scene to scene, and as the pace of the play speeds up, the audience’s attention is in the palm of the actors. We slowly understand how the racial microaggressions and ignorance displayed by Rebecca escalated the issue at hand and led to her causing more harm than good. The play tastefully edu-

cates us about how the Prevent Policy affects the dynamic between teacher and student, and how it can further exacerbate issues to do with race. After a very tense build up to what really happened in the classroom 8 years ago, we’re snapped back to present day to view Rebecca’s narrative in a different light and see her false sense of victimhood being used as a defense mechanism to avoid confronting the consequences of her actions.

The tone, pace, and style of the play were brilliantly designed and pieced together to help us question ourselves and view social issues in a different light, without being patronising or preachy.

**There is palpable tension when all three women are onstage** // Sam Elwin

The show was fully captioned, which was stylistically thought-out with the fonts for each character symbolising their personality, rather than just a shabby attempt at making the show more accessible and not actually integrating the captions

into the storyline. Overall, this was an amazing piece which will urge you to rethink social constructs and facades, as it is inevitable that the glass will shatter.

# FASHION

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## René Lalique, the “Jeweller of Art Nouveau”

*Inspired by nature inspiring the future*

### FASHION

**Pauline Ronnet**

*Fashion Writer*

The Art Nouveau movement which emerged in France during the Belle Epoque of the 1890s was born out of the Arts and Crafts movement which began in England in the 1860s. Promoted by artists such as William Morris and the writer Walter Crane, it came as a reaction against the mass production of luxury items such as jewellery, and from a desire to return to the artisanal craft of beautiful objects. The Arts and Crafts movement would influence the young René Lalique (1860-1945) during the two years he spent in London at the Sydenham School of Art in 1878.

The lazy routine of manufacturers who did not renew their models and put their firms into the hands of their workers had turned them into nothing more than honest traders and prudent suppliers, and threatened to compromise the future of an art form whose reason to be seemed only to satisfy public demand.

Lalique initiated the radical transformation which profoundly altered modern jewellery in its essential condition and in its aspect, by tearing down servile practices of imitating ancient styles and breaking the established hierarchies which despotically graduated materials into their proper uses. He used semi-precious stones held in disdain by his contemporaries, who remained prejudiced by the value of their materials. Opal, ivory, jade, malachite, as well

as materials such as glass, leather, enamel, nacre and horn were raised to the rank of precious rubies, emeralds or diamonds.

The spontaneous manifestation of his personal style and its quiet contempt of dogma incited astonishment, defiance and hostility when it was exhibited at the Paris World Fair of 1895. However, by the Paris World Fair of 1900, his principles had been adopted and imitated by many others, cementing them into a new definite style, the Art Nouveau.

Moving in the artistic and intellectual circles of Paris society life, he surrounded himself with high society ladies who demanded ever-more extraordinary designs, and became involved in their sentimental lives. They included the soprano Emma Calvé, poet Renée Vivien, courtesan Liane de Pougy, and American playwright, poet and novelist Natalie Clifford Barney. Above all, it was his association with the great Sarah Bernhardt, who wore his designs both in the street and on stage, which helped to establish his reputation.

**“Lalique’s creations conquered a place in jewellery-making equal to that of an artist or a poet”**

Natalie Clifford Barney discovered the jewellery of René Lalique during



Lalique had a gift for combining the natural and the fantastical // Wikimedia

her affair with Liane de Pougy. In 1899, Liane gifted her a ring made from silver, blue enamel and opals, ornamented with a bat, a symbol of homosexual love at the time (bat sexuality was first studied in 1895 by Raymond Rollinat and Édouard Louis Trouesart). Later on, it would be Renée Vivien’s turn to cover Natalie with Lalique crystal, ivory and enamel ornaments and flowers (“She would make me wear them on my neck, arms, fingers and on my ankles” Natalie would later write).

Jewellery could no longer be merely a respectable trade of skillfully mounted gems – the skill of the stone cutter, setter and engraver no longer sufficed. Lalique’s creations, full of audacity and charm, conquered a place in jewellery-making equal to that of an artist or a poet; his works incited as much passion and controversy as a painting or a sculpture.

Lalique was one of the

first jewellers to revive the use of the female nude during the 19th century – he introduced new aspects of femininity, of sinuous form, expressive character and tragic accents, in composite forms as sphinxes or mermaids, or with ardent and passionate profiles underneath their flowing hair.

His jewellery exalts

**“The humble violet, cowslip, nasturtium and dandelion became classic leitmotifs”**

nature in its infinite variety. He created rare and expressive harmonies through careful studies of the animal and plant kingdoms, composing materials together like a painter with a colour palette. Lalique spent long moments observing and photographing the flora

and fauna of his garden in his Rambouillet property which he acquired in 1898 and which provided inexhaustible inspiration.

As a child growing up in the countryside town of Ay in the Champagne region of France, his natural talent for observation and drawing was stimulated during Sunday forest walks with his grandfather. He would make sketches from of flowers and insects and embellish them back at home. As a jeweller he would look back towards the fantastic bestiary of his childhood and be inspired, borrowing the elegant, undulating lines from the curves of bending flower stems, stamens and pistils in his work. Dragonflies became pendants, women with butterfly wings figured on brooches, brambles and thistles became hair and corsage ornaments. The humble violet, cowslip, nasturtium and dandelion became classic leitmotifs in women’s jewellery in an age of growing indus-

trialisation.

A sublime example of a thistle corsage ornament is found in the Judith and Bollinger Gallery at the V&A. An aquamarine stone at the centre draws the eye into its transparent depths, bordered by two round glass thistle stems with finely detailed prickles and bristles which are framed by sharp diamond spines.

Lalique excelled at an interpretation of fauna and flora proper to ornamental art, which was neither a copy of a page from a botanical album or entomological atlas, nor riddled with pretensions to symbolism – he remained faithful to nature whilst the thought which he expressed remained simple to grasp. It is this interpretation which, to this day, retains the power to captivate the imagination when peered through a glass case and enables his jewellery to exist as an independent work of art, long after the wearer whose beauty it was designed to embellish.



# FASHION

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## IC F&D Soc Welcomes You to The Past

### FASHION

**Olivia Zhang**  
IC Fashion & Design Soc  
Chair

As we step into the new decade, what would be a better time to reminisce and celebrate to the tunes of some of the best music ever made? How about a musical bonanza contrasting what's trending now to the music of another time? Come and jam with us as we travel to the 80s and 00s in our nostalgic 80s vs 00s fashion show!!

This year, IC Fashion & Design returns with our flagship fashion show - 'Billie Jean... is crazy in love' - a creative tribute to two of the greatest music decades. Directed by Malinda Davies, the show will feature iconic artists



Feeling Old Yet?// IC Fashion & Design Soc

such as Madonna, Michael Jackson, Beyoncé and Britney, the catwalk will be half-performance, half-party! We have talented guest performers, Imperielles and Funkology, performing between catwalks with guests en-

couraged to dance along during the show. The fun doesn't just end after the show though, we plan to continue well into the night at the afterparty at Sway Bar.

The show will support ClientEarth, a charity pas-

sionate about the using the legal power to fight for our environment and protect our planet. Much like how this show combines the skills and talents from a multitude of areas – not only in modelling, but also in dance, music, pho-

tography, art and graphic design – we believe that in order to curb climate change and make change for the better, we need to involve a wide range of talents and solutions from individual efforts to government lobbying.

So please come and support IC FAD's flagship Charity Fashion Show in the Union Concert Hall on the 7th February. Tickets can be found and purchased on the Union Website with or without afterparty.

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# FASHION

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## Interview with Julianna Russell, Designer

To get an understanding of the people behind the fashion at this year's Charity Fashion Show, we spoke with the designers, models, and organisers...

### FASHION

**John James Humm**  
Fashion Writer

#### Can you briefly introduce yourself and your brand?

Hello! I'm Juliana, owner and creator of Juliana Russell Designs. Originally from Boston, I studied abroad here at the London College of Fashion in 2018, which made me absolutely fall in love with the city of London and all of the people, fashion, culture and art that comes with it. I loved it so much I made it my mission to work here after graduating – and I couldn't be happier with that decision (hello five year visa!). My designs are one of a kind, made to stand out in whatever crowd you're in.

#### Where does your inspiration come from and what is your brands ethos?

For my collection Sensory Stimulation, my inspirations come from a number of things, one being expressing texture through different fabrics and techniques, and how these factors can affect the way you look, feel and think about clothes. My obsession for unicorns and their magical presence has also definitely inspired many aspects for this collection, as you will soon see, this collection is like entering a dreamy, magical world filled with bright colours and sparkles.

#### How does London and its culture influence you?

London's crazy fashion and quirky art had a huge

impact on my designs. Nobody is afraid to stand out here, everyone likes expressing themselves in unique and fun ways. This city truly pushes my creative boundaries and I'm not afraid to branch out from the norm when it comes to my designs.

#### How do you feel your designs connect to a student population?

As I finished my degree in Boston only a few years ago, I completely understand the grind that we as designers, especially student designers, go through. The sleepless nights of sewing and seam ripping, and the criticism of others who just don't understand how much time and hard work goes into creating something that truly makes you happy. What I can tell you is that the countless hours in the studio are completely worth it, so don't give up, you'll be outshining the haters soon enough.

#### Why did you decide to participate in the Imperial College 2020 Fashion Show?

The fact that the show is a charity event for ClientEarth was an automatic yes for me. As I have an upcoming collection for 2021 in the making, I wanted to present Sensory Stimulation one final time, and why not end it with a on a high note?

#### The fashion show's theme and format this year takes the form of "1980s Vs. 2000s". How do you feel about the styles and fashion in these decades and is it reflected in your designs?

Glitter, glitz, glam.



Showcasing sensory stimulation in her newest collection// @julianarusselldesigns

These decades shaped the way for a new era of fashion, and we're 100% still seeing these trends return on today's runways. Besides being extra and sparkly, I also brought the bell-bottomed trousers back with a special twist.

#### Which 'fashion icons' from the 1980s or the 2000s do you wish you could see in your garments?

Whitney Houston, Leigh Bowery, Madonna, Michael Jackson, Abba, and Christina Aguilera to name some. I could definitely see them performing in my stuff.

#### Looking forward to the 2020s, where do you see your career going?

With my new collection in the pre-development stages, I'm excited to launch it by 2021, following with runway shows and editorial photoshoots. However, this collection will be with a different twist from what you're seeing at this year's show.

Don't worry, they'll still be a lot of glitz and glam, just in a more sophisticated way with a different colour scheme. I hope to join a brand in the near future with like-minded style and ethos so I can contribute to their team's designs and create some really innovative content.

#### Our charity this year is ClientEarth, Europe's pioneering environmental law charity which helps to minimise the impacts of climate change. Is this an issue that you've been mindful of in your work?

There are a few techniques and fabrics in my collection Sensory Stimulation that are reused from my previous fabric stock that I've collected over the years. However, my upcoming collection for 2021 will be much more sustainable with minimal fabric waste in mind, as I have grown over the past few years and I want to become better and design

smarter when it comes to reusing textiles and giving them a new life. Work with what you have! In fact, my finale piece this show was created entirely out of fabric swatches from my office's fabric library that we were getting rid of.

#### What are your thoughts and feelings on the current relationship between the fashion industry and the environment?

I'm so glad that over the past few years the fashion industry has really accepted the damage we've done to the Earth. We've addressed that we are one of the most polluting industries, but thankfully SO many brands are now on board with ethical sourcing, sustainable production, and the circular economy of a garment. We are aware of the issues, and we are trying to become better, which is a start. Some people see sustainability as a "trend", but it's not, it's a new way of living. I believe it will

continue to grow even larger over time, expanding to all industries over the world, becoming an absolute standard for all businesses.

#### Where can our readers find you on social media and buy your garments from? If you are sold in any physical retail locations in London, tell us where!

I'm on all social media platforms as @julianarusselldesigns, so please feel free to contact me if you're interested in purchasing any of my one of a kind pieces or want to collab. You can check out my website with all of my previous work and runway shows too!

# FASHION

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## Interview with Simran Gill, IC F&D Soc Member and Model for this Year's Show

To get an understanding of the people behind the fashion at this year's Charity Fashion Show, we spoke with the designers, models, and organisers...

### FASHION

**Vaidhiswaran Ramesh**

*Fashion Writer*

The Imperial College Fashion and Design society is here to kickstart 2020 with their annual charity fashion show next Friday. We sit down with Simran Gill, chemist by day and a model next Friday night, to learn more about the show, titled "Billie Jean is... Crazy in love".

**Hi Simran. Thanks for speaking with us today. So, let's start with the basics - can you run us through the society's functioning?**

The Imperial College Fashion and Design society is fairly small, but at the same time we are quite vibrant and active throughout the year. We run a number of socials each term, including Q&As to regularly engage with non-club members, and we also organise visits to various fashion exhibitions around the country. The main focus, particularly around this time of the year, is in organising the annual fashion show.

**That sounds really interesting and fun. Some argue that fashion and arts are often overlooked at Imperial. Can you talk about some of the challenges the society has faced in making fashion part of the discussion?**

Being a university that focuses primarily on

STEM subjects, there isn't a strong focus on, say, arts and fashion. That said, I do believe that there is significant interest in the student population, and their diverse backgrounds and unique perspective certainly expands the fashion and arts conversation than narrowing it. We have strong support and turnout for our events, and engagement outside it.

**And events like this help the wider student population to engage in that conversation.**

Yes, certainly. Plus, it's always fun revisiting vogues and celebrating them with today's perspective. Like, these events can be an amazing opportunity to bring back yesteryear trends and incorporate them in today's style.

**Speaking of the event. The show is titled 'Billie Jean is... Crazy in love' and is pegged as a sort of a contrast between fashion trends of the 80s and the 00s. Can you expand on the theme and how it came to be?**

Yeah — it is envisaged as a battle between the decades 80s and the 00s and their different fashion styles. We contrast the trends in different categories of clothing in these two decades, like for example swimwear. It is a fashion show but more so an entertainment show... so the walks are designed in a fun way and so we have songs reflecting the highlights from leading artists of the decade,



Model of many talents//@simran\_gill24

Michael Jackson and Beyoncé... that tie in well with our primary purpose of looking at the trends in these two decades.

**And what do you see as the pivotal shifts between these two decades in terms of fashion?**

80s was hugely influenced by neon colours, leg warmers and slap bracelets. Whereas 00s had track suits, colourful braids, low rise jeans and crop tops. And we believe there are a lot of elements that are seeing a comeback and we want the event to highlight and celebrate these... like neon colours for example. You can expect to see a lot of this in the event.

**I hear that we have some dresses from international labels for the show?**

Yes. We have dresses from top designer houses, who have donated clothes to us as student models to present them in the fashion show.

**We also hear that there are also collaborative acts with the a cappella group 'The Imperielles' and the dance society 'Funkology' in store at the event?**

This is not a conventional fashion show. Although it is to show the dresses and the designers work, it is an entertainment piece as well. So, we have amazing performances in store, The Imperielles

are going to give a wonderful performance and Funkology have a highly energetic dance designed to keep the audience on the edge of their seats.

**Wrapping up... as a charity show, this year the proceedings are to be donated to the charity organization ClientEarth? Can you talk a bit about their work and why you chose this organization?**

All the profits from the show are going to ClientEarth, an environmental law firm. Their work is really inspiring and highly relevant in today's climate. Like in 2016, they were instrumental in blocking the Polnoc plant, the new largest coal power

plant in Europe. And now they are currently working along indigenous people of Australia to challenge their governments' climate failings at the UN. Their work is really important and as a club that strongly believes in sustainable fashion, we felt the match was perfect and we really hope the event is a success.

*You can see Simran Gill walk the runway for IC Fashion and Design Society's Charity Fashion Show: Billie Jean is... Crazy In Love on the 7th February in the Union Concert Hall. Tickets can be purchased on the union website.*

## MUSIC

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## Marshall Mathers' Murder Music Makes A Mark

*Despite his legacy as one of hip hop's greats, Eminem has had a turbulent few years attempting to find his place in the culture's modern day. A somewhat reimagined Slim Shady on this new effort sounds like a step in the right direction*

## MUSIC

## MUSIC TO BE MURDERED BY



**Artist:** Eminem. **Label:** Aftermath. **Top Tracks:** Marsh; Darkness; Godzilla. **For Fans Of:** Tech N9ne; Joyner Lucas. *64 minutes*

**Panayiotis Salatas**  
Music Writer

“The giant’s woke, eyes open, undeniable” - and it seems that he is here to stay. This is the second time that Eminem has surprised us with an unannounced album in the past 2 years. *Music To Be Murdered By* is truly a unique addition in the Eminem discography, inspired by and featuring cuts from Alfred Hitchcock’s homonymous album released in 1958. Evidently benefiting from Dr. Dre’s involvement, the album is musically superior to its predecessor *Kamikaze*, but it has also allowed time for the rapper to develop a return of his Slim Shady alter ego. Don’t get me wrong, this album is not on the same level as *The Marshall Mathers LP* - in fact nothing ever will be - but Slim is truly back, albeit in slightly more mature form.

Tracks ‘Premonition’ and ‘Unaccommodating’ at the beginning of the album seem to pick up from the aftermath of *Kamikaze*, referencing bad reviews from critics, his 2017 effort *Revival* and of course the most recent in his beef with Machine Gun Kelly.

However, this is a new, more self-aware Shady who realises that he might have misplaced his anger in his previous album. “I could keep beefin’, fuck is the point?”, Em points out on the track ‘Marsh’. Clearly, he is confused with his position in the current rap game, especially evident on ‘No Regrets’ where contrary to the title of the track, he admits that his Tyler, the Creator diss on his last album was indeed wrong.

Hate and anger have been the lifeblood of Eminem’s early career and some of his best work has indeed stemmed out

**“The album is musically superior to its predecessor *Kamikaze*, but it has also allowed time for the rapper to develop a return of his Slim Shady alter ego”**

of his childhood issues. Even at 47, Slim is clearly still angry (or rather has forgotten how not be). But tracks like ‘Stepdad’, ‘Yah Yah’, ‘Little Engine’ and ‘Those Kinda Nights’ benefit from this nihilistic rage and bring back the graphic, gruesome imagery of his early 2000’s style coupled with

old school beats and a drug-infused atmosphere reminiscent of *The Slim Shady LP*. In the latter, Em admits being taken back to his D12 days by the beat, which would have been entirely true for me as a listener had it not been for Ed Sheeran’s feature on the chorus, which comes across as out of place against the reckless, drugged-out party action backdrop. In fact, a few of the choruses on this project sound like rushed, overboard attempts at catchiness with rock and acoustic touches.

Nevertheless, Em’s voice, lyrical skill and rawness in combination with very fitting features including the late Juice WRLD on ‘Godzilla’ and Em’s long-time friend Royce da 5’9” on ‘Yah Yah’, ‘I Will’ and of course the stand out ‘You Gon’ Learn’ make up for these flaws. To me, ‘Godzilla’ is a statement or rather a reminder that Eminem is one of the best to ever do it, with the rapper breaking his own record (see ‘Rap God’) of the fastest rap verse, spitting a staggering 10.65 syllables per second on the track’s third verse.

On ‘In Too Deep’, ‘Never Love Again’ and ‘Farewell’, Eminem seems to dwell once more on the multitude of failed romantic relationships that he’s had in the past, the prime example being his dysfunctional, co-dependant marriage with ex-wife Kim Scott. Eminem also addresses the loss of his father - who died recently at the age of 67 - for the first time on the track ‘Leaving Heaven’. Just like on ‘Cleanin’ Out



Halloween in January - why not // Shady Records

My Closet’ 17 years ago, Em’s resentment towards him is made entirely clear. On the track, he holds his father responsible for his problematic childhood but also thanks him for not being there for him because it led to his industry success. Despite lines like “I hate that I’ll never get to say “I hate you” to your face”, the track feels like Eminem’s own twisted way of saying goodbye to his father and perhaps letting go of some of that anger.

‘Darkness’ is truly where the album shines - chilling, alarming and goose-bump inducing. In this track, Em describes the last moments before the 2017 mass shooting at the Las Vegas Route 91 Harvest music festival from the eyes of the shooter, attempting to unravel the thoughts of the shooter. He includes details such as concern

that the festival will be underattended and that mass shootings are such a common occurrence now that the massacre might not attract as much

**“Darkness’ is truly where the album shines - chilling, alarming and goose-bump inducing”**

attention as he’d like. I’m not sure of Eminem’s exact intention with this track, but for me it is a reminder that amongst the controversy that has always shrouded his name, the rapper can be a potent force to address and raise awareness about

such sensitive subjects in a unique and compelling way.

Overall, this album is something special - hearing Slim Shady trying to re-establish himself in the current era is intriguing to say the least. Although it cannot be compared to Em’s first couple of LPs, the project is far from a failed attempt at bringing back his hedonistic, horrorcore persona, rather a rebirth and maturing of it. If you have listened to the album and felt disappointed, I hope that this review will make you at least give it a second chance. To quote Hitchcock’s outro to the album, “If you haven’t been murdered, I can only say. Better luck next time. If you have been, good-night wherever you are.”

# MUSIC

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## Cruel Culture

*In anticipation of his upcoming album, Jed Shrewsbury takes a look at the legacy (so far) of one of the 2010s most illustrious yet mysterious figures - King Krule*

### MUSIC

#### Jed Shrewsbury

Music Writer

Whether you've heard of him or not, he is undoubtedly a cult figurehead personifying our generation's anxiety and depression. Going by several monikers and aliases, by far his most influential and prolific personality is that of King Krule.

Archy Ivan Marshall. He grew up in Southwark, moving between Peckham and East Dulwich, and despite struggles with mental health during his childhood he has been moulded into a young man with seemingly endless creativity and potential.

When digging into this illusive figure's history you could be forgiven in thinking all the different names where those of

individual musicians – but mistaken. Albeit slightly unorthodox names – examples include The Return of the Pimp Shrimp, Zoo Kid, DJ JD Sports, and variations of Edgar the Beatmaker – each one has its own unique sound with uncompromising depth. These monikers have their own fascinating origins and give you a brief glimpse into the mind of a prodigy. For example, King Krule was formulated on Elvis Presley's film 'King Creole'. Notable similarities between the two is that both Danny Fisher (Elvis) and Archy dropped out of school and possess musical talent. The story of 'King Creole' is also intertwined with the immature romance between Danny and Nellie which eventually blossoms at the end of the film; the same theme is littered throughout Archy's music, that of disappointment and regret.

Around 2010, Archy started producing music as Zoo Kid with his long-time friend and fellow Brit School student Jamie Isaac. But in 2013, King Krule reared his head with *6 Feet Beneath the Moon* – a critically acclaimed debut album which turned heads and drew ears. This was and still is my older brother's favourite album of all time.

Depression is a topic that Archy covers often, perhaps related to his childhood mental health problems, discussed in an interview with The Guardian in 2013. For those who similarly struggled with anxiety, their emotions, and identity the music of King Krule provided a sympathetic touch.

Marshall has a knack for plucking heart strings, drenching his works with emotion such that it seeps from the edges. His music is not bound by genre instead drawing on the best aspects of each, however rock ("Alternative" as stated by iTunes) would always be his most intimate stage. This originality is exemplified in Archy's 2015 *A New Place 2 Drown* which was part of a larger project with his brother, Jack. The project included a vivid and touching mini documentary of their lives, friends, and mother. It gave his audience a chance to see the real King Krule. Going back to the music, this album was much darker and more sinister than previous works possibly mirroring how Archy felt during the time. Chasing a slightly digital feel, he made most of the album using a simple beat looper and a laptop. Not to detract from the music, it was unique, one of a kind,



Man Alive! artwork // kingkrule.net

veering from the trodden path and venturing into an unknown which he pulled off perfectly. This was and still is my favourite album of all time although this podium has been perilously close to changing hands; I still listen to the entire album from start to

**“Marshall has a knack for plucking heart strings, drenching his works with emotion such that it seeps from the edges”**

finish with the same love now as I did in December 2015.

Moving more recently, King Krule finally remerged in 2017 with his

one of his most polished and deeply moving LPs to date. Pitchfork named it the best rock album of 2017. If you don't know what album I'm talking about then you've been living under a rock. *The Ooz* is in my top 5 albums of all time and rightly so. 17 tracks, each crafted with meticulous care, with a different narrative, with the same message: vexed. In an interview shortly before releasing his second album under King Krule, he talked about "... the gunk" and how it was invading his subconscious, leeching his creativity, but ended up giving him the inspiration for the album.

A short biography of this remarkable ginger-haired man would not be complete without mentioning his relationship with Charlotte Patmore – photographer, famous in her own right. They welcomed their first baby, Marina, on the 14th March 2019. Since then, this power couple have been busy; raising a child

and directing/filming would not have been easy yet they made it happen. I can't wait to see what they do next.

*Man Alive!* This is my official endorsement of an album that only has one song released so far. 2020 is going to be a big year for Archy with his third full-length studio album set to release on the 21st February. If I'm being honest with myself, I expected an album after he released the not-so cryptic 'Hey World!' video (directed by Charlotte Patmore), containing 4 new songs and 2020 tour dates. This monologuing video premiered the song "(Don't Let the Dragon) Draag On" which is available at the time of writing by pre-ordering the album. Self-directed music video accompanied, this new track is twisted in visuals and lyrics, showing Archy being burnt alive in the closing seconds. *Man Alive!* is set to be an ode to melancholy.



Archy Marshall // Wikimedia

## MUSIC

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## Lo-Fi Beats Are Trash, You Deserve Better

Music Editor Guthrie Ruby tells you why your taste is bad and you should feel bad. Also, how to study to music

## MUSIC

## Guthrie Ruby

Music Editor

I like to think I'm quite optimistic about music. It is a very subjective medium and almost any piece of music can have value to anyone. But I draw the line at lo-fi beat compilations. Using lo-fi beats as study music should be considered a cardinal sin. Walking through any library, you see the vast

majority of people with their headphones on. The idea that a single person is plugged into "Lo-Fi beats to relax/study to" sends a shiver down my spine.

Recently, someone recommended a lo-fi study compilation to me that I hated so intensely it inspired me to write this. Though before I sat down to rant and rave about "Lo-Fi beats to relax/study to" I thought it'd be good to know if studying and listening to music should even happen simultaneously. So, I did

some research (aka procrastination).

The most commonly known music induced intelligence phenomenon is the "Mozart Effect", but it's often misunderstood. Listening to Mozart does not inherently make you smarter. Listening to music that puts you in a good mood before a study sesh improves memory and mental functioning for a short period of time. This can be any kind of music. All those people that 'oNly LisTN to cLAsSicAL mUsIc wHILE

sTUDyInG' can get off their high horse.

So, before you sit down in front of your screen be sure to bust out the bangers that boost your mood.

When it comes to music while studying there are just a few simple dos and don'ts to prevent it becoming detrimental:

- Avoid music with lyrics. If you're working with numbers this is less of a problem, but if you're reading or writing this is a big

no no.

- Aggressive/chaotic music is generally going to distract you and has been shown to greatly reduce focus.
- Moderate/steady music is the best *v i b e* to go for (which might make you think that lo-fi beats are good but don't worry I'll get to that later).
- Monotonous/repetitive music should be avoided, it'll end up putting you to sleep.
- Keep the volume to a minimum. You're probably already in a library so you don't need it loud.
- If you're doing memorisation work, it's generally best to not be listening to music at all. Got a stack of flashcards to run through? Cut the music and make it a treat in between decks.

Despite having just laid out rules to follow, the advice of the experts is that "it depends". Music that improves your mood also improves your mental functioning and endurance. So, taking 20 minutes to listen to some Kendrick or Bowie might help you stick around in the library for an extra hour. Maybe adding a few KAYTRANADA bops to your queue is going to make that lecture you've been putting off a little less miserable. Only you can say what's best for you.

Okay, so if listening to music while studying is not a bad thing, then why is listening to lo-fi beats the worst?

I don't want to come across too harsh. As stated

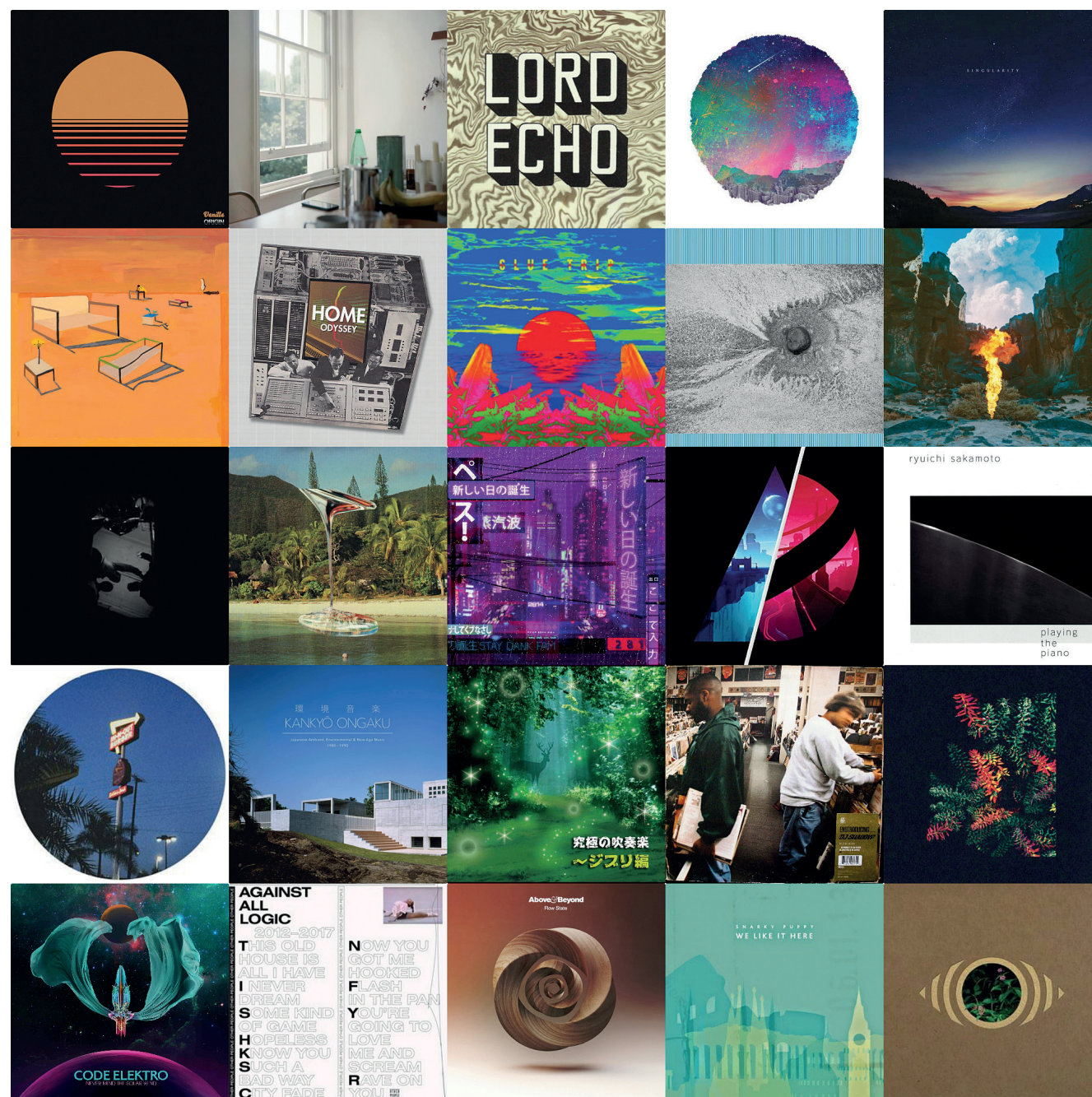
before, music is subjective. If you love "Lo-Fi beats to relax/study to", then by all means don't let my hatred of it get in your way. Objectively though it's bad and you should stop.

If you're going to lifelessly spend endless hours of your youth in front of a computer screen indoors, you might as well give that a decent soundtrack. Don't listen to shitty music designed to lack originality, be for-

**"If you're going to lifelessly spend endless hours of your youth in front of a computer screen indoors, you might as well give that a decent soundtrack."**

gettable and not engage. You wouldn't do this to any of your other senses. Imagine how much of a lunatic you would be if you ate plain pasta while studying so that you wouldn't get distracted. Is that the kind of world you want to live in? Next time I walk into Tesco I expect to see a "white bread and cucumber sandwich to study/relax to" on the shelves. Please don't rot your brain with flavourless sound. Turn the music off if you think you're getting distracted.

To be fair, sometimes certain situations call for bland music. Lo-fi



Look at all the amazing things you could be listening to instead // Respective Record Labels

# MUSIC

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beat compilations are so uniform in texture and style that it essentially boils down to being elevator music; its sole purpose is to fill a void and not be noticed. At least in context elevator music makes sense: you only listen to it for a brief period of time and it makes what can be an uncomfortable space a little more calming. Repetitive and predictable are not qualities you should look for in study music. Breaking concentration from your work only to be greeted by the drowsy, sedated sounds of lo-fi beats just leaves you tired and apathetic. White noise - literally defined as lacking pattern or rhythm

- is more engaging, and as an added bonus it has anti-anxiety effects. I'd much rather listen to Sounds of Nature Relaxation for hours on end (real artist on Spotify, highly recommend).

There are so many new and genuinely interesting things to listen to out there, but with lo-fi beats it's the same goddamn thing every time. When was the last time you heard someone raving about a Lo-Fi artist? 99.9% of you just answered "never" because nobody can even name more than one. When I sit down to study there are a myriad of different worlds I can end up inhabiting. From the desert landscapes painted

by psychedelic funk to the neon-lit utopias of synth wave, my childhood dreamworlds of studio Ghibli soundtracks to the infectious beats of alternative electronic. Yes, I'm aware I sound like a pretentious dick describing the music I study to like this, but I only do it because I have genuine affection for it.

I suppose the crux of my hatred for lo-fi beats is that every piece of recorded music in all of history only a click away, so then why would I choose to listen to the most tedious, banal, and uninspired music of our generation?

Most people I know thankfully choose not to



If lo-fi beats are so good then why does she always look bored? //jpmachado.art

poison their brains with lo-fi beats. Hopefully neither do you. If you do, and anything that I've said has inspired you to try something different, then

let me throw a few recommendations your way to get you started: Bonobo - *Migration*, Krhuangbin - *The Universe Smiles Upon You*, and Ross From

Friends - *You'll Understand*.

Who knows, this might even make you smarter.

## There is a Certain *Je ne sais Quoi* about Uncle Monty...

### MUSIC

#### Uncle Monty



**Venue:** The Bread and Roses pub, Clapham **Date:** 23rd January 2020. **Ticket Price:** Free entry

#### Emily Freeman

Music Editor

Clapham, Thursday night. A cool breeze sweeps me along as Battersea Power Station glitters in the distance. From outside The Bread and Roses pub sticks out like a sore thumb in its location set back from a lonely residential street. I step inside quickly. I'm instantly blasted back by soaring sounds emerging from the stage to my right and as I scuttle away, I realise it's them. It's Uncle Monty.

As the noise dies down, I crave for more and with my second realisation since stepping inside, I

notice they are still sound checking. Thankfully, I haven't missed a thing. A few technical hiccups later and this time the band are on for good. Singer/guitarist Harvey Montague launches into 'I Fucking H8 U (But I Need Your Love)', somehow crooning and spitting out the lyrics to convey a love-filled rage with a twinge of hurt. It's straight-up indie, with subtle folk and jazz undertones and maybe even a hint of The Beatles in guitarist Yanis Mzari's solo towards

**"Montague somehow croons and spits out the lyrics to convey a love-filled rage with a twinge of hurt"**

the end. This oozes into the next song, 'Stan the Man', where Felix's own Miles Gulliford mimics the rhythm in the title with his infectious bass line which creeps its way into this dreamy indie-pop song. Drummer Amber Dylan is the star of this song though, providing a great beat even as Uncle Monty slip into their next song 'Off with Their Heads'. Montague guides us through his climactic chorus with an acoustic riff Johnny Cash would be jealous of, whilst the rest of the band groove along in sync.

Up next is the bluesy 'King of Everything' followed by 'Poplar Tree', a melancholic indie-pop hit which showcases Montague's lyrical abilities: "If it were up to me/I'd suffocate and masturbate". 'Poplar Tree' also hinted at a slinky, bluesy pop noise while incorporating a singer-songwriter element, with this all eventually reaching a crescendo complete with swooning guitar from

Mzari, crashing drums and a bassline that held it all together, with the result taking your breath away. Uncle Monty followed this up with 'I Took a Pill', where Montague, sounding like Dan Auerbach of The Black Keys, softly lulled us in before Dylan crashed us

back down to the ground with a hard-hitting chorus not unlike the in-your-face style of The Smashing Pumpkins. Rounding the set off came 'Bulldog Puppy Love', reminiscent of Pete and the Pirates and accompanied by a catchy chorus that stayed with me long after I left

Clapham behind. My final thoughts, as the bus whisked me away, were those of advice: if you're anywhere near South London, you should definitely keep an eye out for Uncle Monty.



Uncle Monty looking dapper in their suited-and-booted attire // Emily Freeman

# FILM

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## The Lighthouse (2019)

*With a UK release on 31st January, Film has its take on the Academy Award nominated film that's had all the critics talking.*

### FILM

#### THE LIGHTHOUSE



**Dir:** Robert Eggers. **Script:** Robert Eggers, Max Eggers. **Starring:** Robert Pattinson, Willem Dafoe. *108 minutes*

#### Sung Soo Moon

Film Writer

After the critical and commercial success of *The Witch*, writer/director Robert Eggers presents his second film *The Lighthouse*, an intimate psychological horror. On an isolated island off the coast of New England in the late 19th century, Ephraim Winslow (Robert Pattinson) arrives on a four-week contract to work for the old lighthouse keeper Thomas Wake (Willem Dafoe). In such a desolate and harsh environment, paranoia can get the better of men.

Immediately, I appreciated the craftsmanship that has intricately welded the film together. This film looks incredible. Opting to shoot in black and white 35mm with a boxy aspect ratio, the cinematography and the arresting visuals reminisces the period setting. Versatile shifts from claustrophobic indoor scenes and expansive seascapes are effective despite the squarish frame. The handling of light is important in a film titled *The Lighthouse*—especially the murky night scenes where characters' faces are perfectly captured beautifully. Eggers im-

pressively directs each shot for maximum impact on the viewer.

Based loosely on an unfinished Edgar Allan Poe short story, *The Lighthouse* emulates the feeling of reading poetry—a haunting meditation on guilt dressed up as a horror film. In essence, the film is a descent into madness, but disappointingly doesn't seem to do much more than that. After sanity is given the discharge notice, it enters the bizarre; unlike the high contrast monochromatic look, the absurdist development of the plot are many shades of grey and it's up to us how we interpret it. This can feel frustrating and unsatisfying at times, but is never

**“The Lighthouse emulates the feeling of reading poetry—a haunting meditation on guilt dressed up as a horror film”**

boring to watch; moments of intermittent humour are well balanced and provide humanity to the characters. The film has a beautiful fairy-tale lilt; superstitions about seagulls being the souls of sailors, traumatic dreams steeped in shame and foreshadowing curses. This tone is complemented by the



Pattinson and Dafoe as Ephraim Winslow and Thomas Wake respectively // A24

abstract mystical visuals, that is best left to wash over you.

The brooding score is nuanced, often blending into the omnipresent foghorn in the background. It creeps along with the story, providing an ambient backdrop but takes centre stage in climactic moments effectively. The sound design is particularly impressive too, with deafening and oppressive soundscapes that grab you by the throat, and strange chilling distortion effects that complement the grotesque visuals.

As for the performances, they are great and surprisingly understated. Both Dafoe and Pattinson exude confidence as performers working with such unconventional material, fully fleshing out the characters. Eggers gives them individual opportunities to shine; Dafoe and Pattinson are at

the top of their game, but they don't appear to be the pretentious Oscar-bait type of performances, which is why they didn't get the recognition they deserved. If there were a prize for eye-acting,

**“If there were a prize for eye-acting, Dafoe and Pattinson would be equally worthy of the award”**

Dafoe and Pattinson would be equally worthy of the award.

*The Lighthouse* is not the factory farmed awards season film at all. This film is easy to admire but difficult to enjoy. As a horror film, there are

chilling moments and visceral imagery but it didn't get under my skin. On a purely cinematic level, *The Lighthouse* absolutely satisfies—it is a film to be seen on the biggest screen with the loudest sound system because it encapsulates a retrospective artistic approach to filmmaking that is rare in modern cinema. The framing and cinematography also evoke old photography and silent films. There's a slight issue with the accents and dialogue of the actors that are supposedly authentic of the period. It is borderline incomprehensible in some parts and I found it hard work to decipher each sentence. Because of this I couldn't quite infuse into the movie as the filmmakers intended.

In its setting, dialogue and a plot steeped in mysticism and folklore, it garners the flavours of a

Shakespeare tragedy, but simultaneously is a cinematic experience. It is like seeing poetry onscreen but was slightly incomplete for me as a piece of narrative filmmaking.

**“This film is easy to admire but difficult to enjoy”**

That said, *The Lighthouse* is an impressive work by writer-director Robert Eggers, and credit must also be given to A24, the beating heart of modern American cinema.



# FILM

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## The Graduate (1967)

We're in the thick of award season, making it a good time to throwback to a film that caused a buzz this time of year in 1967.

### FILM

**Jasmin Daley**

Film Writer

What are you going to do with your future?

A seemingly harmless question often posed by those who mean well, reverberates in Ben's life since graduation. After leaving college with an enviable degree, having been captain of the cross-country team and editor of the college paper, Ben struggles with the idea of his life fading into nothing after such success. Despite being seemingly adored by his

family and their friends, Ben is aware that any interest is temporary until he makes the next step in his life. This step he decides, albeit reluctantly, is to have an affair with Mrs. Robinson, a family friend. The arrangement with Mrs. Robinson seems to work perfectly until Ben decides that he has fallen in love with, and wants to marry Mrs Robinson's daughter, Elaine.

Director Mike Nichols, recipient of the 1967 academy award for best director, could have his success with this film attributed to his decision to stray from conventions of the era and instead look to the French new wave for inspiration. What

makes this movie special is that scenes which could have been wearisome and dull are replaced with an entirely fascinating and unique vehicle for representing the passing of time, censoring is replaced with hilarious cuts and a selection of unconventional cinematography choices are sprinkled in unevenly throughout the first third. By unconventional choices think watching Ben from his point of view, being forced to plunge into his family pool while wearing his brand-new scuba suit, only to sink to the bottom to contemplate what he's doing with his life. If trying to place the Graduate in a category,

offbeat comedies of the likes of 'Punch Drunk Love' or 'Breakfast at Tiffany's' are comparable, where offbeat overshadows most of the comedy.

Looking past the director, it is also Dustin Hoffman's debut performance that makes this. Hoffman manages to perfectly capture youthful naivety, rebellion, erratic decision making and the feeling of just wanting a long, long, LONG break. Ben's character is almost like five different people in one, but he is portrayed in a manner that makes his character make total sense, and despite his questionable life choices in his film, makes Ben a relatable guy. The real star of this



Here's to you, Mrs Robinson// Mike Nichols

film is the soundtrack written entirely by Simon and Garfunkel, with each character having a theme chosen from the bands repertoire, with of course hit song 'Mrs Robinson' being written specifically for the film.

As people working to hopefully graduate one day, *The Graduate* is equal parts refreshing and bleak. Maybe we can hope for something slightly better for ourselves.

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# GAMES

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## New Video Game Releases in February 2020: Dreams,

*Starting this month, we here at Felix Games are going to be updating you with the best upcoming releases of the month. February is looking to be a relatively slow month, lacking in hard hitters, but there are some gems coming out that are sure to hold any type of gamer over until the big AAA titles of the year start to show up.*

### GAMES

**Freddie Ugo**  
Games Editor

#### Dreams

**M**y most anticipated game of February is the long-awaited Dreams. This is an exclusive for the PS4 that is finally hitting shelves on 14th February, the perfect Valentine's gift for your gamer bae. Dreams looks to be an extraordinary,

endless game universe, where you can discover community-made games from around the world, as well as being able to create your own! It is coming from one of my favourite, award winning studios: Media Molecule – creators of Little Big Planet, a game which took the world by storm back in the PS3 days.

Adding to the list of games by the studio with a focus on creation, Dreams looks to evolve what it means to show creativity within a game. With countless, easy to

use tools at your disposal, Dreams looks to allow anyone to share their ideas with a global community full of innovators.

Whether you want to create games, music, paintings, animation, sculpture, movies or simply just play, Dreams is the perfect game to express yourself – with endless replayability, it is sure to be worth the £34.99 price tag.

#### Snack World: The Dungeon Crawl Gold

Also coming out on

Valentine's Day, Snack World: The Dungeon Crawl Gold is a charming, whacky RPG by the creators of Professor Layton and Fantasy Life. Being a port of a Japanese game, we already know what to expect from this Nintendo Switch exclusive. After your village is invaded, you become a heroic adventurer and seek revenge against the villainous Sultan Vinegar. You can play alone, or team up with up to 3 players in local or online multiplayer to crawl through a host of randomly generated dungeons. The "Gold" part of the title means that it is releasing with all the DLC from the Japanese game at no extra cost. While it does seem a bit too ludicrous for some players, the very meta fourth wall breaking and combination of high fantasy with high tech look to make an interesting title.

#### Darksiders Genesis

Yet another game being released on the 14th, Darksiders Genesis is a spin-off Darksiders title for all major home consoles. Having already been released on PC late last year, we have a pretty good idea of what to expect from it – with a respectable 77% on Metacritic. It is a top-down, hack and slash, action, roleplaying game... in short: it's like Diablo. Despite a growing abundance of these Diablo-type games in recent

**"If you're a fan of the genre, or simply love Darksiders - you should pick it up in a heartbeat"**

years on the Switch, Darksiders Genesis looks to quench the thirst of Sony and Microsoft lovers in need of a top-down hack and slash game. This is a must play for any fan of the Darksiders lore, taking place before any of the main games and exploring the origin of the Seven Seals. Another aspect which is surely a staple in games of this manor nowadays is the ability to play fully in Co-op, yes please! Unfortunately, it does not seem to do anything new with the genre, so if you are unsure about getting it, I would give it a miss. On the other hand, if you're a fan of the genre, or simply love Darksiders – you should pick it up in a heartbeat.

#### One Punch Man: A Hero Nobody Knows

Just like the title, it

seems that not that many people know this game is coming out! Releasing on the 27th February on PS4, Xbox One and PC, One Punch Man: A Hero Nobody Knows is an upcoming fighting game by Bandai Namco. It seems very different to the typical 3D fighting game. With combat that reminds me of Tekken, you play as any one of a group of eclectic characters, fighting one of the many enemies of the One Punch Man universe. However, the aim isn't necessarily to win the battle, but instead just survive until Saitama (One Punch Man) shows up so that he can deliver the final blow in a single punch! Think along the lines of a tactical nuke from COD MW2... those were the days. It is an interesting concept, but I fear the idea may quickly become stale. I'm probably going to pick it up, though once it is discounted. If you're a fan of the anime, or the manga, I see no harm in grabbing it... other than to your wallet. £50 seems pricey for such a game, ouch.

#### The Dark Crystal: Age of Resistance Tactics

The Dark Crystal: Age of Resistance Tactics, based off the Netflix show of the same name (minus the tactics bit) is a turn-based tactics game, similar to the likes of Final Fantasy Tactics, with a 3D environment to interact with and a whole host of environmental objects at your disposal. It's coming out on pretty much everything on February 4th. I can't say I am that excited as I haven't seen the show, nor do I enjoy tactics games all too much. But I am sure this fits the niche of many a player out there. It comes with around 50 battles, a



Dreams is finally launching after years of teasers! // Media Molecule/Sony

# GAMES

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## Darksiders, MegaMan, Street Fighter, and More!

decent amount – so for the \$20 price point I would say it's a fair purchase for any fan of the Tactics genre.

### Zombie Army 4: Dead War

Zombie Army is a series of games developed and published by Rebellion Developments, and acts as a spin-off to the highly acclaimed Sniper Elite series. Zombie Army Trilogy released in 2015 piled together the Nazi Zombie DLC for Sniper Elite along with an unreleased 3rd instalment. After its success, Zombie Army 4 was announced as the sequel to Zombie Army Trilogy and the first standalone game released in the series. The story is relatively uninspired, taking place in an alternative universe where at the end of WWII Hitler deployed a last resort plan to raise the dead and turn them against the allies. Unlike the other games in this list, I actually had a chance to play Zombie Army 4 at Comicon last October (they even gave me a cool bottle opener #freemerch). Me and a friend played through a bit of the start of the game, the gameplay is fluid and the customisation available is quite impressive, however it is no walk in the park. We got royally

**“We got royally punished for going in guns-blazing with limited ammo and a relatively low health pool”**



Street Fighter V: Champion Edition is coming to both PS4 and PC on the 14th - Valentine's is best experienced with a hadouken //Capcom

punished for going in guns blazing, with limited ammo and a relatively low health pool, this game feels much more for the hardcore gamer that wants to sink themselves into a challenge, whether solo or co-op. While not a heavy hitter that everyone is talking about, if you are a fan of zombie games in the vein of COD Zombies, I would check this one out – coming to PC, PS4 and Xbox One on February 4th.

### Mega Man Zero/ZX Legacy Collection

On February 25th, the Mega Man Zero/ZX Legacy Collection is coming to... basically everything (except mobile obviously). I, for one, am completely biased in saying this is going to be amazing. It contains Mega Man Zero 1, 2, 3, 4, ZX and ZX Advent. All of this for £25 is an absolute

steal, it even comes with a save feature for all those extra tricky parts... I'm looking at you, spikes. In these games you get to play as Zero, a long-haired robot boy, as you hack and slash your way through levels, trying to fight a war between the humans and the Reploids. It is far more action-oriented than the traditional Mega Man games and, in my opinion, far harder. The challenge at sometimes does feel unfair, but the sense of satisfaction you gain from getting over the hurdle of each game is immense. If you have never had the chance to play these phenomenal games, now is the perfect time. Whatever platform you choose to game on, you now have access and I cannot recommend it enough.

### Street Fighter V Champion Edition

Everyone and their mum, and their dog,

**“Everyone and their mum and their dog knows about Street Fighter”**

knows what Street Fighter is. This release, coming to the PS4 and PC on February 14th, is the most complete version of Street Fighter V. It has all the DLC (bar a few pro tour/brand collaboration costumes), meaning 40 fighters, 34 stages and over 200 costumes. I am yet to own Street Fighter V, so I am definitely going to jump into this. At £30 it is a fair price especially if you are yet to buy Street Fighter V, standard or arcade edition. Additionally, if you already own

Street Fighter V, but want a way of getting all the DLC, you can purchase the upgrade kit for £25. This gives you access to everything that is available in Champion Edition, without having to buy a new game or all the DLC separately.

### Other Games

There are some more releases that I didn't think were worth dedicating whole paragraphs to. Romance of the Three Kingdoms XIV is a CIV like turn based strategy game that utilises a hexagon layout. Rune Factory 4 Special, a Fantasy JRPG with town building mechanics, is the newest instalment in the Rune Factory series with upgraded CG and new difficulty levels, Rune Factory was a big inspiration for Stardew valley, so if you are a fan of that (who isn't) then

I'd recommend checking it out. Monster Energy Supercross is a high octane, fast paced racing game that looks to be a lot of fun. If you forget the branded name, this looks to be a pretty solid entry for racing games with a focus on motocross, which we don't often see.

So, there you have it. There are plenty of games coming out this month, the majority of which are lower budget titles. It's a month that gives us a chance to breathe, go through our backlog and maybe pick up some games that pique our interest. Personally, I am most excited for Dreams and Mega Man Zero/ZX Legacy Collection, but this month really has something for everyone – whether you enjoy strategy, action platformers, shooters or fighting games.

# CONSTITUENT UNION

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## Why Can't the IC Union Talk About Class?

RCSU

**Peter Hull***RCSU VP (Welfare)*

Last Tuesday, Union Council voted to approve the introduction of a student Officer to represent students from socio-economically disadvantaged backgrounds. This was mainly due to Shervin Sabeghi, Deputy President for Welfare, with the support of the Community and Welfare Board which I sit on as a Constituent Union Welfare Officer. This is a welcome improvement to how Council deals with socio-economic inequality, given that similar proposals failed twice in 2018. Joining the ranks of the newly reformed Liberation and Community Networks, the student elected to this position will lead a group of representatives to tackle the most unacceptable aspect of this university: how it interacts with the poorest of our society.

It's no secret that Imperial is one of the most unequal universities in the UK. In 2017, the most recent year for which UCAS published data, Imperial had the biggest gap in entry rate between students from the most and least advantaged areas out of all UK universities. Out of the 7 most unequal universities according to this metric, Imperial was the only university to actually get worse between 2010 and 2017. Oxford, Cambridge, Bristol, King's, SOAS, UCL, Durham and Brunel all decreased the entry rate ratio in this timeframe. Why should Imperial be any different?

Even if the gap in entry rate was improved, the change in drop-out rates across socio-economic

status is damning. Students from the most disadvantaged areas of the UK are twice as likely to drop out than those from the most advantaged areas – a drop-out rate of 8.1% compared to 3.7%. This is true even though College has a decent

**“Students from the most disadvantaged areas of the UK are twice as likely to drop out as those from the most advantaged”**

bursary scheme (without which I wouldn't have been able to study here at all). This shows that it's not just about the absurd cost of living in South Kensington, it's also the culture shock and the attitudes of the student body, and the way in which all of this is made worse by academic pressure and strained mental health support services. These more subtle issues are exactly the motivation behind introducing Union Officer positions with this in their remit.

So, will this new Union Officer help? Well, first let's address the fact that I haven't told you the name of the role yet.

This project was approved within minutes by the Community and Welfare Board before it got to Union Council, but we struggled to agree on a name before circling back to Working Class Officer. Whenever I bring this up to someone their facial expression is like I just drop-kicked their dog. The arguments against it

are obvious: it's outdated, working class is used as an insult, you can be poor without being working class, you can be working class without being poor, and so on. Having the word Class at all is a reminder of the system we have to operate within.

But are the alternatives better? All other terms are unrelatable, vague, and reek of trying to erase identities and reinforce certain ideals. Social Mobility and Widening Participation both put emphasis on moving disadvantaged students into the middle-class way of life. It could be argued we need a label to identify with, like with BME and LGBTQ+, and unfortunately Working Class is the only label that exists that is short enough - Students from Disadvantaged Socio-Economic Backgrounds Officer obviously wouldn't fit on any election handouts.

With pressure from outside of Council, it looks like it'll be changed to Widening Participation (WP) Officer to be consistent with the language that College use in their admissions and financial aid processes. Applicants have started referring to themselves as WP students, decreasing the impact of the argument that Working Class is the only term that students will understand and identify with. But is this still a way of saying that the poor have to participate in and conform to the liberal middle-class ideals that Imperial sets out for them? Or should we take it at face value, as a simple way to say that we want as wide a group as possible to have the opportunity to participate in education?

The fact we even have to talk about the name is a hint that something is wrong with how we talk about socio-economic



Peter Hull, RCSU VP(Welfare) and member of the CWB // RCSU, Peter Hull

inequality. Instead of pushing hard against the actions of College we beat around the bush and erase the identities of those from disadvantaged backgrounds by pigeonholing them in language that isn't representative or useful. We spend hours coming up with the best name to propose to Council so

**“The fact that we even have to talk about the name is a hint that there is something is wrong with how we talk about socio-economic inequality”**

that it doesn't get voted down according to their middle-class biases and preconceptions, instead of refining how exactly the Officer can campaign effectively against the planned rent price hikes and the eye-watering cost of living.

Interestingly, in 2018 this proposal didn't fail because of the criticisms above. The then-Deputy President for Welfare said the role “would function more to single out than to represent”. Effectively, the criticism is that the project and the term itself ‘others’ the working class. Othering is a morally bankrupt concept that we could just as well use to justify telling anyone who isn't a rich straight white male to stop bringing attention to their differences. Anyone supporting this position should also be in favour of removing the LGBTQ+, BME, and Gender Equality networks entirely. Luckily, this was

quickly dismissed this time round, but the fact that it came up at all is a symptom of the problematic way in which we talk about class inequality.

Regardless of the name, I'm optimistic that a Union Officer in this role will give a greater voice to students that have been let down by Imperial's failure to be inclusive. Hopefully they can be honest about the problems and represent students effectively, improving the way in which Union talks about class as well as campaigning hard against College. Imperial cannot go on increasing the gap between the richest and poorest in society within its student body. This is a much-needed first step in campaigning against discrimination, communicating the issues within Union more effectively, and giving more power and voice to those who need it most.

# INVESTMENT

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## Central Banks and Monetary Policy Implementation

### INVESTMENT

**Marios Papadopoulos**

ICIS  
Investment Student Writer

A central bank has a different mission from a conventional, commercial bank: it operates in the public's interest as it seeks to promote economic development. The first central bank was established in the UK. Namely, the Bank of England was founded in 1694. Since the Brussels Financial Conference of 1920, a central bank has been established in almost all countries around the world. A central bank's most fundamental

**"...it operates in the public's interest as it seeks to promote economic development"**

function is issuing currency. Only a central bank has permission from the government to print money. A central bank differs from a traditional institution in another way: it does not interact with the general public. Instead, it deals only with commercial banks because regulating the latter's activities constitutes another part of their mission. Financial regulations are rules designed to control the economic behaviour of firms in the private sector. A characteristic example would be capital requirements; each commercial bank must hold, at any



The Bank of England, sometimes known as "The Old Lady of Threadneedle Street" has been on Threadneedle Street in the City of London, since 1734 //NYPL Public Domain Archive

time, a minimum amount of money, usually in cash form. This ensures that the bank can still function in the case that many of its customers decide to withdraw their savings at once, thus avoiding default. Interaction with for-profit financial institutions also entails lending to them. Every central bank sets the base rate, which is the rate it charges its commercial counterparts for borrowing from it. A decrease in the base rate allows a commercial bank to reduce its borrowing cost. Hence, it can loan money to its customers at a lower interest rate. Consequently, it can be argued that central banks set interest rates for the entire economy. Nowadays, several of them are considered independent from the government, which means they do not receive orders about how to perform their duties, such as setting interest rates. However, they still do need to cooperate with the Ministries of Finance, as they provide advice to ministers and coordinate with them on matters of general economic policy.

### Monetary Policy

Monetary policy can be

defined as the set of decisions taken by the central bank regarding the supply of money in the economy, in order to achieve certain economic targets, such as a lower unemployment rate, or boosting economic output. Money supply refers to the total amount of currency, i.e. coins, cash, balances in current and savings accounts, circulating in the economy. It can be broadly classified into expansionary and contractionary.

Expansionary monetary policy is deemed essential at times of recession. It usually entails cutting interest rates with the goal of encouraging consumers to spend rather than save money and allow firms and individuals to borrow funds on improved terms. As a result, businesses will invest more resources into providing a larger number of higher quality products and consumers will respond to that shift by increasing their spending. Hence, unemployment will decrease, and the economy will exit the recessionary stage. However, expansionary policy can also lead to a higher rate of inflation. Inflation is the phenome-

non related to the general tendency of product prices to rise over time. An uncontrollable increase of inflation will cause a decrease in consumer's purchasing power. The reason why this happens is that the injection of money into the economy cannot instantaneously lead to a rise in output. Therefore, for a certain time period, a larger amount of cash is being used to purchase essentially the same number of goods. As per the Law of Supply, if the supply remains constant, higher demand will lead to higher prices. A higher inflation rate may therefore cancel the gains of an expansionary monetary policy. Contractionary policy is therefore required to combat rising inflation. Particularly, the money supply is decreased, aimed at discouraging borrowing and spending. By decreasing demand, given a constant supply, producers will begin to reduce prices, and thus inflation will be brought under control. However, this policy has the undesirable effects of slowing down growth and causing an upswing in unemployment.

### How does the Central Bank Determine Monetary Policy?

An important question to ask is, how does the central bank implement monetary policy? Printing more money is the simplest answer. It is employed as a technique when the economy has entered recession. However, it is not an optimal choice, as it is directly linked with the danger of uncontrollable inflation. Instead, the methods discussed below are deemed more preferable.

Reducing the reserve requirement and decreasing the base rate help lower the cost of borrowing, thus boosting the money supply. Particularly, if a

**"An important question to ask ...how does the central bank implement monetary policy?"**

bank is mandated to hold a lower amount of money in cash form, often referred to as liquid assets, it has been given the ability to lend more money. As previously mentioned, the base rate determines the interest charged to banks borrowing from the central bank. Therefore, reducing the base rate leads to a drop in the cost of loans for commercial banks. This then translates into reduced interest rates for consumers. Furthermore, the purchase and sale of government securities represents another way for central banks to affect the amount of money circulating in the economy. The term 'government securities' refer

to all investment products offered by the government, with bonds being the most common. Bonds can be generally thought of as a type of loan. In this case, the government sells these to commercial banks, among other investors, in exchange for a certain amount, which must be repaid at a specific date. During that waiting period, the bank is unable to profit from this activity. During a recession, central banks will offer to buy government bonds from mainstream banks, allowing the latter to immediately generate a profit. Consequently, financial institutions will have more capital available to lend to consumers, which combined with lower rates, will render borrowing more attractive. In a particularly dire economic climate, central banks will introduce a quantitative-easing (QE) program that takes the policy of buying government investment products a step further. Central banks purchase bonds directly, which have been issued by governments and firms. Thus, the entities which have issued the bonds immediately receive capital in the form of payment for the purchase of these bonds. Hence firms, mainly banks, can lend money more easily, leading to a rise in the money supply.

### Conclusion

Central banks have indisputably become one of the leading actors in the economy. Nowadays, a policy announced by the governor of a central bank directly impacts the economic climate not only in the region, but perhaps globally. Given that the global economy has not yet been able to find itself in a path of sluggish growth, central banks will continue to be the protagonists of financial news and commentary.

# SCIENCE

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## Kraken Cracked

*The long-unknown mystery of the deep, the Giant Squid, finally gets its genetic code unravelled*

### SCIENCE

**Christine Parry**  
*Science Editor*

Whether it be Cthulu, the Kraken, the Dragon of the Deep, or even the nice, friendly one living in Hogwarts' Great Lake; the giant squid has fascinated the human mind for centuries. Now a team at Copenhagen University, together with Caroline Albertin at the United States' Marine Biology Laboratory, has sequenced its genome in a bid to unpick the science behind its secrets. How did it evolve to be so big? Why did it develop the biggest brain of any invertebrate alive today?

First sighted in 1848 by the crew of the *Daedalus* in the waters just off the Cape of Good Hope, the giant squid took its first tentative strokes out of folklore; although the scientific world was not yet ready to be convinced. Danish zoologist Japetus Steenstrup took up the challenge, drawing on biological knowledge – only a few washed up, oversized squid ‘beaks and pieces’ in evidence – to propose a believable giant squid-like animal truly existing behind the legends. He gave the animal the name *Architeuthis*

*dux*, and by the 1880s, after the discovery of several dead specimens across the world's oceans, the giant squid stepped out of fiction and became fact.

However, the giant squid is hardly much more understood today than in those first, early days of discovery in the 1800s. It wasn't until 2004 that the first photos were taken; and 2006 when video footage of one floating near the surface was first recorded. It took until 2012 for substantial footage of the beast in action to be shot, and it was only last year that the second footage of a giant squid in the ocean depths

**“The giant squid is hardly much more understood today than in those first, early days of discovery in the 1800s”**

was filmed, a fleeting glimpse of graceful tentacles snatching at a lure.

Science has added a few more titillating facts to our knowledge

of the giant squid than just photographic evidence; we know that it has three hearts, a blue, copper-based blood, a doughnut-shaped brain, the largest eyes of any living animal, and a jet propulsion system that can propel itself forwards and backwards. But, fundamental questions still remain.

The giant squid has “many complex and elaborate features”, as Dr Albertin, the MBL member of the team, puts it, but “they are thought to have evolved independently of vertebrates.” So, the Copenhagen University-led team hoped that its genome could provide some answers; it would be the biggest advance in genetic information on the giant squid since it was discovered in 2013 that all giant squids (from those that roam the polar seas to those inhabiting tropical oceans) belong to the same species.

There was only one problem – fresh DNA samples from a species that spends its time in the deepest, darkest depths are not easy to come by. So, instead, the team had to use tissue samples from dead specimens, which can lower the integrity of the available DNA and lead to an incomplete dataset. To combat this, the team also isolated

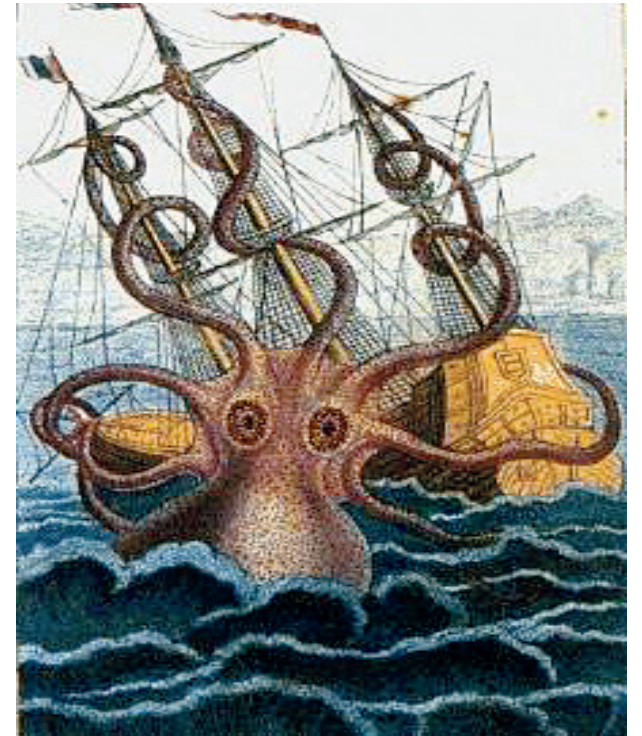
the proteins in the tissue sample, so that by working forwards from the DNA and backwards from the end-product proteins, the holes in the dataset were easier to patch up.

**Giant squid stats: 2.7 billion DNA base pairs and 33,406 protein-coding genes.**

As a result, we can now add to our small repository of giant squid stats that these creatures have a genome around 90% the size of ours; 2.7 billion DNA base pairs against our 3 billion, and consisting of 33,406 protein-coding genes.

It was within these coding sequences that the first answers were found. The giant squid's brain, that doughnut shaped ring far more sophisticated than those other invertebrates possess, may now make more evolutionary sense following the team's discovery of 135 protocadherin genes in its genome.

“Protocadherins are thought to be important in wiring up a complicated brain correctly,” Dr Albertin says. “They were thought to be a vertebrate innovation, so we were really surprised when we found more than 100 of them in the octopus genome, in 2015. That seemed like a smoking gun to how you make a complicated brain. And we have found a similar expansion of protocadherins in the giant squid, as well.”



**The Kraken, drawn from sailor reports in 1801 // Pierre Dénys de Montfort**

And the brain is not the only rarity bordering on the impossible when it comes to the giant squid.

Thought to be relatively short-lived with just a five-year lifespan, the creature is not only big, but must grow rapidly to achieve its infamous size. By analysing certain DNA sequences responsible for development and growth that are well-conserved across animal life, clues about this speedy growth spurt were hoped to be uncovered. Intriguingly, the team were able to discount one possibility of how the creature got its name – the evidence showed that the giant squid has only one copy of these important sequences, the *Wnt* and *Hox* genes, which ruled out whole genome duplication. Whole genome duplication is a method which increases genome complexity through duplicating it in its entirety. Spare copies allow for mutations and therefore spur on substantial evolutionary changes – such as a dramatic growth pattern.

The genome did, however, have a high proportion of transposable elements – sections of genetic code that are able to move within the genome, introducing instability and therefore another major contributor to evolutionary change. By analysing the extent of genetic change in the transposed gene compared to its starting sequence, the team found suggestions of a recent burst of activity in these elements, comparative to related squid species. But to connect this activity directly to the giant squid's size requires further unpicking.

So, is the giant squid a mystery no more? Has the enigma of the Kraken been cracked? Although the genome sequence and protein library begin to fill in the blanks, it seems there is still plenty left to catch our curiosity – and our imagination.



**The giant squid // Karen Kay, Museum of Natural History, (CC BY 2.0)**

# SUSTAINABILITY

sustainability.felix@imperial.ac.uk

## The Link between Animal Consumption and Global Pandemics

### SUSTAINABILITY

**Xiuchen Xu**

*Sustainability Editor*

**H**IV, influenza, Ebola, Spanish flu, and SARS all share one thing in common, and that is that those pandemics all originated from animals. This feature is also shared by the novel coronavirus epidemic that started in Wuhan (which is still not considered a pandemic yet, as the scale is not big enough as of now).

Those diseases are said to be zoonotic, which is the spread of disease between species. This definition does not restrict the diseases to transmission from other animals to humans, it can be between any animals. And for many zoonotic diseases, the spread of the disease happens to multiple species. For example, the Ebola virus is thought to originate from bats, and can infect primates, dogs, pigs, and humans. There are other non-infectious zoonotic diseases from animal consumption such as mad cow disease. However, the ones that cause epidemics and pandemics are infectious and once in humans, they transmit from human-to-human, requiring no contact with the original host animal.

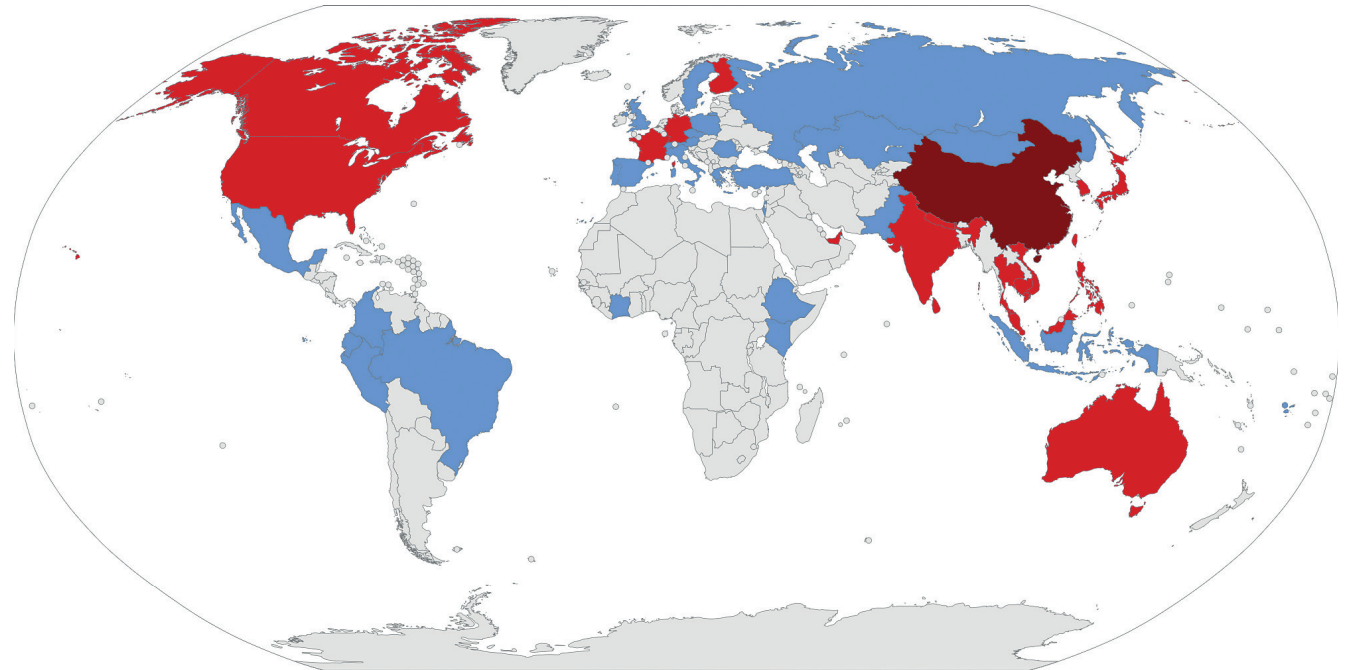
The zoonotic disease outbreaks in humans are almost all thought to originate from animal consumption. For HIV, the origin was the consumption of bushmeat from Chimpanzees with simian foamy virus (Ebola also originated from bushmeat consumption). Bushmeat is an important source of food for people from certain cultural backgrounds, especially those

affected by poverty. The issue is complex as even if they were educated on the risks of bushmeat, they may not have a choice. For those governments, it is important to work on their food system and reduce poverty to ensure people can access other foods.

For countries like China, the lack of regulation of 'wet markets' (market selling meat, produce, and sometimes even live animals) has previously caused the SARS outbreak, and now the coronavirus outbreak in Wuhan. Another contributing factor is cultural; eating wild animal is considered a symbol of wealth because they are rarer and more expensive. There is also misinformation and beliefs (stemming from traditional Chinese medicine teachings, which are not evidence-based) that wild animal consumption has health benefits. The markets are also an important source of fresh produce and often has products cheaper than supermarkets. The marketplace where the new coronavirus originated from sold is an example.

As of now, wildlife trade has been banned in China as of now due to the coronavirus outbreak, which is a win from not only the perspective of health, but also from the standpoint of animal protection and conservation, as there was no regulation on treatment of animals, and the source of animals being obtained.

You may think that any meat we consume in the UK is risk free, but zoonotic diseases also come from animals we eat in the UK. The inconvenient truth is that those zoonotic diseases do not only come from bushmeat and wild animals. Previ-



Wuhan virus outbreak map, as of January 30th. Key below.

Dark red: the source of outbreak; Red: areas where cases have been confirmed; Blue: unconfirmed or suspected cases // Wikimedia, CC Attribution-Share Alike 4.0

ously, swine flu and bird flu have also broken out, which are both strains of the influenza virus. In 1917, the Spanish flu infected 500 million people around the world and killed 5 percent of the world's population at that time - a disease which originated from birds. Animal agriculture is a definite contributing factor for those diseases, as the disease passes to humans through contact or consumption.

Furthermore, more than half the world's antibiotics are used on farm animals, which contributes hugely to antibiotic resistance, and is a huge threat to global health. There is also the very likely eventual development of a superbug, resistant to all antibiotic treatments. This may lead to very serious and difficult outbreaks in the future.

Animal agriculture is also a major contributor to global warming. This is also contributing to disease, as mosquitos are now able to live further away from the equator and spread diseases. Also,

many ancient viruses that are frozen in the arctic ice may possibly make a return, which can cause new pandemics, and is another huge threat to global health.

The link between animal consumption and global health should definitely be taken seriously

**“The link between animal consumption and global health should definitely be taken seriously, and higher reduction in meat consumption could mitigate issues”**

and higher regulation, along with reduction in meat consumption could mitigate those issues. Countries should also learn from the lessons and target the social determinants to prevent repeating the same mistakes.

Finally, on a slightly different note I want to remind people to not be prejudiced against people from countries of disease outbreaks. For the Ebola outbreak, I remember seeing a lot of racist content online against black people. For the HIV pandemic, the disease was blamed on gay people. Currently, there is a lot of hatred towards Chinese people. I want to remind you that disease outbreaks happen based on systematic problems (poverty, culture, censorship, lack of education), and that anybody's racism and hatred is not justified by disease outbreaks. Now is a good time to look out for one other and acknowledge that disease outbreaks are something that we face together, and that we can all do our parts by taking precautions.

**Felix Sustainability was founded to create a platform for discussion about environmental issues and sustainable development. We are open to articles from all points of view. Please get in touch if you would like to write for us using the email address in the header.**

# FOOD

food.felix@imperial.ac.uk

## Will veganism have to wait until next Veganuary to

*Veganism has been having its time in the spotlight for the past few years, sparking quite a bit of controversy (and argue that it is here to stay and grow for years to come. Is Veganuary indicative of the short-lived trendiness of*

### FOOD

**Ellie Fung**  
Food Editor

January is the time when every vegan rejoices: more plant-based options at more restaurants! You have probably seen the ads and all those trending #Veganuary laden Instagram posts. Perhaps you are a participant yourself. Since 2014, the Veganuary charity has been working with enterprises and individuals to achieve their goal of a “vegan world”. No surprise here, their flagship encourages people to adopt a plant-based diet for the whole of January and then (ideally) for the rest of their lives, or at least stop them from eating as many animal-based foods. As #Veganuary draws to an end, those who have participated would stay vegan, become ‘flexitarian’, try again next year or abandon veganism altogether. It makes one

wonder, in the grand scheme of things, whether veganism is merely just another passing trend or an undisputed, long-term shift in lifestyles.

The issue could lie with the name of the campaign. “Veganuary”

**“‘Veganuary’ implies that a plant-based diet is something casually taken up once a year, rather than the consistent way of life it is championing for.”**

implies that a plant-based diet is something casually taken up once a year

rather than the consistent way of life it champions for. When paired with a hashtag, the connotations of momentariness are even stronger. (Like, is anyone still on about #covfefe or #kyliejennerlipchallenge?) We’ve seen diet trends peak and fade as quickly as fashion trends: low-carb, keto, Whole30... the list goes on. But it appears that none of them has had as controversial and as loud of an impact as veganism. In comparison to those so-called “fad diets”, for many the ultimate goal behind adopting a vegan diet are its wider social and ethical implications, rather than just the deeply personal chase for the perfect body weight and shape. There’s the altruistic ideal that comes along with veganism: rejecting animal cruelty, mitigating climate change, alleviating resource depletion... You’ve already heard the story a thousand times. Even if you haven’t, feel free to search up #vegan on social media and read



**Honest Burger’s permanent Plant burger looking just like the real deal. // Ellie Fung**



**In supermarkets vegans are spoilt for choice when it comes to plant milks. // Niki Tse**

the comments.

As of now, perhaps that’s why veganism doesn’t seem to be dwindling any time soon, especially in the UK. There’s no need to wait until January to see its prominence in everyday life. A plethora of vegan food alternatives is available commercially, from the ubiquitous plant-based burgers to the array of nut and seed milks to the abundant dairy-free ice creams. Many restaurants and coffee shops provide vegan options on the regular menu and/or are more than happy to make vegetarian dishes vegan upon request. Several meat-centric burger joints, once the average vegan’s arch-nemesis, now have

at least one completely plant-based burger on the

**“Are companies genuinely embracing veganism’s long-term vision, or are they merely capitalising on yet another ephemeral trend?”**

permanent menu. There never seemed to be a shortage of new vegan launches the past decade: Violife’s vast assortment of plant-based cheeses, Greggs’ vegan sausage roll (and this year’s new steak bake), uber-realistic THIS Isn’t Bacon and Chicken... Last year, a record 23% of all new food product launches were completely vegan. Oh, and the opening of PlantWorks on campus, of course. You get the picture.

But are restaurants and companies genuinely embracing veganism’s long-term vision, or are they merely capitalising on yet another ephemeral trend, or are they simply trying to meet customer demands?



# FOOD

food.felix@imperial.ac.uk

## become “trendy” again?

*numerous heated online debates). Some consider a plant-based diet to be just another fleeting fad, while others veganism, or is it representative of a long-term change in values and lifestyles?*

You’ve probably heard of the whole Rebel Whopper scandal, where the allegedly vegan burgers are cooked together with the conventional meat patties. From one angle, Burger King is making an effort to “revolutionise” their menu. The blame lies in the workers’ insensitive negligence. From another point of view, the

company itself is only concerned with expanding their target market without consideration of veganism’s altruistic purpose. It’s nothing new; companies have always leaped at the opportunity to capitalise on impressionable, trend-chasing ‘sheeple’. Maybe it’s a combination of both or none of these perspectives.

Regardless, as long as more people are turning to and drawing attention to plant-based diets, restaurants and companies will follow suit. #Veganuary merely proposes and popularises a solution to the innate desire to act for a greater good. With dire climate change and animal welfare reports thrust into the limelight in the past

**“the altruistic motive behind veganism continues to strengthen...”**

months, the altruistic motive behind veganism

continues to strengthen and influence. For now, it seems, veganism is persisting far beyond January, and probably throughout this decade.

I don’t know about you, but if this means someone can develop a product that can top JUST’s mung bean-based scrambled egg this year (Yes, it cooks, looks and apparently even

tastes like the real thing Unfortunately you’d have to fly all the way to the US to sample), I’m all down for it.

## An easy vegan recipe that is sure to impress

### FOOD

**Ameena Hassan**

*Food Writer*

**D**ear readers, I bring to you a recipe that went down so well that a dinner party of meat lovers were asking for more of this gorgeous, flavourful vegan dish. This versatile dish can stand on its own with a bowl of rice, or be a side dish in a late Lunar New Year feast. If you aren’t a huge fan of mushrooms, maybe start with about half of this recipe, or pass along the leftovers to a neighbour!

### MUSHROOMS, FUSION STYLE (Serves 2)

**20-30 minutes**

#### Ingredients:

- 2 packs of button mushrooms
- 4 tbsp flour
- 2 tsp cornstarch
- 1 tsp paprika powder (chilli powder works fine)
- 1 tsp garam masala
- Salt (to taste)
- Ketchup, chilli and soy sauce (about 3 tbsp each, or to taste)

#### Optional:

- Sesame seeds and green onions (to garnish)
- 3-4 cloves of garlic (although one can never have too little in this recipe!)

1. Rinse the mushrooms and drain. These might seem larger than bite-sized, but you must consider that mushrooms shrink considerably when cooked. (They are about 92% water!)
2. Toss the mushrooms in the flour, cornstarch, paprika, garam masala, and salt. (Add chillies if you want at this stage, making more of this dry mix if needed)
3. Toss the marinated mushrooms into the warmed oil (check by dipping in a little bit of the marinade to check if bubbles form), rotating when needed until they turn an even, orange-brown colour. The original recipe calls for deep frying, but as I’m not such a huge fan of oil, I would recommend just enough oil in the fry-pan to cover about half the mushrooms.
4. Add in chopped garlic pieces now, if you like. Keep this at a low flame while all the water escapes the mushroom!
5. While this is going, mix a blend of ketchup, chilli paste, and soy sauce until you have a tangy sauce you like. Add sesame seeds to this sauce, if you have some.
6. Once the mushrooms have been cooked, drain the excess oil in the pan. The oil can be reused for other meals, as mushrooms don’t leave any smells. (This is another reason why I wouldn’t recommend deep-frying; there is a lot of oil used.)

1. Fry your mushrooms in this tasty marinade for a few minutes, letting the mushrooms soak up the sauce. Top with some chopped green onions and some final sesame seeds to make Insta-worthy, and serve!



**Take this already-stunning dish to another level with plenty of garnishing. // Ameena Hassan**

# WELFARE

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## Why are the Union Electing a Working Class Officer

*Deputy President (Welfare) Shervin Sabeghi provides insight into the decision, the reasoning behind it, and the*

### WELFARE

#### Shervin Sabeghi

*Deputy President (Welfare)*

Last week, your Union Council voted to accept a proposal to reform Liberation and Community at the Union. As well as introducing networks attached to each existing officer to give students a mechanism to campaign and advocate for underrepresented groups, we have introduced a new Liberation Officer to represent students from disadvantaged backgrounds, titled the 'Working Class Officer'.

#### Background

Throughout its history, advocating for the equal rights of minority groups has been a core part of the Student Union movement. This persists to this day, and at Imperial this is done through our eight Liberation and Community Officers. These officers are senior volunteer roles at the Union with a lot of responsibility,

**"Throughout my 2.5 years being involved in Union welfare, I've seen that being able to do these roles fully and well is impossible for one person"**

and throughout my 2.5 years being involved in Union welfare, I've seen that being able to do the role fully and well is impossible for one person. As Deputy President (Welfare), Liberation and Community falls under my responsibility, along with ensuring that all officers are supported. This drove me to look at ways we can change the structure around Liberation and Community to make sure that the Union is successfully representing the students we claim we do.

#### Liberation Reform Project

This led to a Liberation Reform project – which I was keen to be a co-produced piece of work with the Union's Community and Welfare Board, primarily the Liberation and Community Officers who sit on it. After setting up a working group and having discussions at this board, we came to a proposal for Union Council which passed 32 to 1. There were two key parts to this proposal, and you can read the full paper on the Union website.

1. Introduce Liberation and Community Networks chaired by the respective Liberation and Community Officer. These networks will have similarities to clubs and societies in that they are groups students can join and will have committees. However, they will differ in the sense that their main purpose is to campaign and advocate. The key benefit of this is that it allows Liberation and Community officers to be supported and to spread the workload in a student-led, democratic fashion. My hope is that

these networks will be able to do more campaigns to improve the experience of the students they represent without overloading one officer.

2. Introduce a Working Class Officer, along with a Working Class Students Network, to represent students from disadvantaged socio-economic backgrounds.

#### Where did this new officer come from?

In late 2019, the College agreed a five-year Access and Participation Plan with the Office for Students, who are the regulator for universities in England. This plan ties the College to achieving key targets around increasing the numbers of students who come from disadvantaged backgrounds. The two key measures of this are the IMD (Index of Multiple Deprivation) which score small regions in England based on relative deprivation, and POLAR4 (Participation Of Local Areas) which rates participation in education across different postcodes. Both are most commonly described in terms of quintiles, where Q5 for both represents the least deprived/highest participation areas. According to the plan, considering Undergraduate home student admissions, there is a gap between IMD Q1 and Q5 of 24.8% and POLAR4 Q1 and Q5 by 54.2%. Whilst this aligns strongly with the general perception of students at Imperial, it's quite alarming to see the numbers on paper. A huge 55% of the UG home student population come from POLAR4 Q5, the quintile with the highest participation rate in higher education.

The concerning statistics don't stop just with admission rates, though less significant; there are also gaps in success rates for different groups of students upon arrival to Imperial. The continuation rate for students from POLAR Q5 is

**"Imperial doesn't admit a proportional number of students from deprived areas, and the ones who are here are more likely to drop out and less likely to achieve good degrees"**

4.2% higher than that of POLAR Q1, and the rate of students who receive 'good degrees' (1s or 2.1s) is approximately 4% lower in the two most deprived quintiles of IMD compared to the least deprived quintile.

Imperial doesn't admit a proportional number of students from deprived areas, and the ones who are here are more likely to drop-out and less likely to achieve good degrees.

This paints a somewhat bleak picture. Imperial doesn't admit a proportional number of students from deprived areas, and the ones who are here are more likely to drop-out and less likely to achieve good degrees. The reasons

as to why this is the case aren't very well explored in the Access and Participation Plan, or elsewhere. The plan has set targets to increase the proportion of POLAR Q1 and Q2 students, and IMD Q1 students, with the aim of equalising the numbers across all quintiles in 50 years. In terms of success, the plan says the College will monitor gaps in success but doesn't seek to close the gap as it deems it not currently significant enough.

The College are putting considerable energy into bringing in students from socio-economically disadvantaged backgrounds, but are not equally considering what provision to put in place to ensure these students are able to succeed to the same extent as their peers. If a student from an IMD Q1 area has accessed Imperial through the same admissions criteria as a student from an IMD Q5 area, the question I ask myself is then "What is it about Imperial that makes students from disadvantaged socio-economic backgrounds less likely to succeed?"

This is where the Union comes in. We have a duty to represent the interests and needs of all students, and to particularly focus on disadvantaged and underrepresented groups. This is the primary reasoning for introducing a new Working Class Officer. I envision a large part of this role will be to try and answer the question above and start to change these things. When York Students' Union introduced an officer with this same name, they commissioned a research project conducted by this officer to try and establish what the experience of

disadvantaged students at York is. This project found that challenges faced were far broader than financial, and that students in the Working Class Students Network felt culture shock and that they were "the odd one out". You can find out more about this at <https://wonkhe.com/blogs-sus/should-sus-elect-a-working-class-officer/>. I think it would be fascinating for a similar piece of work to happen at Imperial.

#### Why the name 'Working Class Officer'?

While it was quickly and unanimously decided to introduce an officer with the remit of representing students from disadvantaged backgrounds at the Union's Community and Welfare Board, the question of what to name it was a lot harder to resolve. The initial reactions to Working Class Officer weren't particularly positive, with some members mentioning that the term has negative connotations and it might be received negatively by the student body. We discussed other names such as Widening Participation, Access and Participation, Class Equality and many more but none of these fully resonated with the board. Whilst it was agreed that all these terms are more positive sounding, Council felt that students wouldn't necessarily associate them with the actual remit of the officer being created. Furthermore, there were people in the room who felt it was best to simply name the officer after the group of students being represented, like most other Liberation Officers.

It was felt that this name is the most direct

# LIBERATION

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## this Year?

*name of the position*

Supplementary index -  
Income Deprivation Affecting  
Children Index (IDACI)

### 7 domains of deprivation

included in the Index:



Supplementary index -  
Income Deprivation Affecting  
Older People Index (IDAOP)

The domains of deprivation used to calculate the indices of deprivation // DLCC, Office for Statistics

reflection of the purpose of the role.

In the end, with some uneasiness, the board voted to call the position the Working

Class Officer as it was felt that this name is the most direct reflection of the purpose of the role and would be the clearest name for the student body.

This was also approved at Union Council.

Is the name unchangeable? Of course not. The nature of the Union is that it's democratic and

students get to vote, so Union Council can always vote to change it if it seems necessary.

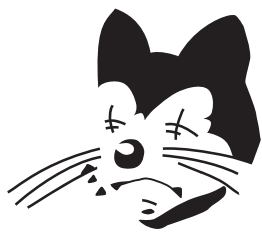
*I'd like to know your thoughts on the matter – what would you call such a role? I've already heard impassioned arguments for and against this name*

*and it's nice to see people engaging with the debate. Please email me at dp-welfare@imperial.ac.uk if you've got something to say!*



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# Hangman



Just wear more clothes! // Wikimedia

## Mother Earth hates Men: Global Warming is the sexist air-conditioner of the world

### HANGMAN

**Negafelix**  
*Editor-in-Chief*

*Global warming is a ploy by women to heat up the world to fit their inferior metabolic rates.*

Following a study that most offices have temperatures adjusted for the body temperatures of men, meaning women are left feeling cold and (dare I say it) straight up frigid, we can now say for certain that, actually, Mother Earth is a bra-burning femi-Nazi. With world

temperatures rising at unprecedented rates, the only conceivable explanation is that Mother Earth wishes to see men – and only men – suffer for the superior metabolic rates they were born with.

“The temperature of our office aims to be adjusted for the thermal comfort of 80% of our staffers, mostly men,” explains CEO of Large Corporate, “and unfortunately it is completely beyond our control that we hire more men.” We now know that this unpreventable phenomenon has caused females, who all just always want to take off their clothes, and smash glass ceilings to let out the air-con, to turn

to heating up the entire world instead.

Insider knowledge tells us that Mother Earth had a meeting with these females back in the 1990s, where they hatched a plan to raise world temperatures as fast as possible.

In fact, solid scientific evidence has been mounting that Mother Earth, and indeed all of the effects of climate change, carry highly androphobic sentiments. “For what other reason would there be rising sea levels other than their knowledge that I, a male, and I’m sure many other men, can’t swim?” argues famous climate activist Groto Thunberd. “Why else would there be forest fires, if not to get rid of the log cabins

and camping sites we use to hide from our wives and spend our male-only bonding times?”

**“We all know that when a woman tells you she is cold, she’s actually hinting that she is warm”**

Although global warming is a natural phenomenon, woman-made climate change is accelerating it by magnitudes.

Not only has this meant rising global temperatures, further investigation shows that there is a decreasing supply of fossil fuels for office air-conditioning, instead being funnelled under the control of women towards uses that would contribute more to global warming.

We interviewed a standard member of the male species, Feb Senton, to tell us what men around the world are thinking. When asked about solutions to appease women’s finicky office thermal comfort, he responded, “I think women are just faking it. I mean, look at what they wear, it’s like they’re asking to feel cold. Besides, we all know that when a woman tells you

she’s cold she’s actually hinting that she feels warm, you know how women love to play hard-to-get. And you know there’s been so much talk about consent, so why isn’t that being carried over into temperature? If your molecules want to vibrate slower, just tell them no, isn’t that how consent works?”

Action against climate change needs to be taken immediately. You can do your part by staying out of Mother Earth’s way until she gets over this menopause phase or whatever it is until she stops acting crazy. #savethemen #savetheturtles #menslivematters.

# HANGMAN

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## Profits from 568 tank as students realise that they didn't miss the food all that much

### HANGMAN

**Negafelix**  
Editor-in-Chief

*Student cookery skills have soared since the kitchen closure and many are now demanding higher quality food*

If Union staff members expected to be carried through Beit courtyard on students' shoulders in thanks for reopening the 568 kitchens they were disappointed this week

as the event was met with a muted response. Student numbers were low and those that did come in mainly drank. The kitchen staff were sent home early and the full fridges and freezers barely had to be restocked.

Deputy President (Finance and Services) Bibi Harry confronted one of the boozing students and insisted to know why he wasn't stuffing his face full of curly fries after she had done so much to get them back. The student admitted that since the kitchens had closed he had to teach himself how

to cook and now realised what an unhealthy menu was on offer.

The content of his words was echoed by other students that admitted that the Union stopping serving food had actually been one of the best things that had ever happened to them. "You know you can buy a whole bag of exactly the same curly fries from super markets?" whispered one student who refused to give his name but was wearing a Medics rugby jumper. "I bought mozzarella as well and it didn't cost me £5 pounds extra! Obviously I had to work out how

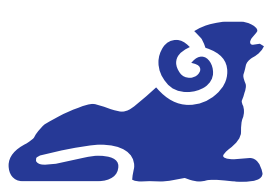


I left the oven on! // Wikimedia

the oven worked at home first but once I stuck the whole thing one of those oval plates I stole from the

Union it was even better than being there!" His flatmates corroborated the story. "Yesterday he

asked one of us to teach him how to make a salad? We are taking him to the doctor tomorrow"



### ARIES

This week you're Big Ben.

-  
Tired of being fat shamed you are undergoing major cosmetic work



### TAURUS

This week to mark Chinese New Year the Union have announced a day long Instagram take over.

-  
The rats in the 568 kitchen are really excited about this opportunity



### GEMINI

This week you are the union kitchen.

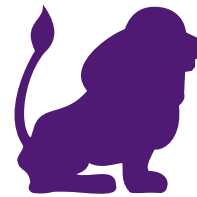
-  
Your inflation adjusted pricing model is drawing admiration from economists all around the world



### CANCER

This week your clichéd plan to blow up the Houses of Parliament goes wrong even after you donated 10k.

-  
No bong or bang for your buck



### LEO

This week your girlfriend makes it very clear that what she had last night was less of a migraine and more of an "usgraine"



### VIRGO

This week your life will be full of change

-  
despite what you told the homeless man you met on Tuesday



### LIBRA

This week you rEaLiSe that Felix just copies ICE and has no original content.

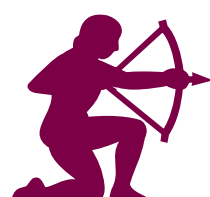
-  
It is almost as if they are both report on campus affairs



### SCORPIO

This week you are a Deputy President (Clubs and Societies) and it's budget season. The Soup Run society sure buy a lot of burn cream.

Maybe if they just walked?



### SAGITTARIUS

This week you are Alice Ghost after playing at this whole 'President' lark for more than 5 years you just got a new highscore

-  
Well done!!



### CAPRICORN

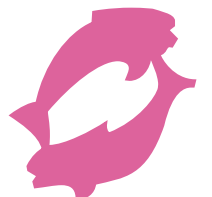
This week you tell people to walk a mile in your shoes if they want to understand you.

Maybe if you stopped trying to fit into size 2 high heels your life would be easier?



### AQUARIUS

This week you are a chemistry student on World Holocaust memorial day. You accidentally call a fume cupboard a "gas chamber"



### PISCES

This week you will place fourth in your local pub quiz.

-  
Worry not, for that is the position that wins the bottle of wine

# PUZZLES

fsudoku@imperial.ac.uk

**FUCWIT**

1	Lochy Monsters	46
2	RIP Pat	45.5
3	O1G	45
3	F***URhys	45
4	StandWithHK_Fight4Freedom	44
5	DQ	43
6	BurnHuxleyBurn	10

**Points available**

Crossword	3
Sudoku	4
Word Pyramid	2
Nonogram	4

**Total 13**

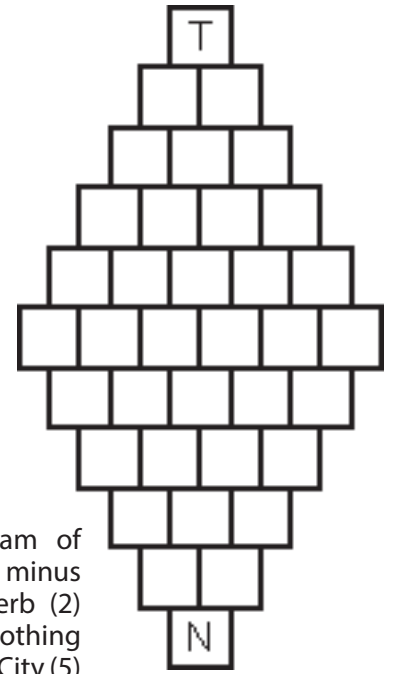
Send your solutions to [fsudoku@imperial.ac.uk](mailto:fsudoku@imperial.ac.uk) before Wednesday noon to take part in the leaderboard!

If you'd like to contribute or get involved, drop us an email at [fsudoku@imperial.ac.uk](mailto:fsudoku@imperial.ac.uk)!

**SUDOKU**

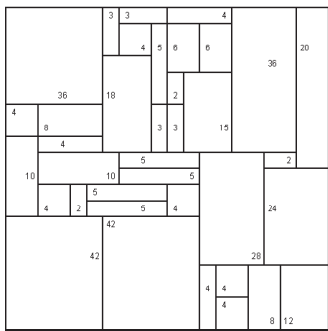
Fill all the boxes with a number between 1 and 9. A number can only appear once in a row/column, and only once in each sub-box.

			5			8		7
	7							
			7		1	4		
7	3			5	6	4	2	
	6	9	8	1			5	3
	1	7		3				
							8	
2		4			9			



**WORD PYRAMID**

Each row is an anagram of the previous, plus or minus one letter. Clues: Pre-verb (2) - Er, kaxsi, duex (3) - Nothing (British) (4) - Village <? < City (5) - Elementary, my dear \_\_\_\_\_ (6) - (denial) "It \_\_\_\_\_ me!" (5) - Graceful on the surface and struggling below (4) - Tired (3) - One syllable of a taunt (2)

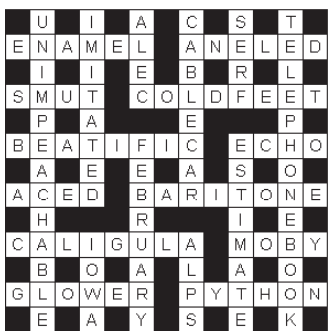


Hi puzzlers!  
It's gotten a bit easier this week, but we will attempt to fix this in the next issue!

**NONOGRAM**

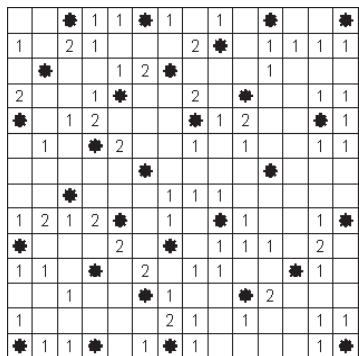
																			3	1			
																			5	4		1	
																						1	2

**Last week's solutions**

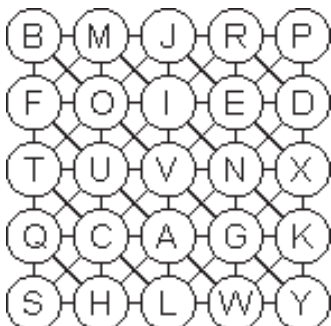


Cryptogram:  
You've got to ask yourself one question: 'Do I feel lucky?' Well, do you, punk?  
~ Dirty Harry

- Trivia:**
- The Hunger Games trilogy
  - The Brontës (Anne, Charlotte and Emily Brontë)
  - Gertrude
  - His Dark Materials
  - Raymond Chandler
  - Charge of the Light Brigade

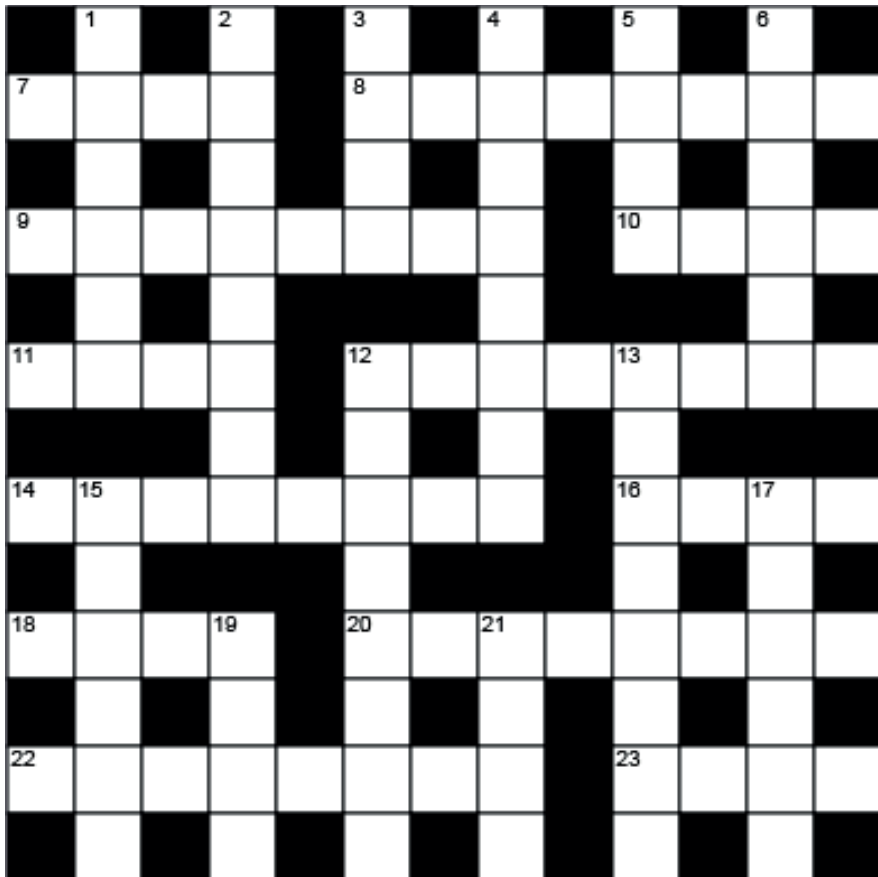


3	4	1	9	5	6	2	8	7
9	5	6	2	7	8	4	1	3
7	2	8	3	4	1	5	9	6
8	3	5	4	1	7	6	2	9
2	1	7	5	6	9	3	4	8
6	9	4	8	2	3	7	5	1
5	6	9	7	8	2	1	3	4
1	8	2	6	3	4	9	7	5
4	7	3	1	9	5	8	6	2



# PUZZLES

fsudoku@imperial.ac.uk



**Across**

- 7. Fastest type of shark (4)
- 8. Of the outer city (8)
- 9. Relatively famous physicist (8)
- 10. Clock-melter (4)
- 11. \_\_\_\_ Major (4)
- 12. Sliver (8)
- 14. Popular gamebird (8)
- 16. Sportsman that competes on a dohyo (4)
- 18. Highest European volcano (4)
- 20. Can be said of spirits or balloons (8)
- 22. Species in which the male delivers babies (8)
- 23. First name of wrestler Hogan (4)

**Down**

- 1. Thin, sharp-pointed sword (6)
- 2. Contentiously, a Greek dish (8)
- 3. \_\_\_\_ of Man (4)
- 4. Available in large quantities (8)
- 5. Poke (4)
- 6. Fish in Old Man and the Sea (6)
- 12. Homer's neighbour (8)
- 13. Physical commonality of 9,10,23-Across, and 12,15-Down (8)
- 15. Rejected Austrian Artist (6)
- 17. Breakfast mix of oats, dried fruits, and nuts (6)
- 19. Usually prompts a visit to the dentist (4)
- 21. Added to the fire, in an idiom (4)

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## SPORTS

sport.felix@imperial.ac.uk



ICURFC near the start of the year // ICURFC

# Another Day, Another W for ICURFC

## SPORTS

**Spencer Ingall**
*Sports Writer*

10      27  
Hertfordshire 1st XV      V      Imperial 1st XV

Last week saw ICURFC play their first game of the new year as Hertfordshire University 1s travelled to Harlington. The boys had already beaten Hertfordshire twice this season, both times quite comfortably. Nevertheless, the boys made sure they brought their A-game as they need bonus points from all their remaining games to secure promotion.

The boys didn't get off to the best start as within the first five minutes Hertfordshire's questionably built fly-half kicked over three points. However, this served as a good wakeup

call for IC as they came out back from the restart fired up. Once possession was regained the boys showed how good they can be in attack. Despite the wet conditions, the boys played some beautiful free flowing, attacking rugby which climaxed with Amin throwing a beautiful cut-out pass to Isaac Bailey whose superb offload allowed ICURFC to get their first try of the day.

After this very well

**“Despite the wet conditions, the boys played some beautiful free flowing, attacking rugby”**

worked try not much more can be said about the first half. The wet ball resulted in scrum after scrum and questionable decisions by the referee meant IC found themselves camped on their own try line for the majority of the half. One dimensional attack from Hertfordshire and gutsy defending from IC meant that despite all the pressure, Hertfordshire couldn't manage to get over the line. Players to thank for this include Isaac Bailey and Nick U-A who dominated the Hertfordshire centres, Ollie Adams who makes bigger hits than a ~2000 Britney Spears and Sean Nakai who chops more ankles than Louis Benson (claims) he chops pints.

Sean also managed to bag a try in the first half. Hertfordshire had clearly done their research and found that ICURFC have a lineout maul that moves faster than the Coronavirus. To combat this they

attempted to stand off and hope to gain a penalty for obstruction. Although this worked the first time, the next time they tried it Sean just grabbed the ball and sprinted through the unaware Hertfordshire pack.

The second half was quite different as IC managed to gain much more possession and play in the right areas. It wasn't long before IC had an attacking lineout in the Hertfordshire 22. Toby Daniels, threw a darts Michael Van Gerwen would be envious of, setting up the maul for the man himself to score yet another try this season.

The boys were now within a try of a bonus point and even though there was plenty of time on the clock, IC kept the foot on the gas after the restart. Unfortunately, after two tries were questionably disallowed, Hertfordshire managed to get off their line. After many midfield

**“Some absurdly filthy champagne rugby saw IC go 80 metres to score a wonderful try, but once again the ref controversially disallowed it”**

set pieces IC managed to get into the Hertfordshire 22 by stealing a lineout. Many hard carries led to Bolu getting over the try line but unfortunately the referee once again disallowed the try. As the old saying goes, the ball doesn't lie, and IC scored off the scrum after some weak defending by the

Hertfordshire centres.

Now the bonus point was sealed the boys could relax and play their own game as they continued to dominate Hertfordshire. Some absurdly filthy champagne rugby saw IC go eighty metres to score a wonderful try but once again the ref controversially disallowed it for a forward pass. Imperial still managed to bag another try though as the IC pack outmuscled Hertfordshire for Toby Daniels to get himself a second try of the match.

The game concluded with Hertfordshire scoring a consolation try after a long time on the IC try line. There are still improvements to be made as ICURFC play Kent this week, a fixture which looks likely to decide promotion.