



# Felix

The Student Newspaper of Imperial College London



# EDITORIAL

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Printed by Mortons Media  
Group, Boston Road,  
Horncastle, Lincolnshire

Registered Newspaper  
ISSN 1040-0711

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## Faces Old and New

*An homage to friends old and new: or, as it's commonly known, graduation blues*

Being at university is, naturally, a transitional period. We learn, we change – all of us do, and a hell of a lot at that.

It's the first time most of us have been away from home. This means different things for different people.

For some it's the chance to get away from pressures at home: the pressure to succeed, perhaps, or the pressure to adhere to a set of beliefs you don't actually subscribe to (for me, this took the form of realising I don't actually care about politics as much as I bloody should, which is near-blasphemous in my debate-heavy household). For some it's the freedom to lie-in, stay up late, skip the occasional lecture (bless Panopto, bless), or stop trying and failing to hide the fact that you 'socially smoke'. For some it's the chance to reinvent themselves (successfully or otherwise, cringily or otherwise) – to get away from a world where everybody remembers that time you called the teacher 'mum' instead of 'Miss' and be cool, or be more outgoing, or even to be more sensible and disciplined than you were before.

As we go through our degrees, the transitions remain in volume but change in tone. They stop being about grand gestures and becomes more about gradual understanding and self-introspection. It becomes a process of coming to terms with whoever it is you ended up becoming after those big shifts in lifestyle and



circumstance – someone that can sometimes feel like a stranger in the mirror. You stop forcing the changes, stop experimenting with new things so much, and instead settle down a little and start to figure out what you like and don't like about this new world you're in. You figure out what it all means, man.

It's an incremental thing, understanding yourself. Nobody wakes up on the day they turn 18 or 21 and feels any different than the day before – something I found myself a little disappointed about, despite the obvious logic behind it. But I realised that I was a little more comfortable with myself than I had been a year before – or, if not comfortable, then at least less bewildered and somewhat more purposeful or directed in my evaluations of my own life.

Of course, this process immediately repeats itself upon graduation – suddenly, we're free. Sweet freedom, the world is our oyster, and so on and so forth. It's another new world opening up before

us. For some that's scary, while for others it's exhilarating. Usually a little of both, if we are honest with ourselves.

One aspect of that Final Transition™ is losing some of our friends. That's something I wanted to talk about, this issue, writing on the night of graduation.

Felix has been fortunate for the last few years to have an incredibly fun and highly dedicated team. I've talked about this a little in previous editorials. This is a group of people who inspired me to take up the legacy of the Editor-in-Chief position, and who I broadly look up to for various reasons.

Tonight, some of our alumni came back. A few are still kicking about Imperial – for some insane reason they decided to do PhDs here, the poor blighters – but most have departed for pastures new. From random conversation this evening, I know that one has gone to the Netherlands, one to Canada, and another to Poland, while the rest have scattered elsewhere like dandelion puffs in the wind.

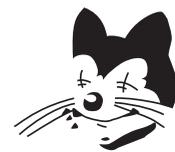
Graduation is a special moment, months after departure, when for one night the last few years crystallise into a clear-cut version of themselves. It is a glass night; easily shattered, fragile and temporary, but beautifully refracting the light of time well spent (and time ill spent) over the unique experience that is university. Friends of years are seen for the last time in a long while, and memories and in-jokes doomed to be forgotten are shared one last time – usually over several pints, which might partially explain the 'forgetting' part.

I don't think that's necessarily how most people celebrating this evening feel about it – but that's how it appears from the outside, observing as (Felix) cats tend to do. It's easy to see the connections forged during late-night shifts in the office churning out horoscopes for Hangman (or, towards the end of the year, Master's degree theses.) I'm sure that every group of laughing ex-students at the Union have equivalent memories and experiences – each of them slowly fossilising in amber as an imperfect image of good times as the evening wears on.

But you know – the really wonderful thing was how they said hello and joked, after popping into the office for a moment, with the new members of the team working with me on this week's issue.

This meandering editorial is a last huzzah for them – the Felix alumni, gone but not forgotten, and welcome to resurrect in the Felissy office any time. May many a Colin cake lie in your future.

(This is also a great way to see if they still bother to read the paper – especially those doing PhDs here.)



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# NEWS

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## Prince Andrew's Visit: Student Responses

*Last week, Felix reported on Prince Andrew's visit to the College as part of the Pitch@Palace campaign. As the news broke, we spoke to students around campus about their opinions, and promised to report back. We'll highlight some particular responses that we feel summed up the opinions of many students*

### NEWS

**Henry Alman**

*Editor-in-Chief*

**O**ur reporters generally noted several things.

Firstly, there were a very high – even a vast majority – of students who seemed unaware of the allegations against the Prince and thus were initially confused by the questions asked. This could be interpreted as either apathy, or a lack of knowledge. There have been speculations among UK commentators that the mainstream media has suppressed the news to some degree; this could be an explanation.

There were a variety of responses from students who were aware. These ranged from

condemnations to a complete lack of concern – the diversity was very broad.

Several responses took the perspective that the Prince is 'innocent until proven guilty' and that the College, as a result, should act as if he is innocent. Indeed, the College's reticence to comment directly on the Prince's visit (as opposed to the event itself) seems to match this perspective. As one reporter put it, "that's Imperial in a nutshell – trust in institutions."

There were a few respondents who deemed the visit "for the greater good of the university", in order to provide students with entrepreneurship. One respondent in particular took this view until the extent of the allegations was explained, and then once informed stated that they disapproved of the visit.

The number of students who actively opposed the decision was fewer than expected, but significant. One student explained that they didn't disapprove because they didn't feel that the College hosting the event amounted to an endorsement of Prince Andrew or Pitch@Palace. However, others disagreed and considered the decision highly controversial – and stated explicitly that they felt it did amount to an endorsement.

Lastly, there were students who simply seemed torn. Many of these seemed to fall into the 'innocent until proven guilty' camp, but felt inherently uncomfortable with the situation.

The lack of consensus shows how prickly the situation was; and how students need to converse about these issues in order to increase awareness and

reach their own conclusions.

### **Editor's Note:**

*One aspect of the conversation I feel has gone overlooked is the College's abysmal response. One can argue either way that the decision to host the event and the Prince was acceptable or not. What is not acceptable was the College statement on the matter.*

*Felix explicitly asked the College about the message that the decision might send to young women, the College's thoughts or priorities in that type of decision-making, and how they plan to address those feelings. They completely ignored those questions.*

*A stance such as 'innocent until proven guilty' would have been a perfectly acceptable response, whether one*

*personally agrees or not. Even refusing to comment on innocence or guilt directly, but providing some reasoning for the decision, would have sufficed. What does not is disregarding the question and spending the entire statement boasting about the entrepreneurial benefits, with not a whit of concern expressed for how it may make students feel. I personally feel that the impact on young women at the College was not considered at the time of the decision, or really since.*

*Indeed, the statement given originally was almost purely about entrepreneurship – a spokesperson had to send a follow-up email the next day with a tidbit about a 'code of conduct' external events must follow on campus. To me, this just reinforces the impression*

*that the feelings of students were not important enough to the College to factor into the decision. It was, at best, an afterthought. The priorities of the College were made quite clear – and this is what I find to be the travesty.*

*The College needs to restructure its decision-making process so that decisions are not made in isolation, but with a holistic sense of the situation and the affected stakeholders. This can be provided by integrating more conversation between different College divisions into the decision-making process. They also need to commit to transparency with their students – that much is very clear.*

## Imperial Launches J-IDEA Institute

*The new institute on White City campus aims to provide rapid response to epidemics and natural disasters, bringing together hundreds of researchers*

### NEWS

**Henry Alman**

*Editor-in-Chief*

**I**mperial has launched a new institute as part of the School of Public Health in White City this week, targeted at predicting and preventing global health crises.

The institute, dubbed J-IDEA for the Abdul Latif Jameel Institute for Disease and Emergency Analytics, will utilise advanced mathematical modelling and data science techniques to research and understand the health and economic causes and repercussions of disease.

Over 200 researchers will work on J-IDEA

projects, creating a world-leading centre in the field. A core focus of their work will be developing and implementing actual real-world strategies and policies out of the expertise available; in particular there will be emphasis placed on building local expertise in lower-income countries.

This diverse approach to tackling epidemics,

uniting medics, statisticians, data scientists, and epidemiologists, will allow for an interdisciplinary approach to solving global healthcare problems – a core benefit of the College's moves to White City in general. Rather than feeding information from one academic field to another, researchers from different areas will collaborate

from earlier in the process, allowing for faster and more effective response.

Their research will also cover other areas, such as rapid response to natural and humanitarian disasters and extreme climate events. This further ties into the study of epidemiology – disasters often cause outbreaks of disease for various reasons.

The institute was

opened with the help of £25 million of funding from Saudi-based charity Community Jameel, which is a consortium of philanthropies run by the international Abdul Latif Jameel conglomerate. This is their first project at a UK university, though they have also funded initiatives at universities across the globe such as MIT.

# NEWS

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## The Fossil Fuel Dichotomy at Imperial

*Felix is committed this year to demystifying the Union for students, shedding light on the processes and people behind decision-making - this week, we summarise the juicy bits of the first meeting of the Union Council*

### NEWS

**Henry Alman**  
*Editor-in-Chief*

On the 10th of October, the UK Committee on Climate Change (CCC) delivered a report to government on how the government can engage the public in sustainable practices in order to reduce carbon emissions. The report was led by Dr. Richard Carmichael, an Imperial academic working with the Centre for Environmental Policy, after the CCC appointed him to the job.

The CCC is an independent body established under the Climate Act of 2008 in order to provide advisement on future policy and reporting on current progress towards emissions goals.

The report itself identifies multiple key areas of attack, such as creating new and compelling narratives to mobilise mainstream participation, a reduction in policy-based obstacles to market change and consumer choice, and the importance of data and ICT in allowing consumers to make informed choices regarding technology adoption (e.g. electric cars). It contributed to the CCC's overall Net Zero

report to government.

The research of many Imperial academics in this direction stands in stark contrast to the College's decisions regarding fossil fuels. As previously reported in Felix, Imperial ranks 130th out of 154 UK universities on the 'People&Planet' league charts for environmentally ethical behaviour, and has repeatedly stated that they consider fossil fuel companies to be partners in the battle against climate change.

This is in spite of the recent Guardian report that the top 20 fossil fuel companies alone have contributed to 35% of all energy-related carbon

**“Chevron have contributed 43.35 billion tonnes of carbon dioxide”**

dioxide and methane emissions worldwide since 1965 – which is when they became aware of the future ramifications, after which they later lobbied governments to cover it up. Indeed, the top four investor-owned corporations (Chevron, Exxon, BP, and Shell)

have contributed 10% on their own. Topping that chart is Chevron specifically, who have contributed 43.35 billion tonnes of carbon dioxide.

The President of the College, Alice Gast, sits on the board of Chevron, and receives a salary of approximately £300,000 per year for doing so. There is a dichotomy between the excellent work Imperial academics do and the contradictory perspective of senior members of the College.

Even senior staff who are very passionate about the environment repeat the 'partners' rhetoric. In a previous interview, the VP of Advancement Michael

Murphy – who previously worked with Kew Gardens – also stated that “we have to work with industry – industry has to be at the table. I don't see how we address biodiversity loss and climate change if we don't have the major players there.”

There is increasing pressure on the College to consider divestment, as Imperial-based activist groups have begun to flyer and protest at energy- or fossil-fuel based events such as the Glencore 'Introduction to Oil Trading' event by the IC Energy Society on Wednesday 16th.

# I, SCIENCE

## CALLING ALL WRITERS!

Imperial's *I, Science* magazine is looking for original pitches for our upcoming print issue, in which we examine **ENERGY**. It's a broad topic, we know, so be as creative with it as you want—from sustainable energy to gamma ray bursts, it's fair game.

Your pitch should be no more than 200-250 words, set out clearly what you want the article to be about, and include relevant links for references.

Email all pitches to [i.science@imperial.ac.uk](mailto:i.science@imperial.ac.uk), with the subject line “PITCH—” followed by your proposed headline.

All pitches are **due by October 20**. If your pitch is accepted, a first draft will be due on November 3.

# COMMENT

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## The Prem de la Prem

Comment Editor **Andrew Melville** thinks that the Premiership emphasis on corporate interests are killing the game

### COMMENT

**Andrew Melville**

Comment Editor

As the wheels of top flight English football groan into action again after an arduous fortnight of international bullshit, let's have a look at what we've actually missed. £35+ match prices, hours of advertisements, and the weekends games spread over 20 different streaming services. Us football fans love to mock the NFL for its corporate nature, but soon enough the Barclays™ Premier® League© will be just as bad.

Advertisements and corporations are ruining the sport. Despite the benefits to grassroots football, like the initiatives funded by the

**“Adverts and corporations are ruining the sport, despite the benefits to grassroots football”**

sponsors of the FA Cup, the influx of big money in the last two decades has had a drastic impact on the experience of the average football fan. Ticket prices, especially those for certain London clubs, are aimed more towards tourists who can justify



Premiership League Logo // Wikimedia

the eye-watering cost as a one off. Even the cheapest season tickets work out to £31.50 a match. It's clear by the influx of families to every cup game that fans are not being prioritised.

The alternative is to watch from home, on the reputable streaming service of your choice. But when league games are split between Sky Sports, BT Sport, and Amazon Prime Video, the price skyrockets once more. When you consider minimum contract lengths, a season of Premier League in your living room can set you back £1500. Can you

really claim to be ‘for the fans’ when you allow advertisers and broadcasters to mug them in this manner?

**“A season of Premier League in your living room can set you back £1500”**

The premier league was created as a result of a desire by top clubs

to negotiate a better deal for televised games. Crucially, this included an ‘equal share’ clause, which guarantees every club £79 million regardless of finishing position. Originally, 12 teams span off to create the Prem, which has now grown to 20 teams. This, coupled with the number of countries worldwide that lap up English football, has made the EPL the most profitable league for clubs. Huddersfield Town placed 20th in the 2018/2019 season, and were relegated from the Premier League to the Championship. They still

took home £5 million more than La Liga's 4th place, Sevilla.

It's a shame that not enough of this money manages to improve the experience of the fans. Granted, many clubs have recently implemented much needed upgrades to their stadiums. Manchester City have famously flirted with financial fairplay due to the filthy oil money that has greased their turnstiles, and Spurs eventually moved into the soon be renamed Tottenham Hotspur stadium. But while many parks are still falling apart, clubs prioritise extortionate

wages to ensure that they secure Pogba's image rights. This also means that young homegrown talent is overlooked for sensationalist continental players that are paid more as clothes models than football players.

This is why, as a Chelsea fan, I'm glad we have a two-window transfer ban. I'm glad we're forced to play at least a couple of the players that we have in our loan system, the number of which could fill a small European country.

**“Young homegrown talent is overlooked for sensationalist continental players”**

The expectation of success that every manager faces in his first season has caused a ridiculous turnover of staff. We have no continuity of direction, with a new system touted every August, only to be denounced by February. Maybe the vast amount of money at stake means that there is no hope for change, but there are better systems out there. At any rate, if the NFL successfully start a franchise in London then maybe there'll be no football to pay for.

## COMMENT

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## The Hong Kong Protests

*Comment Writer and Hong Kong native Andrew Lee gives his views on the ongoing protests in Hong Kong.*

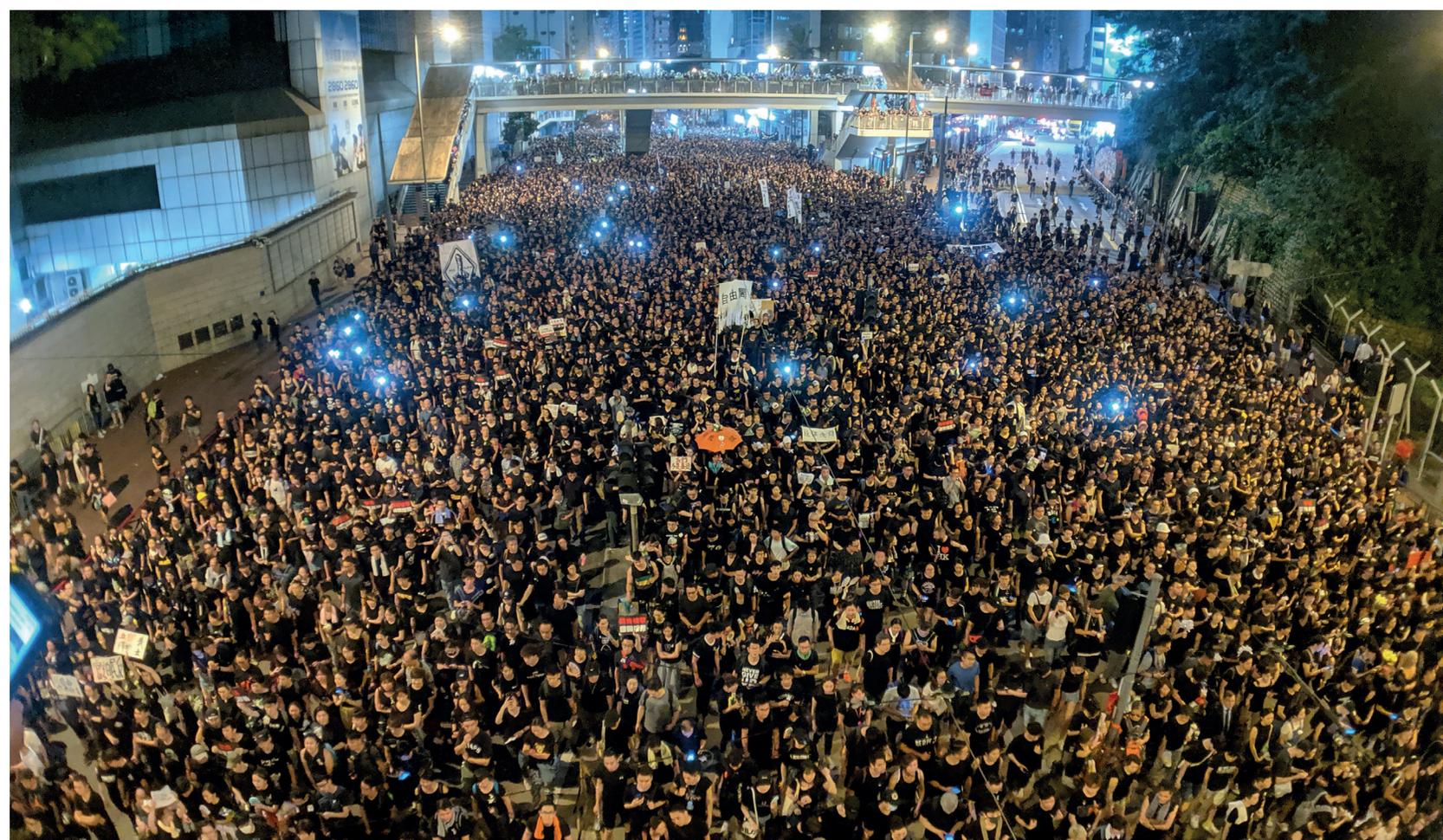
## COMMENT

**Andrew Lee**

*Comment Writer*

Protests in Hong Kong have been in the news for almost 4 months. Initially the protests were targeted to stop the extradition law to pass. I am sure that many are confused why a seemingly common extradition law caused full-scale riots and protests. The proposed extradition law included an extradition agreement with China. Hong Kong has a completely different law system as it was a British colony until 1997. Most of the laws are British laws and the rule of law has been respected for years. In contrast, China's law system is widely considered to be a political tool for the Communist Party. Hong Kong people fear that fugitives (fugitive from China's point of view can be very different from ours!) sent back to China will receive unfair treatment. That's what made nearly 1 million people take to the streets on 9 June which is roughly 1/8 of the population of Hong Kong.

The government remained unmoved and announced that it would continue its work on passing the law. This infuriated the people and inspired some to start protesting violently. As protests started to get violent, clashes between the police and protestors became more intense.



The Hong Kong Protests // Flickr: Studio Incendo

On 21 July 2019, a mob of around hundred armed men attacked civilians, who were mostly pro-democracy protesters, at Yuen Long Station. Later it was found that police had turned a blind eye to the attack and the police force was accused of collusion with the mob. This sparked more violent protests, and this is when the protest shifted its focus from anti-extradition to anti police. On several occasions, the police force showed a completely biased attitude towards the pro-government side and this included setting an armed pro-government protestor free after they assaulted the opposition.

Pro-democracy protestors are called

cockroaches by their opposition. Indeed, they have showed the resilience of cockroaches. In a recent report, around

**"However if the government insists on ignoring the demands of the people, this will ... potentially trigger an emigration crisis."**

40 percent of arrested protestors in the last 4 months are aged under 18. These young passionate protestors and their pursuit of freedom and western values will pose a great threat to the government in the long term. I personally can't see this clash ending without both the protestors and the government taking a back step. It seems impossible that the government is going to meet the 5 demands proposed by protestors which include universal suffrage for the election of the chief executive and releasing all prosecuted protestors. Meeting some of these demands will completely undermine the values of the Communist Party and potentially cause local uprising in

mainland China.

However, there is one demand that is worth mentioning which is to set up an independent committee investigating the misconduct of police during the protests. I am very confident that protests would die down after this demand has been met. However if the government insists on ignoring the demands of the people, this will be the start of a series of even more violent protests and potentially trigger an emigration crisis.

With Hong Kong being sandwiched between the West and China, the freedoms that all Hong Kong citizens celebrate and thrive under are getting tightened gradually by Beijing. Fueled with ri-

diculous property prices and income inequality, the anti-extradition protests seem inevitable in retrospect.

The protest has inspired many to take side in either pro-democracy or pro-government. From what I see, the difference in political stance has caused tensions between friends and family. Many feared to express their opinions while some openly criticize others' opinion on social media. Perhaps we should start respecting each other's opinion and try to talk our way through these. I never love writing, not even in Chinese, but I could really feel the drive to write about Hong Kong, the only place that I could call home.

# POLITICS

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## WHAT IS CAPITALISM?



## *What is Capitalism?, Part 1: Boss makes a dollar, I make a dime...*

*In the first segment of an 8-part political economic series: "What is Capitalism?," we look at wage labour and the class divide.*

### POLITICS

**Ansh Bhatnagar**  
*Politics Writer*

Capitalism: in its modern form, it's the way the world works, and has worked, for the last 200 years. It shapes more than just our economic life but encroaches on our politics, our climate, our culture, our very psychology. Although it dictates our lives, it can still remain a mystery to many of us, with many key ideas locked away in dusty tomes from the 19th or 20th centuries. In this series, I hope to make these ideas more accessible and answer the question: What is Capitalism?

The word itself makes us think of corporations and consumerism, markets and money. But the pre-eminent aspect of capitalism is the relationship between a worker and their employer. The employer enters into an agreement with the worker whereby the worker sells their labour power, i.e. their capacity to perform labour, in exchange for money in the form of wages, whether they be determined on an hourly or yearly basis.

This relatively simple concept is referred to as 'wage labour' by political economists. However, there are logical consequences to such a system that may not be immediately obvious. For example, let's say you work for a company, at a

chair factory. They agree to pay you £10 per hour of your working time. This time is where you use your labour power to perform labour. It doesn't matter

**"The pre-eminent aspect of capitalism is the relationship between a worker and their employer"**

how much or how well you work, you get paid a fixed wage. But why should a company agree to pay you £10 an hour for the labour you perform in that time? What's in it for them?

The labour you perform generates value – in this case, taking the raw materials (wood) and adding value to it by performing your labour on it and turning it into a chair. The chair is worth more than the raw wood because of the work you put in to it, and now the employer can sell the chair for a higher price. Every hour, you work on chairs and add value to the wood. If your labour is contributing less than £10 an hour of value, the employer is making a loss by paying you £10 an hour to work at the factory – they would simply terminate the contract and bid you adieu. If you

are contributing exactly £10 an hour of value, the employer is not making a profit or a loss – they may as well do nothing. This leads to a logical, yet stunning conclusion: you are contributing more than £10 an hour of value (say £25 an hour), and the 'surplus value' (£15 an hour) is being pocketed by the employer as profit.

This profit was generated by the worker yet is kept by the employer who has performed no labour. This idea of surplus value doesn't just apply to factories and the manufacturing industry, but to all industries. Whenever you are working a job, you are generating more value for the company than the company is paying you (if this were false you would no longer be working there!). This value is then taken by the owners of the business, i.e. the shareholders, as dividends. Shareholders hold shares due to their investments into the company, and their ability to make investments comes from their wealth: that is to say, capital. These are the capitalists that give their name to capitalism.

Economists have come to differing moral judgements on this relationship. Some describe it as fair, arguing that the profits are well deserved rewards of capitalists who have taken a risk by investing their capital into a business, and that as workers enter into wage labour 'voluntarily', it cannot be called unjust. Many others argue otherwise, identifying wage labour as an exploitative system where capitalists leech off labourers, who,

due to socio-economic factors arising from other aspects of capitalism, have no choice but to perform wage labour to survive.

**"Economists have come to differing moral judgements on this relationship... Some describe it as fair... Many others argue otherwise"**

This is where the idea of economic class comes

in: capitalists are, by definition, an elite minority class, and workers are the subjugated majority class. Critics of capitalism define the working class as the group of people that have no wealth/capital to live off and are thus made to sell their labour power to survive and meet their material needs. Meanwhile the capitalist class have wealth, and can use that wealth to purchase land, factories, offices, commodities. These things are what labourers work with in order to produce goods and create services for the capitalist to sell, and are collectively referred to as the 'means of production' and are owned by the capitalist, not the worker. By investing capital, hiring workers, and the surplus value of the workers'

labour as profits, the capitalist can live off their wealth without having to perform any labour. This is what divides the working class from the capitalist class.

While we have looked at the worker-employer relationship in an isolated sense, there are further questions to consider. Why is wage labour viewed as an involuntary action? Where did the capitalist's wealth come from? What does it mean for capitalists to 'own the means of production'? What role does the state play in this? All this, and more, will be answered in next week's article, where we will look at the concept of private property. Stay tuned!



Amazon warehouse // Flickr

# POLITICS

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## United States Supreme Court Weighs New LGBTQ+ Rights Cases

*Three cases will decide whether LGBTQ+ Americans have any protection from discrimination in employment*

### POLITICS

**Alex Hodges**

*Politics Writer*

Protection from dismissal on the grounds of sexual orientation or gender identity was up for debate before the US Supreme Court this week, in the first three LGBTQ rights cases of the last 2 years. The cases referenced Title VII of the Civil Rights Act, which bans discrimination in hiring, pay, and dismissal on the basis of an individual's "race, color, religion, sex, or national origin."

Title VII became law in 1964, well before the gay rights movement, so LGBTQ+ people were not explicitly protected. Since, rights for LGBTQ+ people have been executive policy and so have varied; the Obama administration issued a memo advising the Justice Department that Title VII applied to transgender workers, advice reversed by the Trump administration in 2017 along with a wider push-back against transgender people's rights. Since 28 states have no local protections for LGBTQ+ people, these varying federal guidelines remain the only legal defense against discrimination. This week's court cases will finally define LGBTQ+ peoples' federal rights.

Two of the cases are similar and relate to employment rights for sexual orientation. *Bostock v Claymore County* concerns a court official, Gerald Bostock, who worked with exemplary records for ten years before

coming out by joining a local gay softball league. He was promptly fired for "conduct unbecoming of a county employee." Claymore county alleges that Bostock abused county funds, but did not accuse Bostock until after he filed his complaint. The second case, *Zarda v Altitude Express Inc*, references a skydiving instructor, Donald Zarda, who claims he was fired for not conforming to the "straight male macho stereotype" after a customer complained.

**"These federal guidelines remain the only legal defense against discrimination"**

Although sexuality is not directly mentioned by Title VII, Zarda and Bostock's lawyers claim orientation is still protected. Their clients' behavior – being attracted to other men – would not have caused their firings if they were women. Therefore, their firings constituted sex discrimination and breach Title VII. Employers, however, have maintained that such a change in interpretation is judicial overreach and should be within the purview of Congress instead.

The third case, *Harris Funeral Homes v Equal Employment Opportunity Commission*, involves Aimee Stephens, a transgender woman. After

working with the funeral home for six years, she came out as trans and was fired two weeks later. Her lawyers argue that she was discriminated against on the basis of sex because she failed to fit the stereotypes of her biological sex. Previously, the Supreme Court has held that employers cannot discriminate against women for being insufficiently feminine. Therefore, since Stephens was not presenting as sufficiently male (i.e. conforming to her biological sex), she should not have been discriminated against either. Again, in oral arguments Harris Homes argued that extending protections to transgender people would be overreach, since they contend Congress has the exclusive right to update the Civil Rights Act's meaning.

Unlike other LGBTQ+ rights cases, religious freedom has not been a primary issue, despite Bostock's employer being represented by the Christian nonprofit the Alliance Defending Freedom, an



Baltimore pride // Flickr

organization designated by the Southern Poverty Law Center as an anti-LGBTQ+ hate group. Rather, the three employers are arguing that it is legal to dismiss people for their sexuality or gender identity for any reason.

The Court spent a significant amount of time discussing whether a change in the interpretation of the law to cover

LGBTQ+ people would cause "social upheaval." Both liberal and conservative justices referenced transgender peoples' access to bathrooms, due to disputed concerns of violence from allowing biological men into women's environments. This topic is a touchstone of the American debate on transgender rights, and was mentioned despite bathrooms not being explicitly linked to any of the three cases being considered.

How strongly the Court defers to Congress will be influenced by Justices Kavanaugh and Gorsuch, the two Trump-appointed justices seen as conservative picks that shifted the court to the ideological right. Since the retirement of swing vote Justice Kennedy, the Court's opinion on LGBTQ+ rights has been especially unclear; this case will show how far the Court's opinion has shifted.

Whatever the result, the outcome of these three

cases will affect the lives of millions of Americans, whether or not they identify as LGBTQ+. If the Court finds in favor of the employers, similar arguments could be made across a range of other anti-discrimination laws, opening the way to LGBTQ+ persons losing equal access to housing, education, and sports events. Furthermore, dismissal for not conforming to gender stereotypes would become legal, allowing more forms of sex discrimination, such as penalizing men who are the primary carers for children, or women who are the primary source of income for a family. However, if the employees' complaints are upheld, then LGBTQ+ people in 28 states would gain certainty about their legal position and protection in employment law, with more defined protections in other areas possibly following.



White House rainbow for SCOTUS ruling on same-sex marriage (2015) // Wikimedia Commons

# POLITICS

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## Shaky Foundations: Unrest in Ecuador offers important lessons for the Latin American left

### POLITICS

**Nicolás Manrique**

*Politics Writer*

If you're not totally up to speed with the situation in which Ecuador currently finds itself, I think I can find it in my heart to forgive you – in a world which seems to be in a hurry to fall into crisis of late, it can be terribly hard to keep up with it all. In any case, let me lay it down for you: On October 1st, Ecuador's president Lenín Moreno announced a new IMF-supported austerity package to combat the country's rising debt and to qualify for an emergency loan of \$4.2bn. One particularly controversial aspect of the deal was the repealing of some 40-year-old fuel subsidies, which saw the price of diesel double overnight. In response, labour unions and indigenous groups took to the streets to demand the subsidies' reinstatement – initially, Moreno refused to budge, and so the protests became increasingly violent, culminating in hostage-taking of police officers, the deaths of at least 8 people, and evacuation of the national government from Quito to the coastal city of Guayaquil. After 2 weeks of continuous unrest and eventual talks, Moreno finally agreed to reinstate the subsidies. A victory for the people, then – but what lurks beneath the surface?

Moreno had been right to be nervous: over the past 30 years, indigenous-led groups have been responsible for the ousting of several presidents. Despite this, the government maintained that the



Thousands massed outside National Assembly building in Quito // Reuters

package was necessary to make up for years of over-spending by the previous government of Rafael Correa. They said that the subsidies were costing the nation a cool \$1.4bn per year, a sum which had become unaffordable. For CONAIE (Confederation of Indigenous Nationalities of Ecuador) however, this wasn't good enough.

**“A substantial failing of left-wing Latin American politics”**

Led by Jaime Vargas, they maintained that the subsidies are vital for the livelihoods of the poor, of whom indigenous people form a disproportionate part. In a country where the minimum wage is under \$400 per month,

the doubling of fuel costs impacts disadvantaged people massively.

All of this points to a substantial failing of left-wing Latin American politics. Native peoples have for years struggled under the yoke of global neoliberalism; their lands are frequently occupied by multinational corporations and their traditional societies are disrupted by an uncaring global order. For the approximately 3 million indigenous Ecuadoreans, this means being 4.5 times more likely to be impoverished. Native children only stay in school on average for half as long as their colonial-descended classmates. And yet despite this obvious systemic disadvantage, many left-wing populists of the Latin American “pink tide” have been unable to adequately deal with it. Take Correa: over the course of his 10-year premiership, his government used state oil revenues to increase

spending on health, education and social programs, and as a result

**“For the approximately 3 million indigenous Ecuadoreans, this means being 4.5 times more likely to be impoverished”**

Ecuador saw a large drop in poverty and inequality, among other encouraging development indicators. However, his administration oversaw intense development and exploitation of natural resources and native lands, often on behalf of overseas com-

panies. In late 2016, the lands of the Shuar people in the Amazon were literally invaded and occupied by the state military in response to their opposition to massive hydroelectric and mining developments by Chinese and Canadian firms. The local autonomous government was arbitrarily detained, and when the locals attempted to resist, the army were granted exceptional powers to put them down.

The response from supporters of Correa's approach will say that the development provided over a billion dollars in income for the government annually, money which was then reinvested into the country for the benefit of all. But much of this reinvestment was only skin deep, and failed to properly address the deeper structural roots of inequality in Ecuador, which come as the product of decades of colonial and post-colonial historical development – a development whose characteristics are specifically Latin, and whose antagonisms are rooted in the tension between the European and the Indigenous. This failure is evident in the over-reliance of Correa's economic plans on global commodity prices, most particularly oil. His volatile, populist leftism, while impressive in the short term, can never truly reconcile the inequalities of Ecuador because it relies too inherently on European notions of individualism, which stand in stark contrast to traditional native ways of life. For the Latin American left, then, a new way of thinking is needed, and seeds of it can be found in the works of the Peruvian thinker Jose Carlos Mariátegui.

In the early 20th Century, Mariátegui saw that applying European ideas about leftism to South America was foolish, both since the continents had undergone such different developments through history, and since the germs of socialist society pre-existed in many indigenous peoples of the region. This is the kind of radical thinking necessary for the reinvigoration of the Latin leftist project – one needs only to look to the Zapatistas of Chiapas to see the successes it can produce. It's also one that's particularly relevant considering the current climate crisis: in the words of the Peruvian indigenous leader Hugo Blanco, “We Indians, we've been practicing ecosocialism for five centuries now”.

**“The deeper structural roots of inequality... the product of decades of colonial and post-colonial historical development”**

With all this in mind, we can understand the current protests in Ecuador as but one facet of a long struggle between indigenous and colonial thought in Latin America. Though the current protests have ended, the underlying tension isn't going anywhere. Moreno must understand this better than his predecessors if he is to truly move Ecuador forwards.

# POLITICS

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## Graduate work visa scheme will benefit current students graduating in or after summer 2021

### POLITICS

**Andy Wang**  
Politics Writer

Last month the government announced the Graduate visa scheme, through which non-EU/EEA students graduating from a UK university could be granted a 2-year work visa. This was seen as a reimplementation of the previous Post-Study Work visa, which was scrapped by the then-Home Secretary Theresa May back in 2012 in an attempt to bring down the net migration figure, under the background of the infamous “Hostile Environment” policy. Speculation remained over the last few weeks as to whether this new visa scheme could benefit current students who have already started their courses before the scheme was announced. Given the Conservative party’s track record on immigration policies, the outlook was mostly negative.

A twist came as the government responded to an online petition titled “Bring the date for the post-study work visa closer to help current students”, which received more than 26,000 signatures as of 11 October. The response, issued by the Home Office, states that “[a]ny student who successfully completes their degree-level course at a qualifying institution in the summer of 2021 or thereafter will be eligible to apply”. This means that the year of entry will not affect the eligibility for this scheme, so long as the student completes the course in or after summer 2021. In practical terms, this would mostly benefit 3-year Bachelor programme students who started after 2018, as well as 4-year integrated Master programme students who started after 2017. Those who will finish before summer 2021, however, are excluded from this scheme.

While the 2-year graduate visa will not require graduates to earn more than a certain salary

policies require people to earn more than £30,000 per year to be eligible for this visa category, with some limited exceptions. This threshold is likely to increase as the Tory-affiliated think tank Centre for Social Justice has urged the government to set the threshold to £36,700 per year in a policy recommendation paper published in August. Policy

**“An online petition titled “Bring the date for the post-study work visa closer to help current students””**

threshold, graduates must apply for the generic Tier-2 work visa should they wish to remain in the UK after the 2-year period has elapsed. Current immigration

recommendations from CCJ have heavily influenced actual policies set out by the Conservative administration in the past, including the introduction of the controversial Universal Credit system. It was widely speculated that the government will listen to this proposal.

The uncertainty remains as to whether the current government can last until 2021. Should the Conservative party fail to form a government after the imminent yet-to-be-called General Election, the 2-year graduate visa scheme will not be implemented exactly as how it was announced. However, almost all the major opposition parties, including Labour and the Liberal Democrats, are in favour of reforming the current immigration policies established by Theresa May’s 9-year tenure as the Home Secretary and then the Prime Minister. Labour has consistently supported UK graduates’ right to work and called for the Tier-2 visa salary threshold to be lowered. On the other hand, since



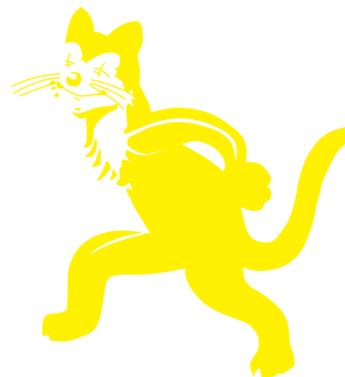
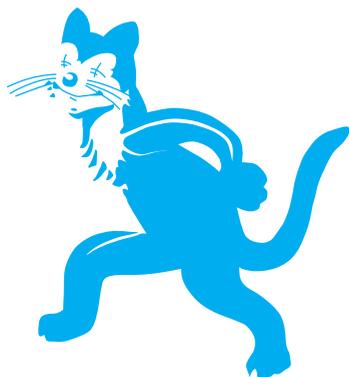
UK Border, Heathrow // Wikimedia Commons

the Brexit Party lead by Nigel Farage has done consistently well in recent opinion polls, it is not impossible for the Conservative party to form a minority government with the Brexit Party, in which case the Brexit Party may press for a more hard-line immigration policy to further reduce the net migration figure.

It should be noted, however, that neither the graduate visa scheme nor the visa salary threshold

should affect EU, EEA and Swiss nationals already in the UK. All EU, EEA and Swiss nationals currently living in the UK can apply through the EU Settlement Scheme to remain in the UK after Brexit. This is true regardless of the political situations surrounding Brexit, including in the no-deal scenario.

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# ARTS

arts.felix@imperial.ac.uk

## Meet the Editors: Ozbil - The Fanatical One

### ARTS

#### Ozbil Domenci

Arts Editor

Having joined Felix Arts as a writer last year, I often think about how different life would have been had I joined sooner. I first heard about Felix Arts from my housemate, and quickly realised that this would be one of the best ways to enjoy the London theatre scene on a student budget – and enjoy it I have! Having an endless source of free press tickets allowed me to see productions that I wouldn't otherwise be able to afford. Now a fifth year medical student, I have found myself not only writing for, but also

editing the Arts section of Felix.

As you might have guessed already, I tend to be more interested in the performing arts. I've seen Hamilton four times (twice for free, thanks to kind strangers on Twitter!!!) and Harry Potter and the Cursed Child five times (I may have found a way to rig their lottery, which sadly, I can no longer do). I loved War Horse so much that I went again with a friend the day after seeing it for

**"...I played the role of the Russian ballet instructor. What a blast!"**

the first time with another friend. I even met Sara Bareilles on the opening night of Waitress, which, frankly, made my life.

My involvement in drama started at a young age, taking part in various school productions. My initial acting career was cut short when I started a short-lived experiment in playing the trumpet. This didn't last long.

My mum and I have always had a tradition when I was growing up. Every September, my mum and I would buy tickets for the Cyprus International Theatre Festival and go see every single play available for the entire month. We managed to keep this up until I left for university, and even after when my brother took on my role, and I lived vicariously

through them.

Once I came to Imperial, the flame I once had for acting was reignited after I auditioned to be a part of the ICSM Drama production of You Can't Take It With You, where I played the role of the Russian ballet instructor. What a blast! Ever since then, I have been an active part of the ICSM Drama family and have enjoyed every second of it.

In short, the theatre scene in London has been a defining part of my university life, and it was surprisingly affordable.

Come join us at Felix Arts if that sounds like something you're interested in. We're to be found at Felix Arts 2019/20 on Facebook (Felix Arts 2019/20), or you can email us at arts.felix@ic.ac.uk.



**A budding thespian trying out his blue steel**  
// The Crucible, ICSM Drama

## Noises Off

*A comedy that was just... off.*

### ARTS



**Where?** Garrick Theatre  
**When?** 27th Sept - 4th Jan  
**How Much?** £15

#### Ozbil Domenci

Arts Editor

Hailed as 'iconic' and as 'the funniest farce ever written', I thought I was in for a treat when I went to see Noises Off at the Garrick Theatre. Having been revived on Broadway various times, I was sure that the play would be nothing short of magnificent. Oh, boy, was I wrong.

Noises Off is pretty much one of the earlier

examples of a play-with-in-a-play. Divided into three acts, the first act focuses on the technical rehearsal (the night before the official opening), the second act on the opening night, and the final act on the closing night, months down the line, displaying the sheer incompetence of both cast and crew in a fictional play called Nothing On. The Noises Off audience gets to watch the events unfold both from where the Nothing On audience would be sat and from the backstage at different points in the show.

Overall the cast is very strong. There isn't too much acting involved, as the play relies heavily on physical comedy, but what acting there is is done really well. Where the cast

really deserves credit is the incredible precision of their movement throughout the play, shutting and opening doors at exactly the right moments, throwing props around and moving through the precise choreography required for the show to work at all.

Unfortunately, while impressive, the physical comedy just isn't funny. What I thought would be a laugh-out-loud evening consisted of maybe a few giggles. Some members of the audience seemed to really enjoy it - sadly, I found their unrestrained hilarity funnier than what was on stage. I might have given the show a pass had it contained any deeper message behind the unsuccessful hilarity, but un-



**The cast looking for a joke to land** // Helen Maybanks

fortunately it was entirely devoid of one.

While I really don't like the term 'cringeworthy', I can't think of any other way to describe the play, as the humour was extremely cheap through-

out. I get the attempts by the play trying to symbolise life itself and how it is often a bigger mess than anticipated, but as an audience member, it is only possible to come to this conclusion if you are

forcing yourself to come to a conclusion. Overall, although a completely harmless bit of staging, Noises Off fails to deliver either the promised laughs or a point to the gauche buffoonery.

## ARTS

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## A Distortion of Orientalist Art

*Innocent romanticism, an intrigue for exoticism or a mission of western hegemony?*

## ARTS



**Where?** British Museum  
**When?** 10th Oct – 26th Jan  
**How Much?** £12 students

**Asad Raja**  
*Arts Writer*

This tone is set by the very first piece in the exhibition, the Prayer. This painting by Frederick Arthur Bridgman, is supposed to capture two individuals in a mosque, engaged in the act of prayer (salat). The subject in the foreground stands with both hands outstretched at his sides, face up to the sky, while the

other arches his back and holds a palm up in front of his head awkwardly. As a Muslim, I can inform you that neither action is a legitimate stage in salat and the scene actually contradicts the humility and rigour inherent to the ritual.

The question of artistic intention is contentious, and particularly sensitive in the case of western observation of cultures where imperial hegemony is historically rife. The colonial context of the orientalist movement saw the commissioning of large quantities of art by North American and European elite to perpetuate a political agenda of white superiority. This is demonstrated in much of

the art displayed in this exhibition – local people of the Middle East and North Africa being presented as idle or primitive in scenes capturing everyday life. An extension to this is the completely fabricated and perverted imaginings of the harem (domestic, women-only spaces that are intended for the preservation of privacy and modesty). Paintings such as The Turkish Bath by Jean-Auguste-Dominique Ingres which depicts a group of nude women lounging in suggestive poses, ironically seem to obsessively fetishise the harem, whilst portraying it as an animalistic Islamic practice to elite western audiences. In the exhibition's final piece,

contemporary Turkish artist Inci Eviner protests and satirises this sexualisation, presenting her own fictitious Harem in a looped video of women engaged in bizarre, possessed interactions.

It is undeniable that some level of genuine admiration for the Islamic world is suggested by some of these pieces – for example, Jean-Baptiste Vanmour's illustration of Ottoman wealth and power in scenes of diplomatic ceremonies. Despite this, an air of glib appropriation and ignorance is often maintained – John Frederick Lewis' self-portrait as a 'Middle Eastern' shows him draped in a sash that is actually Indian. This is supported



**Theatre of Nations, Shukshin's Stories // Sergey Petrov**

by the fact that many of these pieces were created by artists who had never travelled to the places they portrayed, instead relying on props and other art for inspiration. Indeed, it would seem that art with exotic motifs was the aim, rather than art with accurate Islamic influences. Though the

exhibition acknowledges orientalism's misrepresentative nature, the captions predictably offer fairly subdued criticism, settling for terms such as "romanticised" and leaving it to the viewer to consider the nuanced and often deliberately deceitful nature of the orientalist movement.

## Dutchman - A Discomforting Enlightenment

*Unsettling parallels are drawn between Black Lives Matter and the Civil Rights Movement*

## ARTS



**Where?** Tristan Bates Theatre  
**When?** until 26th Oct  
**How Much?** from £12

**Preet Lalli**  
*Arts Writer*

The playwright Amiri Baraka, a famous American Civil Rights activist known by the name of LeRoi Jones, wrote and produced Dutchman in 1964, a time when African Americans were not afforded the same constitutional rights as white people. Racial segregation, discrimination and violence were commonplace and were Baraka's inspiration for this tale. Today, unjustified

racial violence, in particular towards black men, is consistently in the headlines, making this story as relevant as ever.

Set in a subway carriage, Dutchman follows the story of two strangers – Lula, an eccentric, older white woman, and Clay, an unassuming, young black man – on a journey across New York. The potential lovers seem to echo the familiar trope of 'forbidden' biracial romance between a white female and a black male that is most notably explored in Shakespeare's Othello, with several key distinctions. Lula is the aggressor: she boards the train eating an apple and coquettishly moves about the carriage to initiate a flirtatious conversation with Clay after accusing him of staring at her legs. Although he is at

first shocked by Lula's advances, Clay quickly becomes intrigued when she makes several correct assumptions about who he is, based on her stereotype of black men.

The dance of seduction continues to a horrifying climax, suggesting that the true casualty of the biracial sexual struggle, is the black man. Baraka's use of symbolism is subtle but effective. The setting of a moving train highlights the continuous presence of the racial issues discussed – especially ironic given the time since it was first performed. The apples Lula eats and offers to Clay liken her to Eve, committing the original sin and causing human suffering.

Both protagonists have respective outbursts which are noticed by

the other passengers on the train. The contrast between their reaction of mild amusement at Lula's verbal tirade and abject fear and revulsion at Clay's defensive monologue is starkly reminiscent of the systematic criminalisation of black men in media and society.

Clay is played by James Barnes, whose inconsistent New Jersey accent does not do justice to his otherwise powerfully emotive performance. Cheska Hill-Wood's maddeningly consummate portrayal of Lula incites the perfect level of shock, embarrassment and unease.

Lula freely and frequently uses derogatory terms such as 'n\*\*\*\*', which achieve the desired effect of horror. However, archaic references such as 'Uncle Tom' (someone



**An uninvited, ritual seduction // Diana Patient**

subservient keen to win the approval of white people) and 'Charlie Brown' are a little out of reach for the modern audience. By no means could this play be described as easy to watch but since when have discussions about racism been easy? The director, Kaitlin Argeaux commented that "to not see colour" is a privilege afforded mainly to Caucasians", Dutchman is a distressing but crucial

performance that renders seeing and confronting colour unavoidable.

With strong sexual imagery, violence and an unexpected finale, Dutchman is sure to keep you entertained. It's a little like watching a horror movie - you're scared and uncomfortable but you also don't want it to end. Be ready to have your preconceptions about race and identity questioned.

## ARTS

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Does golden boy deserve all the love? // Jamie Scott-Smith

# Tick, tick... BOOM!

*A musical worth the generous punctuation?*

## ARTS



**Where?** Bridge House Theatre

**When?** 1st – 27th Oct

**How Much?** £12 - £18

**Syon Lee**

*Arts Editor*

Before there was *Rent*, there was *30/90*. Wait a second. Let me start again. Before there was *Rent* there was *Boho Days*, a... solo rock monologue? Ah, here we go. Before there was *Rent*, there was *30/90*, which was renamed to *Boho Days* and finally to *tick, tick... BOOM!*, an autobiographical solo rock monologue created and performed by the late Jonathan Larson and then posthumously reworked into a three-actor stage musical. Convoluted history aside, *tick, tick... BOOM!* has been receiving

a lot of attention of late, a surprise given its relative obscurity. In fact, Netflix has recently announced its own adaptation of the musical with none other than Hamlet extraordinaire, Lin-Manuel Miranda, set to direct.

From the moment the lights dim and the story begins, it is easy to understand why a musical set in the 1990s still strikes a chord with the audience of today. Over a background of incessant clockwork ticking, the main character, Jon (Alex Lodge) introduces himself and explains that the sound we hear is the sound of his mounting anxiety. Immediately, I recognise the image before me: a young man shaking with nervous energy, eyes darting around looking for some semblance of security, desperate for a change or a big break. Forget the 1980s – this is peak millennial anxiety.

And then Lodge breaks into the opening number, the ex-titular *30/90*, and if anything could qualify as a *BOOM!*, this was it. Attacking the fricative con-

**“Forget the 1980s - this is peak millennial anxiety”**

sonants and stops with the aggression of a machine gun, Lodge showcases his immense talent from the get-go. That energy propels him through the whole 90-minute show, injecting spice even in the slower, more melancholic numbers. And if Lodge is here to make an impression, the rest of the cast isn't going to sit back and let him take all the glory. James Hume as Michael, Jon's best friend, deftly matches his bassy

range to the emotional highs and lows of his character, spinning his honeyed tones from cocky and braggadocious in the comedy duet *No More* to heartrending and soulful in the mournful *Real Life*. I find his character and performance more convincing than our often self-involved protagonist. Perhaps it's because Michael never breaks the fourth wall and speak to the audience like Jon can, the emotional distance adding a layer of vulnerability to his character.

If Lodge is the dominant and distinctive heart notes, and Hume the rich base notes, Georgie Ashford's Susan rounds off the trio with her lofty top notes that contrast pleasantly against the men. A shame then that her character is so underutilised. In fact, the biggest issue I have with this musical is the way all the women are presented. Susan, Jon's girlfriend, dreams of moving to the seaside

(why are all women in musicals obsessed with settling down at the seaside?) and getting out of the rat race that Jon has trapped them in with his inability to compromise or see beyond his own ambitions. And yet the story almost villainises her for not believing in Jon's vision or sticking it out until he becomes successful. Unfortunately, all the female characters are either obstacles to Jon's success or an accessory to his ego. For example, the second number *Green Green Dress* is a song purely about how attractive Susan looks in a green dress. Although a fun number, it does nothing for the plot and tells us nothing new about the characters aside from Jon's functioning sex drive. It's basically a gratuitous sex scene in the form of a song. That's bad enough on its own, but a closer look at the lyrics might even make you start to wonder about the

consent of it all.

And that's kind of the problem with the whole musical. Even though there are great moments of introspection and pertinent messages that ring true regardless of the time period, there is nothing remarkable or original about the story. It's a tale as old as time: the archetypal suffering artist, pressured by those around him (and it's always a him) to conform and give up on his dreams, is saved at the last minute by some lucky twist of fate. Only this time, the story is told by really quite unreasonably talented actors and, oh yeah, they also sing a song about Twinkies. As Jon remarks near the beginning, it's “hard for people born after 1960 to be idealistic or original”. How true he was! Although he was probably hoping to be an exception, not an example.

## ARTS

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## Giselle: a bold reimagination of a classic ballet

*Dada Masilo is a genius when it comes to storytelling through dance, and her take on Giselle is more emotional, raw and real than any other adaptation.*

## ARTS



**Where?** Sadler Wells

**When?** 4th, 5th Oct

**How Much?** from £23

**Xiuchen Xu**

Arts Writer

**D**ada Masilo is famous for her works which rework the plots of well-known classical ballet pieces. Her previous works include her interpretation of Swan Lake which included twists such as a homosexual Siegfried, and social commentary on sexism and homophobia. Her vision for Giselle is equally refreshing, with a focus on storytelling, and presenting the audience with unforgiving protagonist.

Giselle (played by cho-

reographer, Dada Masilo herself) is the young peasant girl who falls in love with the nobleman Albrecht (played by Lwando Dutyulwa). After discovering that he was already promised to another woman, Giselle dies of heartbreak. The second act sees Giselle summoned by a group of vengeful spirits called the Wilis. They are supernatural women who have the power to force men to dance until death from exhaustion, and Giselle joins them to enact her revenge.

The choreography of Masilo's Giselle is hugely innovative and exciting. The fusion of classical ballet with contemporary dance was done to perfection, and the addition of African dance makes the performance a unique visual masterpiece. The dance is far more expressive and emotional than

an average ballet, and the passion of the dance makes the story feel much more raw and real than the traditional more conserved story of Giselle.

A notable difference from the original Giselle, is the influence of African culture, as Masilo reimagines the setting of Giselle in South Africa. This is very prominent in the music that is layered with African voices and percussion. There is also the addition of the scene of Giselle going through an African ritual with her mother, and the changing of the leader of the Wilis, Myrtha, to an African healer.

The stage production also complemented the dance immensely, to create an immersive piece of art. The stage and costumes are minimalistic but impactful and effective. The beautiful



Mixing classical and contemporary makes Giselle more expressive // Laurent Phillippe

red outfits of the Wilis are particularly striking. They symbolize viciousness which contrast with the white dresses of purity and innocence in the original.

The performance also defies certain conventions of ballet, and there is an element of surprise that keeps the audience on the edge of their seats. There was dialogue, chanting, and acting, which all contribute to the organic storytelling. The inclusion of nudity accentuates the

vulnerability of Giselle. There was also the genderbending of two of the Wilis played by androgynous male dancers, calling into question the heteronormative culture and gender norms of ballet. Subversion of traditional ballet is daring, and by breaking well defined boundaries, Masilo sheds light on the infinite possibilities of ballet.

Overall, Masilo's Giselle is an incredible masterpiece, that is innovative and unique. It is an

unapologetic piece of art that is both ground-breaking and visually stunning. When compared to the original, Masilo's Giselle is filled with more drama and raw emotion, making it incredibly exciting. I truly believe Masilo's Giselle has the best storytelling through dance, and I believe it is a must-see.

## The Watsons: Jane Austen spin-off fiction fan club

## ARTS



**Where?** Menier Chocolate Factory

**When?** until 16th Nov

**How Much?** from £30

**Maria Portela**

Arts Writer

**L**aura Wade set herself up for a difficult task: to finish, as a play, a novel that Jane Austen couldn't complete. It follows the story of Emma Watson, a young woman used to a luxurious lifestyle, who finds herself dumped back home, and

financially dependent on her family. Several suitors are introduced, from the local clergyman to an awkward lord and his flirtatious friend. The introduction is familiar, at least for a regular Austen reader. That's when the original novel stops and Wade comes in. Quite literally - the character Laura, portrayed by Louise Ford, is the writer herself, transported to a fictional town in the 18th century with her modern language and electronic devices.

The play starts strongly, even before its official start. The lights are on and two characters are on stage from the moment

the doors open, ignoring the chatter among the audience. Then, a rapid succession of dialogues, aided by Samuel West's clever direction, introduce all the characters. There is a ball with music, dance and courtship, where the relationships between them become clear. These scenes are well constructed, dynamic without being confusing, and contain the exact amount of information we need to understand the world of the play.

When the source material stops is where the show falters. In a rather long and unconvincing scene, Emma Watson understands she is a char-

acter in a fictional work and goes from shock to nihilism, and then finally to rage. The news reaches the other characters, and the course of the story suffers a violent turn. They all abandon their Austenian roles and destinies to become their own persons and write their own stories - yep! It is as cliché as possible, though I concede it is funnier than one might expect. Laura, the writer, tries and fails to keep control of the story, in an obsessive pursuit of the purest Austen style - a recurrent reference in the play, which really is an extravagant homage to the great author. The contrasts between the real

and fictional world, and the significant social and technological differences between the characters' and the writer's time periods are often the sources of comic relief. I don't think anyone has ever described Candy Crush in such accurate detail before!

Wade's fatal flaw is trying to touch upon too many subjects, from feminism to political legitimacy, from the sense of purpose to the struggles of the creative process. She does raise good points: her portrait of an artist's vulnerability when creating something new is beautifully honest, and her constant urge to question the

status quo, although not new, is freshly done. But everything is so fast and inconsequential that some topics are only treated superficially, and tend to fall into pseudo-intellectualism (alright - you can cite Rousseau, but what comes from that?) or inexplicable events that lack credible motives or build-ups.

In the end, this show makes for an agreeable and fun evening. It is just a pity that it doesn't go deeper and sticks to simple comedy. Laura herself said it - 'I like it when they clap!'

# ARTS

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## Red Palace

*Lose yourself in the fairytale - but try not to lose the plot*

### ARTS



**Where?** The Vaults  
**When?** 2 Oct - 12 Jan 2020  
**How Much?** Non-dining from £18, dining from £45

**Claire Chan**

*Arts Editor*

A masked ball at the Prince's Palace, for the thousandth day of his reign. There's a rumour going around that the Prince will be dead by morning. We are left to wander through the palace's rooms, tasked with finding out just what is going on.

Such is the premise of Shotgun Carousel's immersive theatre performance, Red Palace. It's their latest large performance since last year's

well-received Divine Proportions. While that was centred around a dining experience, this year they've decided to make it more accessible with a performance-only option. I think this is a good idea, dinner being a luxurious touch but not essential to understanding the performance. The menu, put together by Masterchef semi-finalist Annie McKenzie, was delicious and appropriately banquet-y - think smoky slow-cooked lamb, melty Camembert and toffee apples in poison green. Some staffing issues had the show starting late so alas, we didn't quite have time for dessert before being whisked off to the main performance - a real shame.

We were given four chimes of the bell to 'explore the palace'. It transpired that there were

four different rooms, and we needed to go into each of them to find out the full story. It's a pity this wasn't made clear from the start - some people flitted in and out of rooms, or stopped for a cocktail and thereby missed a quarter of the plot.

The four sets were the best part of the show, each being their own self-contained world. There was a bath-house dripping with water and littered with seashells, where a seaweed-encrusted mermaid sang to us in a siren's voice. A chintzy, tapestry-draped room where we had our fortunes told. An eerie forest where wolves howled under the full moon. And finally, a little underground dive with candlelit tables and a striptease act.

Immersive theatre always requires a fine balance between sto-

rytelling and audience interaction. I'm not sure if Shotgun Carousel had the balance quite right. My fellow-ballgoer was asked to pass a message from one character to another, but the character he gave it to seemed nonplussed. Unlike full-on immersive shows like Wolf of Wall Street, the exploration and interaction here was more limited - we essentially went into the four rooms for a piece of the plot in each one.

After all the buildup, the ending turned out to be rather brief and anticlimatic. Beyoncé's "Run The World (Girls)" started blaring from the speakers along with other female-centric anthems in a bizarre feminist twist. This was strange to say the least as there hadn't been so much as a whiff of feminist rhetoric till then.

Nonetheless, Red



Expect fairy-tale glamour // Wikimedia

Palace made for an entertaining and unusual evening. The atmosphere was certainly magical, with everyone donning masks and many attendees in extravagant gothic costume. Despite a slightly put-together feel (terrible bartenders, sets relying heavily on draped fabric), strong performances by

the actors carried the day. Steffi Walker was particularly memorable as The Mermaid, delivering a haunting mix of cruelty and charm. On the whole, Red Palace had great potential for a thrilling night out. I would just have loved to see it with a tighter plot and more space for exploration.

## Up Pompeii - an audio revival

*Classic British comedy - is it just me who finds it a bit dated?*

### ARTS



**Where?** Shaw Theatre  
**When?** One-off on 12 Oct  
**How much?** £12.99 for the audio recording

**Claire Chan**

*Arts Editor*

One quick look around the audience and I soon realise my companion and I are easily the youngest in the room. I'm also the only non-white person there (unless we're counting the ushers). We're at a live radio recording of Up Pompeii, that BBC comedy classic about a

ne'er-do-well slave in Ancient Rome and the caprices of the family he works for. Not heard of it before? Understandable, given that it was first released in 1969 - long before many of the readers of Felix were born.

Back in its heyday the sitcom attracted up to 12 million viewers. Much of its appeal came from the idiosyncratic comedian Frankie Howerd, who played the title role of slave Lurcio. Yes, Lurcio, as in 'he-who-lurks'. It's all about the cheeky faux-Latin names here, and there's a full household of them - the bumbling master Ludicrus Sextus, his promiscuous wife Ammonia, their ri-

diculously naïve son Nausius and their not-so-innocent daughter Erotica.

The cast for this 50th anniversary revival is brilliant. Knowing how much the original depended on Howerd's unique charm, producer Barnaby Eaton-Jones has gotten David Benson, known for his skills at mimicry, to impersonate him as perfectly as possible. Benson has Howerd's frequent audience asides, curious little tics, and eccentric catchphrases down pat. As audiences, we're admonished for laughing - 'Shut your face!', 'Oh, please yourselves' - by Lurcio, which of course only makes us laugh more. There's comedy

legend Tim Brooke-Taylor as baddie Captain Treacherus, who rambles around looking for his escaped galley slave Voluptua (played very coquettishly by Camille Coduri, of Doctor Who fame). It's a star-studded cast and every character is played just how you would imagine them to be - the lecherous husband terrified of his wife, the teenage boy desperate to lose his virginity, the man-eating nymphomaniac...

Wait, the what? I know, I know. Fifty years on, the main problem with Up Pompeii is that the character clichés it relied so heavily on are increasingly less relevant in

the modern age. Another core part of its humour is bawdiness; the script is chock full of intentionally bad puns double-entendres, with many a nudge-and-wink at the audience. It's very farcical and panty-y, the audience love it but for me it gets old quite quickly (pun not intended, ha-ha). There's a sense that the cast could be doing much better comedy were they not constrained by the script; the funniest bits are when something goes wrong and they ad-lib.

It's a fascinating window into the humour of two generations ago. By the end the audience has gotten to their (slightly arthritic) feet to give a

standing ovation, and I'm clapping too. Even if it's a bit dated, Up Pompeii still manages to draw laughs, especially with this stellar cast. I'm actually rather tempted to watch the original TV series now. It may be ancient history - but like Vesuvius, it's still capable of causing a rumble.

*The audio recording of Up Pompeii will be released on Amazon, iTunes and at spitefulpuppet.com this November.*

## ARTS

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## Gauguin Portraits

*Narcissistic self-portraits and Polynesian child brides - a somewhat disturbing exhibition*

## ARTS



**Where?** National Gallery  
**When?** 17th Oct - 26 Jan 2020

**How Much?** Students £18

**Simran Kukran**

*Arts Writer*

As you enter the exhibition, the first room is filled with self-portraits of Gauguin. To walk into any room of self-portraits would give the impression of a self-centred creator, but Gauguin's portraits strike one as particularly narcissistic, given there are several oil paintings where he has painted himself in the image of Jesus. Alongside inscriptions of his own name, there are often the names of friends or family to whom the portraits were gifted. It seems Gauguin had a difficult time with people; on one occasion the dedication of the portrait was changed halfway through. A family quarrel perhaps?

Throughout the exhibition, Gauguin's peculiar wooden and ceramic sculptures are arranged centrally and given pride of place. These demonstrate immense skill and are interesting to look at, but the oil-on-canvas portraits are also far from conventional. His use of colour is intense and subjects are rarely depicted sitting or with their families behind them. In the "family and friends" collection, there is Young Breton Woman. In this portrait an aristocrat's daughter is seated beneath a coat of arms and fleur-de-lys. The indication of social standing is usual for a

portrait, but Gauguin also added a sculpture of his own in the background - a figure of a naked woman exuding menstrual blood. The combination of this sculpture with the subject's dejected facial expression give the painting a disturbing quality. The exhibition caption tells us

**"It is difficult to see any beauty in Gauguin's depictions of the Polynesian women he 'married' when they were 13"**

that, unsurprisingly, the aristocrat did not buy the portrait.

Discomfort upon viewing his works continues, especially those that were created during his time in Polynesia. Without context, many of

these are beautiful, and at first glance it is almost refreshing to see non-white women as the subjects in a post-impressionist exhibition. However, once it is learned that Gauguin "married" two of these women when they were 13 and fathered their children, it is difficult to see any beauty in Gauguin's depictions of them.

The exhibition also includes surrogate portraits. These are still-life paintings that have been interpreted to represent important people in Gauguin's life. A surrogate of Van Gogh is his sunflowers; the rich colours of these paintings give them incredible depth, and it is Gauguin's depiction of flowers, whether they are to represent people or not, that stand out as his most striking work. Given what we've learned about his views earlier on in the exhibition, though, it is difficult to want one of his prints, however beautiful, on a notebook or a cushion.



A perfectly proper portrait 'til you look closer // WikiArt



A legend in the flesh - but this Tolkien fan was disappointed // Frederic Aranda

## Ian McKellen On Stage

*Perhaps too much Shakespeare? More Gandalf please*

## ARTS



**Where?** Harold Pinter Theatre

**When?** 20th Sep - 5 Jan 2020

**How Much?** From £8

**Elizabeth Thong**

*Arts Writer*

Sir Ian McKellen: the mere prospect of seeing him live would stir up excitement in any Lord of the Rings or Shakespeare fan. And that was very much how I felt - I mean, who wouldn't want to see Gandalf live? McKellen's one-man show is a tribute to his 80th birthday and 50 years of acting, with the proceeds going to theatre charities. Well-versed in Shakespeare, Chekov and Beckett, McKellen has also acted on the big screen as Gandalf and Magneto. Throughout the show, his passion for live theatre and Shakespeare was clear. However, whilst advertised as involving "Tolkien, Shakespeare, Others and YOU", the focus of the show was on Shakespeare and not on the other aspects as

promised.

I was initially buzzing with excitement, hoping that he would shed some light on his stint in Lord of the Rings. The show opened with McKellen reading a passage from Tolkien's Lord of the Rings, including his famous "You shall not pass!" line. However, the passage was read a little quickly - at times, the words melded into one another, and it almost seemed like he was rushing through it. After the short 10 minutes of Tolkien and a few swings of his sword Glamdring (which was the highlight of the show for me!), McKellen moved on and never returned to Middle Earth.

McKellen went on to talk extensively about his personal life. He grew up in Lancashire and was drawn to theatre from a young age, with a penchant for Shakespeare's works. McKellen soon realised that his enthusiasm for theatre warranted his pursuit of acting as a full-time career. And that is what he did, progressing from small local productions to the Royal National Theatre; McKellen went

on to win every major theatrical award in the UK at least once. Whilst it was interesting to find out more about McKellen's story, this section of the show was perhaps more drawn-out than required.

The second half of the show focused on McKellen's experiences of Shakespeare's works. McKellen went through each of Shakespeare's plays individually, talking about his own personal experience and doing snippets of his lines. This would have been ideal for a Shakespeare fan; indeed, many members of the audience seemed to thoroughly enjoy themselves. However, going through all sixty-six plays was a rather lengthy process. For someone like me, who is not hugely well-versed in Shakespeare, many of the quips and anecdotes went over my head and I found myself lost at times.

Overall, I am glad to have seen a household name like McKellen in the flesh. For the Shakespearean fan, this would have been an ideal evening; for everyone else, it may be a struggle to engage fully with the entire show.

## ARTS

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## A Soviet still life in eight chapters - Theatre of Nations

A collection of stories by Vasily Shukshin, visited the Barbican under the direction of Latvian Alvis Hermanis to an audience more Russian than Kandinsky's caviar.

## ARTS



Where? Barbican  
When? 7th - 9th Oct

**Martin Flerin**  
Arts Writer

The themes of the stories are centred mostly on the everyday aspects of social life. The characters are not extraordinary in their feats of achievement but shine through with their touching realness. When the curtains part, a bench is revealed, which takes up most of the stage, and will throughout serve

as several metaphorical spaces, testing the ability of actors to convince us of their characters. This they do brilliantly. Behind the bench are three large picture panels. In the first play they show beautiful sunflowers in summer sunshine, while in the last the flowers appear withered. These panels, along with the costumes, are the only visual context given to the stories. These are mostly concerned with life in the countryside or at the intersection of rural and urban life – and the associated challenges common to this juxtaposition characteristic of newly industrialized nations.

The first story is

opened by the narration of two cheery but blunt village ladies, sitting on one corner of the humongous bench and shedding sunflower seeds all over the floor. Their demeanour and tone give the immediate impression of a gossiping babushka, all too known to me as a fellow Slav from a small town. The wholesome story gives a glimpse of the cyclical nature of life especially evident in slow-paced rural areas, and comments on the illusive nature of the generation gap. As a son asks his father for help in the courtship of a love interest the awkwardness is palpable, the acting brilliant, and there are the

constant shouts of advice from a grandad drunk off vodka. How lovely!

While some stories are quite placid, others have more of an agenda. The second half of the three-hour performance kicked off with a story of a man madly in love getting his heart broken by a wife that everyone else had seen for a twisted seductress. It raises the question of the point of disillusionment, and answers it with the protagonist's declaration to the effect of: "This is a mighty hangover... But it was a hell of a party."

There is another story of a man of country blood marrying a Muscovite, going through a turbulent sequence of moments of

infectious love-happiness and utter despair, before losing his mind, threatening to kill his wife, and finally committing suicide. It is a Russian specialty to drive chinks in characters' psyches from utter banality to the rawest human emotions, and Shukshin does it brilliantly.

My favourite one, though, is of the blind accordion player, who only sang sad songs. With the advent of broadcasting technology, the city noises began to drown him out, and the state eventually offered him a pension in order to stop him bumming everyone out with his singing. When at the end, a possible con-

clusion is offered by some teenagers wanting to archive old folk songs and grant him new purpose, it is snatched away by the sad fact that all the songs the man can sing had already long been recorded and archived. It is a comment on the role of the artist, his need for an audience, and how technology, a totalitarian regime's strong hand, and most importantly, time, can all combine to make his art irrelevant. But, as Bulgakov said, manuscripts don't burn, and the touching stories of Shukshin continue to hold great power even today.

## Live it up with the Modernist's at Barbican's new show

*Into the Night: Cabaret and Clubs, is yet another clever exploration of the modernist art scene by the Barbican.*

## ARTS



Where? Barbican Art Gallery  
When? 4th Oct - 16th Jan  
How Much? From £5

**Martin Flerin**  
Arts Writer

In contrast to last year's wildly popular Modern Couples, which offered an intimate view into how interpersonal relationships of artists shaped their work, this offers a different view. It portrays some of the most influential artists of modernism as entertainers: uproarious and devilish founders of the most vibrant creative

spaces of their time.

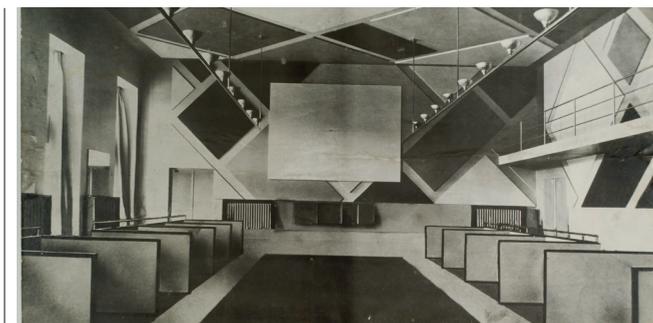
The exhibit is divided geographically, and each room shows off a different city's cabaret scene. It starts off with the Fledermaus in Vienna. The level of detail shown by both the curators of the exhibit and the original cabaret founders is breath-taking. You can observe the menus and napkins, chairs and tables, wall tapestries and carpets – all of them carefully designed to create a holistic space. The main room is one of the four cabaret spaces recreated for this exhibition, allowing us to immerse in it and even touch the tiles adorning the walls. The enchanting room, converted from the basement of a residential building by the addition of a mosaic of

coloured tiles and a mirror-topped bar, was unfortunately only in operation for six years due to costing so much money. Despite this, the presence of a drawing of the room by a young Charles-Edouard Jeanneret, apparently the only drawing of Viennese architecture that the future Le Corbusier would ever make, is a testament to its influence.

Boundary-pushing happenings, dance performances, shadow plays, early cinema and dances mingled in their nascency in all these spaces. This effort to provide all kinds of sensory experience is why it is hard to compare these original night-dwellings of the avant-garde to the spawns of the multibillion-pound clubbing in-

dustry today. The clubs of the past were much more spaces of creative proliferation than hedonism, although both aspects can be observed in the evidence put forth by the exhibition. It is also true that these places, beginning with the first of them all, Paris's Le Chat Noir, were mostly frequented by the artistic elite. The insufficiency of such clientele could explain their short lifespans and the quickly changing fads, a problem even for the clubs of today.

The biggest feat of this exhibit is the way it unwittingly takes you on a journey through the most important artistic movements of the time. We are inspired by the most well-known, as well as some



The Ciné-bal at Café L'Aubette // Het Nieuwe Instituut

lesser known cabarets and clubs Both places where design was king and where the people were the soul. We pass by the Italian Futurists, and their Cabaret del Diavolo, where three rooms were inspired by heaven, purgatory, and hell of Dante's Divine Comedy. Representing De Stijl is the mecca of geometric abstractionism in Strasbourg's L'Aubette. The birthplace of Dada in Zurich's Cabaret Vol-

taire and the speakeasies of Harlem are flanked by Nigerian Ibadan & Osogbo Mbari clubs and Tehran's Rasht. The quote by Nigerian artist Twins Seven-Seven sums it up nicely: "We worked furiously (...) slept little and lived for the daily surprises... For such a euphoric situation to develop the time, the place and the human chemistry need to be right!"

## ARTS

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## Love, Me and Compost: A double bill of love and trash

*MTSoc and Dramsoc comes together for a night of... you guessed it, musical theatre and drama!*

## ARTS

**Where?** The Union Concert Hall**When?** Never again**How Much?** £5 for a student**Indira Mallik***Arts Editor*

Teaming up for a double-billed show, our very own MTSoc and Dramsoc have put together an original musical titled *Love, Me*, and an original play titled *Compost*, the latter of which was recently performed at the Edinburgh Fringe Festival over the summer.

## Love, Me



*Love, Me* displays the relationship between Ivy and Bill, both at its beginning and its seemingly approaching end, spanning around a decade, exploring the importance of loving oneself in maintaining strong interpersonal relationships. Writing an original musical is no small feat, so massive congratulations to writers Chris Koray Araz, Fabiola Mann and Afkar Malik, all current students at Imperial. However, much as it saddens me to admit this, the music feels uninspired more often than not. This is both melodically and lyrically, with some extremely cliché lines like 'she is imperfect, but I still love her'. They say one of the first rules to good creative writing is 'show, don't tell', but the extremely literal lyrics leave little to the imagination. Throughout the show, it feels like the

spoken dialogue is much stronger than the lyrics in progressing the story. Although the intentions behind portraying Ivy's inner voice (simply called Voice, portrayed by Tash Cowan) directly are clear, the character is often irritating, overly dramatic, and turns 'show' to 'tell' consistently, taking away any room for individual thought processing on the events of the musical. Cowan does her best with the character, but the writing lets her down considerably. Indeed, a vital issue with the writing is the one-dimensionality of pretty much every character. This includes Ivy, the central character of the plot. At least we get to see her wonderfully acted by Ellie Morgan and Vasiliki Kalogianni in two different periods of her life.

The singing and acting are both very strong

**"One of the highlights of the show was when the guitarist dropped his sheet music"**

across the board, and the orchestration is well balanced and full-bodied, helping to elevate the score. Well, for the most part anyway. One of the highlights of the show was when the guitarist dropped his sheet music, and had to sit there in awkward silence, waiting for an appropriate time to pick it up from the floor. The direction and the lighting are also strong,



Colm Gleeson as the drag queen medium(L) Maddie Roche as the eccentric horticulturalist (R)// DramSoc

with one complementing the other, often amplifying the funny and heartfelt moments from the script, which would otherwise have gone unnoticed by the audience.

There are some musical highlights, namely a waltzy tune halfway through performed by Ivy (Morgan), which is as close as the show gets to feeling complete, both technically and plot-wise, and the finale, which is predictably cheesy, but cute regardless. Successfully driving home its message of self-love, the final song and its presentation are effective. Although the song is very quick to make its point, it is overly long, repeating itself time and time again, not adding anything new to what has been said in its first minute.

Overall, *Love, Me* is entertaining, well-acted and makes its point heard loud and clear. The writers have achieved the extremely difficult task of writing a complete musical from scratch, which I applaud. However, the production falls short in its writing, which lacks the subtlety needed to be more than just entertainment.

## Compost



Written by Calum Drysdale, another current Imperial College undergraduate, *Compost* tells the tale of two ex-government workers who attempt to scam the wealthy homeowners of Amersham, by selling bins that supposedly turn plastic into compost. The acting in *Compost* is outstanding. Specifically, the manic personality of one of the con artists (Ben Hayward) which very successfully complements the self-assured demeanour of his co-worker (Vaisnavi Ravichandran). Colm Gleeson, a new addition to the cast after the end of the successful Edinburgh run, replacing Prithu Banerjee, plays one hell of a drag queen. He is wonderful, delivering an extremely high-energy performance that elevates the play every time he is on stage.

The play caters towards millennials, referencing things like Britney Spears' mental breakdown in 2007 and Kim Possible.



However the play is much deeper than funny one-liners, as it is, at its core, an exploration of corruption, which feels extremely relevant in today's political climate. The audience is left to ponder over possible parallels to current affairs. Luckily the play never takes itself too seriously, avoiding falling into the pitfall of earnestly trying to push a message, preferring instead to simply have

**"...the play is much deeper than funny one-liners, as it is, at its core, an exploration of corruption"**

fun. The set is simple yet effective, a testament to the immense amount of work put in by Lydia Edwards. However, what really sells the show's appearance to me is the lighting design, which is nothing short of gorgeous, often complex and perfectly timed. The

choice of music (mostly early-2000s pop tunes) is also extremely smart, further adding to the 'millennial' feel and sprinkling moments of lighthearted comedy in what is often a lot to digest.

The play is extremely fast paced, and quite confusing at times. I think it suffer slightly from the length of time that it has been running, beginning with previews in mid-August and only just coming to an end now. The play has clearly undergone a lot of development and while no doubt everything made sense to the cast, we the audience felt a bit left behind.

Just when everything starts making sense (if I can reasonably use the word) the bonkers ending upset everything. Really. I can't quite describe it, but I can reassure you that whatever it is that happens is incredibly funny.

*Compost* is extremely entertaining. Its abstract nature is at times a bit much, but at its best, it is simultaneously laugh-out-loud funny and thought-provoking. At its worst, it goes slightly over the top and tips into being confusing.

# MUSIC

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## JOHN is out here (on the fringes)

### MUSIC

#### OUT HERE ON THE FRINGES



**Artist:** JOHN. **Label:** Pets Care Records. **Top Tracks:** Out Here on the Fringes, High Digger, Dog Walker. **For Fans Of:** Idles; Heavy Lungs; LICE. 26 minutes

#### Emily Freeman

Music Editor

JOHN, often known as JOHN (TIMESTWO) as both members of the duo are called John, have a brand spanking new album out. And as unimaginative as their band name is, this album is far from the same. Based out of Crystal Palace, South London, JOHN rode into the current

post-punk wave along with the likes of Idles and Fontaines DC with guitars a-blazing, their sound a firm contrast to their Weezer-inspired indie look. Their first album, *God Speed in the National Limit*, was released in 2017 to rave reviews and led to supporting the aforementioned Idles on their European tour. Their latest release, *Out Here on the Fringes*, is sure to follow suit, being named the BBC's album of the day last week and having had shout-outs from the crème-de-la-crème of rock including his majesty Iggy Pop. They seem to be onto something here. It all kicks off with jostling drums and guitar on the first single and album opener 'Future Thinker' before singer/drummer John Newton's enticing growls enter. This track sets the tone for the rest

of the record: its hyper, demanding nature is sweat-inducing as you feel

**"its hyper, demanding nature is sweat-inducing"**

yourself transported to a hot, crowded venue whilst listening. The next track 'Standard Hauntings' is no different. Three songs in and you're allowed a small break on the opening of the title-track 'Out Here on the Fringes': sliding guitars make way for heavy noise, with guitarist Johnny Healey intertwining punchy riffs with swooning feedback. It's no surprise this is the album's title-track, as the



Out Here on the Fringes // Pets Care Records

Johns restrain themselves for long enough to feel the circle-pit opening before everything crashes in. My personal favourites, 'High Digger' and 'Dog Walker' then kick in with riffs so repetitive and addictive that I wonder how I lived

until now without them. The album wraps up with mysterious 'Midnight Supermarket' creeping into hard-hitting 'Solid State', two songs which transport you first to aisle 3 at witching hour and secondly to contemplating

your own consistency, with lyrics such as "is it true, am I a solid state?". Perhaps unsure about that, but I can guarantee JOHN are consistently hitting the post-punk scene with some solid tunes.

# I, SCIENCE

## CALLING ALL WRITERS!

Imperial's *I, Science* magazine is looking for original pitches for our upcoming print issue, in which we examine **ENERGY**. It's a broad topic, we know, so be as creative with it as you want—from sustainable energy to gamma ray bursts, it's fair game.

Your pitch should be no more than 200-250 words, set out clearly what you want the article to be about, and include relevant links for references.

Email all pitches to [i.science@imperial.ac.uk](mailto:i.science@imperial.ac.uk), with the subject line "PITCH—" followed by your proposed headline.

All pitches are **due by October 20**. If your pitch is accepted, a first draft will be due on November 3.

# FILM

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## Meet the Film Editors

An introduction to this year's editors, with 15 films you should watch this term.

### FILM

#### Dominic Ede

Film Editor



With first term already swiftly underway, I'm sure many of you will be unsure what to do with all this free time you have. To ease your concern we've created our lists of top 5 films with a little bit of something for everyone.

First, cutting our favourite films down to a list of five is difficult. As in *Sophie's Choice* difficult. (Although, spoiler, this film will not be making an appearance). Some films that are close to our hearts haven't made it into this spread, and if given the space, I'm almost certain we could fill *The Felix* entirely, but that would be a little too self-indulgent. We'd also like to add that there is a big difference between our favourite films, and what we think is a good film; if we were to make a list of what we believe are the 5 best films ever made, I don't think there would be too much similarity between these. With this sweeping

disclaimer as to avoid any angry emails from students professing their love for *Citizen Kane* and *Vertigo*, let's get into our favourite 5's.

To begin I'll say a bit about myself; I'm a third-year physics student and spend most of my time between Blackett and the BFI. You can probably catch me napping in the JCR between bouts of restless frustration for labs, and if you ever see me about campus, I'm always more than happy to talk anything film. Now onto the good stuff.

#### Tokyo Story

Without a doubt one of the most honest and heart-wrenching portrayals of a family that has ever existed on screen, *Tokyo Story* has stood for over 65 years as a pillar in Japanese film making. Following two grandparents as they travel to Tokyo to visit their disconnected children who've grown distant over the years, we're unapologetically taken through their time in the city. Yasujiro Ozu gives us a master class in storytelling, which through his minimalistic approach to shooting, we're left with the bare bones of the dialogue with the actors

taking the centre stage. Where a lesser film would have played heavily on our sentimental triggers creating melodrama, *Tokyo Story* instead gives us a sincere and honest film that lets the weight of the character's actions hang heavily over the viewer. It'll make you reconsider your family values and, in the process, leave you weeping, this emotional feature had to make it onto my list

#### Rushmore

*Rushmore* is just a film that hits all the right notes for me; it's brilliantly written, quietly funny, and with a soundtrack to please even the Music

**"Brilliantly written, quietly funny, and with a soundtrack to please the Music Editors, its my Rushmore"**

Editors, it's my Rushmore. Wes Anderson's second feature follows eccentric student Max (Jason Schwartzman) through a year in Rushmore School, mixing a blend of wit, drama, and romance to emerge as (what I believe) is Anderson's best. If you've seen even one of Anderson's films, you'll be starkly aware of the attention to detail he takes for the aesthetics of a scene, yet *Rushmore* comes a whisker before he developed his sugary-sweet style. Whilst



The only thing exciting about 2002 is that it's a palindrome // A24

still carefully crafted, it's a little more rugged around the edges than the likes of *Grand Budapest* and *Moonrise*, and with the perfectly imperfect Schwartzman and Murray leading the cast, I'll be the first student enrolling at Rushmore next year.

#### Lady Bird

It would have been difficult to make to the end of 2017 without having had *Lady Bird* mentioned to you, along with the eminent buzz around Greta Gerwig. For her solo directorial debut, Gerwig tells the coming-of-age story of Christine McPherson (Saoirse Ronan) growing up in Sacramento, and follows the uneven relationship with her mother (Laurie Metcalf). The centrepiece of this film for me are the highly observant and expertly written interactions between the people, creating one of the most heart-warming and poignant films of the 21st century. With a powerhouse performance from Metcalf mixed with an eclectic score (that car scene bowls me over every time) and not to mention

the final scene (which is one of the most touching and accurate portrayals of nostalgia I've ever seen) this is a film that sits close to my heart.

#### Midnight in Paris

Now I know Woody Allen has a plethora of films to choose from; *Annie Hall*, *Love and Death*, *Manhattan* to name a few, but none of these films quite grip me like *Midnight in Paris*. With Owen Wilson roaming the streets of 1920's Paris, doing his best Woody Allen impression, I can't help but get lost in the same world that he finds himself in every night. Taken from Hemingway's *A Moveable Feast*, the fairy tale portion of this story lends itself to brilliant writing (as can be expected of Allen) with the likes of Fitzgerald and Stein being brought

**"I can't help but get lost in this fairytale world"**

back to life. This fairy tale world makes me long for a time I never knew, and a place I've never been, and for that it will always be one of my favourite films.

#### Birdman or (The Unexpected Virtue of Ignorance)

Alejandro Gonzalez Iñárritu knows how to make a film. His vision for a feature made to look as though it's in one take is flawlessly executed and exceedingly immersive, whilst still grounding itself with an outstanding story. With the lack of many (visible) cuts I can only find myself holding onto every word of every scene as we're submerged into the world of washed-out actor Riggan Thomson, along with the inner monologue of his darkest thoughts inhabited by *Birdman*. With a jazz drum-based original soundtrack, we're forced into this feeling of constant movement, giving rise to a building and climactic end to the film that left me exhilarated yet satisfied after 2 hours of this deeply dark satire.



She's my Rushmore Max // Touchstone Pictures

# FILM

film.felix@imperial.ac.uk

## FILM

### Charlotte Arrand

Film Editor



To introduce myself, I'm Charlotte, a struggling third year physicist and infamous napper, who would like to call herself a fan of film, but realistically falls asleep midway through every film she watches. Don't expect these short reviews to be well written; most of these films I watched years ago and am struggling to say anything that isn't incredibly generic, but I loved them and that's all that matters. An honourable mention goes to *Bridget Jones' Diary*, which I've watched a million times, and took a lot of strength for me not to include in this list – take from that what you want.

**"An honourable mention goes to *Bridget Jones' Diary*"**

### The Grand Budapest Hotel

Initially I was torn on placing a Wes Anderson film in my top five, but seeing as though he is a large part of the reason I'm interested in film today, it only felt right. Admittedly, this was a fight between *Rushmore*, *Moonrise Kingdom* and *Grand Budapest*; *Rushmore* I find the most hilarious, *Moonrise Kingdom* has the most sentiment attached, but ultimately *The Grand Budapest Hotel* won, as when I watched it five years ago it ignited an instant love

for not only Anderson, but film in general and I have since re-watched it many times. I'm sure everyone has heard of it, but if you haven't, I implore you to watch this immensely funny, superbly acted and wonderfully attractive film.

### Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb

I just love this film. I love it so much that wherever I move, the first decorative effort I make

**"With Peter Sellers taking on three major roles, you can do nothing but praise this versatile actor three times over"**

is plastering my gigantic film poster on the bedroom wall. In my opinion, Kubrick's greatest film, *Dr. Strangelove* is my im-

mediate answer whenever anyone asks what my favourite film is, and if someone ever asks what I think the greatest film of all time is, it's probably still the same response. With Peter Sellers taking three major roles under his wing, including the titular role, you can do nothing but praise this versatile actor three times over. Wild from start to finish and saturated with some of the most absurd, but genius, characters, this cold war satire released in 1964 hasn't really aged at all and is still as hilarious today.

### Mustang

*Mustang* is the very well regarded first feature film of Turkish director Deniz Gamze Ergüven. The shortest way to describe this film would be to say think *The Virgin Suicides*, but better. The story follows five orphaned young sisters raised by their grandmother and abusive uncle in a conservative Turkish village. After being caught playing with their male classmates, they are dragged out of school, locked inside the house and arranged to be married off oldest to youngest. As heart wrenching as it is



Keep your hands off my lobby boy! // Fox Searchlight Pictures

watching the childhoods of these independent young women being snatched away, the film is scattered with some warm, sometimes even funny, moments and I finished this film feeling incredibly touched.

### The Before Trilogy

Comprised of *Before Sunrise* (1995), *Before Sunset* (2004) and *Before Midnight* (2013), I guess I'm cheating by putting the entire trilogy on my list, but in my mind they're not separate (although if I had to pick

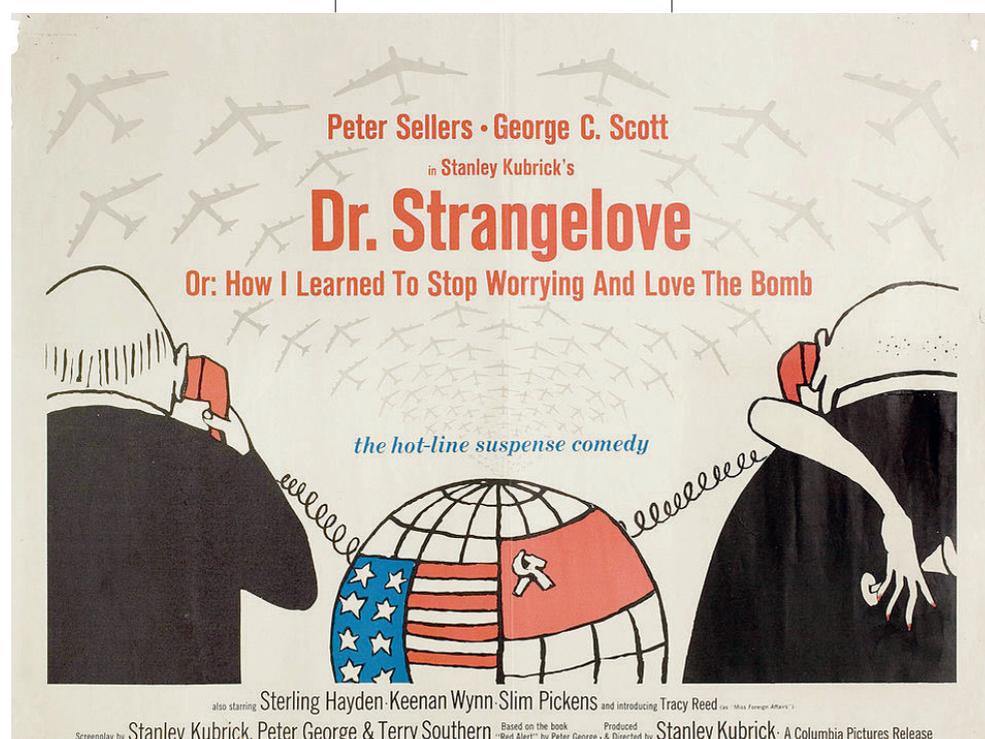
one, *Before Sunset* would come out on top). Starring Ethan Hawke as Jesse and Julie Delpy as Celine, this is a story of how a chance and brief encounter permanently changed their lives. Both characters are so convincing and played so seamlessly that by the end of the trilogy, you feel like you know them well, despite the fact each film is only set over the course of a few hours, 9 years apart. Lacking a central storyline and focused entirely on the continuous conversation of these characters, you would think it would be easy to get bored, yet I found myself hanging onto every word that was said. Violently romantic, it will

make you want to fall in love and have someone fall in love with you.

### Frances Ha

*Frances Ha* has to be one of the most loveable films I've ever seen. With the wonderful and naturally comedic Greta Gerwig playing Frances, a (not very good) dancer with very little direction but an admirable spirit for life, this is the product for a most endearing main character. The film is simple, highlighted with its black and white cinematography and not an awful lot of plot, but perfectly so. Watching Frances struggle through life in New York, it has all the potential to be desolate and depressing, however with her positive and bouncy personality you find yourself laughing along with her. I think it's fair to say that by the end of it I wanted to see life a little bit more like Frances, but was also desperate for a friend like her.

**"I think it's fair to say that by the end of the film I wanted to see life a little bit more like Frances, but was also desperate for a friend like her"**



Said poster plastered on my wall // Columbia Pictures

# FILM

film.felix@imperial.ac.uk

## FILM

### Matthew Leontsinis

Film Editor



Hello, Felix Reader! My name is Matthew and I will be one of your three film editors for the coming year. I am first year student, so still new to the university and I'm really enjoying it so far. My degree course is Physics with a Year Abroad, hoping to study somewhere in France (where there's an especially good cinema scene) or Switzerland in my third year.

Film is an eclectic form of artistic and existential expression. It is distinguished from similar media such as musical theatre by its uniquely universal appeal and influence on popular culture. I have no particular requirements when it comes to the silver screen: I think that one can almost always tell a good picture when one sees it based on a variety of factors, such as cinematography, pacing, storyline and general atmosphere. Certainly, I am partial to a few blockbusters and I do not support the view that these are necessarily of a lower calibre. The following are a selection of my

favourite films which you definitely watch.

### Unforgiven

This unconventional early '90's Western may have featured and been directed by Clint Eastwood, but it is markedly different in style and tone from the Spaghetti Westerns of the 1960's directed by Sergio Leone. The film focuses less on the action, complex storylines and the general glamorisation of outlaw life in the Wild West. *Unforgiven* explores the darker side of 'cowboy' culture. Its pacing is slow; depictions of violence are drawn-out and brutally realistic; the mood of the film is sombre and heavy. In a departure from Eastwood's much-played role as a dashing young gunslinger, he plays an ageing, widowed bandit repentant of his younger days. Accompanied by Morgan Freeman as his equally grizzled former partner, Gene Hackman as savagely sadistic sheriff ironically named 'Little Bill' and Richard Harris as the arrogant, UK-born gunfighter 'English Bob', it is hardly surprising it won Oscars for Best Picture, Director and Supporting Actor (Gene Hackman). Watch for its masterful acting, compelling storyline and thoughtful take on the human condition in the Wild West.

### 2001: A Space Odyssey

It would be hard to have a list of favourite pictures without one directed by the indelible Stanley Kubrick, widely considered to be one of, if not the, greatest filmmakers of all time. For me,

### "It would be hard to have a list without Kubrick"

although a slightly clichéd pick, *Space Odyssey* is his masterwork. Aside from its standalone excellence, Kubrick introduces many original ideas in this work which have since gone on to revolutionise the Sci-Fi genre which I particularly enjoyed. These include the stark contrast between scenes with sweeping classical scores such as the iconic opening (Strauss' *Also Sprach Zarathustra*) and scenes filled only by silence or ambient noise, as well the notion of AI overtaking mankind. The plot and themes are complex and fascinating – this is a film to watch twice. It is a must-see for its tense, meticulously crafted scenes, enthralling (if not unusual) cinematography and a greater understanding of Sci-Fi pictures in general.

### The Devil's Backbone

This little-known feature



Vincent Cassel in *La Haine* // Canal+

by Guillermo del Toro has been described by the man himself as the spiritual prequel to his later magnum opus, *Pan's Labyrinth*. The film possesses some of the typical traits of a del Toro production, such as an imaginative, child-led narrative, a backdrop featuring war and aspects of the supernatural playing key roles. Overall, however, this eerie, pared-down, (relatively) low-budget ghost story has a distinctly different atmosphere to his larger, well-established blockbusters. I enjoyed watching this film for its balance of gothic horror and underlying sadness, well-handled by del Toro through the hazy, half-understanding eyes of a child. Only available in Spanish with subtitles, it is worth seeing as an unconventional ghost tale less interested in obvious thrills.

### The Godfather

Considered by many to the greatest film of all time, I love this picture from Coppola for its brilliant combination of a highly atmospheric soundtrack, effective acting and the richness of its set pieces, narratives and character profiles. The three-hour long piece of cinema takes the viewer through every

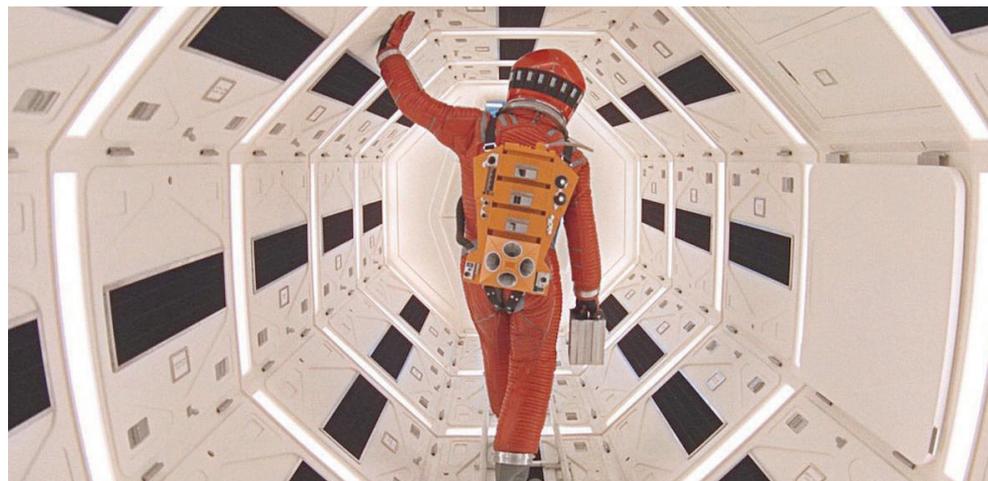
dimension: it has action, meandering, panoramic frames, crime and corruption, tension, drama, death, resolution – yet it never feels overdone or badly paced. The character arcs are satisfying, and the story gives a fascinating insight into the world of organised crime in 1940s USA, as well as inspiring reflection on the emptiness of violence and capturing the state of big-city culture at the time. Then there's the Marlon Brando impressions. A highly entertaining, essential film.

### La Haine

This 1995 black-and-white French picture is unlikely to be something most readers have seen but gives a sobering glimpse into the menacing undertones of '90s French society. It is a piece of realist cinema, shot almost like a documentary, following an instrumental 20 hours in the lives of

### "There is some optimism in the form of the faith of goodness in human nature"

three recalcitrant, down-trodden French youths from immigrant families living in the impoverished banlieue of France. It is an important, if not depressing, work looking at the standoff between police and violent, disillusioned members of the poorer, minority areas of France. Disparity between them and the rest of France and the ensuing hostility is examined, both in terms of wealth and perceived social class. The characters in this film, designed to resemble many members of the French public, are shown to often lead completely aimless lives, born in harsh surroundings, within an unknown wider world where no-one seems to care about their struggles and continued failure seems inevitable, removing any notion of motivation and purpose. There is some optimism in the form of the faith in the goodness of human nature; a moment when one of the characters is driven to commit a terrible crime but does not. The opening line of this feature, however, 'it's about a society in freefall' remains a beautifully tragic summary of its main theme. Unfortunately, only the story is a work of fiction.



Open the pod bay doors please, HAL // Warner Bros. Pictures

# BOOKS

books.felix@imperial.ac.uk

## Celeste Ng's *Little Fires Everywhere*

Winner of the Goodreads choice awards 2017

### BOOKS

**Jia Qi Tan**

*Books Editor*

It's been a while since Celeste Ng's best-selling novels have been sitting on my shelf, but I have never figured out the right moment to read it - these are stories I knew I would love, the kind that I would want to read on a Sunday afternoon, with a cup of chamomile tea and a fine plate of vanilla shortbread. But out of the blue, I simply picked up *Little Fires Everywhere* and little did I know it would lead to devour the entire novel in one sitting.

Right off the bat, I recognized the classic Celeste Ng's writing style, opening the story with a startling fire where the Richardsons' house has been burned by their youngest daughter Izzy, with little fires everywhere. Ng always manages to ask a bizarrely fascinating question that lures the readers in, eager to flip through hundreds of pages simply for an answer.

*Little Fires Everywhere* is set in the late nineties in Shaker Heights, Ohio, progressively planned with social expectations taken to the extreme. The Richardsons are a prime example of such a family - everything is in perfect order. Mr. Richardson and Mrs. Richardson have perfect jobs, three children, and a comfortable house. Enter Mia Warren and her daughter Pearl who breaks seemingly every unspoken rule this neighborhood abides by. Mia, a gifted photographer and a single mother, never settles down and is always on the

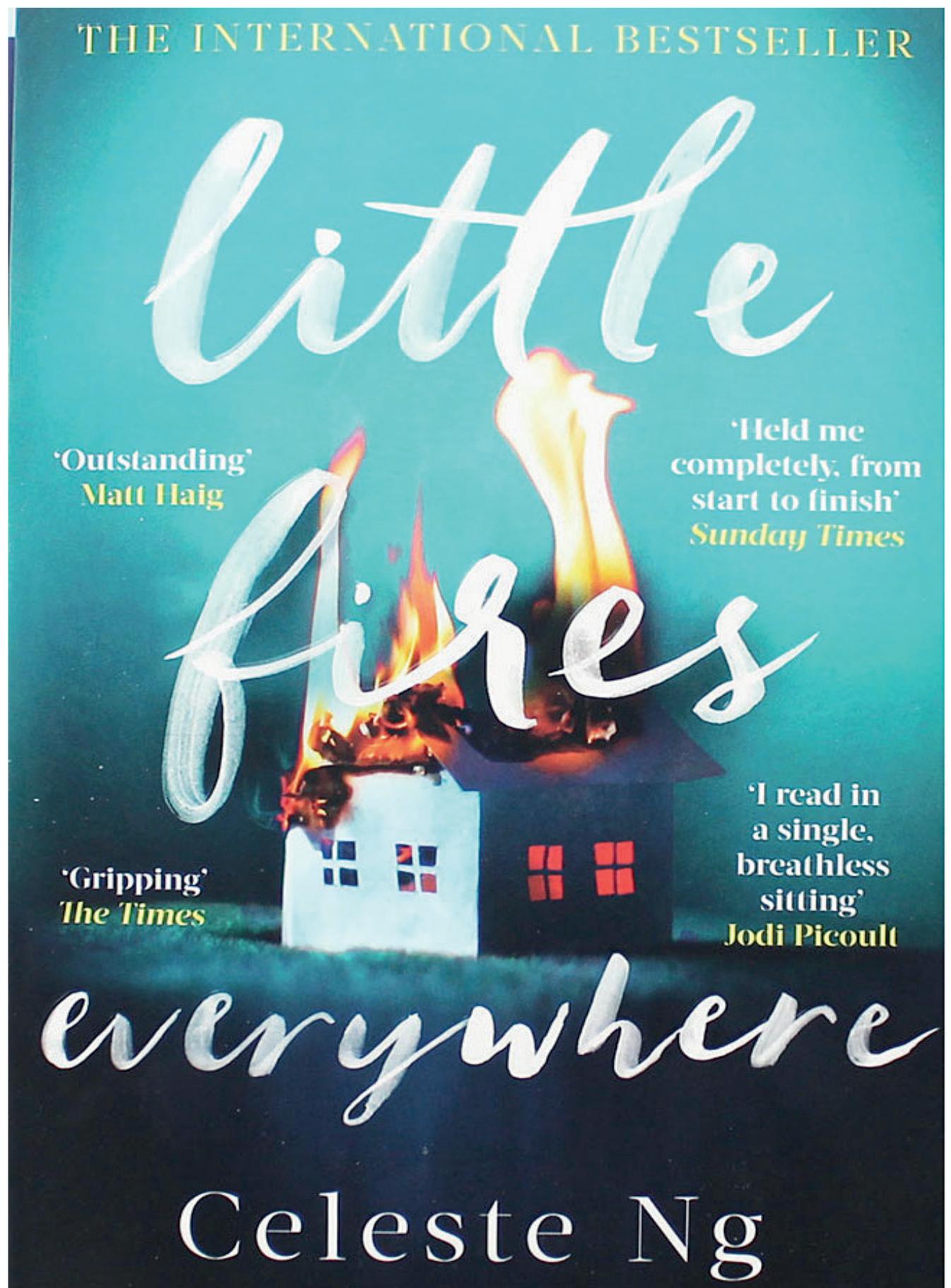
move. An unstable job, an incomplete family, and a carefree lifestyle - the Warrens' arrival tips the balance that the community has tried to maintain. The two families clash when a Shaker Heights family attempts to adopt a Chinese baby and take a heavy toll on both the Warrens and the Richardsons.

It wasn't until the end

**"Ng always manages to ask a bizarrely fascinating question that lures the readers in"**

of the story that I realised it has explored all dimensions of motherhood, from surrogacy to abortion to adoption. It asks the difficult questions of what it means to a mother, and whether a mother has the right to her child. The unending debates between biological and adoptive parents are again exemplified in the story with layers of depth, with themes of justice, honesty, and privileges entwined perfectly.

Celeste Ng has crafted captivating characters where I could not help but feel deeply invested in, each with his or her own unique twist and flare deserving of a novel devoted to her alone. There almost isn't an antagonist, as every character's vulnerable side evokes empathy, the darker side kindles the rage. The slow-paced plot added a layer of depth; It's still a page-turner, more often than not taking



its readers to unexpected places. If her vision for this novel was to deliver a powerful story, she has executed it flawlessly.

The summary does little justice to the engrossing, emotional tale. It's best to dive into a story as such knowing as little as

possible. Ng has posed difficult questions that remain unanswered to this date, but the ending does give way to her answers

on embracing chaos, motherhood, and altruism alone.

# THROWBACK

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# THROWBACK

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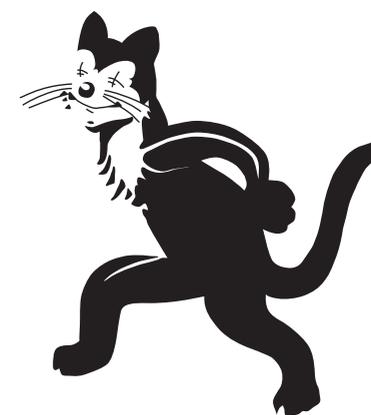
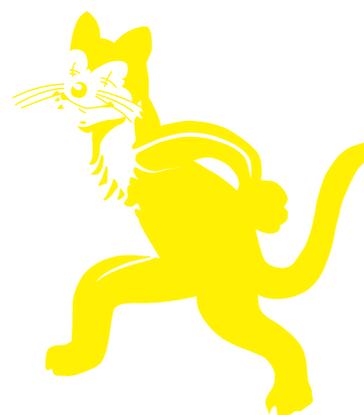
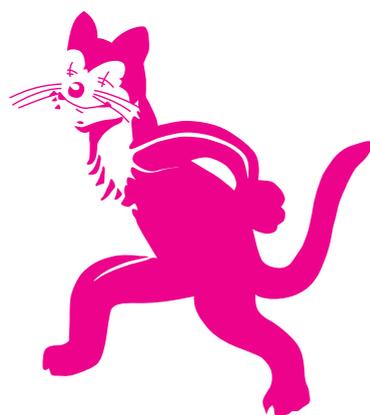
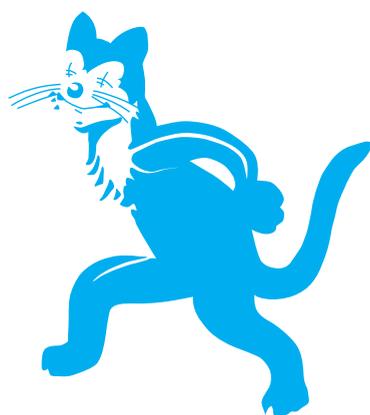
*Felix has been made aware that many students did not get to witness the first centrefold of the year, featuring the Editor as is tradition, due to distribution mostly going to halls. In the spirit of fairly embarrassing the Editor to maximum capacity, as is surely the point of the tradition, we decided to re-run that first Centrefold this week as part of the Throwback section!*

*We also wanted to make something clear: you do not have to be Shakespeare to write for us. In fact, any student, alumni, or even staff member can get in contact with us to get involved. Whether you love writing, editing, copyediting, video production, interviews, live reporting, illustrating, photography, anything you can imagine, there is a place for your content at Felix!*

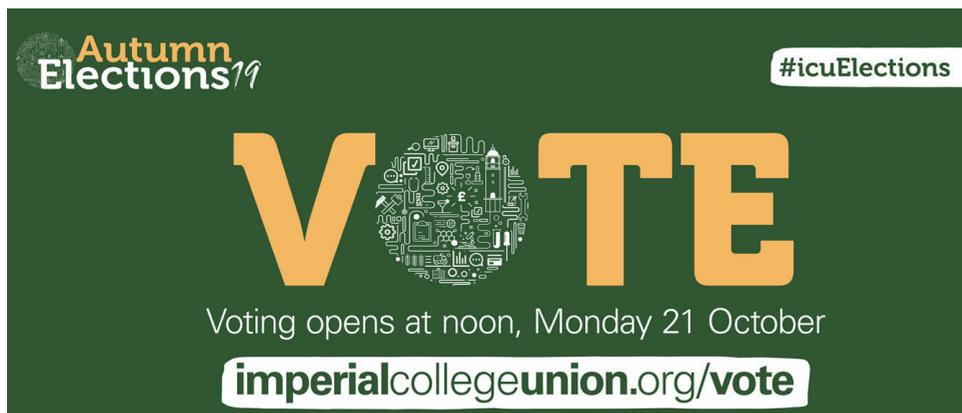
*Pick something you love. Hell, pick something that you hate and want to complain about. We're here to serve as the student voice of Imperial, and a central point for communication across the whole cohort. We'd love to hear from you - so pick up your pens and/or laptops, get in touch, and we'll work with you to turn out a smashing article. Something you can proudly keep and show off for years to come, and that will be preserved in the Felix archives for decades or longer.*

*Or, for you visual learners out there: we mean what we say in these recruitment ads!*

## *Felix is recruiting!*



**We want you – yes, you! We're looking for writers, photographers, editors, illustrators, reporters, computer experts and grammar nerds to join our team. No experience needed – we'll teach you everything you need to know. If you're interested, send us an email on [felix@ic.ac.uk](mailto:felix@ic.ac.uk)**



## Get ready to vote

On Monday 21 October, it will be time for us to decide who should represent us on matters of education and wellbeing, who will lead our Constituent Unions, represent us on Union Council, and be the voice for our underrepresented groups as Disabilities, International and Gender Equality Officer.

All students who are a full member of the Union can vote in the Autumn Election. Remember, who you elect will be responsible for influencing changes and decisions that affect you, so make sure you get to know our candidates and what they plan to do if elected. You can view the candidates standing at [imperialcollegeunion.org/manifestos](https://imperialcollegeunion.org/manifestos).

Voting opens at noon, Monday 21 October and closes at 14:00, Thursday 24 October. This is our time to take charge of our Imperial experience, so get ready to vote.



## Postgraduate Wine Tasting

Explore the wonderful world of wine in our latest, Postgraduate exclusive, tasting session. Hosted in The Union Bar, Monday 21 October, 17:30-19:30 - whether you have a love for wine, or want to expand your knowledge, this event is for you.

Our expert tutor will take you on a truly delicious tour educating you on a selection of fine wines. Tasting starts at 17:30 and costs £6.50 pp or £20 for 4 person group.

Buy your tickets at [imperialcollegeunion.org/wine-tasting](https://imperialcollegeunion.org/wine-tasting)



## In Conversation with David Lammy

We're excited to welcome MP David Lammy to campus for a talk on Tuesday 22 October, 18:30-20:00, in the Great Hall, South Kensington Campus. He will be discussing diversity in Higher Education, the Black Attainment Gap and the effects of the term 'Imperial' at the College. The talk will last 1 hour, with 40 minutes of In Conversation and 20 minutes of questions from the floor.

David Lammy is a well-known advocate of social activism, diversity and multi-culturalism, and he was previously Minister for Higher Education. Book your place at [imperialcollegeunion.org/david-lammy](https://imperialcollegeunion.org/david-lammy)

We still have plenty of events for you this Black History Month, from a Black Career Panel to Black History Art Tours.

For a full list, go to [imperialcollegeunion.org/BHM](https://imperialcollegeunion.org/BHM)



## Some like it hot (pots!)

As the weather cools down, Shop Extra has you covered with our new Asian food range. Featuring noodle hot pots, Japanese curry and miso soup, you should definitely pop down to Sherfield Walkway for a taste.

Don't forget, you can also get your caffeine fix from our Fairtrade organic and Rainforest Alliance certified coffee. Coming onto campus early? Treat yourself to a coffee and croissant for £2.50 (£2.20 if you bring your own reusable cup!)

Make great memories



**18** October, Friday

**Arts & Ents Friday Takeover**  
Metric | 20:00 - 02:00

**21** October, Monday

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

**22** October, Tuesday

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

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

**23** October, Wednesday

**CSP Wednesday**  
Beit Bars | 19:00 - 01:00

**24** October, Thursday

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

**25** October, Friday

**BPM (by Music Tech)**  
Metric | 20:00 - 02:00

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

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# SCIENCE

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## In summary: Nobel Prize 2019

Science editor *Sânziana Foia* gives an overview of the research behind this year's science Nobel Prizes.

### SCIENCE

**Maria Sânziana Foia**  
Science Editor

### Physics

This year's Nobel prize in Physics was awarded half to James Peebles (Princeton University) for work in physical cosmology and the other half jointly to Michel Mayor and Didier Queloz for the discovery of an exoplanet orbiting a solar-type star. Both have played an essential role in our understanding of the cosmos and Earth's place in the universe.

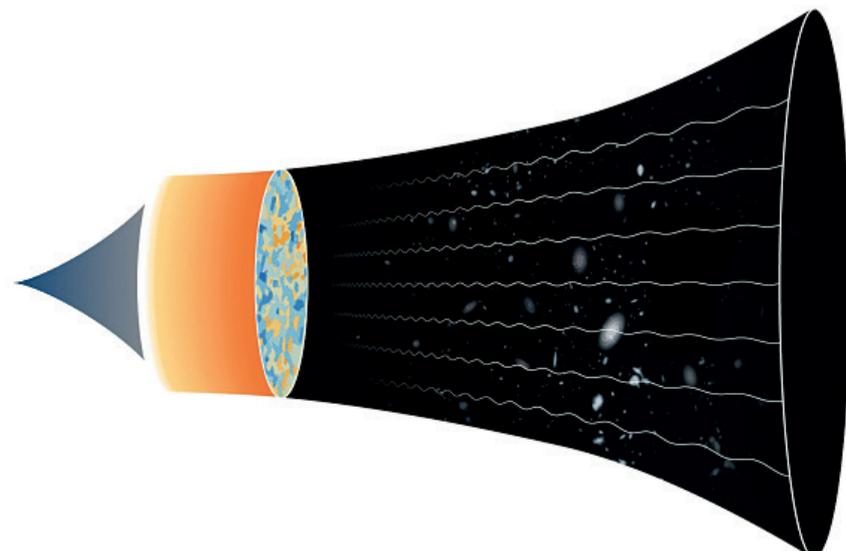
Peebles has set the foundation for modern cosmology and developed theoretical tools that were used to discover new physics and were used to shed light on the history of the universe as well as its composition. By exploring fundamental properties of the universe and studying the radiation that was released immediately after the Big Bang,

Peebles' has constructed a model that allows us to describe the Universe from its first moment and up into the distant future. Moreover, Peebles' work was a cornerstone in establishing the composition of the universe – of which only 5% is ordinary matter and the rest is comprised of dark matter and dark energy!

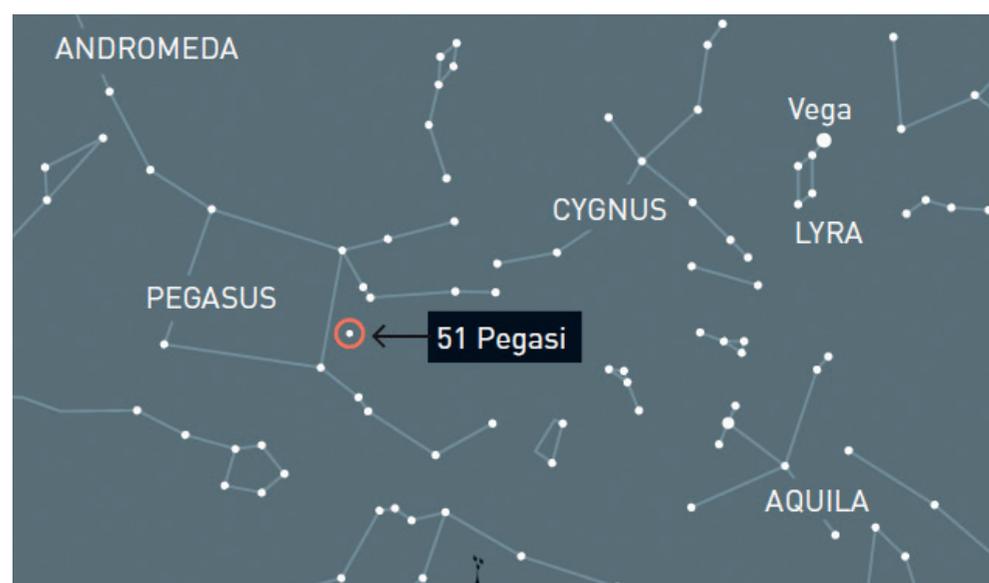
**“Both have played an essential role in our understanding of the cosmos and Earth's place in the universe”**

Back in 1995, Mayor and Queloz discovered a gaseous planet 150 times the size of Earth, the first to be identified outside our solar system, 50 light years away from

our planet. While at the University of Geneva, Michel Mayor and his collaborators designed the ELODIE echelle spectrograph, a new piece of equipment that would allow them to study more than just the brightest stars, those closest to our solar system, and expand their observational capabilities. Using Doppler spectroscopy, they identified a planet that had the size of Jupiter but, surprisingly, was located much closer to the star – a distance ten times less than that between Jupiter and the Sun. This and the very short orbital period of a planet with the mass of Jupiter were some of the reasons that their discovery was met with skepticism. However, because of short orbital period of 4 days, it was possible for other researchers to very quickly verify and validate their discovery. This was the starting point of a new field of astrophysics, namely the study of exoplanets and planet formation.



A timeline of our Universe extending from an unknown origin on the left to a darkening future on the right //The Swedish Royal Academy of Sciences



© Johan Jarnestad //The Swedish Royal Academy of Sciences

### Chemistry

Used in everything from mobile phones to electric vehicles and laptops, little thought is often given to what keeps powering the world we live in – lithium ion batteries. The Nobel Prize in Chemistry 2019 rewarded John B. Goodenough (University of Texas, USA), M. Stanley Whittingham (Binghamton University, USA) and Akira Yoshino (Meijo University, Japan) for the development of an essential tool that gave

rise to a “rechargeable world”.

During the oil crisis in the 1970s, Stanley Whittingham started exploring methods that could eliminate the need of fossil fuel energy in technology. When researching superconductors, he discovered titanium disulphide – a highly energy rich material which can accommodate lithium ions in its molecular architecture. Using this for the cathode of the battery and metallic lithium for the anode (which has a strong drive to release electrons) lead to a battery that was

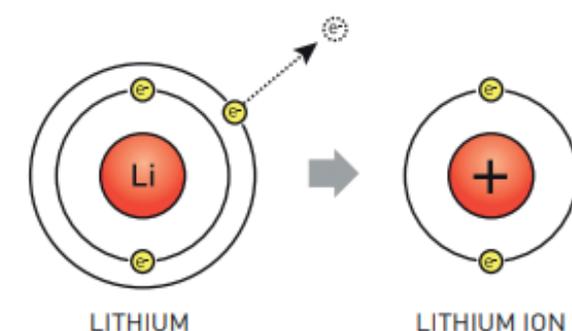
so powerful it was too explosive to be used in any applications.

John Goodenough took the discovery further and both increased its potential and its safety by exchanging the metal sulphide with a metal oxide – it was cobalt oxide intercalated with lithium ions that he found could produce as much as four volts. Using this as a starting point, Akira Yoshino was the first to create the first commercially viable lithium ion battery in 1985. To further increase their safety, he switched the anode

material from lithium to petroleum coke, a carbon material.

The end product of this year's Nobel laureates' research was a lightweight, portable battery which have changed the technological world as soon as they entered market in 1991, having laid the foundation for a wireless, rechargeable society.

1 H	4 Be	
3 Li	12 Mg	
11 Na	20 Ca	21 Sc
19 K	38 Sr	39 Y
37 Rb		



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# SCIENCE

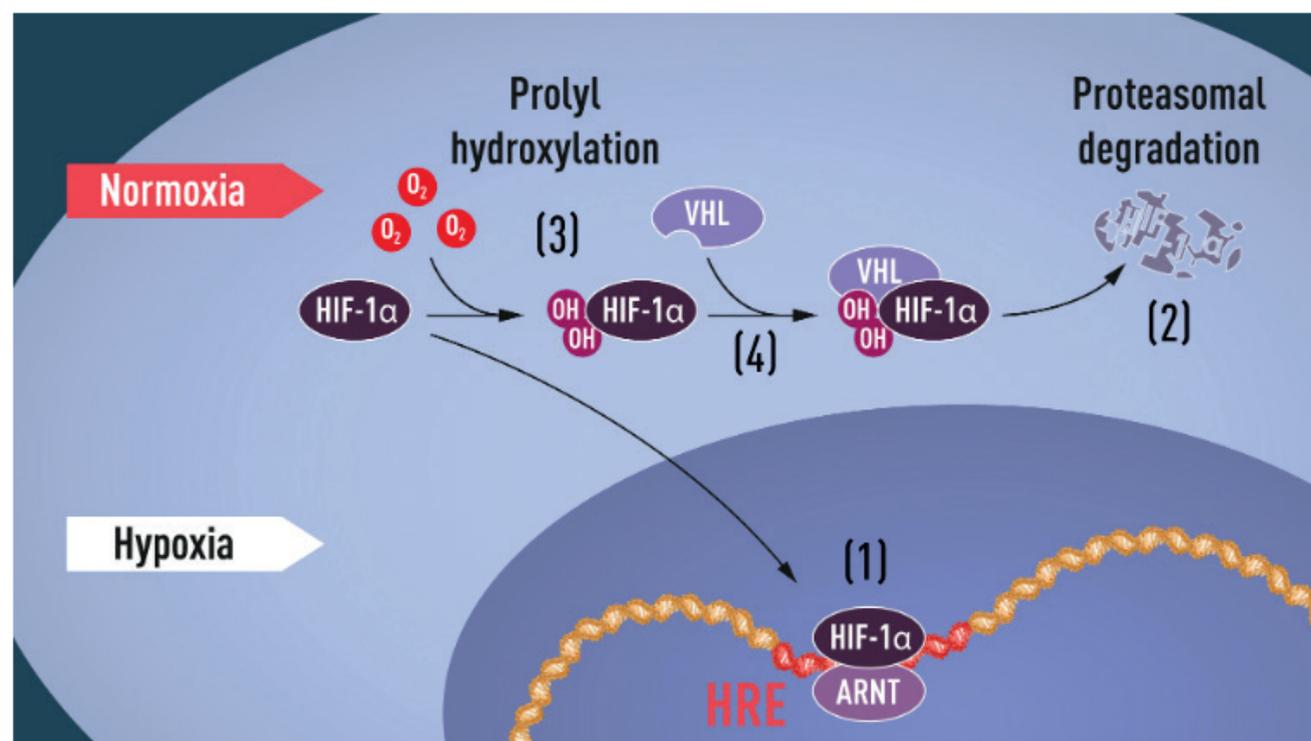
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## Medicine and Physiology

Although we have been aware of the importance of oxygen for life for centuries, there was little to no insight on how cells adapt to varying levels of it. This year's Nobel laureates in Medicine and Physiology – Sir Peter J. Ratcliffe (University of Oxford, UK, The Francis Crick Institute, UK), William G. Kaelin Jr. (Harvard Medical School, USA) and Gregg L. Semenza (John Hopkins University, USA) were the first ones to identify the molecular machinery that regulates the activity of genes in response to changing levels of oxygen and how this affects cellular

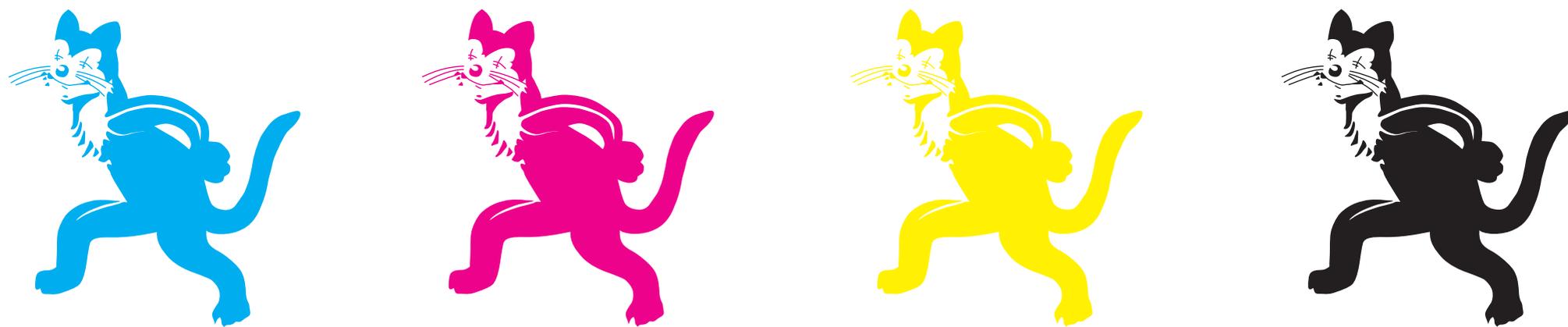
function and metabolism. Their research is seminal in both giving a more thorough understanding of biological processes and paving the way towards novel treatments that could combat several conditions, including cancer or anemia.

Examples of adaptive processes that are controlled by oxygen sensing include production of red blood cells (erythropoiesis) and formation of new blood vessels, fine-tuning of the immune system and fetal development. Equally important, oxygen is central to many diseases, including cancer where, the oxygen-regulated machinery is used to initiate angiogenesis (the formation of new blood vessels) and alter metabolism to help cancer cells replicate.



© The Nobel Committee for Physiology or Medicine //  
The Swedish Royal Academy of Sciences

## *Felix* is recruiting!



**We want you – yes, you! We're looking for writers, photographers, editors, illustrators, reporters, computer experts and grammar nerds to join our team. No experience needed – we'll teach you everything you need to know. If you're interested, send us an email on [felix@ic.ac.uk](mailto:felix@ic.ac.uk), or join the society on the Union website!**

## TECH

technology.felix@imperial.ac.uk

# The Form Factor of Modern Smartphones

## Revolutionary Shifts in Modern Smartphone Design

## TECH

Sudarshan Sreeram

Tech Writer

Smartphones, and mobile phones in general, are nothing but merely an extension of the human mind; to put it simply, these devices serve as external information banks and keep us connected with the outside world. Always adapting and evolving to meet the needs of the consumer, the form-factor (i.e. the design) of these devices have seen numerous variations and changes over the past three decades. From the brick to flip-phones, early day mobile handsets serve as the ancestors of the modern-day smartphone. Their past plays a big role in where their future is headed. Despite being nearly thirty years apart, these devices share a common purpose: to serve its user as a basic communication device. To be fair, neither

of these devices, albeit modern or retro, fall short on that end.

Modern smartphones take it a step further, with video call, internet voice call, instant messaging, social media, video streaming, etc. The reason why today's phones have a much more multi-purpose nature is because they're very personal devices. Nobody would

**“Nobody would want to carry one different device for each purpose”**

want to carry one different device for each purpose; it just isn't practical in a fast moving world where things have to be seamlessly connected.

Coming back to retro phone design, it's evident that there was quite a large

variety. The design of the phone acted as identifiers of the company they represented; each phone possessed unique quirks and features that signaled the brand. An iconic example is a standard Blackberry handset. Immediately recognizable, this device stood out from the rest with its square-shaped, palm-sized design with a full-size physical keypad.

Companies saw selling phones to consumers as a great profit-making opportunity and started pushing out phones at a rate higher than the demand. It was inevitable that mobile handsets were the most effective way to stay connected with others, and soon enough, widespread adoption on a global scale took place. In effect, it was a matter of competition between smartphone vendors to produce phones that attracted consumers. With this trend came handsets that lacked the ease-of-use factor and had way too many unnecessary features; to put it simply,



Phones From The Past Ten - Twenty Years // Benedict Evans

they weren't centered around the user. Rather, these devices were aimed at increasing their brand's share of the market and the profits that came with it.

Ever remember the day when you had to press a key multiple times for a letter to show up? Well, that's exactly how it was in retro mobile handsets with the exception of those that possessed a full keypad. With physical keypads and buttons, these devices didn't have a large screen real estate. As a matter of fact, their physical footprint wasn't nearly as large as today's smartphones, well, with the exception of the retro brick cell phone.

Due to their minimum functionality, the structure tended to be more versatile and thus came in many forms, one of the most iconic being the capability to “flip”. Composed of two parts connected by a hinge mechanism, this design saw the phone being split distinctly into two parts: the keypad and the display. This method allowed for much larger displays while maintaining the same footprint

while folded, albeit a bit thicker.

Again, keep in mind that phones of this time were mostly used for calling, texting, e-mail, memos, and playing very simple games. Later, the camera and music player were integrated into the phone. This critical step essentially reduced the need to carry two extra devices.

Another key factor is

**“The functionality and ease-of-use of phones have grown exponentially”**

that almost all the software on the phone was developed by the company that produced it. There were little to none third party software programs and the idea of an app store was still a concept. In effect, the past saw the usage of “smartphones” in a much primitive way.

Over the past two

decades, the functionality and ease-of-use of phones have grown exponentially, thus making them “smart”. This key attribute also includes the nature of the device to link up with the internet. Third party support has been more than ever and the implementation of an app store provides the device with an ever-increasing set of features to keep the user engaged.

Today's smartphone line-up are based on two primary platforms: Android and iOS. In the past, companies created their own proprietary OSs and frameworks. This is primarily what led to the lack of third-party support.

Now, imagine today's world except that each brand had their own proprietary OS, well, apart from Apple. Also, keep in mind that most third-party support either comes from small startups or the open source community.

These groups don't have the time to adapt their solutions to every platform at the rate of demand. In addition, this mess only truly shows itself when you com-



Xiaomi Mi Mix Alpha // Xiaomi



Samsung Galaxy Fold // Samsung

prehend the manpower required to develop apps for each operating system. In the case of startups, it's impractical as their goal is to reach widespread adoption while maintaining spendings under the budget.

On the flip-side, since most modern smartphones operate on either of the two platforms, any hardware change or addition would require a ton of work in the software end by the smartphone manufacturer to update their framework to allow for the maintenance of third party support. This is a very tedious job and doesn't motivate radical design changes; that is, it's hard to adapt the software to changes in hardware. To put it simply, it just isn't financially practical.

Even with these widespread platforms, the core functionality of the devices are most highlighted by their app stores. In the world of Android, Google leads the industry with its play

store and Google services, without which most companies wouldn't survive.

Anyways, going back to the design of smartphones, it's now clear that the stagnation in variety of design is primarily due to software limitations. However, companies are now looking past this limitation to push out smartphones that make their brand look unique in the face of consumers. The standard rectangular glass and metal slab design that started with the original iPhone is now slowly fading with smartphone manufacturers taking inspiration from past designs and applying it to the modern scenario. A more recent example of this is the

**“It's only a matter of time before brands start to lose their identity”**

Samsung Galaxy Fold — A flip-phone inspired smartphone with a radical modern twist.

With smartphones looking more alike than ever with all screen displays, smartphone vendors are pouring money into innovation to keep their brand name from hanging on the balance. In this process, we consumers gain access to devices that both meet our needs as well as the needs of the manufacturers.

The “rectangular-slab” design was so influential that manufacturers found it convenient to stick with it and go on from there with their variants. However, the variables (screen size, frame, camera layout, speaker placement, etc.) they can control are limited and it's only a matter of time before brands start to lose their identity. In other words, there's only so much you can do with that space.

There have been quite a few companies that have

tried to resolve this issue over the past year while promising to maintain software support:

- Samsung Galaxy Fold with an inner foldable OLED display and a secondary screen on the front

**“Smartphone vendors are pouring money into innovation”**

of the device.

- Huawei Mate X with a foldable OLED display that folds outwards as opposed to inward fold in the Galaxy Fold.

- Xiaomi Mi Mix 3 Alpha with a display that wraps around the edge and extends all the way to the back of the phone.

- Microsoft Surface Duo, a dual display device aimed at productivity and multitasking.

Apart from these revolutionary examples,

these have been phones that take different, more cost-effective approaches to uniqueness. The most simple of these approaches being the layout and arrangement of the camera system. The front camera has recently seen a tremendous amount of change over the past two years. With the different variations of the “notch” to cameras that “pop-up” from the outer casing of the device, smartphone manufacturers are truly pushing, what I like to call, silent innovation. This kind of innovation serves, as previously said, to make the most out of the space in a smartphone.

Examples of this “silent innovation” include:

- Bending of the OLED screen under the phone's metal housing to eliminate the “chin”. (iPhone X series and above)

- Curving the display towards the side-edges to cause an illusion that eliminates the presence of a side bezel. (Most notable: Oppo's “Water-fall” display prototype)

- Google Pixel 4's motion sense, which uses a Soli radar sensor to detect hand gestures.

- Facial mapping and recognition as a security measure to unlock the device. (Apple's FaceID and Google's Face Unlock)

- Depth mapping and advanced image processing using multiple cameras.

- Pressure sensitive displays and Taptic engines to detect and simulate depth while force-pressing on the screen. (Apple's 3D Touch)

- Precision cutting a whole in a display to house the front-facing camera module. (Flagship Samsung phones such as S10 & Note 10 series)

With more advanced, innovative solutions such as under-display cameras and port-less, water-proof phones, it's only a matter of time before we witness the next revolutionary, industry-standard form-factor for smartphones of our future.

# GAMES

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## Classic Tetris<sup>®</sup> World Championship: the Ultimate Test of Mental and Physical Acuteness

*An overview of the yearly Classic Tetris<sup>®</sup> World Championship, a history of the event and what to expect from one of the most anticipated years of the competition so far.*

### GAMES

**Freddie Ugo**

*Games Editor*

**T**etris. A game we all know and love. Some dub it the ‘Perfect Game’ and for good reason. Created in 1984 in the USSR by Alexey Pajitnov, it quickly took the world by storm with its addictive yet deceptively simple gameplay. Selling over 170 million copies to date, the general concept has remained the same: one of seven tetrominoes falls from the top of the screen, you can rotate it in any direction but once it hits the floor it is stuck in place. Do this repeatedly with the aim of filling an entire row... once you fill a row, that row is deleted. Keep going until you mess up and the whole screen is filled to the top!

Relatively simple right? Well, it is harder than you might think, and with increasing levels of speed as the game goes on you will find that there is a huge disparity between skilled players and newbies. With seemingly no limit to the skill cap of this game, many hardcore players have turned to create a competitive scene out of the game.

### CTWC

The Classic Tetris World Championship is hosted every year at the Portland Gaming Expo and is taking place this weekend from the 18th – 20th October. The competition launched in 2010 during the filming

of *Ecstasy of Order: The Tetris Masters* (A great documentary that I would highly recommend) to determine the ‘World’s Greatest Tetris Player’. To standardise the playing field, everybody plays on the original NES version of the game from 1989. An old Nintendo World Championship competitor of Tetris, Trey Harrison, created specific code so that in 1v1 situations both competitors would receive the random selection of blocks in the same order to eliminate the luck factor involved. With these rules set in place, it allows for a very professional atmosphere and unique playstyles to shine, whether it be the ‘centre well’ antics of Thor Aackerlund or the extreme ‘hyper-tapping’ of last year’s champion Joseph Saelee.

In the 9 years the tournament has been running, Jonas Neubauer (the first-ever champion) has been the dominant force. Winning 7 out of 9 and being in every final, he is without a doubt the GOAT of Classic Tetris. The history of the years he did not win are extremely interesting and pave the way for understanding why CTWC 2019 might be the craziest year yet!

### Harry vs. Jonas

Even before the first CTWC, Jonas and Harry were rivals. In 2009, Harry Hong became the first known player to achieve the highest possible score, 999,999 dubbed a ‘max-out’. The reason it is so hard to achieve this score is not only the extreme



Joseph Saelee, Jonas Neubauer and Harry Hong pictured left to right // [thectwc.com](http://thectwc.com)

skill required to stay alive long enough, but also the game reaches a ‘kill-screen’ at level 29 where the pieces fall too fast to be able to play. This means you are effectively on a time limit to reach

**“Even before the first CTWC, Jonas and Harry were rivals”**

the highest score you possibly can. Harry and Jonas were both going for the max-out when it was first achieved, making the 2010 CTWC effectively a grudge match between the two. Jonas pulled off a win in the finals, exacting his revenge over Harry. This dominance over Harry would continue, winning every following CTWC until 2014. Master Hong was on fire this year, easily taking a 3-1 victory over Jonas and downing the Titan. Unfortunately, since 2014 Harry has not

seen anywhere near the same level of success.

### The Virtuoso

Other than 2014, Jonas continued to see unparalleled success in the world of Tetris, achieving multiple world records in different categories and consistently winning major tournaments. However, in early 2018 a young 16-year old boy from California began to rise to fame due to his ability to play past the level 29 kill-screen. The way he does this is by utilising a technique called ‘hyper-tapping’. Hyper-tapping is as it sounds – tapping insanely fast – by vibrating the controller between your thumb and the rest of your hand. This means that you can move the piece far faster than the traditional method of simply holding down a direction and thus, if your brain works fast enough, you can continue to play past level 29 and beyond. To date, his record is level 34, a completely unprecedented realm that no one else has even come

close to achieving. In the same year that Joseph first appeared, he completely shocked the Tetris world by stealing the limelight from Jonas and being the 3rd ever CTWC champion; his victory was so dominant that Jonas was unable to take a single game from Joseph. Since then Joseph has continued the same spell of dominance shown by Jonas in years prior, taking world record after world record and innovating like no other before him.

### This Year

Unlike in previous years, the outcome of this World Championship is truly unpredictable. Many pros expect Joseph to take back to back victories, but the consistency of Jonas over the last decade cannot be pushed under the rug – the man knows how to deal with pressure on the big stage. Other prominent players are in the running: Koryan, a long-time player from Japan who also utilises hyper-tapping has been getting closer and closer

to winning, reaching 4th place in both 2016 and 2018. Moreover, meme-famous Jeff Moore (TETRIS FOR JEFF) who came in 2nd place in 2016 is making his return this year. With a huge line-up of highly regarded players, who knows what is going to happen?

**“..the consistency of Jonas over the last decade cannot be pushed under the rug”**

*If you are interested in checking it out be sure to watch the CTWC Twitch channel this weekend to find out who’s going to take home the beautiful T-Block trophy!*

# GAMES

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## POV: Ah, the glory days before dawn of the blue shell!

### GAMES

**Freddie Ugo**

*Games Editor*

On my way back home this weekend I was strolling past a CeX (Computer Exchange) shop when I caught a glimpse of something in the corner of my eye. For the decent price of £25, I happened upon a fully complete in box version of Super Mario Kart for the Super Nintendo Entertainment System. Given my love for retro games and that this was the last Mario Kart game I needed to complete my collection: I knew I had to make the purchase.

After thoroughly cleaning the cartridge, I popped it into my SNES and started up the game. As is true with all retro

games, I was able to jump straight into the action: 1 player, 100cc, Mushroom Cup. I chose Donkey Kong Jr. (a character we don't often see nowadays) and got to racing. The first thing I noticed was how strange the track looked. Old 16-bit systems did not have the power to run full 3-D games, polygons and all, so instead they cleverly designed 2-D images to look 3-D (similar to the original DOOM). This was very clear in the way that various barriers looked completely flat and how objects such as pipes and thwomps seemed to slowly creep towards you in increments of frames rather than smoothly increase in size as you get closer.

Other than the look of the track, the driving was initially jarring too. Coming from playing a lot

of Mario Kart 8, getting used to this older drifting system was quite the challenge. There are no boosts from drifting and your drift is not held if you press the other direction; instead you just fling off to side, frequently going off-road and losing a lot of speed. This meant that I had to work hard at mastering the use of hopping back into a straight position after a turn.

The soundtrack is where this game truly shines! Each type of track (e.g. Mario Circuit, Bowser's Castle e.t.c.) has its own song. The soundtrack absolutely bops and remains a classic to this day. While I am writing this article the title theme is playing in the background, (much to the dismay of my fellow editors!)

With all its positives,



Every playable character in a hectic mess: the epitome of Mario Kart // Nintendo

Super Mario Kart clearly shows a lack of polish the more recent iterations in the franchise have been blessed with. Spinning out after hitting an obstacle can be very disorientating, people prone to motion sickness beware! Not only that but *when* you get hit by an obstacle or fall off

the stage, it takes so long to recover that your race is basically over. With all of that said I still had an amazing time with the game. I don't think that I have played for long enough to consider myself any good at it but I am definitely going to play more so that I can

improve. I imagine the 2-player mode is very hectic; sadly I haven't found anyone willing to play it with me yet!

I hope everyone has had a great week and be sure to check out some games coming out this month!

## POV: Ratchet and Clank 2016 ... just ... just why?

### GAMES

**Connor Winzar**

*Games Editor*

Having just finished Ratchet and Clank 2016 in its entirety I have to say: considering the great reviews, I'm not actually convinced reviewers were playing the same game. Before I start the inevitable ensuing rant, I would like to say that the series holds a special place in my heart. I got into it when I was 9 years old and have been a follower ever since; the start to my R&C journey began with Tools of Destruction and then followed chronologically until Crack in Time, when I retroactively began

playing the earlier games after the HD collection was released (most of which I have platinumed).

Here's my hot take: having played majority of the past games, I can honestly tell you that R&C 2016 is an utterly soulless remaster of the original. I will not contest that it's a visual masterpiece akin to an ultra-high definition Pixar game – but the magic of the earlier games just isn't there. The game has been stripped of its character, presumably for fear of doing anything vaguely controversial as they shift to targeting a younger audience. It is left with none of the original's humour, character development, or even the core message of its story.

My expectations were already low, but they

dropped further upon starting up the game and being greeted by a generic menu and the absolute bullshit that is only having one save file – something absolutely ridiculous, given that the earlier and much older games had multiple save slots. And it gets worse! I understand holding the player's hand, especially for younger players. However, compulsively spewing the same effing phrase of "get the pixeliser here" every 15 seconds, with Qwark's narration piping in every 8 and the enemies talking every 4 on top, is frustrating to say the least – especially when combined with the nauseating light show that results from running a bullet hell game in 30fps. So help me God, I swear

that every time I heard the weapons vendor screech about a new unlock, the imminent rage-aneurysm the game was concocting drew closer by another minute – a doomsday clock on my life and soul as it was drained from me by the playing experience. And who could forget that the game's cutscenes were essentially copy and pasted from the film - except with introductions of villains being cut out despite originally being in the film, which just left the game feeling like even more of a 'rush job'.

Don't get me started about the lack of character development in the game. There's no form of friction between Ratchet and Clank, nor any sense of lessons being learned and attitudes changing,

which was the essence of the original's message of settling one other's differences for the sake of a common goal. Neither is there any form of friendship between the two characters. It's painful seeing the complicated back-and-forth relationship presented in the original game being bastardised so much; with no faults and

a perfect alliance it feels fake and unrealistic, and more importantly it renders the characters two-dimensional. In the end the game's visual beauty is akin to makeup on a pig – you can make it prettier, but it's not enough to hide the underlying faults.



Beautiful visuals for an otherwise meh game // Sony

# GAMES

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## Riot Games is Trying to Kill Blizzard: the 10<sup>th</sup> Annive

*Riot's 10<sup>th</sup> anniversary special broadcast saw a wild amount of announcements - both to do with their flagship (and to date only) game, League of Legends, as well as myriad new game announcements. Felix Games gives the run-down, as well as speculates on what this signals in terms of Riot's business plan going forward*

### GAMES

**Henry Alman**

*Editor-in-Chief*

The 10th-anniversary celebration of League of Legends took place a few days ago – and oh boy, did Riot pull out all the stops.

The day began with some fun streams with various Riot employees – such as a live concert of League music, a ‘Twitch Plays’, where the chat

was used to drive a robot around Riot HQ, and (my personal favourite) an artist stream: where quick concept art was made for a variety of meme-worthy skin ideas. KDA Gragas was a particular highlight.

However, the real show began with a special episode of ‘Riot Pls’, the studio’s version of a video dev blog. We at Felix Games are going to break down the changes they announced for League – as well as the incredibly spicy news they shared about finally putting the

‘s’ in Riot ‘Games’.

First, pre-season changes. They’ve thematically dubbed the changes “Rise of the Elements”. We’ll be diving into these in detail soon as more information is revealed, but in short: welcome to RNG city. The randomly-spawning elemental dragons (drakes) will now cause permanent changes to the map depending on which drake spawns third – such as destroying or building walls (laughs in Qiyana) or adding extra brushes to the map

(laughs in Rengar). Drake effects have been tweaked too, especially the Elder Dragon, which now no longer amplifies the effects of previously-taken drakes but instead offers execution below a certain health threshold. They’ve given everybody Pyke ultimate on every damaging ability – dear lord, it’s the end of days.

Additionally, they’ve added extra brushes to the jungle and small ‘alcoves’ to the sidelanes – time for the rise of Shaco support – as well as a slew of item and XP tweaks. Lastly, they revealed a teaser for a new marksman support champion: Senna, Lucian’s wife, whose soul was previously trapped in Thresh’s lantern. Fun fact: Thresh used to start with one soul stacked already whenever he faced Lucian, which presumably will have to change.

Lastly: yes, the rumours were true. League is going to console and mobile

with a revamped set of mechanics and models that were built from the ground-up, as is TFT. This is reassuring for mobile game or console enthusiasts – after all, a pure port of a MOBA like League just wouldn’t work. The visuals of this new version, dubbed ‘Wild Rift’, look particularly impressive, with some pretty awesome character animations that seem to play as an introduction (possibly in champ select) – but whether it feels good to play will have to be

**“Riot is working on new netcode technology to reduce ping and latency issues”**

seen.

Oh – and classic URF is coming back for a couple of weeks. Karthus-induced carpal tunnel (which I’m dubbing Karthpal tunnel) incoming. TFT is also getting a new seasonal set of champions, essentially hitting reset on the meta and starting from the beginning!

Now – and I can’t believe I’m saying this – that’s the ‘boring’ news out of the way. What a world we live in when those changes are the vanilla ones. Let’s dig into the plethora of new games Riot has just announced!

### ‘Project L’: The Fighting Game

Riot announced that they were working on a fighting game at EVO this year after the information had previously been leaked, having acquired the development team who were working on the highly-anticipated and then cancelled ‘Rising Thunder’ game three years ago. However, this is the first time early development gameplay has been shown – and it looks incredibly slick. The game will feature characters from Runeterra and League, with Darius, Jinx, Ahri, and Katarina being seen duking it out in the preview. Sadly, the announcement came with a caveat: there won’t be any more information for a while. It’s exciting nonetheless.

One thing that fighting game enthusiasts will be excited to hear is that Riot is working on some form of new netcode technology aimed at reducing the impact of latency and ping on gameplay – which was officially announced as part of the next game on our list.



A screenshot of Riot's tactical shooter from their announcement video - looking smooth so far! // Riot Games

# GAMES

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## rsary Announcements

### 'Project A': The Tactical Shooter

The first game announced by Riot that is completely separate from League and the world of Runeterra, 'Project A' is a character-based tactical shooter with a whole new set of characters and a fresh near-future Earth setting. There are few details available for now, but on the gameplay side a lot of focus seems to be going toward developing high-impact character abilities and smooth gunplay to keep the game competitive. Furthermore, a lot of investment is going into high-end infrastructure changes, to combat issues such as aimbots and 'peeker's advantage' (where latency means the person peeking around a corner gets information, and a chance to shoot, before the person on the other side.) More details will be shared throughout 2020.

### Legends of Runeterra: The Card Game

Ah, Riot isn't even trying to hide it at this point: this is a Hearthstone-killer. However, it doesn't appear to be just another clone. There was a real sense from the devs that this is a passion project – one they're committed to keeping free from the evils of randomised loot boxes for cards. The game will feature League and other Runeterra-based champions as powerful cards, with a supporting cast of cards with both familiar and unfamiliar faces. This project seems by far the closest to completion, with alpha pre-registration already active and early gameplay being streamed after the main show. (If you're a card-game nut, get in touch and let us know what you think so

far!)

### 'Project F'???: The ARPG(?)

Yes, that is a lot of question marks. Riot conspicuously displayed what appeared to be a Diablo-style ARPG, potentially with MMO elements, in the background of their announcements, but didn't offer any comment. I know; they're just teasing us at this point. We'll refrain from diving too heavily into speculation, but the short gameplay clips of an isometric Blitzcrank, g o o m b a - s t o m p i n g minions already look like a blast.

### Esports Manager

Finally! The return of some form of fantasy esports for League! The game will feature two modes: a campaign-style single-player game, and a ranked system where you can compete against others. Sadly, it will initially launch with only LPL teams in 2020 but apparently will look to expand to include other regions. As soon as they do, I'm creating what I'm half-convinced will actually be the 2020 G2 team with role-swapping Perkz as support, Caps as ADC, and Faker in mid – the memes are just too good to resist. There's further good news: a portion of all proceeds will be reinvested back into the pro scene!

### And the honourable mentions...

There's a couple of other things worth mentioning here – yes, even more. Firstly, there was a very brief mention and a snippet of a potential new board game being developed – but not enough information to



Legends of Runeterra features League champions as powerful cards you base strategies around // Riot Games

say anything concrete just yet. Secondly – Riot announced a full-on animated show called Arcane, which seems to be based on the history of Jinx and Vi in the conjoined microcosms of the Runeterran cities of Zaun and Piltover. Champions like Ekko and Ezreal were also spotted in the extended trailer previewed during the show. Fans of League have been asking for it for years and years – and finally, Riot has delivered, with an expected release date within the next year.

### So what does all this mean?

The clue is in the title. Not only has Riot managed to mostly keep the development of most of these games a complete secret, but they've also managed to organically announce them at the perfect moment.

Blizzard has, for a long time, had a powerful influence on the Western gaming market. With huge blockbuster successes like World of Warcraft and Starcraft under their belt, Blizzard has shaped entire

genres and arguably kick-started the modern esports phenomenon. Over the years, they've expanded their collection of games, often championing a single game per genre. They have Hearthstone for card games; Overwatch for shooters; Heroes of the Storm for MOBAs; WoW for MMORPGs; Diablo for ARPGs; and so on. Each of these games overlaps and (whether canon or not) inherit lore and style and context from one another – Heroes of the Storm, for example, features characters from across all of Blizzard's library. Each is also managed via the Blizzard launcher, a centralised app for all their games.

Riot has, in short, decided that they're going to war with Blizzard. Having announced the development of a suite of games drawing from the same universe – Runeterra – they've set themselves up to emulate the same business model. This is no accident; Riot has even recently revamped the launcher for League into a more general Riot Games launcher, with the now-apparent intention of

using it as a base launcher for a variety of games in the same way as Blizzard does. They even jokingly referenced Blizzard's gaff last year (regarding the comment on whether players have phones) while delivering their

### "Riot has, in short, decided that they are going to war with Blizzard"

mobile announcements.

They're going even further: several of their newly-announced games will be direct competitors to flagship Blizzard titles. 'Project A' will compete with Blizzard's character-based shooter Overwatch, Legends of Runeterra similarly seeks to entice Hearthstone's playerbase, and the ARPG-style game will draw Diablo fans. More than this, what little we have heard about these games so far seems to aim to directly address the biggest criticisms of

Blizzard's equivalents: netcode for Overwatch (and shooters in general) and microtransactions for Hearthstone.

And it's the perfect moment. Blizzard's recent controversies have left them vulnerable – a lukewarm Blizzcon last year, the casual axing of the entire Heroes of the Storm esports scene, and most recently banning and rescinding the winnings of a tournament player who shouted "liberate Hong Kong" in a post-game interview. Riot must have been planning these announcements months in advance – but fortune has smiled upon them, as the giants they're hoping to slay have shot themselves in the foot just over a week prior.

Only time will tell if this incredibly bold market takeover will be successful – but aside from all that, frankly, I'm just excited to play some amazing-looking games.

# GAMES

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## Poll: Gotta catch em' all!

Thank you all for your submissions last week! From last week's requests we've decided to go ahead and have a Pokémon themed poll!

### What is your favourite starter Pokémon?

Open submission

### What is your favourite generation?

A. 1 B. 2 C. 3 D. 4 E. 5 F. 6  
G. 7

### What Pokémon do you find most disturbing?

Open submission

### Why did Professor Oak send Ash away, was it to:

A. Bang Ash's Mom  
B. Get unpaid internship work #ChildLabour  
C. Steal Ash's work and not credit him  
D. All of the above.

### Who is your favourite villain team e.g. Team Galactic?

Open submission

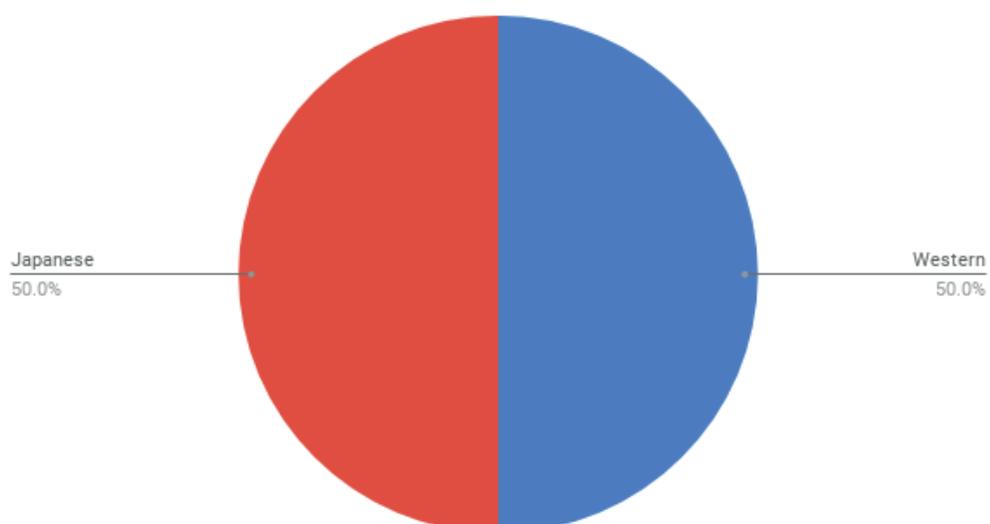
Submit your answers into the Microsoft survey - accessible through the Felix Facebook/Twitter page or scanning the QR code. No need to download an app! You can just hold down the screen on Snapchat or use your standard camera and it will scan the code for you. We'll get back to you next week, with infographics and more questions!



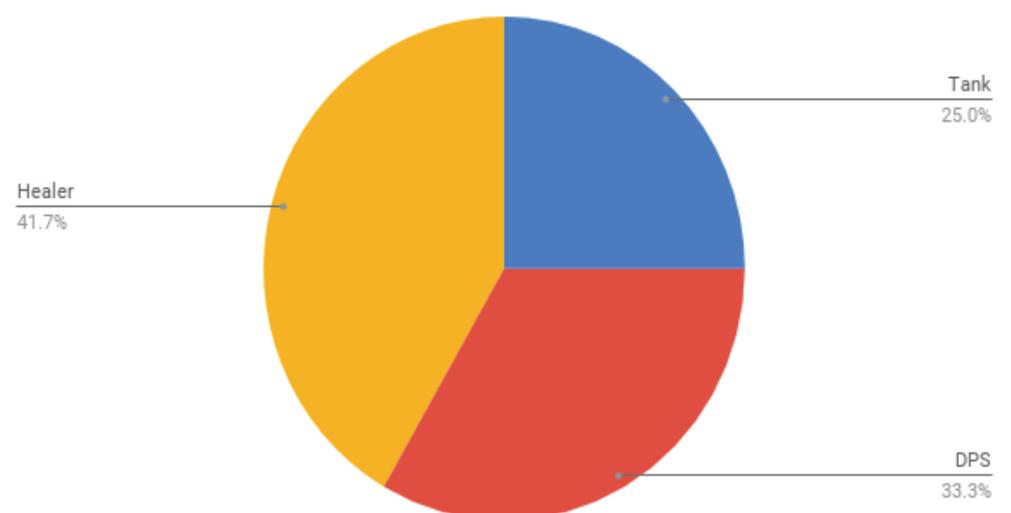
Who's that pokemon?! IT'S PIKA...// Nintendo

## Poll Results

Do you prefer Western or Japanese role playing games?



What's your preferred role?



### Question 3: The next Final Fantasy will be called...

#### Our Top 10 picks:

Car Boys II  
You're gonna buy this no matter what its called  
Finalest Fantasy  
Not actually final  
Final Fantasy: Sunk Cost Fallacy

Final Fantasy XVI: Ass to grass adventures  
Final Fantasy XV-2: Electric Boogaloo  
Final Fantasy XVI Return of Jafar  
You're Only Buying This Because You Bought All the Others  
Final Fantasy XVI Tacks n Ticks

# INVESTMENT

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## Equity and Bonds: 2 Different Ways of Raising Capital

### INVESTMENT

**Marios Papadopoulos**

ICIS  
Investment Student Writer

Raising capital is essential to the long-term health of every company and organisation.

Fresh capital is required for hiring more personnel, investing in new technologies, and expanding operations, among other purposes. Equity constitutes one way of raising the sum of money necessary. In general, equity is the measure of ownership in a particular asset after

**“When discussing equity, most people are focused on firms and are hence referring to shareholder equity.”**

all debts associated with that asset have been subtracted. An asset is defined as any resource which provides or is expected to provide economic value. When discussing equity, most people are focused on firms and are hence referring to shareholder equity. A shareholder's equity in a company is determined by the amount of money that individual contributes in comparison with the rest of the stockholders. The more money they

contribute, the higher their ownership share in the firm. The combined shareholder equity, i.e. how much external investors own of the company, is calculated by deducting the total liabilities from the total assets. Liabilities are the exact opposite of assets; the term includes all of the firm's debts and costs of operation. A company's balance sheet will always include assets and liabilities, which means equity can be easily calculated. If the total equity is positive, this means the business' assets generate enough value to cover the costs of its liabilities. In case of negative equity, liabilities exceed the value of the assets. Should that trend continue for an extended period of time, the firm will be facing insolvency. A company is deemed insolvent when it can no longer pay off its debts. Insolvency should not be confused with bankruptcy, which is a court order specifying how the debts will be settled and what assets will probably have to be sold for that purpose.

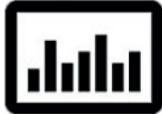
### Discussing Bonds

A bond constitutes an entirely different method of fundraising. Bonds can be thought of as financial instruments which include the sum of money borrowed and when that amount has to be repaid by the borrower. Particularly, every bond contains a deadline for paying off the principal of the loan, i.e. the original amount borrowed, as well as a fixed interest repayment schedule. This fixed interest is known as the coupon rate of the bond. The question is, how do bonds work?

Initially, an entity that wants to raise capital issues a bond. Govern-




**Equity Formula = Total Assets – Total Liabilities**



*The standard formula for calculating equity // WallStreetMojo*

ments, local authorities and corporations are some of the main examples of bond issuers. Afterwards, an individual investor, or more frequently, a group of investors, buy the bond and hence lending money to the issuer for a specified period of time. The agreement between lender and borrower lists the sum to be provided along with the interest rate. The latter is determined by the credit rating of the borrower. An entity that is viewed more likely to default on its debts has a low credit rating, while the opposite holds for an institution with a high credit rating. It is worth mentioning that lenders tend to sell bonds to other investors in the bond market. A bond which has been resold multiple

times indicates the market is confident in the issuer's ability to repay the bond. Therefore, the credit rating reflects investors confidence in the particular organisation.

### Equity vs. Bonds: A comparison

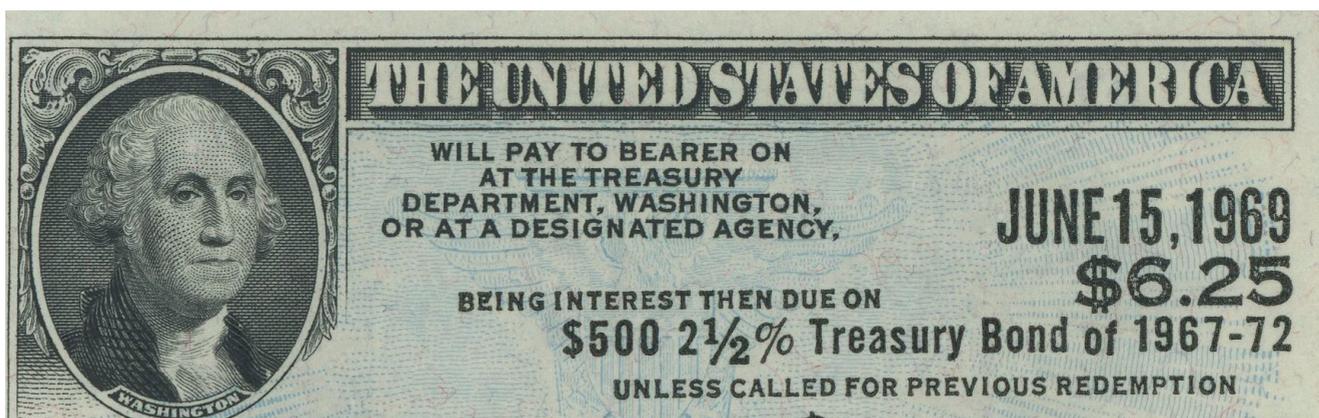
Should an investor focus on equity or bonds? The answer is both. As a general principle, investors want to build a diverse portfolio, which will inevitably include equity as well as bonds, among a plethora of asset types. Equity attracts an investor's attention since the company's share value may increase over time and can therefore be sold for a higher price. The difference between the price that stock was sold for and

its initial value at the time of purchase equals the investor's profit. However, investing in shares is inherently risky since no guarantee exists that the firm's value will appreciate over time. Historically, the stockmarket has been volatile, going through periods of substantial losses followed by intervals of profitability. On the other hand, bonds provide stable income at specific dates and are thus viewed as less risky compared to equity. Furthermore, bond holders are prioritised over shareholders with regards to repayment; holders of company stock are paid dividends from the profits on a regular basis, usually every quarter. In contrast, shareholders

influence the firm's direction to a large degree because they are granted voting rights and can thus decide which people sit on the board of directors.

### The Last Word

It has become evident that equity and bonds serve the same purpose but in very different ways. The first provides corporations with access to capital in exchange for an ownership stake, while the latter serves as a direct method of raising funds, usually needed for large amounts of capital that banks cannot lend. Given how they differ in terms of the profit they may yield and how risky they can be, investors typically choose to include both in their portfolios.



**This 2.5% coupon rate (\$12.5) on a \$500 U.S. Treasury Bond is paid out in payments of \$6.25**

*// JHerbstman, Wikipedia*

# SUSTAINABILITY

sustainability.felix@imperial.ac.uk

## The Aftermath of the Extinction Rebellion Ban in London by the Police

### SUSTAINABILITY

**Xiuchen Xu**

*Sustainability Editor*

As of Monday the 14th, the Scotland Yard has announced that all Extinction Rebellion (XR) protests must cease. The Met's has banned all protests linked to the XR 'Autumn Uprising' under Section 14 of the Public Order Act. Since then, the police have cleared infrastructure from protest sites such as Trafalgar square and Vauxhall. Several were arrested the night where the ban was announced, including Green Party MEP Ellie Chowns.

Professor David Mead, a specialist in UK Human Rights Law, has suggested the move could contradict both European and British law. The ban has also been called unlawful by Amnesty International, the world's leading human rights organization, and the legitimacy of arrests

has been questioned by law experts, as over 1,600 arrests have been made.

The decision to ban XR protests has caused public uproar and was met with widespread criticism. Politicians, human rights groups and leading environmental figures have condemned the ban. Adam Wagner, a Human rights lawyer has called the Metropolitan Police's ban 'draconian and extremely heavy-handed'. Greta Thunberg has encouraged protestors to defy the city-wide ban, on her Instagram, she wrote "If standing up against the climate and ecological breakdown and for humanity is against the rules then the rules must be broken." The Extinction Rebellion has also encouraged protestors to defy the ban, the releases a statement saying: "Following the decision to ban peaceful protest in London, we are calling on everyone to assemble in Trafalgar Square to defend our civil liberties."

The ban has faced huge

backlash and the public is in defiance. Although Trafalgar Square had previously been cleared of its infrastructure and protestors on Monday. As of Wednesday, protestors have returned to Trafalgar square in defiance of the ruling. According to Extinction Rebellion, approximately 5,000

**"If standing up against climate change and ecological breakdown is illegal then the rules must be broken"**

protestors were prepared to be arrested for the cause. At another protest site, at Whitehall, Green Party co-leader Jonathan Bartley and climate activist George Monbiot have been arrested for



The Rebels have taken to the streets again despite the ban // Wikimedia Commons

joining Extinction Rebellion protests there.

Other protests after the ban includes protests in front of Google HQ. Over 100 mothers gathered, many bringing their babies. The protest against Google was sparked by a Guardian investigation which discovered that Google has been funding organisations that actively questions the need for action on the climate crisis or organisations that campaigns against environmental legislation. Youths have also been protesting at YouTube space. Some climbed on top of the YouTube space, a letter was delivered to YouTube's employees calling for an end to video content that promotes climate change denial. On Thursday there is also plans to target London Underground and disrupt transport on Thursday.

Sadiq Khan, the Mayor of London, has said that he was not aware of the decision to ban XR protests. In a statement from twitter he said,

"Neither I nor the Deputy Mayor for Policing and Crime was informed before the Metropolitan Police took the operational decision to impose a Section 14 order on Extinction Rebellion Autumn Uprising last night." He also declared: "I've met with senior officers today to seek further information on why they deemed this necessary."

The leaders of the XR movement have declared that they are planning to launch legal action to combat the ban. As of Wednesday, the Lawyers for XR have been at the High Court to apply for a judicial review of the ban, amid claims that the order is not legal and breaches the right to protest.

Overall, it is very clear that the ban is facing great resistance. It is very clear that people will not give up this important cause. It is also apparent, that the public is appalled by this intervention, which is also considered disproportionate to the action of the

protestors. The injustice of this ban is particularly upsetting, as in the UK people have always had the right to protest peacefully, the crackdown on peaceful protests is reminiscent of governments with terrible human rights track records. There will be a lot of tension between protestors and the police over the coming weeks, as neither side wants to back down. Furthermore, there will be intense legal battles in court, as the legality of the ban is put into question.

**Felix Sustainability is a platform for discussion of environmental issues and sustainable development.**

**We welcome articles from all points of view. Please get in touch if you would like to write for us! Our email address in the header, please don't hesitate to contact us if you would like to submit an article or if you have any questions about writing for us.**



The ban of XR protests have been met with backlash from both citizens as well as legal experts // Flickr

# TRAVEL

travel.felix@imperial.ac.uk

## Hamburg's Miniature Delight

*Step into the world of adorable mini models of towns and cities that are filled with big imaginations at the Miniatur Wunderland in Hamburg, Germany*

### TRAVEL

**Aina Naim**  
Travel Editor

While Hamburg is the second largest city in Germany after Berlin, it still lags behind the capital and Munich when it comes to the number of foreign visitors, particularly those who are seeking cultural and historical values that the aforementioned cities offer abundantly.

However, these numbers have seen a steady rise in the past few years as more people are discovering the charms of this delightful city. Hamburg is also home to the fallen giants, Hamburger SV, the only

football club that has competed in the highest tier of the German football league since its inception, until they succumbed and were relegated to the second tier just last year.

Meanwhile, tucked away between the meandering canals of Hamburg, along the historic warehouse district of Speicherstadt, lies the most popular destination for local and foreign visitors alike, the Miniatur Wunderland. This attraction houses thousands of miniature figures such as beautiful European towns and the vast desert landscape of the USA with its eye-catching mini Las Vegas as the pivotal piece of the model. The attraction spreads over three floors in a former warehouse in the docks area of the city and among its miniature towns, it also



Parts of the Italy model are heavily inspired by the Amalfi Coast in South Italy // Miniatur Wunderland

houses the largest model railway system in the world!

Among the many European towns and natural landscapes on display, the Italy section will definitely catch some attention. Inspired by regions such as South Italy with the Amalfi coast, South Tyrol, Rome, Tuscany, and Liguria, this 190 m<sup>2</sup> of "la dolce vita" model boasts crystal clear 'water' with beautiful buildings at the sides of the cliffs, as well as some notable monuments in Rome such as St Peter's Basilica and the Colosseum.

As you walk along the mini towns of Europe, you will surely come across the massive Knuffigen airport that spans over an area of 150 m<sup>2</sup> and is arguably the highlight of the attraction. The airport model comes equipped with humongous airport terminals, with various passenger figurines inside them, the airplane hangar, and even take-off and arrival runways for the

departing and arriving planes. To add to the excitement, there is even a schedule of planes that are arriving or departing, with their own unique flight designator (just like in a real airport!) so you can catch your favourite miniature airlines in action.

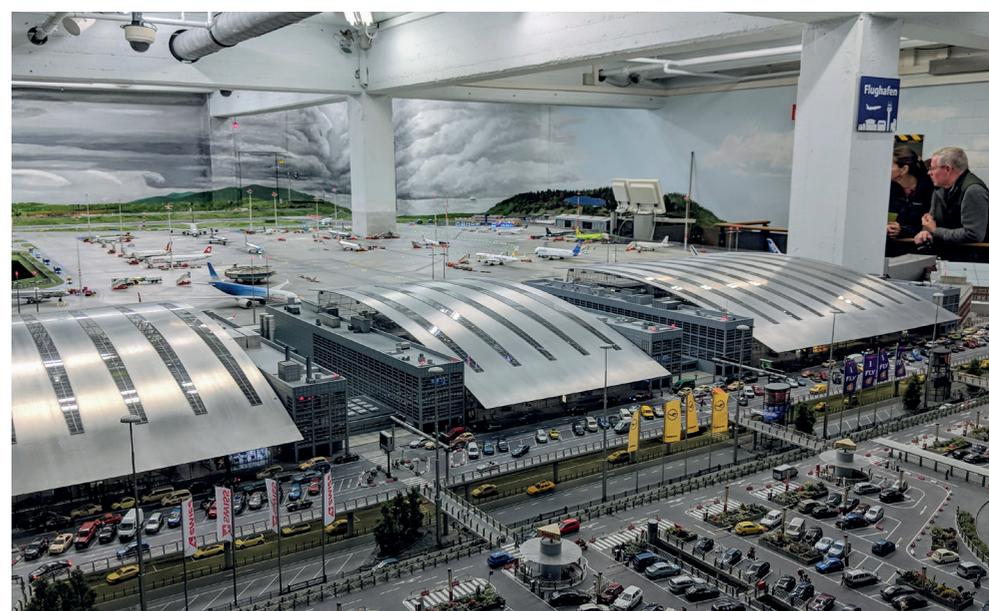
Miniatur Wunderland doesn't just offer small-scaled models of towns and cities, but it also

sneaked in plenty of Easter eggs and surprises for the keen-eyed tourists, as well as special events that happen ever so often in the model towns such as fire trucks rushing to a nearby fire breakout or a bunch of mini figures performing a score from a model of Hamburg's own renowned Elbphilharmonie (Elbe Philharmonic Hall) It provides more than just the typical adorable

mini towns that can be found in other places in the world and with 15€ (~£13) per admission, it will be worth both your money and time.



Emergency services attending to a breakout // via Joern



The busy Knuffigen Airport with onlooking giants // Aina Naim

## CGCU

**Fatima Khan**

CGCU Vice President

If you've kept up with our glorious Guilds column so far, you'll have read three of Tom's articles... and you'll probably agree with me when I say that's three too many. I thought I'd take over and bring a fresh voice to your CU pages and give you a little breakdown on what's been happening in and around CAGB 350.

On a fairly miserable Tuesday evening, with nothing better to do, I decided to go to the first Union Council of the year. I know we bang on about enjoying life and making the most of your Imperial experience, but I've gotten to a point where I find people talking Union politics "fun". I know.

Let me set the scene. I was sitting a few metres behind Chris Carter, the RSMU president. Unbeknownst to him, I was frantically typing away on Facebook Messenger to the Guilds committee - who were organising a raid of the RSMU office. The aim? To capture the miner's beloved Mascot 'Davy' and various other paraphernalia. Now, you may be asking why the guildspeople were spending their evening

committing petty theft - to explain that, we need to go right back through the history of the sport of mascotry.

The origins of mascotry are unclear, but it was a game between many London Universities to steal the most ridiculous of objects from each other. One of the most famous incidents was published in the Daily Mail in October 1929, when students attempted to capture Phineas (University College London's mascot, a wooden effigy

of a kilted Highlander, stolen from a shop outside Tottenham Court Road in March 1900). The article read: 'A dilapidated motor car containing [Phineas] was last night pushed into Downing Street and left in front of No. 10' and added that it 'looked as if it had come from a rubbish dump'. This rivalry between universities has since died down, and most of their Mascots have retired to glass display cases. However, the tradition is very much still alive at Imperial,

with there being several incidents a year.

To kick off the sport this year, the pesky scientists of the RCSU stole our 'Spanner' and 'Bolt' on Monday. I must admit that I had a part to play in this; earlier that day I let the RCSU President, Alex Auyang, into the Guilds office under the guise of 'friendship'. By the time he left, he had gotten hold of my key card, only to use it to return and swipe the mascots while I was at FiveSixEight with a few committee members.

We returned to CAGB 350, finding it strange that the lights were already on. It didn't take long for us to notice that our display case, which once contained our pride and joy 'Spanner' and 'Bolt', was empty, and a note left in their place. We were devastated, and the RCSU memorabilia scattered around the office (including a tie and a Freshers' handbook) really drove the point home that they had violated our mascots.

Panic ensued on the Guilds Committee

Facebook group chat once we broke the news to them. Various methods of retrieving 'Spanner' and 'Bolt' were suggested, through both legal and... less legal means. After a lot of discussion, it was decided that we would steal the Davy lamp in the hopes that we could ransom the Miners to steal back our mascots from the Scientists, or at least, we could offer them a fair trade.

The plan was set. During Union Council the following evening, when it would be guaranteed that Chris would not be in the RSMU office, we were to steal Davy and store him in an undisclosed location. The raid, needless to say, was successful and as of today the lamp remains in our possession. As it stands, the scientists still have our mascots in their possession and with our Welcome Dinner next weekend, we are very keen to get them back. The story is still unfolding, so make sure you keep up to date with our escapades through our social media channels as well as in next week's column. In the meantime, if you happen to find 'Spanner' or 'Bolt', feel free to 'retrieve' them for us...



'Spanner' and 'Bolt', the CGCU mascots //CGCU

## ICSMSU

**Ben Russell**

ICSMSU President

Hello and welcome to another edition of ICSMSU's Felix column!

Apologies we haven't been here for the last couple of weeks - our entire SU has been incredibly busy putting on our fortnight of events

to welcome the new students, which we hope you're excited to hear about.

The fortnight started bright and early on Monday morning with various invigorating speeches and addresses from the Big Dogs in College (and ICU), a welcome from our SU, and then it was straight into launching the New Curriculum with some TBL for the poor fresh-faced youngsters. After

a morning touching on everything from Malala to the Obamas, everyone headed down to the river for a first boat party on the new boat, even 'decked' out with a rooftop garden to enjoy the rain. I'm very pleased to say one of the very few who needed taking home was an older year.

The fortnight continued in lavish, unrivalled ICSM style at a range of other events spanning the two weeks. Some

highlights included: a record breaking number at our non-drinking events, some tenacious rain-won't-stop-me attitude at the Endgames, and some crazy on-stage antics during the Reynolds show (which are probably best left to the imagination).

We hope all the freshers enjoyed and have made loads of new mates - you're such a great bunch we even massively enjoyed being completely sober every evening stew-

arding...

In other news, there are some fantastic welfare campaigns kicking off (check out ICSM's own Black History Month campaign on Instagram and Facebook - some very inspiring people have taken part) and more to come. The academics have started our regular meetings with faculty to keep them abreast of any issues, and the ents team have already started working on Snow Ball!

Check out all the rest of the things we've been up to on our social media, and until next week: have fun, stay safe!

## RCSU

**Alex Auyang**  
RCSU President

Mascotry has always been about having fun. The tradition has its origins in the early history of Imperial College, when the three constituent colleges (RCS, RSM, CGI) were merged. Each college wanted something to display its own identity and so made a college mascot.

The aim of the game is simple – to ‘relieve’ another union of their mascot, and hold it ransom. The union whose mascot has been stolen must then pay a ransom (which can be any sort of request within reason) or try to steal it back. The interesting part is the theft itself. Many a carefully planned heist has been

thwarted by leaked information, a double agent, or by sheer brute force of the opposition.

A union usually has two kinds of mascot – violate and inviolate. Violate mascots may be ‘violated’ i.e. stolen and held to ransom, and inviolate mascots must not be stolen. Our violate mascot is called Theta the Thermometer. It is a 7-foot-tall solid steel thermometer, which weighs in at over 100 pounds. The current theta is the 4th in a lineage of theta mascots and was forged on the lathe of the RCS motor club in 1975. Our inviolate mascot is a vintage 1916 Dennis fire engine named Jezebel (a biblical name meaning scarlet lady). She is looked after and manned by the RCS Motor Club and is the official transport of the RCSU president. If anyone tries to steal Jez, we call the police!

Unfortunately, the sport of mascotry has died down in the past few years. With the student body showing waning interest in the constituent unions, it’s significantly more difficult to convince people to carry a 100-pound lump of metal while being chased by a horde of angry Guildsmen.

Nowadays, its mostly committee members who get involved in mascotry, and a select few at that. In some ways, that’s fair enough; I never cared about or knew about Theta before I became president. However, now that I’m here, I see how much the constituent unions

could do for the students of Imperial. While a silly thing like mascotry doesn’t directly affect most students, it allows for us to have a greater sense of identity rather than being an “Imperial student”.

In any case, if you see someone carrying a giant

thermometer, maybe double check that they’re an RCSU member. Who knows when the CGCU will want revenge.

*This article was partially adapted with permission from Richard Fautley’s Broadsheet article ‘RCSU Mascotry’.*



Alex, the RCSU President, on Jezebel! //RCSU

# I, SCIENCE

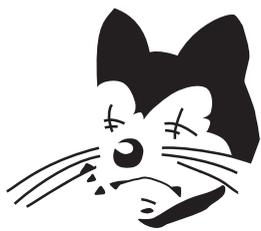
## CALLING ALL WRITERS!

Imperial’s *I, Science* magazine is looking for original pitches for our upcoming print issue, in which we examine **ENERGY**. It’s a broad topic, we know, so be as creative with it as you want—from sustainable energy to gamma ray bursts, it’s fair game.

Your pitch should be no more than 200-250 words, set out clearly what you want the article to be about, and include relevant links for references.

Email all pitches to [i.science@imperial.ac.uk](mailto:i.science@imperial.ac.uk), with the subject line “PITCH—” followed by your proposed headline.

All pitches are **due by October 20**. If your pitch is accepted, a first draft will be due on November 3.



# Hangman



For optimal effect, open LinkedIn on two devices // idsa

## 10 things you NEED in your LinkedIn Profile

### HANGMAN

**Negafelix**  
Editor-in-Chief

*#5 will shock you and make headhunters love you! Recommended by 8/10 of Alice Ghast's secretaries.*

**Y**ou get it. You really get it. You've attended your Department's Careers Presentation, you've seen the networking events being advertised, and you get it: you need a LinkedIn profile. Here at NegaFelix we

are dedicated to bring you expert advice from to help you create the best profile, to attract recruiters – and more.

*#1: A sick profile picture.*

Nobody wants to hire a nerd. You want something that draws recruiters in, something that says 'I'm an Instagram model on the streets and a workaholic, caffeine-fuelled mess suffering from Imposter Syndrome and years of Imperial isolation in the sheets'. Go ahead and use that VSCO filter but remember it won't take the PTSD from your eyes. Sksksksksksks.

*#2: What you did on your gap yah.*

The 2 hour shift in the coffee shop you did has given you such an incredible understanding of the value of money. But don't stop there. Tell those hungry, hungry headhunters exactly how many articles you've published in that local Nigerian newspaper, all those houses you've built, and how many children's lives you've lifted out of poverty because of the English lessons you gave and the crayons you donated.

*#3: What private school you went to.*

You know recruiters prefer reading resumes

written by PWMummy and Dadloitte. Remember, if you got in on a full scholarship, it doesn't count.

*#4: Upload your Oxbridge rejection feedback.*

Make sure it's appropriately stained with all your tears.

*#5: Don't have an especially thick neck.*

*#6: The number of hours you've spent prowling at Metric.*

You want recruiters to see your perseverance and willingness to endure hardships. You set a goal in mind and you pursue it,

often to the bitter end.

1-20 hours: You are the "fish are friends" shark. You probably have female friends.

20-60 hours: You are the cookie cutter shark. Generic and boring. Juul elsewhere.

60-100 hours: You have the attitude required to fill out a Metric minimum barspend on your own. Purely on Jagerbombs. You have pounded the boards for long enough. Welcome. It is time for your reward.

100+: YOU ARE THE MEGAALAADOON.

*#7: Make sure everyone knows what socioeconomic class you belong to.*

Include what ply of toilet paper you use. (The correct answer is three-ply, by the way – comfortably upper middle class, but not outrageously so).

*#8: Your strawpedo time.*

Your pint time. Your dining room table to fridge time (slower is better). Vomit from a shoe time, loafers only, no socks.

*#9: Your sincere and enduring love for the rightful and glorious leader, Xi Jinping, and the benevolent CCP.*

*#10: Make sure your prisons have enough folds.*

# HANGMAN

negafelix@imperial.ac.uk

## Porn Block Failure Blamed for low 2:1

### HANGMAN

**Negafelix**  
Editor-in-Chief

*The failure to block pornography has not gone down well*

Students from around campus are reconsidering their degree aspirations following the news that the UK government is not going to block pornography.

One student, Bamish Heck, 3rd Year Geophysics, was shocked by the news. "I was relying on the wank-bank ban, as my grades have tanked.

I've been beating my meat so vigorously since my parents dropped me off that my old man is about to drop off. I mean, he recently had a stroke, but let's not get into that. The only thing that can save my genitals would be forbidding the obscene screen. And my grades. Unfortunately nothing can be done for papa."

Another student, Laidrien Damoury told Negafelix, "I don't know what I'll do. If I carry on at this rate, I'll end up in a sticky situation, and I'll have run out of toiletpaper. I've already downgraded from four ply to three. Surely my arse cannot be made to suffer further just to satisfy the demands of the

flesh." Negafelix thinks that this is a matter of what you're into.

Steve Yobs, head of IT at Imperial was especially disappointed by the failure to implement the ban: "It was my last hope to stop people from masturbating in Central

**"You can wipe the mess off the floor, but you can never wipe it from memory"**

Library. Most of the students here are animals that get off on knowing that I know exactly what they're watching when they're watching it. You can wipe the mess off the floor but you can never wipe it from memory."

It is widely expected that the College will comment on this issue in the future, just as soon as the press team have finished procrastating.

We look forward to providing updates over the course of the coming year. We'll only finish when you do.



Cancel porn, get better grades today // Wikimedia



**ARIES**

This week you graduate from Imperial

You take out an additional student loan to hire out the robes.



**TAURUS**

This week you're an international student

You claim diplomatic immunity after failing your course but agree to meet with your lecturer's parents



**GEMINI**

This week you are a first year Chemist

You learn how to bake a cake  
Gotta do the cooking by the book



**CANCER**

This week you buy £50 worth of Imperial merchandise

You now own a hoodie that lets everyone else know you're a wanker



**LEO**

This week you are the DUP.

You throw Boris Johnson under a bus while screaming something incoherent about abortion



**VIRGO**

This week you are Sports Night.

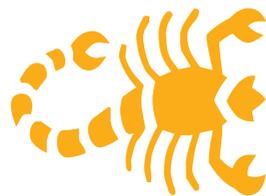
You are well attended  
For once



**LIBRA**

This week, you see your flatmate wandering around in dirty pants eating a pie

Something's fishy. You hope its the pie



**SCORPIO**

This week your lecturer asks how far you're willing to go for good grades

You sacrifice your social life and mental health for the next 4 years



**SAGITTARIUS**

This week you stand in the Autumn elections

You lose

At least you now know everyone hates you



**CAPRICORN**

This week you attend graduation

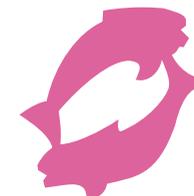
You can't help but notice how well oiled Galice Fast's handshake is



**AQUARIUS**

This week you are China and you disarm your enemies of their most powerful anti-tank weapons

You put a 20p tax on plastic bags



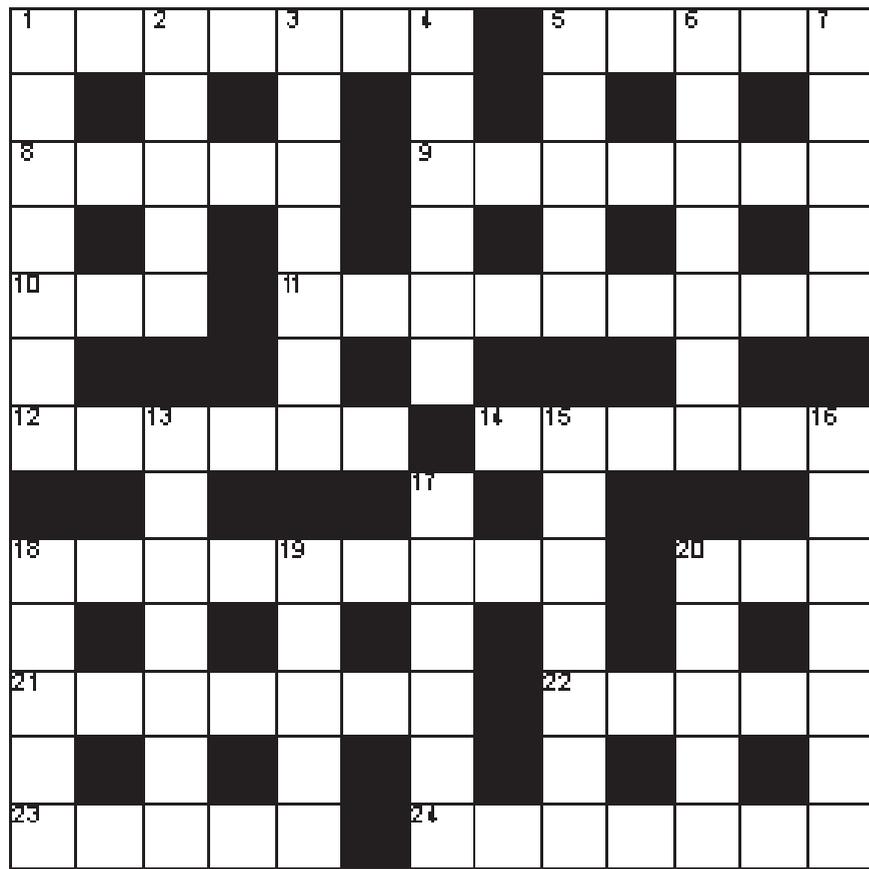
**PISCES**

This week you decide not to procrastinate anymore

You write 12 horoscopes instead. You're welcome

# PUZZLES

fsudoku@imperial.ac.uk



**Across**

- 1. Well it ain't a profit (7)
- 5. Famous British racecourse (5)
- 8. On an ice cream (5)
- 9. "Why is the rum gone?" + his crew (7)
- 10. To assess (3)
- 11. Should be changed every 6 months (9)
- 12. Tooth fairy collects knowledge (6)
- 14. Egyptian beetle (6)
- 18. Gradual upward musical trend (9)
- 20. Portuguese coastal colony until 1961 (3)
- 21. A must for the library (7)
- 22. I allude to how this clue evades you (5)
- 23. Orsino's food of love (5)
- 24. Star Wars' Jedi training institute (7)

**Down**

- 1. Deny any responsibility for (7)
- 2. Suffer from syncope (5)
- 3. Saturn satellite and Odysseus' kidnapper (7)
- 4. A typo would spell the end of this career (6)
- 5. Robin Hood's pointy stick (5)
- 6. Provider of food and drink (7)
- 7. Students' dread (5)
- 13. Californian mountain ranges (7)
- 15. Blue Death, debuting on London's Broad Street (7)
- 16. Not a chicken's best quality (7)
- 17. Connundrum (6)
- 18. One can do this to butter when baking (5)
- 19. You would call a 10Across to treat a horse of this (5)
- 20. Grid made of fabric for sick burns (5)

	1				1		1		
1		1				1		1	
					1		1		
		2		2					
	1		1	2	2				1
	1		2						
				2	2	1			1
1		1	1					1	1
		1							
1	2		2	1		1			1
	2		2		1				
	1							1	

**FUCWIT**

1	O1G	56
2	GodBlessHK	55
3	TNT	52
4	F***URhys	35
4	Lochy Monsters	35
6	StandWithHK_Fight4Freedom	34
7	Pêché	28.5

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

**Points available**

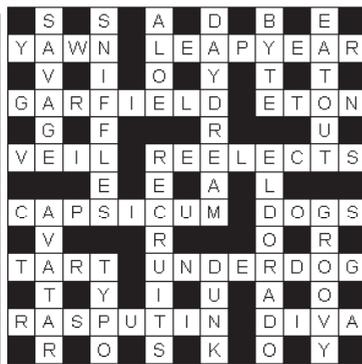
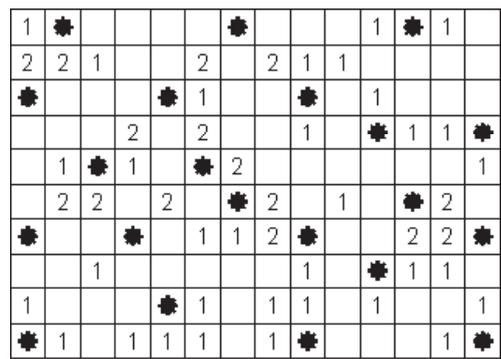
Crossword (1)	6
Crossword (2)	6
Shikaku	2
Samurai Sudoku	10
Sudoku	5
Minesweeper	2
Word pyramid (1)	2
Word pyramid (2)	2
Nonogram	4
<b>Total</b>	<b>39</b>

**Last week's solutions**

**Trivia:**

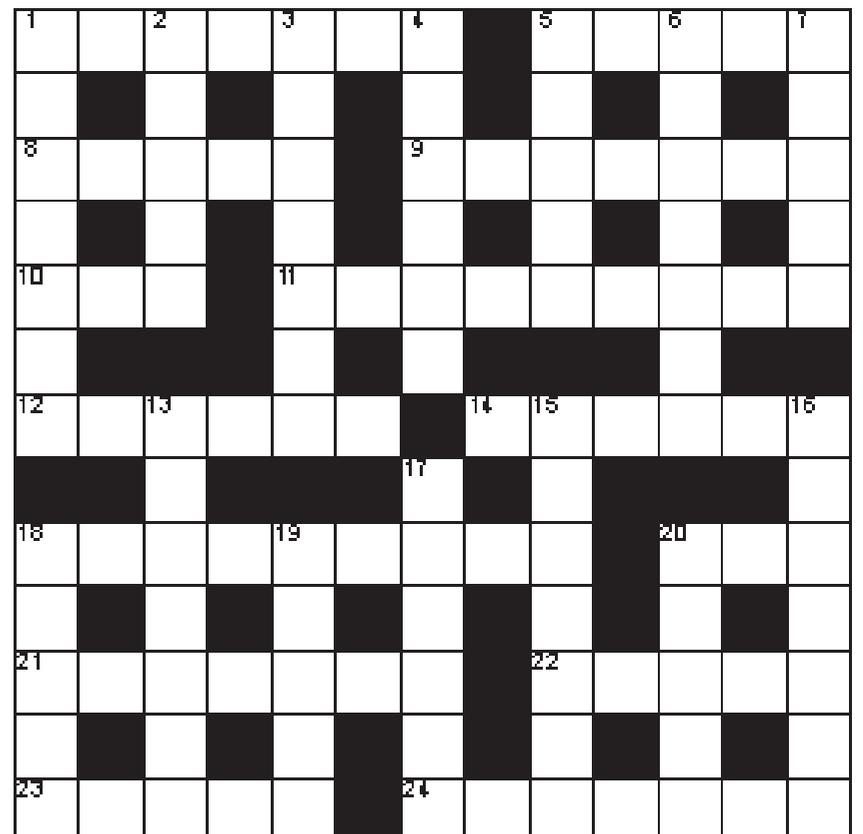
- 1. Andrew Scott
- 2. Rory Stewart
- 3. D-Day landings
- 4. GTA San Andreas
- 5. Lamb (Lamb Shift, Norman Lamb)
- 6. Not Found (400 series error codes)

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



**MINESWEEPER**

The number in a cell represents the number of mines adjacent to that square (up/down, left/right, diagonal). Find and mark all of the mines to clear the board.



**CROSSWORD (2)**

**Across**

- 1. Man who spent some time in a cave with 40 other dudes (3,4)
- 5. Brownish color often seen on old photos (5)
- 8. To improvise (2,3)
- 9. Like the Godfather (7)
- 10. \_\_\_ reacts only (3)
- 11. Where a trappist beer is brewed (9)
- 12. How you feel after a big deadline (6)
- 14. Used to make a cuppa (6)
- 18. Microsoft Word assistant in the 00's (9)
- 20. Lubricant (3)
- 21. Dried bread crumbs (7)
- 22. A fat unicorn (5)
- 23. "Me too" (5)
- 24. Oppressive leaders (7)

**Down**

- 1. Stocks up (7)
- 2. Did nothing (5)
- 3. Meringue ingredient (7)
- 4. Popular ingredient to make substitute milk (6)
- 5. Found in furniture stores (5)
- 6. For example, "two wrongs don't make a right" (7)
- 7. Extreme pain (5)
- 13. A good relationship (7)
- 15. Type of penguin (7)
- 16. Where dead men hang (7)
- 17. Celestial body (6)
- 18. Walked around anxiously (5)
- 19. Known to be dismal at Imperial (5)
- 20. Hunter constellation (5)



# A Spotlight on: the Imperial University Challenge Team

*Michael Kohn catches up with Conor McMeel, QuizSoc Chair and a member of Imperial's 2019-20 University Challenge team, to tell us more*

## C&S

### Michael Kohn

*QuizSoc Secretary*

### Michael: So, what is University Challenge?

CM: It's a quiz show, spanning lots of subjects, mainly academic, that gets shown on TV from August to April on Mondays on BBC2. I think that it's one of the oldest and most enduring quiz shows out there. Unlike other shows, it's only students, in a team of four, representing their university, competing against other students from other universities. It's a buzzer race against the other team for a notorious "Starter for Ten" followed by three bonuses as a team, a format that sets it apart from The Chase, Mastermind, and other quiz shows. Roger Tilling's voice saying things is also notorious - there's a weird cult following around the show for sure, and it's even had a film based on it.

### What was the experience like, under the cameras and under fire from Jeremy Paxman, the host?

CM: You kind of forget about the cameras after five minutes, and then it becomes like another quiz. You do see the close-up camera on your face turn on and you think "God what does my face look like, better not do something stupid" but then you get into a rhythm of it. It was just a fantastic experience, and everyone

should try out for it.

Jeremy Paxman is a lovely man; we got to meet him a bit outside of filming and he's definitely very nice. I think people like to think of those clips from the show where he acts like something very obscure is obvious, but when you get talking to him he's definitely a really nice guy. So is Roger Tilling for that matter, such an odd experience to put a face to that voice.

### What were the trials like and how are you running them this year?

CM: Trials were fine. Most universities have a very similar selection process with a handwritten test and then a buzzer round. I'd done buzzer quizzes before but University Challenge is special and a different flavour so it was nice to get a shot at what it was like.

We're going to hold round 1 trials of reading out many questions with people writing down the answers to see who knows what, before inviting back people who score well and have a good knowledge base for a buzzer practice in various teams before combining four people and one reserve to make the team; it's not necessarily the four highest scores but the team with the best subject spread, so if you think your skills like in a particular niche even if you don't think you may be one of the four best you might find yourself on the team and off to play against Manchester, Edinburgh, UCL, and Oxbridge!



The Imperial College University Challenge Team. // Imperial Quizsoc

### How did you train as a team?

CM: "Train" is a very strong word - at the end of it you have got to love spending a lot of time on Wikipedia or elsewhere just generally reading about things other people may find silly, so it's mainly people with really strong and general interests that do really well on the show. We'd meet weekly and watch the episodes of the last series when they aired with buzzers to play against the two teams. We did also have a think about what weaknesses we had as a collective group, and tried to brush up on those subjects too.

### What advice would you have for people who really want to be on the show?

CM: Have fun with it; you can work really hard and write notes, and sure it can help a bit, but at the end of the day the people who do well and get on the show just love learning and reading things and enjoy it, getting into Wikipedia holes - that has to be something that sounds appealing to you to be a really good contestant. Also come to trials (you can't get on the show otherwise) and the Buzzer Practices that QuizSoc run to improve that speed-based side of things!

*Catch Conor and the rest of their team's episode as it airs at 8.30pm on Monday 21st October - it will be screened at a special event in FiveSix-Eight!*

*Round 1 of Trials will be held on 30th and 31st October at South Kensington Campus (location TBC). There will also be a separate Round 1 Trial at St Mary's campus on 4th November. Round 2 trials will then take place later that week - check the Imperial Quiz Society facebook page for further details when confirmed!*

*Quizsoc run buzzer practices from 6-8pm every Thursday, and*

*compete in various non-university-challenge tournaments throughout the year, with one in particular on the 9th November that Imperial is hosting, which is the British Novice tournament, ideal for anyone starting out on a quizzing journey or who hasn't done this type of thing before! We will also be running a Harry Potter Pub Quiz and another themed pub quiz during this term. Email quiz@ic.ac.uk to find out more - spaces for the tournaments are going fast!*

# SPORTS

sport.felix@imperial.ac.uk

## IC rugby: 1st team smash KCL

### SPORTS

**Sean Nakai**

*IC Rugby member*

7 KCL 1st XV V Imperial 1st XV 19

The 1st XV campaign of 2019 started with an away game to KCL. The crisp weather seemed to reflect the nerves amongst the freshers, while the autumnal sunshine mirrored the excitement within the team. The first 10 minutes saw Imperial forwards attacking the try line with pick and gos. After a series of relentless phases, their efforts were not rewarded as the referee (who seemed to not be on form that day)

claimed the ball was held up. Moments after, from a turnover, Amin's piercing ball to Duffy, on the verge of being intercepted, saw him get the opening 5 points as he went on to beat 3 other defenders.

Early in the second half, the dominant KCL scrum near the Imperial try line led to the number 8 walking the ball over; 7-5 KCL.

A dispirited drizzle ensued and Imperial were down to 10 men. Shortly after, with the disappearance of the rain, a small pop pass, as if the ball were a pea popping out of its pod, from Dan Kirrane to Oliver Duffy in the middle of the pitch saw Duffy score his second for the day; 7-12 Imperial. The boys fought for another try to put away the game. Lustreless phases of unimaginative

KCL attack was met with a web-like defensive structure the team had worked hard on; both the line speed and the aggression in the tackles proved to be too much for KCL as they struggled to keep possession. In the blink of an eye, Dan Kirrane was off and running for the try line as he scooped up the ball rolling out of a ruck going on to side step the back three; 7-19 Imperial. With minutes left, KCL were unable to get back in the game. In the end, moments of brilliance from the Imperial backs and a gallant defensive effort from the forwards were enough to get the first win of the season. In particular, the accuracy of the 5 lineout maestros in catching darts from Toby Daniels must commended.

## IC rugby: 2nd team beat Medway

### SPORTS

**Simon Thorntorn**

*IC Rugby member*

22 Imperial 2nd XV V Medway 1st XV 5

Valerio fielded an experienced XV to face Medway, with just three freshers making the cut and multiple familiar faces returning to the side after last year's sabbatical. We knew we were in for a tough game against last year's league winners, who beat us both home and away last season. They were considerably bigger than us, but we knew that if we applied the structure that we'd been working on in

Monday evening sessions, we had the potential to tear them apart.

Rudman took the kick off well and carried hard, setting up a strong platform for George Morgan to box kick. Relentless defence from the home side followed, putting Medway on the back foot. After a turnover from Charles Courougeux, sustained attack meant the visitors eventually lost their discipline, enabling Thornton to go quickly and score the first five points of the match.

**“With less than 10 minutes to go, Imperial's defence proved impenetrable”**

Dictated by Valerio, imperial stuck to their game plan well, with a series of 'munsters' drawing in and tiring the big Medway pack. When it was time to strike, a well-executed back's move saw Rohit cross over in the corner on his return to the 2nd XV to leave the score at 10-0 at half time.

Imperial had lots of territory in the first half and felt disappointed not to have turned it into more points. Cal deemed it necessary to look to the fresher-filled bench for inspiration, with Peter Hyde, Elliott Stoclet, Jack Polturak and Freddie Sligo coming on to make their 2XV debuts.

A stalemate followed for the majority of the second half, before Medway realised where

their strength lied; the pick-and-go. They successfully did this from their own 22 to score their first points of the match. The conversion meant the score was 10-7 in favour of the home side.

With less than 10 minutes to go and Imperial's defence proving impenetrable, Medway knew that they had to try and be a bit more creative. This resulted in them attempting to go wide, but Charles' intuition meant he read the play perfectly, intercepting a wide pass and running in for Imperial's third try.

With the game seemingly over, Imperial were hungry to chase that fourth try to secure a bonus point which may prove vital in their title contention. With Marco and Shuya on the pitch, you're never lacking in flair, and this is exactly what was required when they combined with fresher Peter to see Marco score under the posts, converted by Valerio.

The 2nd XV have a lot to be proud of after that performance against a strong Medway side and it's looking good for the rest of the season. Nevertheless there's a lot to work on as we should've shut them out in the first half.

Special shout-out to Brzosko for filling in at prop after Matias flaked because he can't hack a hangover.

P.S. Apologies if this is incorrect, I banged my head mid-game so my memory may not be too reliable.

MOTM: Simon Thorntorn.



Freshers recruitment // IC Rugby

# SPORTS

sport.felix@imperial.ac.uk

## IC rugby: 3rd team defeat SOAS

### SPORTS

**Matt Takle**

*IC Rugby member*

14  
Imperial  
3rd XV

V

12  
SOAS 1st  
XV

The opening fixture of the season saw ICURFC 3rd XV take on SOAS 1st XV at Harlington.

Under favourable conditions the opening exchanges were dominated by Imperial. The sustained pressure yielded an early try, finished with

a brilliant solo effort from Sam Hirons inside the opposition 22. A well kicked conversion gave the hosts an early 7-0 lead. The game became a lot cagier for the rest of the half as errors from both sides slowed play down, preventing Imperial from extending their lead.

Sam Hirons doubled his tally in the second half, making the most of the referee's advantage by breaking through a series of SOAS last ditch tackles to touch down. A second conversion further extended the lead to 14-0.

Imperial's lack of discipline, particularly at the breakdown, allowed

SOAS back into the game as they scored twice. In one case, Imperial failed to ground the ball within their own in-goal-area following a long kick over the top. Handing an easy score to the opposition. This brought the score to 14-12 which set up a very scrappy finish in which Imperial showed a huge defensive effort in the face of late pressure.

The final minutes saw Matt Takle shown a yellow card for persistent off-side as Imperial looked to close out the game. Shortly after, the whistle blew seeing the 2019/2020 campaign get off to a winning start.



IC Rugby // IC Rugby

## How Eliud Kipchoge ran a sub-2h marathon

### SPORTS

**Henry Hart**

*ICXCAC Chair*

Sub-2 has happened, and it still hasn't sunk in completely. Yes, the conditions were VERY optimised and it is not record eligible, and we'll get to that later, but the enormity of such an effort is almost unbelievable. Prior to this time last year, only one man had run under 2:03 in a record-eligible city marathon, and he (Dennis Kimetto) has since transitioned into insignificance as if trying to avoid something. Enter Eliud Kipchoge. This man has won 11 out of the 12 extremely competitive city marathons he has started, including four London Marathons (essentially the running equivalent of Wimbledon Tennis - it is reputationally and financially the top prize in the sport). Even Kipchoge

could not break 2:03 until 2017. And in the space of just a couple of years, over 3 minutes has been wiped off what people believe is achievable in a marathon distance event. That is equivalent to Bolt running 9.32 seconds for 100 metres, or Hicham El Guerrouj running an unthinkable 3:20 for 1500m.

So, what are these special conditions? Firstly, you have the pacing, which was provided by 41 rotating pacemakers and a car mounted green laser indicating 2-hour pace. While in cycling, one can expect to save around a third in power output by 'drafting' and taking advantage of aerodynamic blockage, this effect is much smaller at running pace because of the cubic effect of speed on power. It is likely that the majority of the benefit of drafting comes from the psychological benefit of not having to pace every step, but rather deferring that task to another. Secondly, the date, time and course



Eliud Kipchoge at the start line in Vienna // BBC News

were all selected to optimise the suitability of the event for marathon running. Kipchoge had perfect weather, no hills (6 metres gained overall) and only 8 sweeping turns. Add to this that he had bottles handed to him, and Kipchoge had the perfect conditions to crush

an optimal marathon. But still, to my mind, this does not explain this feat.

The third and final factor, sadly, is the shoes. Sadly because Nike does have, and has had for quite some time, a monopoly on shoes that almost certainly aid marathon running. The first piece of evidence

for this is a NYT article that used 500,000 runners' Strava data to show a 4% benefit from switching to Nike Vaporfly 4% shoes. Secondly, Kipchoge's (and other notable Nike athletes') recent improvement in times. Thirdly, on the day I write this, Brigid Kosgei has

OBLITERATED Paula Radcliffe's 'unbreakable' 2:15:25 that has stood for 16 years by running a stupendous 2:14:04. Who was she sponsored by? Guess. And on that rather sour tasting note, I'll end.