



Felix

The Student Newspaper of Imperial College London



**THE RENT IS
TOO DAMN HIGH**

EDITORIAL

CONTENTS

| | |
|-------------------|-------|
| EDITORIAL | 2 |
| NEWS | 3-6 |
| COMMENT | 7-9 |
| A CONVO WITH | 10-11 |
| POLITICS | 12-17 |
| ARTS | 18-19 |
| MUSIC | 20-22 |
| FILM | 24 |
| TV | 25 |
| UNION | 26-27 |
| CENTREFOLD | 28-29 |
| GAMES | 30-31 |
| TECH | 32-33 |
| SCIENCE | 34-35 |
| SUSTAINABILITY | 36-37 |
| INVESTMENT | 38-41 |
| TRAVEL | 42-43 |
| C&S | 44 |
| FOOD | 45-47 |
| CONSTITUENT UNION | 48-49 |
| HANGMAN | 50-51 |
| PUZZLES | 52-53 |
| SPORTS | 54-56 |

Felix Office
Beit Quad, Prince Consort
Road
London, SW7 2BB

Tel: 020 79548072
Email: felix@ic.ac.uk

felixonline.co.uk
@feliximperial

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

Registered Newspaper
ISSN 1040-0711

Copyright (c) Felix 2017

Front Cover // Taja Strle

I'M SO PROUD

Henry Alman – Felix Editor



This week, I'm taking a return to the earlier editorials of this term, and just giving a bit of insight into the experience of being Editor and of being a part of the wonderful crazy world of Felix.

Yes, yes, I should write something about the halls rents. Especially given the lowest-common-denominator, pure sh*tpost that is the front cover for this week. I am become Buzzfeed, destroyer of worlds. Or, goodness forbid, am I 9Gag?

Look, I know. I'll save the proper editorial for next week. Promise. Don't worry, it'll be a properly spicy take this time. Or, at least, by my pasty, genetically-weak British self's version of spicy, which is maybe... cinnamon? Ah, at least it's a Christmassy flavour.

Re-reading the above paragraph, I'm pretty sure this is where my own personal psychotic break begins. Dear Lord. Through the fabric of space and time itself, I feel the collective eye roll of you all tomorrow as you realise it's one of those Editorials and pre-emptively flick to the centrefold.

Anyway – this week, we present our first 56-page issue! I just wanted to celebrate that fact. For those of you who read the Editorial, here's a little secret – next week is going to blow it out of the water, for the 70th anniversary issue (which will publish on the day of the anniversary itself,

Monday the 9th, rather than the usual Friday the 6th.) Don't tell all those people who don't read my ramblings. There's a little part of me that can't wait for the despairing cries of Sudoku-starved Puzzles fans when they realise the paper hasn't been distributed on Friday. They'll enjoy their Christmas present from us, not to worry.

But that's planned! For a standard issue, 56 pages is a lot. It's a whole tonne of content, and I don't think we've compromised on quality one bit. Felix, both in terms of the product you see every week and the society/organisation/CULT that lies behind it, is really coming together this year after the rough start we had. Sections which were struggling are now booming. It's discreetly been a personal goal of mine to hit 56 pages without making any special request of the team for extra content, and the beautiful bastards have done it right at the end of first term. I couldn't be happier or prouder

of them all. That's the Christmas present they've given me.

Yes, it required another all-nighter in the office. Yes, I now know the cockroaches by name. Yes, I am slowly growing roots into the Editor's chair and am evolving in real-time to sustain myself by photosynthesis. Unfortunately, the office is tucked away in the basement. Screw you, Darwin.

But none of that matters! The sheer satisfaction of realising we were hitting that goal earlier this week has sustained me, like a great white feasting on a kill, such that I won't need to feed again for weeks. It's a huge personal milestone.

We've grown the Felix team to possibly the largest it has ever been, and all of them have been performing like stars. There are those who get everything sorted prematurely on Monday, and who label their files in the proper format so everything is nice and tidy to find later. There are the night owls, who are always racing

the time pressure at the last second, but pull through with some of the best content we produce. There are those who have gone out of their way to be there on a Thursday night every week to help me pull the last bits of the paper together, even late into the night. There are the people who are always willing to lend a hand, even when I'm asking them to do something outside of their specific remit. There are those who bring snacks to the office, or who make us laugh by brainstorming Hangman, or who keep an ear to the ground and help me track down stories.

You know them as the X Editor, or perhaps even as one of the invisible copyeditors who do so much every single week, unacknowledged but for the bottom right of this page. I know them for all the amazing things they do that are nothing to do with putting pen to paper, but are fundamental to what Felix really is – a bit of a second home.

'Cause I'm not really growing roots or learning to telepathically communicate with our office roaches. I just feel comfortable here. That's because of the people, the team.

A'ight, that's enough for this week. Bit too saccharin sweet. But just one more time:

**Hey, team.
Good bloody
job. Thanks
for coming in.**



The Felix Team

Editor-in-Chief
Henry Alman

Deputy Editor
Charlie Titmuss

News Editor
Henry Alman

Politics Editors
Isabelle Zhang
Harvey Dolton

Comment Editors
Andrew Melville
Calum Drysdale
Charlie Titmuss
Sung Soo Moon

Tech Editor
Sudarshan Sreeram

Games Editor
Freddie Ugo

Arts Editors
Akil Eamon Farhat
Claire Chan
Ozbil Ege Dumenci
Syon Lee

Music Editors
Asad Raja
Emily Freeman
Martin Flerin
Miles Gulliford
Guthrie Ruby

Investment Editor
Xerxes Chong Xian

Sustainability Editor
Xiuchen Xu

Puzzles Editors
Ameena Hassan
Romain de Spoelberch

Film Editor
Dominic Ede

TV Editor
Ozbil Ege Dumenci

Science Editors
Christine Parry
Julia Dabrowska

Travel Editor
Eva Tadros

Sports Editors
Aymeric Regnier
Imraj Singh

Food Editors
Syon Lee
Zahra Abiola

Copy Editors
Anthony Onwuli
Matthew Zhang
Enny Tran
Kavan Clark

NEWS

news.felix@imperial.ac.uk

College Plans to Increase Halls Rent Again; Union to Negotiate Prices

The College and the Union are renegotiating rent prices this year, five years on from the construction of Woodward and just prior to the opening of the new Kemp Porter halls

NEWS

Henry Alman

Editor-in-Chief

The price of rent in College-owned halls is set to increase again this year, with the student union acting in a consultation role with students.

The College's total necessary revenue from halls rent is increasing by 12.2% in just one year in order to match a break-even model, in which revenue exactly offsets the cost of running halls. This amounts to approximately £22 million being generated in revenue per year at the new prices just from halls rent, based on calculations using data from a Union Council paper. The increase is due to new costs included in the break-even model that were not included in previous years – in other words, from next year new students will be being charged for services as part of their halls rent that their predecessors did not have to pay towards.

This breakeven condition currently acts as a

“The College's total necessary revenue from halls rent to break even is increasing by 12.2%”

strong constraint on the negotiations; the options of the Union in their consultation role is primarily to decide how the price hike will be distributed across different halls.

The renegotiation precedes the opening of the new Kemp Porter halls in Acton, adjacent to Woodward and featuring functionally identical rooms. The opening of the new hall, featuring over 700 bedspaces, will shift half of all first-year students to Acton, with the distribution of first-year students between South Kensington and Acton halls becoming 51% to 49% respectively – as opposed to 73% to 27% in the 2019/20 year.

The Deputy President (Welfare) and Union President will be taking the issue to Union Council on Tuesday 3rd December, which will be held in Sherfield's Read lecture theatre at 7pm and to which they have strongly encouraged any and all students to attend. The paper they have prepared outlines four initial options as a starting point for discussion, though the Council can decide to reject all four.

At the last rent negotiation prior to the opening of Woodward in 2015/16, the Union Council decided to set a ratio of 2:1 in terms of cost per square metre between South Kensington and Acton halls, with the justification being that it ensured a set of affordable halls for a quarter of students in Acton on a “subsidy” basis from the remaining three-quarters of students in South Kensington. However, the shift

in student distribution means a discussion about the degree of subsidy needs to be revisited.

This is the basis of the major differences between the four options proposed in the paper – in essence, whether to continue the practice of charging a 2:1 ratio and applying a flat 12.2% price hike across all halls, or shifting that ratio to either a greater or lesser extreme. Subsidising the Acton halls ensures affordable halls and accessibility to the university, whereas a vote to flatten prices reduces the growing problem of social segregation in the College community.

“Some students are calling for College to subsidise halls from other revenue streams”

The four options also work on the basis of some initial suggestions, such as keeping the cost of Kemp Porter and Woodward the same, as well as evening the cost between Southside and Eastside halls in Prince's Gardens.

A noteworthy point in the Council paper is that the option also exists to reject the break-even model entirely, at which point the process would stop while the Union re-approached the College to determine next steps.



The new Kemp Porter halls will open in the 2020-21 academic year // Thomas Angus

Some students are already calling for the College to subsidise halls from other revenue streams rather than continue to work on a break-even basis.

Regardless of which option one would choose, the prices of halls are reaching a crux point. They are no longer much, if any, cheaper than private accommodation. The College provides a cost breakdown for budgeting for new students on their website, which itself states that the average cost

for halls of residence and private accommodation only differ by £1.31 per week. As an alternate metric: the proposed new prices for a single ensuite room in Beit – the type of room for which they have the most bedspaces – are around £260 a week. Spareroom provides average rental prices by postcode, and SW7's is between £230 and £300 – a search for properties in a more specific area local to the South Kensington campus yields multiple

results in the £260 region. The same applies for the Acton halls.

Though halls provide social opportunities that are beneficial for new students, the cost of paying enough to reach the break-even point at the College is apparently equivalent to the cost of paying for the profit of a private landlord.

Felix will report on the results of the Union Council meeting in the final issue of term.

NEWS

news.felix@imperial.ac.uk

Managing Director of the Union Steps Down

The most senior member of permanent Union staff, the Managing Director Jarlath O'Hara, is stepping down from his role before the start of next term

NEWS

Henry Alman
Editor-in-Chief

The Managing Director of the Union, Jarlath O'Hara, announced on 18th November that he will be stepping down from his role at the end of December. The announcement was made via an email sent internally to ICU staff, and marks the end of Jarlath's four-year tenure in the role.

In the email, the only reason provided for the decision was that "the time is right for someone new to lead on developing the Union through the years ahead." The news comes as the Union is developing its new three-year strategy for the 2020-2023 period.

Jarlath's departure marks the first member of the Union's Senior Management Group to be

caught in the recent wave of resignations from the Union, which has resulted in a severe short-staffing

"This marks the first member of the Senior Management Group to be caught in the recent wave of resignations from the Union"

problem. His four-year tenure also marked him as one of the most experienced remaining staff members in the Union, and the second-most experienced in the Senior

Management Group.

The resignation notice followed a meeting with Jill Finney, the Chair of the Union's Board of Trustees – the body which provides oversight to the activities of the Union as a whole – after prior discussions firstly amongst the external Trustees on the Board, and then including the Officer Trustees (the Union President and Deputy Presidents, who are student representatives), who also sit on the Board.

The email was shortly followed by another from Jill on behalf of the Board of Trustees, in which next steps were clarified. Specifically, it was noted that the College would be providing support and that an interim "operations-focused" measure would be put in place while recruitment for a new Managing Director is ongoing.

This was followed on Tuesday 26th with an email from the Union

President, Abhijay Sood, on behalf of Jill, containing a confirmation that the interim measure would constitute senior Support Services Directors and their teams from within College, and that Jon Tucker, the Faculty Operating Officer for the Business School, would be acting as lead on providing said support. Faculty Operating Officers generally provide leadership on delivering operational support within faculties, and are often responsible for things such as administrative functions and planning or budgetary activities.

The process of selecting Jon was reportedly managed primarily by Jill, after discussions with the external and Officer Trustees. A request was put in to College for suggestions for which College staff members may be suitable. Out of the candidates, Joe Cooper (formerly staff at the Union who then

moved to College HR) endorsed Jon. The Officer Trustees confirmed they were happy with the selection, though they will only be officially meeting with Jon in this capacity for the first time on Monday.

The College is already heavily involved with supporting Union operations after the high staff turnover has left gaps in service provision. Examples include the backlog of room

"This is the first time College staff have stepped in at the most senior level of the Union, at which decisions about direction are made"

bookings unanswered by the Activities team – who are currently left with only a single staff member – being taken over by College's Events and Conference team, and College Estates working with the Commercial Services directorate to address hygiene and electrical safety issues in the kitchen in 568.

However, this represents the first time that College staff have stepped in at the most senior level, at which decisions regarding the overall direction and vision of the Union are made.

When queried about whether College's involvement would interfere with the Union's remit of advocating for students, which may require an oppositional stance against College decisions, Abhijay said:

"We welcome the support being offered by College. Of course we have to be wary of areas where there might be conflicts of interest, but when it comes to Jon and the other staff members, my understanding is they're here to help us fix some of the fundamentals (e.g. Health and Safety). They aren't here to set a new strategic direction for the Union or give input on what stance we take with College in a negotiation. To be clear, Jon isn't the new Jarlath; while we'll be getting help for some of Jarlath's current day-to-day responsibilities, this isn't us appointing a new Managing Director."

However, the email distributed by Abhijay on behalf of Jill Finney stated that the working relationship will include long-term strategic advice: "Jon will also be working with the President, the Officer Trustees, the Senior management team and Board of Trustees to help us review our strategy and priorities both in the short term and looking to the longer term."

As a result, what precise role Jon Tucker and, as an extension, the College will play in the Union's ongoing strategy and decision-making remains unclear and will reportedly be fleshed out in the coming week.



The Union will say goodbye to one of its most senior members of staff in December // ICU

Union Kitchen Receives 2/5 Food Hygiene Rating

An inspection undertaken in August found that hygienic food handling was not up to par in the 568 kitchens

NEWS

Henry Alman
Editor-in-Chief

At 60 universities across the UK, university staff who are members of the University and College Union (UCU) are currently staging an eight-day walkout and strike action in response to the ongoing disputes regarding pensions, pay, and working conditions.

The Imperial branch of the UCU, however, is not striking – despite the fact that 72% of ballot respondents voted in favour of taking action.

The culprit is the Trade Union Act – or, as Michael McGarvey, the head of Imperial UCU, puts it “the anti-Trade Union Act” – introduced by the Conservative government in 2016 and which came into force in 2017. The legislation makes it unlawful for any trade union to take action if the voter turnout does not hit a threshold of 50% – regardless of the support for action amongst voters. The Imperial UCU ballot from the start of this year only had a turnout of 47.99%, making it illegal for them to take action despite the 72% support – a result that Michael says had UCU members “furious and incandescent.”

The actions follow from the strike action regarding USS pension schemes in 2018, after a proposed shift to a less secure model, which caused disruption to Imperial students as contact hours were cancelled. The strikes now are due to disputes over both the pension scheme – which has proposed



UCU strike action in 2018 // Nick Efford, Flickr

a rise in contribution of each member’s salary to 9.6% – as well as over pay and working conditions.

The concerns around working conditions are predominantly to do with exploitation of staff. Many postdoctoral or teaching fellow staff – particularly those on ‘precarious’, or fixed-term rather than permanent, contracts do not have provision for many parts of the work they end up doing. Many research grants do not, for example, contain pay allowance for teaching duties – but many staff end up taking on those duties ‘for free’ anyway, in an effort to build CVs, which mainly benefits the university. At the senior level, professors are often left feeling like their job descriptions are too open-ended, meaning extra work often gets added into their responsibilities on an informal basis that accumulates over time until it is unmanageable.

Chris Jackson, a member of the UCU and Professor of Earth Sciences, expanded: “Concerns related to overwork must be consid-

ered in the context of pay. If you get paid £200,000 a year to work 12 hours a day in the City, perhaps you can reconcile this sort of thing. But if your salary is low and if this makes living in London difficult, people rightly feel unhappy, exploited and undervalued. Being overworked and overpaid is an issue at all career stages, although some senior management are on six-figure salaries such that they are not exposed to this so much.”

The Imperial UCU balloted only on the issue of pensions at the start of the year, rather than on pensions and pay like many other UCU branches, because Imperial College management seceded from national negotiations on pay fourteen years ago. This means that Imperial staff negotiate their pay directly with the College, rather than in the national-level negotiations that affect pay scales for most researchers and lecturers in the UK.

Typically, negotiations about pay are carried out, and at the end an offer is presented to the Joint

Trades Unions, comprised of the UCU as well as UNISON and Unite, who represent other groups of staff at the College. This year, the offer was an increase of 2% for salaries overall, representing a £600-1400 award for individuals. The unions can then decide whether to accept or reject the offer; in the latter case, as was the case this year, typically negotiations would reopen – or alternatively, the College has the power to simply impose the offer as it stands.

This year, neither occurred. After the rejection, the College put together four alternate options instead – each with the same 2% total increase, but distributed differently among different pay scales – which were all in turn rejected again. However, according to a College spokesperson, UNISON and Unite indicated an “informal preference” for one of the options if any were to be imposed. The College then decided to impose that option rather than open negotiations again.

From the UCU per-

spective, Michael says, this imposed scheme was worse than the original proposal, as it left many UCU members with a pay increase below the rate of inflation – which in real terms is equivalent to a pay cut.

Additionally, the offer was imposed at a time when it was too late for ballots to be completed before October. However, there is a possibility of conducting another ballot vote on both the pay and pension issues now that they have been established – and that is the option the Imperial UCU has taken, serving notice to College of that fact on Tuesday 26th and opening the new ballot next week.

“If management take the high-handed approach that they can ignore agreed procedures, can rip-up regulations and do so in a totally irresponsible fashion, then people have to say something about it. I don’t know if they weren’t thinking about their actions or if it was just incompetence. Maybe both. I’m almost speechless trying to rationalise why they have done this,” he said.

Chris further questioned the conviction of College management to make meaningful change to pay and workload:

“We staff understand there are external market forces at play that constrain finances. However, college management need to recognise that it is us, the students and staff, that have built and sustain the college’s reputation. In that sense, we should be valued more than it has felt during the last years. Warm words in college communications are not enough; we need to see change that is consistent with our collective morals

and ethics. We are a zombie institution being bullied by external forces; we have autonomy and agency due to the relatively strong financial position we have collectively put the college in.”

When asked about the reason for the insufficient turnout, Michael suggested that it might be to the ballot being held at the same time as people were getting to grips with beginning of the academic year or that the first ballot was specifically about pensions and did not include pay disputes.

“Pensions are a part of your remuneration – and it being massively attacked by the USS executive is a reduction to the remuneration package you receive overall. But you don’t get it at the outset; it’s long-term, depending on where in your career you are, whereas pay is more immediate. We’re hoping that will galvanise members, and will be campaigning for higher turnout and a vote for action in the second ballot.”

Chris added further context from his perspective around working conditions: “Many people don’t strike, or didn’t vote to strike, because they’re ironically too busy and/or can’t afford to lose eight days of pay. They don’t feel they have the financial security, and feel threatened and precarious – what if your bosses action against you whilst away or when you get back? Academia is so hard to get into, so competitive, that management essentially have a captive audience that they can treat poorly without repercussion. There needs to be humanity in their treatment of staff. They were lecturers once, so they should understand.”

NEWS

news.felix@imperial.ac.uk

Union Kitchen Receives 2/5 Food Hygiene Rating

An inspection undertaken in August found that hygienic food handling was not up to par in the 568 kitchens

NEWS

Henry Alman

Editor-in-Chief

The Union kitchen has received a low 2-out-of-5 rating for their food hygiene, after an inspection by a local council Environmental Health Officer (EHO) took place on August 23rd.

The areas assessed were hygienic food handling, cleanliness and condition of facilities, and management of food safety. While the latter two were considered “generally satisfactory”, the hygienic food handling was described with “improvement necessary” and influenced the low overall score.

The officer found mice within the Union bar and cockroaches in the kitchen, which were gaining access via gaps and cracks in the building as a result of age. Despite

the pest problems highlighted in the report, the Union has stressed that this was not the cause of the kitchen closure, which was instead related to electrical faults.

Other issues highlighted during the inspection are currently unknown, though Felix should obtain the report written by the officer in the coming days.

Julia Mattingley, the

“The officer found mice in the bar and cockroaches in the kitchen, gaining access via gaps and cracks in the building as a result of age”

Head of Commercial Services at the Union, clarified that some of the issues raised in the report were not fully valid – criticisms that were levied had, in fact, already been addressed, but could not be evidenced at the time. The EHO was accompanied during the inspection by an agency-hired interim Head Chef, covering for a long period of sickness on behalf of the permanent Head Chef, and a permanent member of Union staff. Both have now left the Union. The interim Head Chef was apparently unaware of certain processes that had been established, for which the Union was marked down – inaccurately, they claim.

The unfit state of the kitchen is, Julia said, partially down to dependence on agency staff – describing some of the interim Head Chefs that have been in place as “downright unsuitable”, and noting that even in the case that they are not, agency staff

are often transient.

“We have had some really fantastic and hard-working agency staff and similarly we have had some very poor agency staff who didn’t care much and didn’t control things in the way that we would have liked. This, unfortunately, can be the attitude of some transient workers who are here today and gone tomorrow.

The level of accountability from an agency chef can be different from a permanent member of staff as there is nothing to stop the agency worker leaving and not coming back at any point.”

The Union is taking extensive action to rectify the raised issues, both with regards to the EHO inspection and the electrical faults. In both cases, they are working closely with the College’s Estates division, as building infrastructure maintenance falls under their remit.

A deep clean of the space and the organisa-

tion of regular visits by Rentokil – pest exterminators – is being organised, as well as a large-scale project to plug the various gaps in the building that were allowing access. Currently, most of those in the bar area have already been tackled.

With regard to the electrical faults which caused the kitchen closure, specific details have been revealed. The circuit board could not carry the full electrical load of the set of appliances being used in the kitchen, thus activating the trip switches – which, across the circuit board, were only described with unclear or outdated labelling. The labelling is now being renewed.

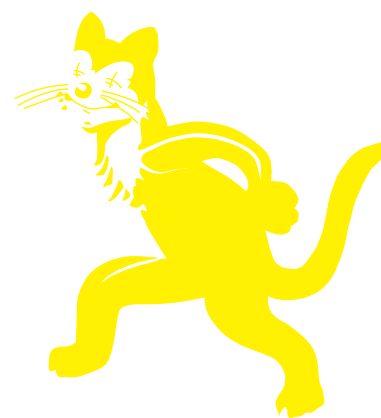
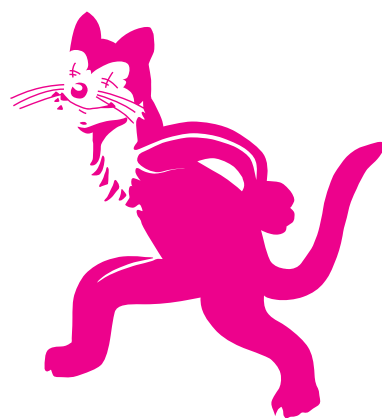
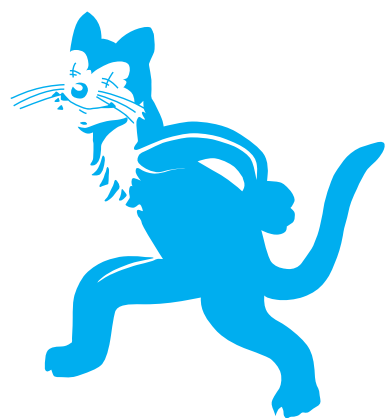
Additionally, all the equipment is now receiving tests from the Estates teams to ensure their electrical safety – however, the heaviest-duty appliances need specialist equipment to test, extending the length

of the process. Additionally, the overall provision of electrical infrastructure is being assessed, including testing sockets to ensure they work, checking that there are enough sockets to appropriately handle the amount of equipment being used, and that they are located in safe places around the kitchen.

On the administrative and staffing side, refresher training is being delivered to staff, staff records are being updated, and assessments of health and safety paperwork are being conducted.

The extent of these assessments means that the Union kitchen will be closed for the remainder of term, but Julia stresses the importance of ensuring everything is fully up-to-scratch before returning to business. “Unfortunately this is not a five minute job and we need to ensure that everything is done properly before reopening.”

Felix is recruiting!



COMMENT

comment.felix@imperial.ac.uk



What Will the UK be Voting On?

Arts Editor **Eamon Farhat** gives his perspective on what the UK electorate thinks is important

COMMENT

Eamon Akil Farhat
Arts Editor

On December 12th, the British people will vote, but who and what are they voting for? Are they voting for thorough policies outlined in a manifesto or headline ideas performed on TV? Is it about the local candidate in their constituency or the celebrity like figure who leads that party?

This week, the election campaign has trudged on and some important events have taken place: TV debates and manifesto launches. We have had the first of a series of debates and interviews with party leaders going head to head, under the spotlight for millions at home to see. We have also been treated with hundreds of pages of manifestos to not read from all the major parties, outlining policies and pledges.

For politicians, these manifestos might seem hugely important and it is true that key policies in the past have swayed voters but in a post-truth era, is this all changing? Many voters do not believe a word a politician says, writes or even carves onto a stone tablet. This does not necessarily mean that they won't vote for them, but whether they pledge 10 or 100 billion on the NHS, the voters will take it all with a pinch of salt. This is partially due to the fact that so many election pledges in recent years have been broken. These broken promises range



Caricatures of Jeremy Corbyn and Boris Johnson// Flickr

from university tuition fees to the NHS, and from immigration targets to air quality. Wide reaching broken promises mean that trust has been broken across all demographics.

This dangerous cycle is self-fulfilling. As less people believe pledges, the less politicians will work to complete their pledges. If the public already believes the policies will never be carried through, the repercussions for that are not as harsh. For this reason, I believe it is really important to read manifestos and try to understand what areas different parties put importance on.

When voters put their X in the box on a cold night in December, it won't be a Party or a manifesto they are voting for but a local candidate. Most people take little notice of this person and look instead at the party leaders. These are the people who could become our nations prime minister. For some, it is the qualities of this person, whether it be leadership or trustworthiness, that matters most. All the leaders will use their public appearances and TV performances to try and shine a light on these characteristics. For example Boris Johnson repeating his Brexit mantra

35 million times to show he is a man of conviction. Jo Swinson showing strong leadership... of her finger as she presses the red button for nuclear annihilation. The way the leaders interact with the moderators, audience and of course their opponents gives a unique insight into their temperament. Even when asked the toughest questions, will they keep their cool?

Despite the temptation of focusing on circus of all of it, I believe a party should be judged on its policies past, present and future. The manifestoes help paint part of the but must be put into

context with the party's recent history. However, does this mean that the behaviour and characteristics of each leader is not important? I do believe that in the current age of populism, these factors are often overstated but there is some weight that should be given to them. The language and rhetoric used by the leaders is definitely one. Boris Johnson's comments about Muslim women looking like letter boxes and bank robbers or calling members of the LGBTQ+ community bum boys are examples. These are not policies, but rather point towards the beliefs and values

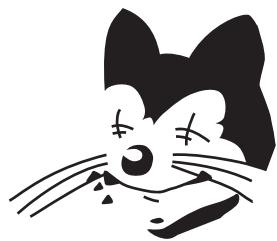
held by the Conservative leader. Furthermore, the rampant spreading of fake news and the tendency to understate the truth by top politicians is definitely something to watch out for. Trustworthiness is becoming a rare thing, but we must not accept to be fed straight lies and must reject anyone who peddles them.

Overall, this election should be about a wide range of policies and the general direction that different parties want to push the country towards. For example, Labour pledge 28 pounds for every pound the Tories do towards public services. Reading manifestos in the context of the party's past performance is key to do this. As the media whips of a storm about each leader's performance during interviews and debates, it is important to take a step back and really remember that policy is always more important than this pageantry. The next leader of our nation

Finally, a political piece written in the post-Cameron era would not be complete without a little mention of Brexit. This election is of course being viewed by some as a quasi-referendum, and thus for them all that matters is a party's position on Brexit. Not what the manifesto outlines on paper or what the leader says on stage. Although I believe that Brexit should play a part in the decision, it should only be part of a bigger picture when determining who to vote for.

COMMENT

comment.felix@imperial.ac.uk



Hong Kong: Home No More

An anonymous student writes a eulogy to the Hong Kong that they once knew

COMMENT

Anonymous
Comment Writer

Hong Kong. An asphalt jungle lit by neon lights. The brutal trek up the Tiger's Head and down towards the beaches of Discovery Bay. A mere cog in the global economy machinery. For me it was all that and more. But somehow six thousand miles away from the city I called home, I've now come to realise I never knew it at all. This my dear reader, is my confession.

In September, I boarded the flight CX251 and left the only home I had ever known. I must have dropped my heart and soul somewhere on aisle C because it was gone by the time I got here. I like to think it's debilitating powerlessness that I feel, because the alternative – a detached numbness that comes with not caring enough – is far worse.

I wished for a thousand sleepless nights, and upon a dying star I found guilt to keep me company at night. When the lo-fi beats are left on playback it comes knocking on my door. Traitor, traitor... You have no right to speak of your home. I welcome it in with open arms each night. It reminds me that there is no joy, only guilt.

In exchange I am relieved of duty. I only read the headlines each morning. I skip the videos and skim the updates. So little time to spare. So little time to care. Yes, I shed a tear when I watched the

video where a teenager was shot. But then I moved on. I had lectures to watch. Problem sheets to hand in.

Have you ever been to that small, muffled bubble that lies just out of sync with reality? Where the

"I mourn the death of Hong Kong as we once knew it"

world speeds by at an incomprehensible pace? There should be a word to describe it if there isn't already. It's where I went to leave the world behind. I stayed there for a day, a week, a lifetime. Until a chirp-less robin visited me and made roost on my parapet.

It sought company in silence. But the silence was mine and mine alone.

From the fragrant harbour it had come, and back to the harbour it went. I pitied the bird that flew six thousand miles just to lose its voice. And so, I followed it out of the bubble, if only just to mock its unfortunate circumstance. Like Melpomene on a new year I laugh.

The fragrant harbour it came from is long gone. Once a small fishing port where the sea met the sand. If you wandered out too far from the shore, you'd catch the siren call of pink-flushed dolphins. It was poor before it prospered. It too, bled in the war. It too, has had its share of sickness and disease.

My home lost to the winds.

I mourn the death of Hong Kong as we once knew it. It is far too late, and far too easy to talk about right and wrong. That line has been buried under the blood, sweat and tears or both sides. Protestors, they lash out in desperation. The police lash out in frustration. Fake news tears wider the rift between the two sides. Misinformation cheapens the sacrifices that have been made. Emotionally charged videos spread through the internet, preying on the high tensions and volatile emotions. But only in their respective algorithmic bubbles. Why look to the US when we are but a bargaining chip? They won't have HK's best interests at heart.

Hypocrisy in action, and in inaction. Blind unity in the factions allowing injustice to thrive. Dishonourable tactics and irredeemable actions have lost the police force any respect they had built. The no-compromise stance adopted on both sides. Protests and gatherings being banned, forcing protestors to embrace illegality in the movement. Dehumanising the enemy to justify the slow descent into full out brawls. Lone, independent actors with senseless actions that have pervaded any moral ground either side held. The general mistrust of the PRC and now by extension the Hong Kong Government. Even the sanctity of free press has been called into question.

Perception is far more potent than the truth.

Whether or not the government is a conniving bastard doesn't matter. The fact that the people see them as such does. Negotiations and talks have no meaning without trust.

Therein lies the dilemma. How is resolution even possible without a complete crackdown or complete reform? Further convoluting the situation is the leaderless structure of the protests. No structure for official negotiation. I believe the government is trying, but rhetorical appeasement has proved insufficient in the face of all the bottled-up frustration.

All of the violence is merely a symptom of a wound left unattended. For an blissful 20 years we treated 2047, the distant date of total reunification, as a bridge to be crossed when we get there instead of confronting the inevitable reintegration back to the Mainland. Perhaps I should reword it, for 20 years we have given the control of our future to the

"All of the violence is merely a symptom of an unattended wound"

Mainland government.

They wasted no time with "national security reform" in 2003, to "national re-education" in 2012. We protested in defiance. Defiance, not revolution. We simply

said, no. Bootleggers crossed the border causing severe milk-powder shortages. Middle-aged women came to perform for lonely men in the parks for money. Disappearances of book vendors with "politically incorrect" publications. And in 2010 a whole 36.9% of the babies born in Hong Kong didn't have a single parent that was a Hong Kong resident. That's not even to mention the forced construction of the high-speed rail connecting the mainland and downtown HK a whole different can of worms. I mean, who'd have guessed half an hour bus ride is no deterrent? Not even the Sonoran Desert would stop them.

2014 was when we tried to take the steering wheel with universal suffrage. We came, we saw, we lost. In the subsequent years many of those who participated were silenced, sentenced and jailed while society moved on. The gears of economy never stopped for the little harbour. Housing prices continued climbing, the average property in HK costs \$1.2 million. For 430 sq ft.

Here we are today in 2019, the situation ever so dire. My aim today is to show you how complex the situation is. Each sentence could be an article, each article an essay. There isn't a one size fit all. I've heard people say, "Let the army storm the city to restore order!" Just as I've heard someone say, "We can go full revolution with Hong Kong Independence!" Asinine remarks thrown around in ignorance.

I don't have the truth, nor does anyone else who claims to do so. Maybe we are foolish for fighting, maybe we are wrong. At least we fought knowing we are in this together. For those who have chosen to continue the good fight with their hearts fuelled by righteous faith, I quote to you Dylan Thomas "Rage, rage against the dying of the light." As we wield our sword (or pen) in the name of justice, let us carry a healthy dose of cynicism and self-critique lest we forget that the road to hell is paved with good intentions. If my article has incited anger, then I have failed.

To stop and listen, is to give voice to those who cannot be heard over the crowd. Blue. Yellow. On the fence. I ask for simple reprieve. An interlude of last green in waning light. A moment of silence for those that have died for their ideals; officers injured in the line of duty; teenagers who have made this their fight; parents who just pray for safe returns; and children that will grow up in a divided family.

The battle has long ago turned into a war of attrition. And while the city still burns in the background, I think it is time to take off the collimator. Away from the fragrant harbour... Westwards to Lebanon, Egypt, France, Chile, Peru... In fact, all the other places that have fought in the dark. My heart goes out to every single one of you. This world is far too small of a place for us to not give a damn.

COMMENT

comment.felix@imperial.ac.uk



CONSUME! CONSUME! CONSUME! CONSUME! CONSUME! Then Die

It's Bleak Friday, and you're all invited to indulge to your doom.

COMMENT

Sung Soo Moon

Comment Editor

It's the most wonderful time of the year... for the big fat cats to cash in on your appetite for greed and low self-esteem. Christmas is around the corner, and the capitalist gods have sent their finest to wring out every ounce of self-respect we have: *Black Friday*. Since its beginnings in mid-20th century America, Black Friday has evolved to summarise the disheartening toxicity of human nature. This year, I would like to invite you all to reconsider the whole affair.

The only sale you should concern yourself with is the sale of your soul when you subscribe to the cancerous rhetoric of Black Friday. With the aggressive marketing on all forms of media it's hard to keep your head screwed on straight. We're being waterboarded with the latest must have deals and offers that nobody asked for - but look! They have 50% off a retail price that was 70% overpriced anyway. *Wonderful*. 30% off on some shoes made by thirteen-year olds in sweatshops? *Awesome*. The Communist Manifesto in a festive hardcover limited edition? *Exactly what I wanted, Mom!* A

perfect marriage of my privileged upbringing and socialist views. It's a consume-as-much-as-you-can campaign, and they plan to force feed us until we drop dead. The blackest aspect of Black Friday is its rotting heart. My mind is already exhausted by the mental bludgeoning from the sadomasochistic relationship I have with the retail industry, and the shopping season has only just started. They're selling us the coffin and charging for the labour to nail it shut. It's going to be a bleak couple of weeks for the sane.

Festivities have always had a cynical scent in the air. Now

more than ever, the preconditioned idea that we need material goods to feel good and to feel accepted by others is deeply depressing. Black Friday is merely the looking-glass that allows us to see the disgusting nature of humans. This is not an attack on what people do with their money, rather on the whole attitude and culture of materialism that slowly degrades morale and self-worth. The need for stuff is preconditioned; the idea that the objects we own determine our value is ingrained into our collective conscience. It feels good to have things - at the time, at least. The emptiness and

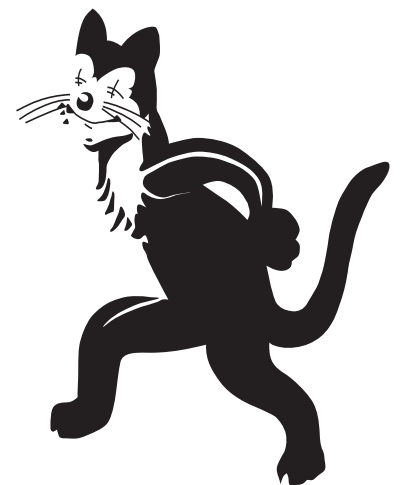
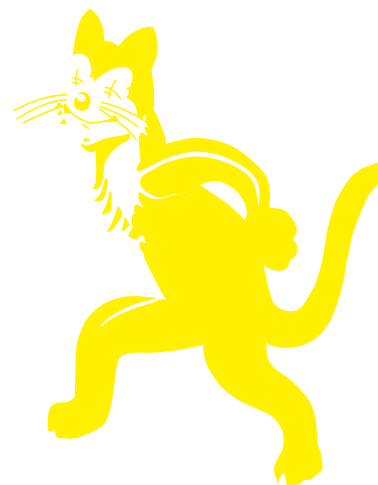
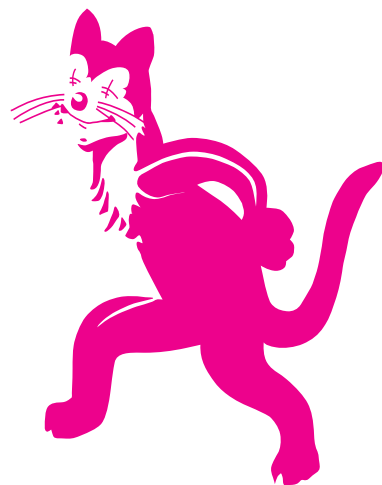
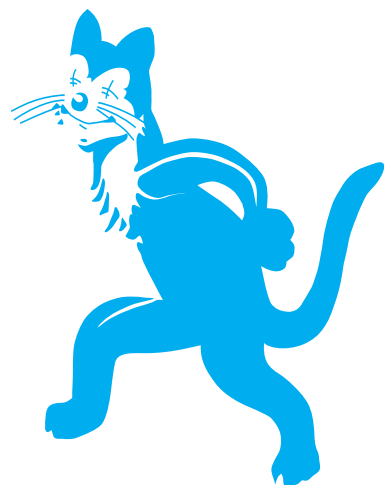
regret come later: these worldly collections of atoms aren't necessarily the answers to your problems. Be measured in your overindulgence, before you get overwhelmed by it all.

I urge you not to spend your dollars on more glorified doorstops, but to spend your short

"They're selling us the coffin and charging for the labour to nail it shut."

time on Earth with your loved ones; treat them to a square meal, take them skydiving or to a pottery class. Money spent on experiences makes you far happier than money spent on physical objects. The bombardment of consumerist pornography on sight at every junction in our busy lives gives us a chance to reflect on the environmental, social, and personal impact it all has. Whatever the latest offer is, know that even the best recreational drugs have a come down.

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

A CONVERSATION WITH...

felix@imperial.ac.uk

This week, Felix sat down with Deputy President (Welfare) Shervin Sabeghi for a second interview, where we discussed halls rent renegotiations(!) and chased up on the Liberation Reform and Disabilities History Month



Shervin Sabeghi, the Deputy President (Welfare) //ICU

Felix: One thing which has been making quite a bit of noise is the halls rent renegotiations. This is something that involves the DPW heavily as it impacts student welfare heavily. What are your thoughts regarding the price hike and the different options, from a welfare perspective?

For more details on the situation thus far, see this week's News section.

SS: It goes deeper than the obvious financial implication of 'rent higher = difficult finances = bad welfare'. The different breakdowns of rent prices across different halls can have a big impact on the student communities living there, as well as general accessibility to the university.

One important change is that the introduction of Kemp Porter and closure of Pembridge means that the proportion of students living in South Kensington-centric halls (Prince's Gardens, Beit, Wilson, Pembridge, etc.) shifts from 73% to 51%, with almost half the bedspaces being in Acton and thus much further away. We need to decide how to deal with that – independently of any overall average price rises, there would still be a discussion around prices in different halls with that shift and the split of the student body.

At the moment, the Woodward halls are effectively subsidised by those in South Kensington. It was decided last time these negotiations came around that the ratio between South Kensington

and Acton halls would be 2:1 in terms of price per average square metres of a room type (or, rather, a similar metric to that.) This ratio may need to be readdressed, particularly considering that the proportion of students in South Kensington versus in Acton will shift so drastically – rather than three-quarters of students providing a 'subsidy' to a quarter of students, without change it would become half subsidising the other half. Combined with the overall price increase, that would likely result in students in South Kensington paying ridiculously high rents.

However, reducing the ratio too much may result in there just being no low-cost, more affordable halls anywhere in the property portfolio. Other factors such as travel costs, which comes out to around £22 per week for students in Acton, also need to be considered. Finding the balance is something we, as students, need to discuss.

If the ratio is unchanged, then taking into account the overall increase in the number of bedspaces after the introduction of Kemp Porter and closure of Pembridge, the increase in price on average has been calculated to be around 12.2%.

But there are so many factors to consider. For example, equivalent rooms in Southside are around 5% more than those in Eastside – and I'm not sure historically why that is, but we're looking at making that equivalent. Equally, there are rooms in both those halls which look out on a wall instead of onto Prince's Gardens and receive little sunlight

A CONVERSATION WITH...

felix@imperial.ac.uk

A technical Editor's note, for clarity:

Figures on the specific running costs and revenue generated from individual halls is not being factored into the discussion. By "subsidise", the meaning is not that some students are paying above the break-even point for their specific hall in order for students in other halls to pay below the break-even point. It refers specifically to a metric which approximately describes how much is charged per square metre of room space on average. The value of a bedspace is not defined by the running costs – as an illustrative and hypothetical example, the cost of building Beit may well have been paid off at this point, whereas the cost of building Woodward may still be being paid off. This means that, if one were to look purely at the cost of running Beit, it may be substantially lower than that of Woodward – because the cost of building would have been paid off over a long period of time by students in previous years. Despite this, Beit is (arguably) a more desirable location as it is next to campus and does not require travel costs, and so should be priced accordingly. This is similar to saying that how much is left on the mortgage for a property does not define its value – a house with a paid-off mortgage in South Kensington will still cost a lot more per square metre than a house with an ongoing mortgage in Acton. Indeed, a house with the mortgage paid off is not free based on the fact someone else previously paid it off! On this basis, the perspective by which the balance is set between different halls is not based on their individual running costs, but the cost and break-even point of the property portfolio as a whole, as well as other factors such as location, accessibility to the university (i.e. providing affordable halls), and so on. See below for further discussion.

in their rooms, which has been complained about by some students – they are paying the same for a room with a worse view. We're considering making a small shift of around 5%, a reduction for rooms with that worse view, and an equivalent increase spread across all the rooms with a garden view.

I think it would be unhelpful to paint the picture in terms of hall-by-hall costs and such, not just because of it being an inaccurate picture due to the technical side, but also from a welfare perspective. We have the guarantee of a halls bedspace for every first-year student, and that needs to be protected. It also enters a dangerous territory where some students feel resentment based on the idea that they are getting a sore deal just to benefit others, which just isn't the whole picture and is very unhelpful in terms of having a discussion. If those are the terms we address this on, it raises a slew of other issues – for example, in the South Kensington halls, the room sizes are not all the same. Some single rooms are larger than others. By pricing them all the same, you could argue that there is already a case for some students within that hall 'subsidising' others within the hall, just by virtue of the fact that they

pay the same for a smaller room. The same goes for the discussion about the view in Eastside and Southside rooms. On a practical level, it just isn't helpful.

Felix: How do you think moving to this 50/50 split might affect students on a community or welfare level? The construction of Woodward has arguably begun to lead to a state of social or class segregation in the College. What are your thoughts?

SS: The problem is that this arises as a consequence of wanting to do something good, which is to ensure there is provision of lower-cost housing for students who are on a smaller budget. On a break-even model, that naturally causes larger prices elsewhere, and so class segregation results. Within that constraint, there is no 'correct' option – it's all a balancing act.

It's a damaging thing to the student community – halls are so influential in building student communities in first year, and university life is all about meeting different people and

diversity. Having a situation where people are split on any demographic basis, such as wealth, is

just damaging. People don't integrate well like that. There needs to be a fundamental conversation about what we prioritise – ensuring low-cost options or somewhat equalising prices to ensure we don't have wealth segregation.

Felix: The issues seem to stem from the College's decision to go with a break-even model. What do you think about using a different model, where the College directly subsidises halls prices from other revenue streams?

SS: If there is an option along those lines, they absolutely should – it is one area where it makes a huge difference to students, both in terms of saving students hundreds or up to a thousand pounds per year, but in terms of protecting student welfare in terms of accessibility and community. The College should be recognising and responding to that – with the break-even model, we're in a situation where there might not be any acceptable option for students. I really don't know whether that is an option though – I can't say, not having the College perspective.

I'm glad it isn't a decision I would make alone – it's one made by students at the Union Council next Tuesday.

The paper being presented to Union Council at the public meeting on the 3rd of December; in the Read lecture theatre, is available online at XYZ. The process there will be for students to discuss whether they accept or reject the model provided by College. There will also be discussion of which direction students want to take – prioritising low-cost halls for accessibility or reducing social segregation by flattening prices. The four options presented in the paper are not the only proposals; they are a starting point – Council could reject all four options. The ongoing process if that occurs would also be discussed.

Felix: Rent renegotiations are clearly a huge topic right now – but you have, of course, also been working on other things. Talk to us about progress on the liberation officers reform discussed in our last interview [see issue 1732.]

SS: It's more officially underway now. A working group has been set up in conjunction with students who are members of the Community and Welfare Board, which is one of the subcommittees of Union Council. We're discussing what roles currently exist, what structure exists, and what is missing, and

overall what needs to be in place so that liberation and community work is properly done by the Union.

We're also thinking about whether there are specific groups we are neglecting – for example, we feel we may not be representing students from different economic backgrounds successfully, and the specific issues that can face them. As a result, we're considering introducing an 'Equal Opportunities Officer', or some such, which is a role that exists in other universities as well. With the College's new Access and Participation Plan, which aims to drastically increase the number of students from less well-off economic backgrounds, we need someone representing them. Nothing has been decided yet, but these are the directions of our early discussions.

We're also looking into structure – such as creating student advocacy groups with elected committees to work with the Liberation and Community Officers on their remits, rather than having one individual try to cover it all. Hopefully that would spread the workload and make it easier to build student communities – rather than having just a single person trying to advocate for all women or all disabled students at

Imperial, for example.

Felix: You mentioned the Disabilities Officer there – can you shed any light on the Union's plans to support Disabilities History Month?

SS: Yes! Disabilities History Month is from the 22nd of November to the 22nd of December. The theme this year is hidden disabilities. So, we've just hosted a talk from Elizabeth Takyi, who set up a charity supporting adults with dyslexia, and will be running a comedy night with comedians who each have disabilities. There will be staff members giving their profile or experiences based on hidden disabilities as well. The focus is on looking at how disability is 'more than meets the eye' – it affects a lot of people who are not, for example, in a wheelchair.

POLITICS

politics.felix@imperial.ac.uk

Oil Currencies: The Fight for Global Dominance

The Petrodollar system, whereby oil from OPECs are traded only in US Dollars, holds the key to American global dominance. China is trying to change that.

POLITICS

Nehaal Pillai

Politics Writer

The United States of America has had a significant presence in the Middle East, a region so far away from it. Why? The reason is the preservation of the Petrodollar system, the currency in which most oil is traded. The demise of this system would bring about a colossal powershift from West to East: potentially crashing oil prices, currency values, and stock prices, eclipsing the 1930's Wall Street crash and 2008 Financial Crisis. Not only would it shift the world's financial epicentre, it would impact basic social values such as freedom of speech and press. What could trigger this crash? The principal adversary of the Petrodollar system is Chinese President Xi Jinping, who is bidding to boost his country's dominance on the world stage and repealing the economic slowdown that China faces. A change in Washington's strategy in the Middle East and new investments by Beijing can potentially trigger a powershift in this region and possibly the world.

The Petrodollar system was born in 1973, at a time when oil prices and inflation were rising rapidly in the US due to increasing debt caused partially by the Vietnam war, increased domestic spending and a government deficit. To prevent a potential collapse of the dollar, the Nixon government decided to end the convertibility of the US dollar into gold, thus

making the US Dollar the world's first modern fiduciary currency. In 1974, the American government signed a bilateral agreement with Saudi Arabia stating that all oil would be sold in dollars, and in return, the Kingdom of Saudi Arabia gained US military protection and assistance. Under Saudi influence, other countries in the Organization of Petroleum Exporting Countries (OPEC) also agreed to sell oil in dollars. This was a time when OPEC countries were keen on US protection, due to Soviet intervention in Afghanistan and the fall of the Iranian Shah. Thus, the Petrodollar system came to life.

OPEC countries gain many benefits from trading with the Petrodollar system, such as being able to invest in secure American investments rather than volatile local projects. Even more beneficial for the United States is the extra liquidity and foreign capital given to its financial markets - known as Petrodollar recycling. These recycled dollars keep interest rates low and promotes inflation free growth by effectively allowing the US to borrow its own money. This system has made the US dollar the world's global reserve currency, with over 2/3 of global currency reserves in dollars and over 40% of global debt being in dollars. This status enables the US to be a global economic hegemony and the world's only superpower.

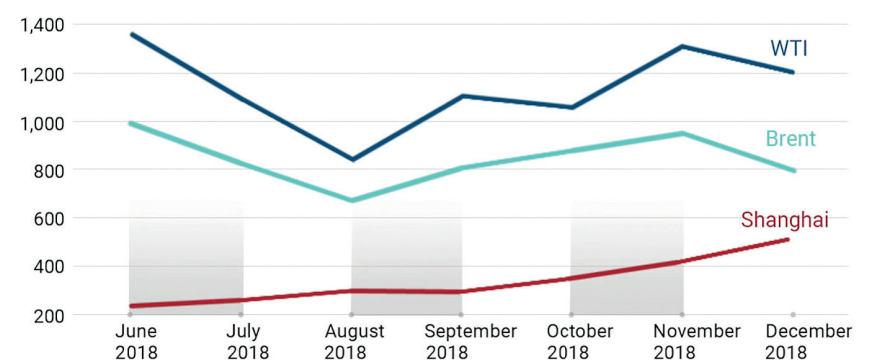
Availability and leverage of natural resources – especially oil – is incredibly important for a nation and can be seen throughout history.



America and China are fighting for dominance in the Middle East // Reuters, Manuel Farias

A primary example is Nazi Germany, a country that lacked natural oil resources and was forced into producing synthetic oil from coal, a very expensive process. The extensive availability of oil to the Allied Forces and the lack of availability of oil for the Axis Powers arguably resulted in the eventual British and American victory over Nazi Germany in World War 2. For the Peoples Republic of China, the availability and leverage over the oil economy is crucial in its ambitions to become a Global Superpower. Currently China is the world's biggest coal user (using more coal than the rest of the world combined) and now, the world's biggest oil importer (see graph). Consequently, this leaves the country in a very vulnerable position – clearly seen as 80% of Chinese debt is denominated in US dollars. Moreover, the US dominance in Middle East puts Chinese trade at risk. China is in a very weak position

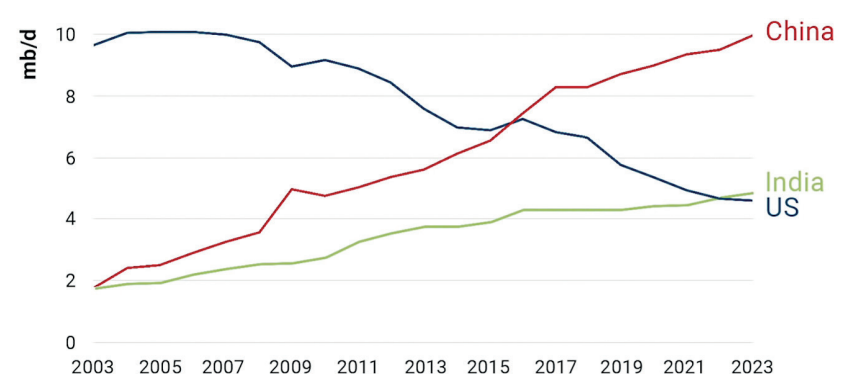
Trading volume of crude futures
(in thousands of lots)



Daily average; 1 lot = 1,000 barrels

Graph of trading volume of crude futures // Oil 2018 Report

Net crude oil imports, 2003-2023
Oil 2018



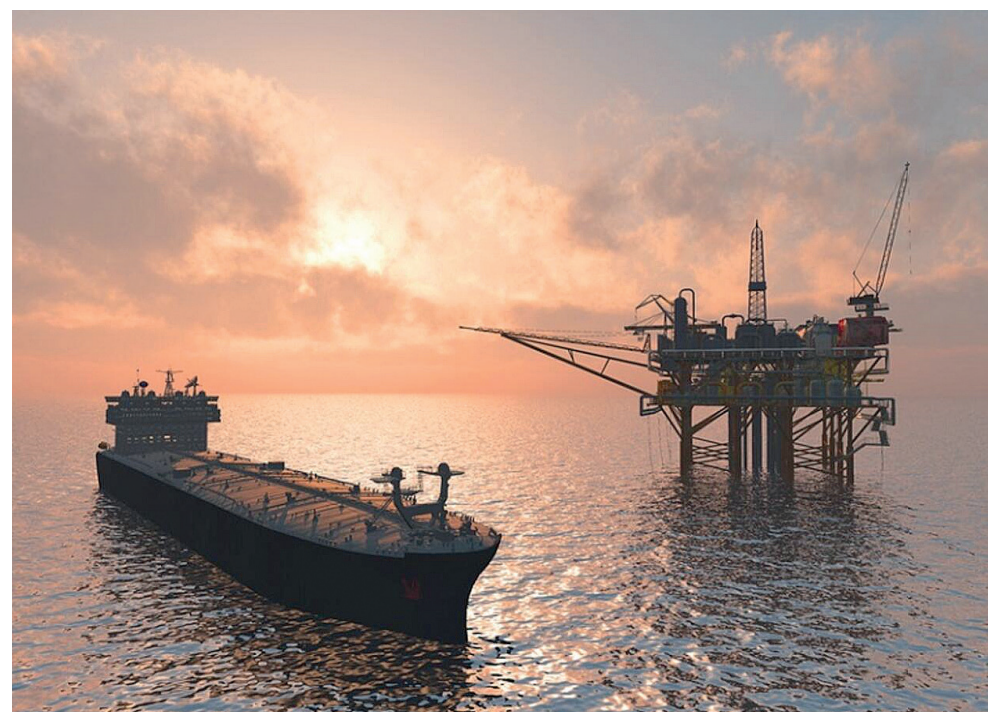
Graph of crude oil imports in China, India, and US // Oil 2018 Report

POLITICS

politics.felix@imperial.ac.uk



The Chinese government has created the Petroyuan system to compete with the American Petrodollar // Nikkei Asian Review



79.4% of world oil reserves is located in OPEC member countries // Albawaba

geopolitically and unless their oil dependence and dollar denominated debt reduces, their economy could shatter if there were a conflict with the United States – if the US were to simply prevent withdrawal of dollars from the US Federal Reserve or use its extensive soft power on allies in the region.

In recent years, Chinese economic growth has slowed, and Chinese foreign investment has sunk worldwide, except in the Middle East. In 2007, the Middle East contributed to only 1% of Chinese foreign investments, but now, China has become the Middle East's largest investor, with 1 in every 3 euros invested being Chinese. To China, the strategic importance of the Middle East is of utmost importance - it holds 48% of global oil reserves and 40% of global natural gas reserves. The Chinese plan to topple American dominance of Middle East has two main parts.

The first is seen in the investment strategy China commonly uses to create economic interdependence, through schemes such as the Belt and Road Initiative, to give themselves leverage over other nations. Investment is usually in the form of

infrastructure, business partnerships and the sale of military technology. In Middle East, the Chinese government-controlled SINOPEC and oil behemoth Saudi ARAMCO has a joint venture to build a \$10 billion oil refinery, and a similar refinery is also being built in cooperation with the Government of Kuwait. However, the largest Chinese investment is in Oman. The city of Duqm, only a decade ago it was a small fishing town with a population with 5,100. However, it is expected to grow to 100,000 by 2020 due to increasing foreign investment by China, USA and India. The Chinese will create infrastructure such as highways, buildings and build a port in the area, which will significantly benefit Oman's economy. However, it is of greater benefit to China as it provides a location which avoids the Strait of Hormuz, which is an increasingly unstable body of water due to Iranian seizures of oil tankers.

Secondly, in addition to creating links with the Middle East, China is attempting to create an oil trading the Petroyuan, to compete with and topple the Petrodollar.

Trump: "Does the USA want to be the Policeman of the Middle East getting NOTHING but spending precious lives and trillions of dollars protecting others who, in almost all cases, do not appreciate what we are doing? Do we want to be there forever? Time for others to finally fight"

Currently the Yuan has very little influence on the world in comparison to the Dollar and the Euro. This is primarily due to the high liquidity of the Yuan and the low trust in the Chinese legal system which scores in the bottom 20 in the world in the WJP Open Government Index, which ranks legal systems of nearly every country in the world (the USA scores in the global top 15 in comparison). Nonetheless, the Chinese government is trying to tempt more countries into using this alternative system by making the Petroyuan a gold backed currency, with options to fully exchange Petroyuan to gold in both the Shanghai

and Hong Kong exchanges. Additionally, countries facing US sanctions can avoid them by switching to the Petroyuan. So far, 4 countries have started to use this system; Iran, Russia, Venezuela and Angola, all countries that have been sanctioned for reasons political reasons and human rights abuses. This escape from US sanctions and being a gold backed form of currency are very attractive to many countries. This new system – if successful – would enable China to grow their slowing economy and allow it the same privileges that the US has seen with its Petrodollar system, potentially making China a

global superpower.

This new Chinese approach comes at a time where the United States is profoundly altering its Middle Eastern strategy. Both the Obama and Trump administrations have wanted to lessen American dependence on OPEC oil, lower military presence in the region and rather prioritise its focus on the Asia-Pacific region. The United States has reduced the number of troops in nearly all parts of the region – with an exception to Saudi Arabia, who it has pledged to protect.

Moreover, the United States has tried to reduce its dependence on foreign oil. In 2007, it imported 12 billion barrels of oil per day, whereas in 2017 it imported 2 billion barrels of foreign oil per day. Recently it became a net oil exporter, competing with the Middle Eastern oil giants.

The US increasingly views the Middle East as a strategic defence location, and China is attempting to fill in America's position as the dominant power in the Middle East for 2 reasons; to secure its oil sources and for strategic purposes for shipping. The port of Duqm is also currently receiving US

and Indian investment. Moreover, having a port in Duqm and a trade route into the Middle East can potentially reduce Chinese dependence on shipping in the Indian Ocean, in which China's access can be blocked by the USA and India, the two main naval powers in the Indian Ocean. Increased influence in the global oil trade would empower Beijing and give it leverage over rivals such as India – a country which is currently seeing faster economic growth than China – who also depend on oil imports.

In conclusion, if more countries switch to the Petroyuan system, the influence and global dominance of the United States of America will greatly decrease while Chinese soft power would grow. This would impact everyone in the world in nearly all aspects of life; from international laws and regulation, to leverage on freedom of speech and media freedoms. The endgame on who becomes the dominant power of the 21st century may be dependent on decisions by OPEC on whether to cease or continue trading oil in dollars. For better or worse, the world as we know it will change.

POLITICS

politics.felix@imperial.ac.uk

UK Election Manifestos Review

Green

Brexit policy: put any Brexit deal to a referendum against remain, with the Greens campaigning on a ‘remain in and reform the EU’ platform

POLITICS

Ansh Bhatnagar
Politics Writer

The Greens have produced a manifesto embracing the ‘Green New Deal’ branding, with the boldest climate target of all – a 100% net zero economy by 2030 achieved by spending £100bn every year through borrowing and increased taxation. Green also promise to build 100,000 extra zero-carbon homes, raising spending on the NHS to £6bn a year, and scrapping tuition fees.

Greenhouse gases come from many sources including the agricultural

sector, and the Greens will phase in a tax on meat and dairy products over the next 10 years. Methane is an incredibly potent greenhouse gas and a lot of it comes from cows, so this policy may well be justified – however it is unclear how this tax will affect consumers. If meat and dairy prices rise and are made unaffordable for people, then they may well be forced to switch to a more environmentally-friendly vegan diet – however this does seem like passing the cost on to ordinary working people when another policy could try and achieve the same result without punishing those who can’t afford to pay more in tax.

The Greens have also promised £2bn a year

for apprenticeships and training for those transitioning to green jobs.

With £2.5bn promised for improved cycle routes, the Greens aim to make cycling a safer and friendlier option. Despite this, there are no policies on how they will improve and promote public transport usage and how they will do this while the majority of public transport is owned by private companies.

Green have also proposed a Universal Basic Income of £89 a week to replace existing benefits. However, a UBI is meant to get rid of the administrative burden of means testing found in most welfare systems, yet the Greens’ UBI proposal has means testing in it

to provide families, the elderly, and disabled people with more money. This begs the question of why they want to introduce an expensive UBI programme while getting rid of one of the main benefits of it, which is to reduce administrative costs for the state.

The Greens have been criticised in interviews recently for their bold borrowing and spending commitments, however my view is that when dealing with the existential crisis of climate change, we can’t really afford not to take bold action.



Jonathon Bartley and Sian Berry, co-leaders of the Green Party // Wikimedia // Parliament

Labour

Brexit policy: negotiate a credible leave deal that protects jobs and living standards within three months, and put it to a referendum against remain in six months.

POLITICS

Ansh Bhatnagar
Politics Writer

Titled “It’s time for real change”, the Labour manifesto certainly lives up to that promise. Labour have promised large spending increases to combatting the major crises that face our nation in the present.

Climate change is for many, the greatest issue faced by humanity. Labour have committed to 90% of electricity to be supplied by renewable sources by 2030. Workers in high carbon industries won’t be left behind; instead, with Labour’s proposed National Ed-

ucation Service (NES) providing free education and training from cradle to grave, workers will be able to transition into renewable and low carbon industries.

Under Labour, tuition fees will be scrapped and maintenance grants will be reintroduced for students. Free bus travel for under 25s will promote the use of public transport, which will further forward Labour’s environmental objectives. Taking key industries into public ownership, such as rail, mail, water and the energy grid, makes promoting public transport and decarbonising our energy system easier, while improving the services and reducing costs for service users as value will no longer be

siphoned off to line the wallets of shareholders. Labour is also proposing to roll out free fibre optic broadband for all, as currently only 8% of the UK has access to full fibre broadband.

Labour aims to raise the minimum wage immediately to £10 an hour, stop state pension age rises and build 100,000 council homes a year to end the homelessness crisis. With regards to the NHS, Labour has committed to making dentistry checkups free and abolish prescription charges in England, giving the NHS the funding it deserves. A further key policy is the 32 hour working week with no loss of pay.

In order to pay for all this, Labour has produced

a fully costed “grey book” that outlines the tax revenue coming in and the spending going out, and insisted that only the top 5% of earners would pay more tax. However this week, Labour admitted that a plan to equalise the tax status between married and non-married couples would see married couples losing a tax break – which would affect earners below the top 5% threshold. However, this week also saw the release of a letter in the Financial Times written by 163 economists and academics, backing Labour’s spending plans. With the scale of the climate and housing crises facing us, these plans may be the only hope we have left.



Jeremy Corbyn, leader of the Labour Party // Parliament

POLITICS

politics.felix@imperial.ac.uk

UK Election Manifestos Review

Lib Dems

Brexit policy: cancel Brexit by revoking Article 50.

POLITICS

James Thorne

Politics Writer

On the 20th November the Liberal Democrats released their election manifesto, summarising their plans for the country if they win the general election. Unsurprisingly, the manifesto was geared around the issue of Brexit with the Lib Dems promising to unilaterally revoke Article 50 if they win a majority and to push for a second referendum if they don't. The total rejection of the result of a popular referendum can only be viewed as undemocratic even with the view

that a general election win gives them the mandate to do so as general elections, with this country's flawed First Past the Post system and all the covert cross party deals are inherently less democratic than one person one vote referenda. The Lib Dems appraisal of themselves as the party which champions the People's Vote is completely undermined by their abandonment of this sensible policy in their manifesto. Elsewhere the Lib Dems promise an appealing £7 billion a year extra funding for the NHS. However, they mean to pay for this extra funding by raising income tax by 1% in ALL tax bands including the poorest people who are least able to pay it. With life in austerity

Britain already so hard for so many people, proposing to raise taxes on the poor is a uniquely cruel thing to do which even the Tories haven't gone so far as to suggest.

One demographic the Lib Dems seem particularly keen to attract is young voters with their promises to reintroduce maintenance grants for the poorest students and their controversial Help to Rent scheme both of which are to be paid for by a supposed £50 billion boost to our economy caused by us staying in the EU. The reintroduction of maintenance grants is particularly rich coming from the party who, along with the Tories, betrayed their student base by tripling tuition

fees in 2010 and saddled a generation of students with insurmountable debt (a policy Jo Swinson personally voted for). In addition, the Help to Rent scheme, which promises a £2000 government loan to help 18-30 year-olds pay down deposits on rented accommodation, amounts to nothing more but greater debt for struggling young people. For me, the Lib Dem's promises to young people ring hollow, it's all a matter of too little too late.



Jo Swinson, leader of the Liberal Democrats

// Wikimedia

Conservatives

Brexit policy: pass the Withdrawal Agreement by Christmas and leave on January 31st with that deal.

POLITICS

James Thorne

Politics Writer

The Conservatives announced their manifesto on the 24th November with the promise to deliver their EU withdrawal deal being central to their proposals. To the Conservatives credit the deal is a remarkable demonstration of self-deception and hypocrisy, having previously voted twice against Theresa May's deal Boris has managed to renegotiate a near identical deal which he and his supporters now rapturously praise. Where the deal differs to Theresa May's is in

its abandonment of all concrete promises to retain workers' rights, its removal of safeguards for the NHS post-Brexit and in economically severing Northern Ireland from the rest of the UK by leaving Northern Ireland practically within the EU customs union whilst taking the rest of the UK out. Throughout the campaign Boris has continually parroted his slogan 'Get Brexit Done' meant to appeal to voters' fatigue with the whole Brexit process however his deal does not result in the straightforward withdrawal he pretends it does. The withdrawal agreement doesn't secure trade deals with the EU which would need to be negotiated during a 1 or

2 year transition period during which time the UK would still follow EU rules and pay money to the EU budget, hardly an attractive proposal to the nationalistic Brexiteers the Conservatives are trying to win over.

Secondary to Brexit are the Conservatives minor social spending plans. Core amongst these are the promise of hiring 50,000 more nurses and building '40' more hospitals. Unsurprisingly the pledge of nurses is not clearly costed and the 40 new hospitals are not costed at all owing to the fact they aren't intended to be built next parliament making it nothing more than an empty promise. If the 50,000 new nurses are delivered it will only

just bring the number of nurses per person back to the level before Tory cuts. In fact the entire manifesto can be summed up as the vague promise of funding to services which the Tories themselves brought to the brink of ruin throughout the last decade of their ideological austerity. The Conservatives cannot be trusted to save the services they are actively destroying. Just last month representatives of the government met with US private healthcare corporations to discuss the sell-off of our NHS in a post-Brexit trade deal with Trump. This is no longer idle speculation but a very real threat to all of us.



Boris Johnson, leader of the Conservative Party

// Wikimedia

POLITICS

politics.felix@imperial.ac.uk

The anger of an exhausted Iraqi youth against a 16-year old corruptible political system

Following almost two decades of war, inequality and corruption, Iraqi youth are taking to the streets to voice their anger.

POLITICS

Mariam Shwea

Politics Writer

Thousands of Iraqi youngsters, from central and southern cities and from all religious groups, have been taking the streets since October 1st against the worsening economic conditions, the divisive government policies, and widespread corruption that afflicts Iraq. The government has reacted viciously to the protests – even by the standards of the Middle East. Security forces have fired rubber bullets, live ammunition, and tear gas at the raging crowd who were armed with nothing but the Iraqi flag. Snipers were deployed atop tall buildings to threaten and frighten the protesters.

The insurgents occupied all floors of an empty, six-story Turkish restaurant standing opposite to Tahrir Square. Both the building and Tahrir Square have become the symbols and fortresses of this protest. Their main demands were for snipers to be withdrawn, the political cabinet to be restructured, and unemployment and corruption to be fought. In response, the government threatened to dismiss any governmental employee who participated in the protests and issued a city-wide curfew. This only led the protests to grow, and on October 25th, the riots spread to other provinces of the country, this time the demand was the abolishment of the entire

political system.

The rage of the demonstrators has been directed at high unemployment levels and the practice of assigning governmental posts based on partisan loyalties and ethnic affiliations rather than credentials and qualifi-

“This protest represents a fight by the restless masses of a younger generation of Iraqis who are tired”

cations. The ruling elite are accused of misusing funds, poorly managing state resources, and failing to meet even the most basic needs of the Iraqi people – jobs and basic public services.

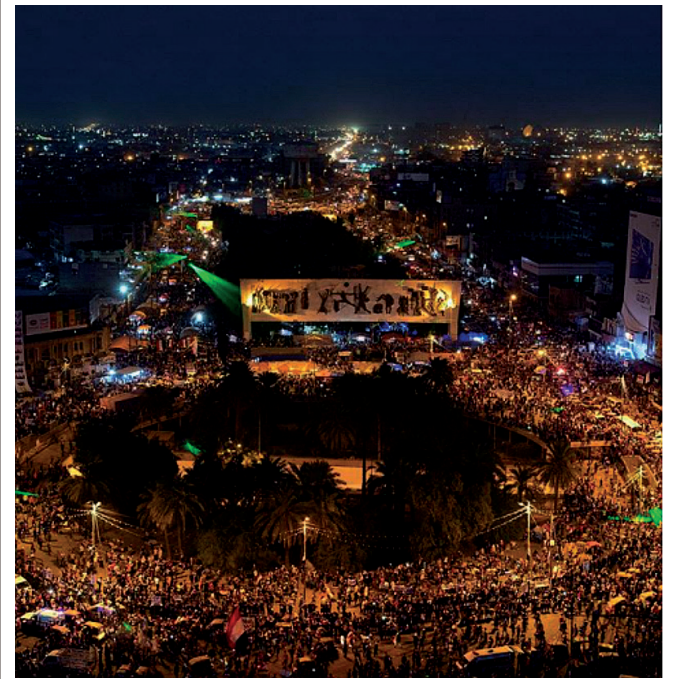
Outrage is also directed at the political system enforced upon them by the Americans following the 2003 invasion and overthrow of dictator Saddam Hussein. Since the downfall of Hussein, the influence of religious figures and politicians from the neighbouring country Iran have grown markedly in Iraq. Iranian-backed militias roam around the country, like mafia-esque extortion groups, causing unrelenting anxiety for Iraqi citizens. Furthermore,

many Iraqi politicians and militias have become loyal to Iran, submitting the country’s government to Iran’s bidding, whilst Iraqis, despite the country’s vast oil reserves, have neither medical care, safety, nor good education.

The Iraqi people’s anger at Iran’s increasing authority is understandable, though corruption in Iraq cannot be solely blamed on the Tehran regime. This protest is larger than that – it represents a fight by the restless masses of a younger generation of Iraqis who are tired; having witnessed countless wars, from the 2003 invasion, to the civil war in 2006 and ISIS in 2014. They are struggling to scratch out a living and are entirely rejecting their corrupt government.

This is an unprecedented situation for the Iraqi government. Because compared to previous conflicts in Iraq, now it is largely Shia’s who are facing each other. Anyone who thinks of clashes in Iraq solely a result of a conflict between Sunnis and Shia’s may find that strange.

And it is not the first time that Shia’s have clashed with Shia’s. Saddam Hussain was at an 8-year long war with Shi’ite Iran, but two-thirds of his army consisted of Shia’s – peasants, poor Iraqis from the south, a few Kurds – while the senior officers and generals were mostly Sunnis. When the Shia’ majority in Iraq came to power following the fall of Saddam, the Shia’ south was the government’s mainstay.



Demonstrations in central Baghdad // Ziyad Matti

Hundreds of young men from cities like Basra and Nasiriyah lost their lives fighting ISIS.

But once ISIS was defeated, the contradictions came to light. Many young men returning from the war were shocked to realise how great the social injustice among the Shia’ was. When a government delegation visited Nasiriyah, the demonstrators complained that little had changed for the people since Saddam. At that time, the Shia’ of Nasiriyah had been suppressed, today they suffered again hardship, while the party elites enjoyed all the benefits of gaining power and the victory of terror.

The young people can no longer be put off with solemn religious words previously used by the government to rule the country. This was the case in 2006 and 2014, which both led to infamous civil wars that ended in bloodshed. One of the first slogans of the

uprising was “The thieves robbed us in the name of religion”. This is reflected by the presence of Shia’s, Sunnis, Christians and Yezidis on the streets of Baghdad today; united in their hatred towards the government and the earnest feeling that they see no future in their country. And for that they

“Baghdad will be free”

blame the corrupt state apparatus in Iraq.

The protest has reached its 32nd day. It is yet unknown how long it will last and if it will be fruitful. But one thing is clear, the way the government has been dealing with the insurgents will not certify an end to the demonstrations. The people will not just leave the streets and go home because they are aware that once they have withdrawn, nothing will



A protestor in Baghdad wearing protective gear // Ameer Hazim

The Felix Mock Election: Have Your Say!

How left- or right-wing is the Felix readership actually? Does the Felix readership support Remain or Leave? And do these answers differ across faculties, gender, age, party?

We want to know! Follow the link or use the QR code below to take part in the Felix Mock Election! And don't worry - it's completely anonymous.

In the final issue of term (right before the actual general election) we'll publish the results. And when Felix is back in January, we'll publish an analysis of how the Felix mock election compared to national polling and demographic data.

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>



<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

<https://bit.ly/2QEIB10>

**Please make sure you remember to
vote in the REAL election on
Thursday, December 12th.**

ARTS

arts.felix@imperial.ac.uk

Hyde Park Winter Wonderland Comedy Club

ARTS



Where? MegaDome - Hyde Park
When? 21st Nov – 21st Dec, Thu-Sat at 9pm
How Much? £15

Manfredi Castelli

Arts Writer

Between November and December of every year, Winter Wonderland opens its doors to Londoners and tourists alike as one of the most visited attractions. It has the perfect atmosphere for just going around the Christmas markets and enjoying the rides (of course while drinking mulled wine) but did you know that there are Comedy Club shows there?

Shows start at 9pm and are 45 minutes long. They take place from Thursdays to Saturdays from 21st November until 21st December, with a different comic lineup every week.

For my visit, the lineup consisted of Emmanuel Sonubi as the host, while

Thomas Green and Marcus Brigstocke were the opening and the headlining acts respectively.

Sonubi was the funniest by far, thanks to his excellent engagement with the audience. His show focused on satirical comments on modern 'language' and how certain words have become forbidden over the past decades.

Green, the pan Australian comedian based in the UK, started by making some friendly jokes that compared the UK to Australia. Then, he moved on to tell funny, albeit predictable, stories and jokes focusing on problems within a relationship.

Brigstocke, the star of the night, started by bonding with the audience by asking different people's nationalities and made hilarious and entertaining jokes for each country mentioned. This was really great fun. He then talked about the 'division' between people in support and in opposition of Brexit, especially within his own family. Unfortunately, he could not keep the momentum going, and did not finish as well as he started, ending his set

with cliched jokes about marital relationships.

Generally, all the performers were funny but rather forgettable and predictable. It left me feeling that the event was targeted more towards tourists and casual Winter Wonderland visitors rather than regular comedy club goers, which led to the quality of comedy suffering. Acts refused to show personality, instead opting for cliché jokes dealing with racism, politics, sexism and relationship problems.

The attendees seemed to enjoy themselves but the price, fixed at £15 plus transaction fees, is too high for a 45-minute-long comedy performance.

Nevertheless, the rest of this year's lineup looks promising with plenty of talented comedians set to perform. If you end up at Winter Wonderland one of these coming weeks and want to experience something other than the same old attractions, I suggest you check out the lineup for that day, on Winter Wonderland's official website. Despite the price tag, you might be in for a very entertaining 45 minutes.



Hopefully not coming to an A&E near you // ICSM Drama

The Tiger Will See You Now

ARTS



Where? UCH, Beit Hall
When? 19th - 22nd Nov
How Much? From £5

Calum Drysdale

Arts Writer

I live with medics, and from the way they go on, one could be forgiven for thinking that the last thing that any of them want is to be a doctor. Which is why it is so funny that the ICSM medics chose to put on *Tiger Country* last week as their autumn play. This is a play based on the assumption that given how difficult it is to become a doctor, the only people willing to give it a go are the horrible, the neurotic or the uncaring. I bet rehearsals were a real laugh.

"Right guys, let's just rerun the patient dying from sepsis contracted as a result of a surgical error and the underfunded heart attack unit scenes and then we can go home and do some anatomy!"

Thankfully the medics took to their roles with relish. This was what they had been training for, in some cases for 6 years and boy, were they going to show it. Patients were lifted around by burly and not so burly paramedics, acronyms like OSA or F28 were thrown around willy nilly and the cast seemed to be having a genuinely good time.

A standout performance from lead actress Vashti (Eri Aung) who drew all eyes to her whenever she was on stage. Playing the role of the highly competent but difficult surgeon she came across as 8 feet tall despite probably barely scraping 5 foot. Her despair as she is forced to choose between the health of a relative and her own career were genuinely touching and hard to watch.

The other notable performance for me was Mr Mercer the cancer sufferer (Ehsaan Zaman) while not present for long (thoughts and prayers), his noble resignation was sensitive and mature.

While lacking energy at points from certain

members of the ensemble, the strength of the plot and the leads drives the story onwards to its sad and cold conclusion.

Tiger Country isn't so much about doctors as it is about people who have been expected to care about others for so long and with such intensity that many of them crack, sinking into despair and nihilism. The cast has a lot to look forward to.

One final point: if you were in the light box on Thursday night you should be ashamed of yourself. The whole audience could hear you talking and laughing. You let yourself and the actors who had worked so hard down.

Note to readers:

We would like to issue a correction. Last week we incorrectly attributed *Touching the Void Review* to Claire Chan instead of Aya Hayakawa.



A very entertaining evening indeed // Piet Hein

ARTS

arts.felix@imperial.ac.uk

Shook: Becoming a father behind bars

ARTS



Where? The Globe Theatre
When? Was till 23rd Nov
How Much? £18 students

Calum Drysdale

Arts Writer

Shook is as close to a perfect play that I think I have ever seen. Set in a prison classroom, three convicts, all with pregnant girlfriends, are receiving lessons on how to be fathers. Opening with rapid wit and banter the play first comes across as an entertaining but fundamentally shallow comedic experience. The men, all violent criminals, come across more like boys than men as they swap stories of school,

Avengers Endgame, and trade sweets.

It is only when Grace (Andrea Hall), their teacher, comes in and begins trying to teach them how to burp a baby that the voids of these men's own childhoods emerge. All three of them grew up with absent fathers and the theme repeats itself in the next generation. The tragedy that they will all be absent from the births of their first children, despite them trying to be better, is present in all of their faces even if it is never directly addressed. In fact, Cain (Josh Finan) the Liverpoolian motor-mouth has already given up. "Like we'll ever be good fucking dads," he shouts.

The joking moves seamlessly from how easy it was to get young teachers to cry to discus-

sions of how best to slit your wrists (sideways for attention, lengthwise for real) and your heart goes out to these boys who have been so cast aside from society that they are where "people get sent" and there is no lower to fall. Unlike Cain, however, for the other two classmates Jonjo (Josef Davies) and Riyad (Ivan Oyik) the classes are a possible route to redemption. Former gang member Riyad's casual dominance and imposing physical presence masks an intense hunger for self-improvement. He is patiently redoing his GCSEs and in the quieter moments of the play he admits to the others that he dreams of starting a business and providing for his family. As an audience we root for Riyad because for a moment he has become



The green Chuppa Chups are better than the cherry ones // Southwark Playhouse

like us, humanised to the point that we feel like we can understand him entirely.

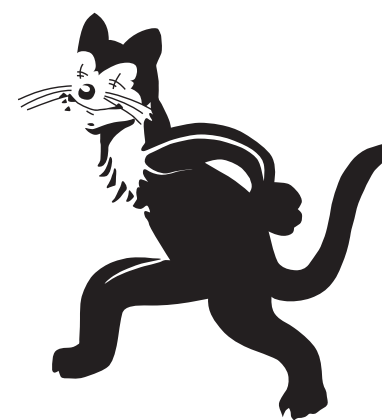
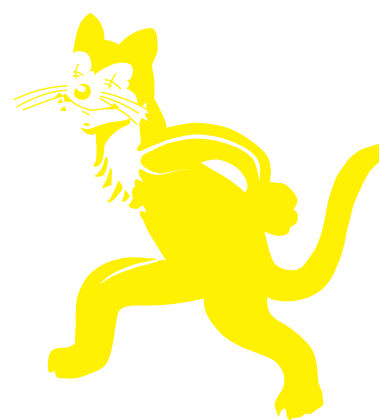
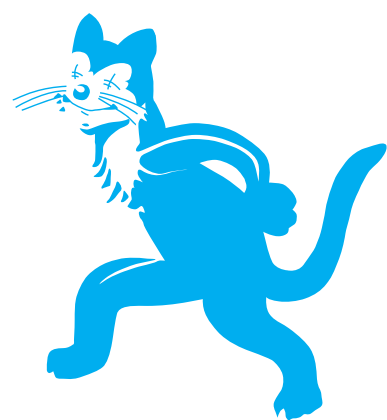
Tragically, the reality of their situation drags these boys back down to earth. Riyad's past catches up with him and he disappears into solitary

confinement never to be seen again.

In the end, the real victims are in the end those unseen, unborn children, who will, the play suggests, end up coming to the same jail and having these same conversations just like

their fathers. Desperately sad and heart wrenching, I came out of this play with tears running down my face and signed up to volunteer in prisons. I cannot recommend this play enough.

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

MUSIC

music.felix@imperial.ac.uk

Top 10 Rap Albums of 2019

With the end of the year approaching, Hip Hop Soc President Asad Raja takes us through his picks for 2019's top rap projects. The list highlights the strides made in UK rap this year.

MUSIC

Asad Raja
Music Editor

Straight up: the UK killed it this year. We've finally reached a point where the best outputs of the rap scene at home is legitimately comparable to the best of the US's. Asides from the four banging albums that make this top 10 list, this year saw the release of great UK projects like Kojey Radical's *Cashmere Tears*, Dave's *Psychodrama*, Digga D's *Double Tap Diaries*, Headie One's *Music x Road* (and of course, high expectations for Stormzy's upcoming *Heavy Is The Head* too). The US on the other hand was quieter this year, following a stellar 2018.

10. *Diaspora* - Goldlink

This album, though not Goldlink's best, was a refreshing balance of high-energy, attention-grabbing, and undeniably groovy. Props must be given to some on-point features that each seemed to bring an appropriate reaction out of Goldlink – from his brooding bars coupled with Khalid's delicate hook on 'Days Like This' to his mean demeanour following Pusha T's bodying of the beat on 'Cokewhite' (can't wait for that collab album).

9. *uknowhatimsayin¿* - Danny Brown

uknowhatimsayin¿ is probably Danny Brown's least manic-sounding project. He chooses to replace that aesthetic

with a certain shininess – something between a light-hearted disposition and grounded self-observation. Short songs with distinct, albeit less experimental than typical, production coupled with Danny's unique, catchy flows and personality-filled bars make this a pretty sweet project, easy to listen to in one sitting.

8. *So Much Fun* - Young Thug

Thugger came through with yet another great project to add to his catalogue this year. Aptly named, *So Much Fun* feels lively, loose and lit. Thug fills a good number of tracks here with straight bars too, without slacking on the incredible cadences, creative adlibs and catchy hooks he has come to be known for. Almost all the features sound brilliant too, each of them perfectly complementing the production, and Thug's chosen vocal styling. 'Big Tipper', featuring Thugger's rising star signee Lil Keed, and the wavy, hypnotising 'Lil Baby' are two of my favourite tracks.

7. *Nothing Great About Britain* - Slowthai

Following Slowthai's trail of singles since 2016, a couple of which appear on this album, *Nothing Great About Britain* seems that bit more purposeful. Where he could very easily have made a full body of work in line with the hazy, depressive, lo-fi, pill-popping midlands rap scene vibe heard on these singles, Slowthai chose to channel his inherent charisma into a project that is both clashingly



Clockwise from top left: *Nothing Great About Britain*, *So Much Fun*, *IGOR*, *Diaspora*, *Bandana*, *All My Heroes Are Cornballs*, *uknowhatimsayin¿*, *GREY Area*, *Ignorance is Bliss*, *Hoodies All Summer* // Wikimedia

anarchist and crushingly vulnerable. There hasn't before been a project from the UK scene quite like it, most likely because there hasn't before been a time in Britain like now.

6. *All My Heroes Are Cornballs* - JPEGMAFIA

On *All My Heroes Are Cornballs*, PEGGY responds to the experience of fame through a now well-established lens of aggression mixed with nihilism. PEGGY uses his new vantage point to further confront and interrogate archetypes in the weird modern cesspool of shallow thots and rappers, music industry soul-suckers, brazen bigots, and internet-dwelling, pseudo-liberal closet-racists and quasi-incels. Through this all, PEGGY grapples with his own identity over captivatingly unpredictable instrumentals – his proximity with all these groups seems to make him paranoid of losing the ability to self-define.

5. *Hoodies All Summer* - Kano

It makes me mad how

slept on Kano is in general ("oh you mean Sully from Top Boy"), but this album was particularly overlooked considering how great it is. The veteran wisdom on this album is absolutely golden, and the immersive orchestral instrumentation that it's wrapped in makes for an amazing, and very coherent, project. Kano's observation of the youths cut from the same cloth he's grown from allows him to lend mature, acquainted insight, without coming off as preachy.

4. *Ignorance is Bliss* - Skepta

This album is just so hard. Front to back, the beats are captivatingly icy, mean, and electronic – static-filled bass, tapping synths, and minimalistic melodies that swell under Skepta's heavy, pronounced delivery make the project aesthetically brilliant. The content follows a tight, neat arc too – from cold to intense to vicious.

3. *Bandana* - Freddie Gibbs and Madlib

Madlib and Freddie Gibbs reuniting was bound to produce something as good as this, their previous collaborative output, *Pinata*, proving their insane compatibility. Again, soul and jazz sampling beats provide a back bone for tracks that are anywhere between gritty, dream-like, or sombre, with Freddie delivering confident, insightful, story-telling bars that are able to go each way. Freddie's ability to move from the personal to the general in his anecdotal and observational lyrics is compounded by an increased focus on black identity's strife.

2. *IGOR* - Tyler, the Creator

Tyler has always had a tendency towards concept albums. Though the blonde wig, sunglasses, and pastel suit rocking character *IGOR* represents was given, on the surface, less exposition than characters from his previous albums, the album's nuanced thematic focus on obsessiveness paints the concept vibrantly. The project details the ability

of infatuation to transform us into inarticulate puppets – both sonically and lyrically presenting the ugliness and the heart-harnessing of it in a rich, painfully honest manner.

1. *GREY Area* - Little Simz

This might be my favourite album to have ever come out of the UK rap scene. Young, independent and accomplished, Little Simz's position as one of hip hop's living legends has been solidified by this project. Every track is so thorough: not a minute goes by where it's difficult to be impressed. The instrumentals, which have a very beautiful, organic quality, perfectly complement Simz' gorgeous, divulging, poetic lyrics. The emotions are emphatic but subtle, far ranging, and highly mature. Simz provides a lot of food for thought throughout the album, accenting them with the last track 'Flowers', a flawless full stop to the journey.

MUSIC

music.felix@imperial.ac.uk

1/3 analogue, 1/3 digital, 1/3 nature: Dominik Eulberg

MUSIC

Dominik Eulberg
all night long



Venue: Night Tales Hackney
Date: 22/11/2019. **Price:** £12.50. **Artist:** Dominik Eulberg

Martin Flerin
Music Editor

Dominik Eulberg, the 41-year-old recluse bird-watcher, who happens to also make some of the best German techno, says that he feels drawn to the animalistic aspects of the genre. The sweating, the entranced dancing, the rapture when the crescendo lifts your feet off the ground. He brought all of that to Night Tales,

whose venue in Hackney has been operating since the summer of 2018 and offers entertainment quite uncharacteristic of the capital, on Friday, the 22nd of November.

Doing an all-night set is very brave, and for many DJs it doesn't work out. I've seen many big ones fail to deliver the kind of performance that makes you stay until the end - even those who are spectacular in a more condensed 2-hour format. That wasn't the case for Dominik. The young BoJo lookalike slowly ramped up the pressure, and it is as much down to his incredibly astute sense for mixing as it is due to his incredibly poignant and punchy discography that the set just kept getting better. The bed-like seats in the venue's garden were also the perfect pitstop,

helping keep legs fresh.

The atmosphere, which was the only thing preventing this from being a perfect set, was at first diluted by the abundant day-trippers and Hackney-hipster socialites. But slowly, in the front left corner, there seemed to be building an enclave of those who were there to tear up the dancefloor. There was the head-to-toe tattooed guy with hair down to his waist giving it his double-jointed all, twisting to the melodies like a venomous snake, his shirt long since on the floor next to him. There were his friends, ideal blackbodies in their Docs and leather, vibrating all around him like bey-blades. The few words that were exchanged were all in German. We didn't need to speak. This was little Berlin in the heart of East London.

When Dominik talks about music, he talks about sea snails, about birds, and about the rustling of the leaves. These are sounds he regularly uses in his compositions, rounding them out with his beastly modular synths and perfectly symmetric clicky beats. His agenda is as much to make people dance as it is to spread awareness of environmental conservation. He might resemble the Tory leader but in politics he could not be further removed from him.

"When we see or hear a rare bird sing, we all giggle like little children," he says of his everyday life in a little town between Frankfurt and Cologne. From this heart of nature, in a house overlooking a lake, next to a bird reserve, he makes his music. "Nature is the world's greatest



You don't even know about the cheeky fag under I'm lighting under the decks // Wikimedia

artist," he explains. I am inclined to agree. If you're passionate about both nature and techno, I sense that his music will make you feel things that no other music can. His deftness of touch, and the elegance of his melodies are unparalleled. His bass ALWAYS bites hard. You might be in the middle of a

forest, dazzling colours all around, and then a storm comes. He flicks it around like that.

As an intro to the man, I recommend checking out his Cercle set on Youtube or his bird-themed website. You won't be sorry.

Starcrawler comfortably blows minds at Camden show

MUSIC

Starcrawler



Venue: The Underworld.
Date: 21/11/2019. **Price:** £16.50. **Support acts:** Pretty Sick, Glossii

Emily Freeman
Music Editor

Ah, Underworld. So many incomplete memories of too many nights out. So many vivid memories of strange men standing just a bit too close when you're just trying to have a night out with friends. Despite my current opinion of Underworld, it will always hold a special place in my

wannabe-Camden-rocker heart. So much so when I saw Starcrawler were playing I knew I had to go, if only to see what a gig night was like there. Walking in, my sober self unjustifiably felt the same thrill getting past security as I normally do when they fail to notice I'm completely inebriated. The support, Pretty Sick, were drawing out some doom-inspired punk songs, with singer Sabrina Fuentes rasping over them in her New York twang. They were actually pretty sick, seemingly holding some good core grunge principles to heart while incorporating an indie twist in their guitar line. The anticipation grew after Pretty Sick finished, a rising hubbub in the air as the crowd mentally, physically and emotionally prepared for the incoming onslaught.

Eventually, with

anticipation at a high, the headliner appeared, one by one as first drums then bass, guitar and finally vocals built up to their first song 'Home Alone'. Starcrawler then kicked into one of their first releases, 'Used to Know', off their first EP which went on to garner them plenty of attention. The riff-driven, catchy tune soon had a pit going while singer Arrow de Wilde (real name) literally pranced about above us, stretching and rolling across the stage. A few songs later and guitarist Henri Cash's cheesy grins emanated across the room as he strutted his stuff wearing a white cowboy suit covered in glittery roses and ants. This was a nod to their other first song 'Ants' which they then rushed into, de Wilde capturing our attention while performing as she first strangled herself with the



Guitarist Henri Cash and singer Arrow de Wilde give it their all // Emily Freeman

mic cable before making obscene gestures with the mic itself. However, the majority of the songs throughout the set seemed to be lacking, despite the energy from the band and crowd. Their punk energy and style didn't quite match up with the music, with lots of their similar pop-punk tracks making the set feel bunched into one

unenthusiastic song. This was evident with songs like 'Hollywood Ending' and 'Tank Top', although notable songs that came across incredibly well live included 'Lizzy', 'She Gets Around' and the Marc Bolan-inspired riffage in 'Pussy Tower'. Starcrawler even treated us to a rendition of their cover of Ramones' 'Pet Sematary', as

featured in the credits of the latest remake of the Stephen King classic. Finishing up the set, 'Train' built up the energy again to throw the crowd into a frenzy, before new hit 'Bet My Brains' closed up the show. Overall, I left not feeling bowled over, but I definitely hadn't wasted my time creeping back to Underworld again.

MUSIC

music.felix@imperial.ac.uk

‘Used to Be Lonely’ is keeping me company

MUSIC

Guthrie Ruby

Music Editor

This summer Whitney released their second album – *Forever Turned Around*. A beautifully intimate project focusing on change in personal relationships. It’s definitely an album for the summer, but I believe *Forever Turned Around* is just as great at warming the spirit in the cold winter months. It’s the musical equivalent of mulled cider. For now, I’m just going to ramble about my favourite track on the album – “Used to be Lonely” – because of its interesting use of lyrical and compositional storytelling.

The lyrics very briefly

touch on well-known love song tropes. When I say ‘very briefly’ I’m not being hyperbolic, eight lines in two verses and only four different words in the chorus (you should be able to figure them out). The few words chosen give light to the ideas of finally understanding love and having a partner in your corner.

When long days knock you down

When cold winds turn me round

Take me out in to the night

Cause the only way to spend our time

Used to be lonely

“It’s the musical equivalent of mulled cider.”

Lonely

On paper the lyrics are somewhat depressing, yearning for love. To further twist expectations, the initial chord progression gives the impression of a desperately sad song. However, this is no sad tale of love loss but rather that of love gain.

Because we’re in the past tense we know that the lyrics are describing the transition into something better. So, the focus on feeling alone doesn’t lower the mood horrifically. This, combined with a counter narration using melody and instrumentation flips the feeling of the song on its head.

Whitney are fantastic at using an ensemble of guitars, percussion and a side serving of brass to give you that dewy-gooey-goodness country songs are known



Are you even country if you’re not wearing blue jeans in a truck? // *Secretly Canadian*

for. As the layers of softly played instruments partner-up, a warm fuzzy feeling begins to fill your chest. It’s the growing of new love from the ashes. It’s musical context and intelligent storytelling. Four words in a chorus is all it’s taken Whitney

to capture a moment of joyous entanglement. A celebration of a new era in a life by acknowledging the previous one.

The music video helps reinforce these themes of transition from being alone to being in a relationship. Also, it’s a really

cute video so you should definitely check it out.

There’s plenty more months to go until the dark blanket of winter lets up, and with albums like this by my side hopefully getting through it will be easier.

Two new tunes for you

MUSIC

Life to Me

Artist: The Pendletons
Label: Bastard Jazz
For Fans Of: Ohio Players, Janelle Monae, Rick James, Chic. *4 minutes*

Miles Gulliford

Music Editor

Last month LA based Funk group The Pendletons released their debut LP: *2 Steps Away*. A delightful blend of tight grooves, thick bass and slick 70’s-style horn sections. The record as a whole draws heavily on its funk and disco influences, with a distinctly vintage compositional style, still taking advantage of the possibilities of modern production, making it

well worth a listen for any fans of the genre.

A stand out introduction to the group is track ‘Life to Me’, a slow burner with lyrics on love and liberation. A sonorous bass groove oozes at the heart of this track, locking in tightly with punctuative drums to guarantee some head bobbing. Buoyant analogue synth chords and Chic-esque guitar chops flesh out the rhythm section, adding a little shimmer to the affair, classic funk.

Atop this musical lazy river, understated vocals and a collection of sparkling, delay-soaked synths take turns exploring the groove, adding lyrical and sonic sweetness to this sticky track.

MUSIC

Priceless

Artist: LJ
Label: Independent
For Fans Of: Chris Brown, Craig David, The Weeknd. *3 minutes*

‘Priceless’ is the debut track from Liam Joshua Eede or LJ. The Northampton based singer lists influences including Craig David and Chris Brown, this comes through loud and clear on the hook of ‘Priceless’, where LJ delivers an intoxicated, droning vocal melody over a notably perky beat, that practically teleports the listener to somewhere dark, booze drenched and late.

LJ evokes the indescribable and undefinable feelings of love one can feel another, setting his infatuation against the

banal materialism so often evoked on club tracks. Admittedly, the lyrics do not always hit home with power, ‘Priceless’ is not a love song for the ages, but the vocal melody LJ delivers adds well to the track’s laid back, danceable vibe, with lyrics perhaps remaining secondary.

‘Priceless’ beat revolves around an impossibly catchy chord progression delivered on slippery marimba and spacey synths, working together to weave a psychedelic, tropical pallet of pure ear candy. Underneath this, bass, kicks and snares are woven tastefully, never obscuring LJ’s delivery and never failing to get the listener moving. LJ’s vocals come of a little overproduced at times, compressed heavily and



2 Steps away // *Wikimedia*

occasionally chorus and flange, a rawer tone would be far more listenable.

Overall ‘Priceless’ is an impressive debut, easily holding its own against high rotation club tracks,

demanding a listen, and a place on your pre-drinks playlist.



BETTER INGREDIENTS.
BETTER PIZZA.

STUDENT

ALERT



**50% OFF
ORDERS***

USE CODE ICL50

ORDER AT PAPAJOHNS.CO.UK OR VIA THE APP

*Terms apply. 50% off full menu price. Code valid in Papa John's Acton, Fulham and Maida Vale stores only. Not available in conjunction with any other offers or discounts. Offer can be withdrawn without notice. Offer subject to change at any time. Offer valid until 30.06.20

FILM

film.felix@imperial.ac.uk

The All-Nighter Film List for December

Five stellar films to enjoy back to back to back to back to back once your assignments are done!

FILM

Jameel Sardharwalla
ICU Cinema Publicity Officer

With the end of term looming I'm sure many of you are feeling a mix of fatigue, anxiety, and excitement; so what better to re-energise you for these last few weeks than an all-nighter of films?

ZOMBIELAND: DOUBLE TAP (19:00)

It's been an incredible 10 years since the first film graced the screens but now they're back. The once unknown cast of newbies and 'freshers' have become superstar sensations. With Woody Harrelson, Jesse Eisenberg, Emma Stone and Abigail Breslin reprising their roles in this sequel, this fun zombie-slaying screenplay is the perfect

start.

JOKER (21:45)

For those of you yet to experience the tension and thrill of Todd Phillips' origin story of the famous batman villain, the second film on the list is well worth the experience. Packed with the adrenaline of an action film, this will keep your eyes locked on the screen throughout as you explore the story of how Arthur Fleck came

'face-to-face' with his alter-ego, "The Joker".

JUDY (23:55)

The third film's change in stance from action and horror won't let you down. 'Bridget Jones' actress Renée Zellweger plays the titular character of the legendary Judy Garland, who 30 years after playing the iconic character of Dorothy in 'The Wizard of Oz' comes to London to perform in sold-out

shows. This film will pull on the heartstrings and warm you to the character of Judy – and her captivating account of her final London concert.

DR. SLEEP (02:15)

The fourth film heads back to another sequel, this one firmly along the path of horror. An adrenaline boost for those who need it at 2 in the morning (and forgot to get coffee in time), this film sees the character Danny Torrance from 'The Shining' all grown up – and as a struggling alcoholic. He meets a young girl, Abra Stone, whose 'Shining' powers are even more powerful than his. Together, they try and stop a cult from feeding off their abilities. This is one film you can't miss; the sequel to Stanley Kubrick's tour-de-force is sure to be a thriller...

THE PEANUT BUTTER FALCON (04:45)



When you realise ICU are doing a film night // Niko Tavernise

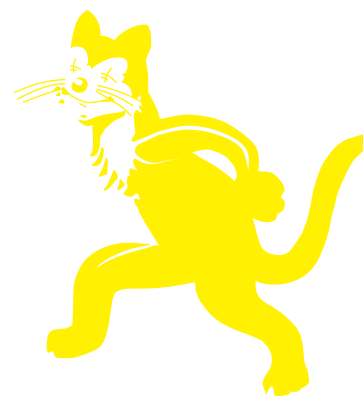
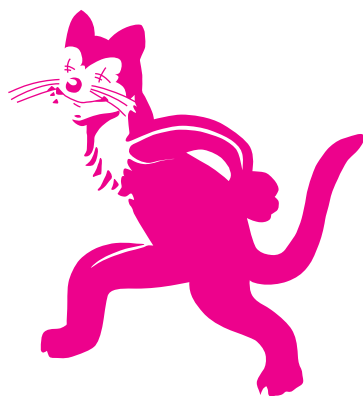
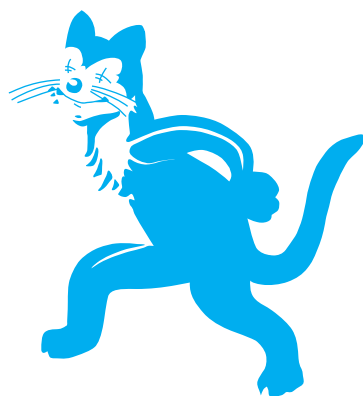
The finale, watched through inevitably slightly-bleary eyes, once again takes a turn for the more light-hearted as we explore the relationship between a boy so desperate to become a professional wrestler that he runs away from his nursing home, and an outlaw, played by Shia LeBeouf, who befriends the boy and becomes his coach. This film is not worth missing out on – especially if you've made it that far!

Enjoy the sound of these films? Then you're in luck! ICU Cinema is running a Winter All-Nighter featuring all five on Tuesday 10th December in the Union Concert Hall. Tickets can be bought online (or on the door for a bit more) for the whole event or for individual films, as well as all-you-can-eat food and drinks. In the words of Shia: 'Just Do It!', and buy your tickets now at <https://www.imperialcinema.co.uk>



Trying to get a peek of the IC Cinema screening // Warner Bros.

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

TELEVISION

tv.felix@imperial.ac.uk

Natasha Lyonne stuns as Nadia Vulvokov in *Russian Doll* // Netflix

Binge of the Week: Russian Doll

A fascinating tale based on the classic "Groundhog Day" premise, featuring time loops, bug-fixing, comedic horrors, and facing fears

TELEVISION

SEASON 1



Creator: Natasha Lyonne, Leslye Headland, Amy Poehler **Starring:** Natasha Lyonne

Jia Qi Tan

TV Editor

Netflix's *Russian Doll* follows Nadia Vulvokov (played by Natasha Lyonne), a software developer who finds herself stuck in a time loop where she repeatedly dies and mysteriously relives her 36th birthday party. Nadia has to fix the "bug" in the code that is her life in order to escape this inevitable crash. On her quest for an answer, she finds her polar-opposite, Alan Zaveri (played by

Charlie Barnett), who experiences the same thing. Together, they must face their deepest fears and help each other out to get out of this sticky situation.

The highlight of the show is none other than Natasha Lyonne. The entire series is framed around Nadia, although it's not labeled as a one-woman show, it's honestly not far from it. Lyonne's spectacular acting brings the character of Nadia to life, and part of that can be attributed to how closely her personal life resembles that of Nadia's. On the outside, like Nadia, she grows up in an estranged Jewish family in New York and suffers health problems due to her alcohol and substance abuse problems. But what is really impressive is her poignant delivery and how she conveys Nadia's emotional turmoil under-

neath her carefree, hippy facade. Lyonne's portrayal of Nadia, the strikingly idiosyncratic redhead has undoubtedly created yet another New York icon. This is not to undermine the supporting characters of the show who are some of the most well-written that I have seen.

The plot is yet another highlight for me and is essentially what bridges the genres of drama, comedy, mystery, and horror. Upon my first watch, I felt the plot started off rather slow with coincidences unreasonably stretched. It was the mystery elements that I didn't quite get the first time around, but overall I still found it enjoyable. It's the rewatch that made me appreciate *Russian Doll* on another level. There's a layer of depth to the series that I wasn't able to grasp when I first watched it. Every scene is crafted with such attention

to detail, serving as a way for character development or to foreshadow what's to come eventually. In this show, not a single second is wasted.

Something that helps explain the mechanics of time traveling in this particular case is Nadia's programming analogy (which coincidentally fits her character). If her life were a program, then being stuck in this unending loop is the crash, and the way out is to find and fix the bug of her life. Then she and Alan would "rewrite" their first interaction, run a unit test, "see if the bug is triggered," and if it is, they would both die and go back to the deli where it all started. This explains why in the subsequent episodes certain characters disappear into thin air - it's their way to determine if the bug is triggered, by stripping down

the program to its absolute core. Every movie or TV show that deals with time-traveling always finds itself in need of a scene of explanation, and I thought *Russian Doll*'s metaphor to achieve this is pretty neat.

As a cinematography nerd, I want to applaud the cinematographer Chris Teague for *Russian Doll*'s unique visual language that perfectly ties in the cyclical time elements with the New York setting. It blends subtlety and vibrancy that brings out the retro, depressing city vibes with Teague's creative use of neon lights in the dark. Different filters are used with exceptional precision to convey the mood and tone of each scene or character, but Teague manages to maintain a cohesive style throughout the show. The flashback scenes are shot with older lenses and

feature a warmer colour palette. Part of what distinguishes between a horror and a comedic scene is the cinematography. Not to mention how perfect every detail is in the classic reset scene where Nadia finds herself resurrected in the bathroom of Maxine's (played by Greta Lee) loft, accompanied by Harry Nilsson's "Gotta Get Up." The final scene concludes the series so satisfyingly and a huge part of it can be attributed to the cinematography.

Russian Doll is not only full of unexpected twists and turns but also important overarching themes that echo throughout the series told through a beautiful, gripping story. I am delighted to hear that the show has been renewed for a second season, and I cannot wait to see where the writers take this show.

Union Page



Disability History Month

Grab your tickets for our Disability History Month special edition of Comedy Night on Monday 2 December, 20:00-23:00. Witness some of the UK's finest stand-up comedians work their magic on stage and tell their experiences of living with a disability through comedy.

Join us on Tuesday 3 December, 18:00-19:30, for a screening of Defiant Lives, a film which tells the story of the rise and fight of the disability rights movement in the United States, Britain and Australia.

Buy your tickets for Comedy Night and book your place for the film screening at imperialcollegeunion.org/DHM.

shop

100% organic fairtrade cotton

premium fabric

New Imperial Womenswear

Different colours and designs available now, online and in store



Special Union Council Meeting - Halls Rent

The Union is currently negotiating the price of rent in halls with the College, and we have a real opportunity to shape what the new model could like. If you want your voice heard about this, join us at Union Council on Tuesday 3 December, 19:00-20:00, in the Read Lecture Theatre in the Sherfield Building, where we'll be debating and deciding on the best way to move forward.

The plan is for the President and Deputy President (Welfare) to present the information they have and invite questions and contributions from the floor, and then for elected student reps from across the College to take a vote on the best option.

Please join us and make your voice heard! Let us know you will be attending the meeting at imperialcollegeunion.org/halls-rent.

Make great memories



COMEDY night

Disability History Month Edition

SCOPE

= Equality for
disabled people

29 November, Friday

Thank Goodness It's Friday
Metric | 20:00 - 02:00

02 December, Monday

**Comedy Night: Disability
History Month Edition**
The Union Bar | 20:00-21:00

03 December, Tuesday

Super Quiz
FiveSixEight | 20:00-22:00

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

04 December, Wednesday

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

05 December, Thursday

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

06 December, Friday

Thank Goodness It's Friday
Metric | 20:00 - 02:00

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



Art Club



GAMES

games.felix@imperial.ac.uk

A Guide to Video Game Collecting in 2019

Games Editor Freddie Ugo gives his top tips on how to successfully collect some games in 2019

GAMES

Freddie Ugo
Games Editor

As an avid fan of all things gaming, I love to look over at my wall and see stacks of games lining the shelves. From the Atari 2600 to the Nintendo Switch, I love them all; unfortunately, I have a student budget which does not come close to fuelling my need for games. Over the years, though, I have learned a multitude of ways of getting as many games, consoles, and peripherals as possible with the limited cash in my wallet. This week I will go over all of these tips and tricks – as well as which consoles I recommend you start collecting for, right now!

The first thing you need to do before getting into collecting is to decide what you want to collect. I like to collect physical games, especially for retro consoles, ‘complete in box’ (which means you have the game, box, and instruction manual all together). But that isn’t the only thing you can collect. Many people I know enjoy collecting consoles. The GameBoy Advance, for example, has more colours than I can reasonably list here. The 3DS has a plethora of minor variations (2DS, new 3DS and so on) that could cover your entire bookcase. Furthermore, you could collect peripherals! Who remembers the tennis rackets for the Wii or, going even further back, the GameBoy Colour printer?! If you want to collect games you will also need the consoles and peripherals to play that game – but

beyond that the choice is yours.

There are so many different consoles nowadays. If you only include the big three (XBOX, PlayStation, and Nintendo), and only include home consoles, there are 14 unique consoles you could purchase. Damn. Luckily, if you are already into

“... your newly-purchased near-mint copy of Mega Man 2 could arrive as a crumpled mess”

gaming you likely have at least one of these, so you already know where to start! You might as well start by buying games for a console you already own – then you don’t have to dump a load of cash on an entirely new console.

If you are considering purchasing a new console, I have a few recommendations. The PS3 is insanely cheap at the moment, along with its game library. It has been officially dead for a few years now, but the upcoming PS5 releasing in 2020 is rumoured to be backwards compatible with PS3 games. This will result in a big price hike for PS3 games when the PS5 releases, so now is the time to start collecting! Another option is the NES (Nintendo Entertainment System), which was Nintendo’s first true home console (ignoring the colour-tv game from the 70s). NES games are becoming surprisingly affordable recently, but are likely to



An old console ready to be collected // Pixabay

go up in price within a few years as they become rarer and rarer. Additionally, the homebrew scene for NES games is booming at the moment, with many different types of games easily available to purchase online. Together, these two things mean it’s the perfect time to corner the NES market.

Once we have decided what we are collecting for, we then need to know where we can find them. There are many options online. For new games, you can simply go to Amazon and order them new, but there are also plenty of options for older games. The obvious choice is eBay, a go-to simply because it has such a huge variety of games available, as well as having much more reliable sellers. Facebook marketplace can be a good resource too, and you can often find people listing bundles of games for WAY cheaper than they are worth as they’re unaware of the true value.

However, the issue with purchasing online is twofold. Firstly, it is very easy to sell fake games. As the value of retro games climbs, it attracts con-artists – scammers are getting very good at producing labels that look almost identical to the true products. I have fallen prey to this before, purchasing Pokémon Yellow on eBay a couple of years back only to receive it in a fake box with a fake cartridge. Secondly, pur-

“However, the issue with purchasing online is twofold. Firstly, it is very easy to sell fake games”

chasing older games that used cardboard boxes is risky – if the seller does not package it properly, the box can get damaged in transit, meaning your newly-purchased near-mint copy of Mega Man 2 could arrive as a crumpled mess. It hurts my heart to even type this.

Luckily, purchasing games in person is also an option. Granted, searching in-person does not offer the same seemingly unlimited range and variety that shopping online provides, but the ability to check out the game and make sure it is legit and undamaged gives any buyer better ‘peace of mind’.

For common games, especially those after the 5th generation (the PS1 and N64 era), Computer Exchange (CeX) is your best friend. CeX is a chain of shops specialising in used video games and electronics. There is bound to be one within walking distance of you, with as many copies of

Wii Sports as you could ever need. CeX has very fair prices, and they make sure all of their products are in working condition – with a warranty. The only issue with CeX is that they are lacking in a) rare games, and b) older, retro games.

For most people, then, CeX is your best friend – but if you’re like me and enjoy diving into the rich history of video games, you’ll want to know where to get the rare stuff. For this, there are many options. Charity shops are always a good shout. Although not commonly found, sometimes you can come across something rare for significantly less than it’s worth. I’m talking Super Smash Bros. Melee for £1. This is because, for example, many parents will simply give away their children’s games when they move out of the house. Equally, car boot sales are an excellent choice. A few years ago you could find bucketfuls of rare

GAMES

games.felix@imperial.ac.uk

pickups. Recently people are becoming a lot more savvy about the worth of their old games, and it is becoming increasingly difficult to find bargains at a market or car boot sale, but you can still get lucky. If you are looking for insane deals, stick to charity shops or eBay and hope that fortune strikes.

But if you just want to find something specific,

“At the last Comic-con I managed to snag almost every Spyro game from a single seller”

that rare gem you’ve spent years searching for, I recommend going to a convention! Retro gaming conventions are great, but not that common. You will, however, find some relevant stalls in any gaming convention you go to. Insomnia, the UK’s biggest gaming convention, and Comic-con are my personal favourites. You’ll find lots of people

selling literal crates of old games – at the last Comic-con I managed to snag almost every Spyro game from a single seller (keep your eye out for an upcoming article about them here in Felix Games!) Also, conventions are quite possibly the best environment to be in for an avid game collector. You’ll meet many like-minded people

that you can spark a conversation with, and maybe even make some friends you can trade with in the future.

Hopefully you have a better idea of how to get started on your game collecting journey! Last points: make sure you know what your collecting for! If it’s retro games, then buy in-person and ideally from a convention

or a charity shop. If it’s newer titles, then buying online or in a CeX shop is your best option. Just remember to have fun with it, and don’t go overboard – or you’ll never get through that dreaded backlog.

Digimon Story: Cyber Sleuth

Games Writer Conor Winzar relives his youth with a nostalgic dose of Digimon, new to the Switch.

GAMES

Conor Winzar

Games Writer

Now I don’t know about you, but Digimon was the bread and butter of my childhood, with its classic animation style and collection of surprisingly dark moments. I’m still traumatised by their equivalent of Sean Bean, Leomon, who seemingly could not go an episode without falling.

So you can imagine that for me, it was a very pleasant surprise when I heard that Digimon Story: Cyber Sleuth and the follow-up game Hacker’s Memories were coming to the Switch in a combined package. Fortunately, I managed to get a press copy courtesy of Namco Bandai – which is timely, given that it’s the same week as Cyber Monday. I had previously played Hacker’s Memories on the PS4, and can say that it has carried over beautifully to the Switch in numerous ways.

First things first, the biggest positive: my favourite thing about this port is the ability to play

the game portably without sacrificing graphical quality. It is an absolute wonder, especially given the game’s long completion time. Previously, I felt unable to fully invest the time needed to finish off the PS4 version – which doesn’t apply now that I have the chance to take it on the road. There are occasional framerate drops when the Switch is undocked, but this minor setback is fully worth the flexibility and graphic fidelity.

The game itself revolves around the havoc that is being unleashed in the digital world known as EDEN. Our protagonists in each game – highly colourful in Cyber Sleuth and deliberately bland in Hacker’s Memories – attempt to unfurl the mysteries behind various unexplained hackings, along with strange

“... you get a kick of nostalgia from seeing your favourite Digimon...”



The absolute madman, Diaboromon // Wikimedia

physical phenomena, as the digital world seems to be leaking into the real world. We follow the protagonists as they endeavour to discover the cause. In Cyber Sleuth you are part of a detective agency working to figure out what’s going on, whilst in Hacker’s Memory you play as a member of a group of hackers.

In terms of mechanics, the battle system utilises a classic ‘rock-paper-scissors’ style effectiveness system – vaccine is effective against virus, virus is effective against data, and so on – with an additional

layer of ‘typing’ such as Dark, Light, Earth, or Electric. These familiar mechanics are combined with attack cut scenes that are visually gorgeous – especially as you get a kick of nostalgia from seeing your favourite Digimon from childhood rendered in fantastic 3D detail. The ‘digivolving’ system has a magnificent amount of depth that encourages the player to evolve and devolve numerous times in order to get the strongest Digimon possible. All the while, you are also encountering and using your favourite com-

panions throughout the adventure – a particular favourite of mine being Diaboromon (the one that was featured in Digimon The Movie and almost nuked a country!)

I strongly enjoyed the game’s music, but its implementation has flaws – a notable downside is that some overused tracks can get a bit repetitive at times, such as the standard battle theme. However, that’s balanced by the outside battle music, which is refreshing and alternating as you continue through the game.

All in all, the port is

great and I highly recommend it. Despite a few minor downsides, such as the framerate drops and a few repetitive tracks, the game encompasses a sense of reliving of childhood, and delving further into the digital world.

TECH

science.felix@imperial.ac.uk

Augmented Reality & Intelligence Automation

The Perfect Combination

TECH

Sudarshan Sreeram

Tech Writer

Everyone's heard of artificial intelligence, more commonly known as AI, but have you heard of intelligence augmentation, or IA? No, it's not an illegal substance that alters your thinking capabilities to make you highly intelligent; though, it does come close!

IA is closely linked with AI, but it takes a backseat in making decisions for you; to put it simply, with IA, you're at the wheel. Intelligence augmentation systems analyse information and present it for your consideration. And, no, it's not capable of 'taking over the world.' To think of it, IA plays more of an assistant-like role, focused on helping humans rather than automating tasks to effectively replace human intervention.

Shifting to augmented reality, or AR, it made a surprising comeback over

a year ago and looks to be a way we interact with technology as we head into the future. Some may confuse virtual reality with augmented reality; virtual reality, commonly known as VR, places you in virtually created environments where you interact with virtual entities. In contrary, as you might have already seen through your

"IA plays more of an assistant like role, focused on helping humans"

smartphones, AR adds, (rather projects overlays of) virtual elements to the actual, physical world around you. Need an example of how this would pan out in the near future? Look no further than the holographic projections used by Iron Man to create his suit,

as well as additions to it. Even Peter Parker, for that matter, used the same approach for creating his suit in the recent "Spider-man: Far From Home". The only exception is that instead of using holograms as an interface, AR headsets or smartphones are used. Soon, in the next few years, the technology behind AR may make its way into our normal, everyday glasses.

Now, combine the two, and think of the amazing, revolutionary product formed, at least in theory or imagination. Well, honestly, I think it's the perfect combination in terms of its wide array of practical use cases. It's no wonder why the industry is shifting towards augmented reality oriented technologies, especially on the manufacturing and business side of things. From Microsoft's HoloLens 2 and Google's Glass Enterprise Edition 2 to Apple's rumoured, upcoming AR glasses, it's easy to observe a pattern: companies are creating more personal devices. What started with laptops



AR Preview Of Apple Park// Patrick Schneider - Unsplash

and smartphones is now slowly moving on to our wrists in the form of fitness trackers and smart-watches. Looks like the step after that is integrating the same technology found in smartphones as well as smartwatches into our glasses!

Need another example? Again, coming back to Iron Man and his infamous suit of armour, think of the heads up display he uses to analyse and gain a better understanding of his environment as well as on the state of his suit. Alternatively, you could consider the glasses worn by secret agents in the movie "Kingsman: Secret Service" and "Kingsman: Golden circle," which serve to provide a means of communicating with other agents and access to essential information. In general, the notion of combining AR and IA has existed in the context of films, video games, books, and series for a long time. Heads up displays are especially used a lot in games, where information regarding a player's environment and statistics are vital to completing the game.

Imagine completing Minecraft without health and hunger bars or even playing a game of competitive CS:GO without a mini-map. Games such as Pokemon Go and Minecraft Earth have shown the potential of AR in creating a interactive, immersive real-world experience; however, the software, or hardware for that matter, isn't optimal for a seamless user experience when considering it as a general, standalone platform.

"A future where we're connected without looking down at our smartphones"

Currently, Google's and Microsoft's implementations of this set of devices, as previously mentioned, are mainly geared towards improving productivity in the business and manu-

facturing segments. This could be thought of as a 'testing ground' to tune the product. However, its use in the business space is not to deny that it can't be used from a commercial standpoint; rather, it's a matter of picking the right time. Building third-party support is key for the sustenance and popularity of this product in the commercial space. In addition, the quality of the product and the services it offers makes or breaks the deal for consumers.

It's often amazing to visualise a future where we would be constantly connected with the world without having to look down at our smartphones. Imagine the most general use cases where virtual arrows help guide your way to a destination or even show you health statistics, time, weather, and even notifications on a virtual sidebar! It's great to witness the actual development of technology that are commonplace in fictional environments. More than that, it's truly a great and exciting time for the tech space.



HoloLens 2 // Microsoft

Tech Headlines

Your Weekly Tech News In Short Snippets

TECH

Sudarshan Sreeram

Tech Writer

Cybertruck Unveil

Elon Musk announced Tesla's new electric pickup truck - Cybertruck. The physical appearance of the truck sure caught everyone off guard. With a low-poly inspired futuristic aesthetic, this truck challenges the conventional design of modern vehicles in general, let alone pickup trucks. While some may regard it as 'ugly', others view it as a fresh approach and ultimately a brave move by the company to signal a new design trend throughout the industry, just like Apple did in 2016 by ditching the headphone jack.

The reason for the vehicle's appearance is

because the body panels are made of Ultra-Hard 30X Cold Rolled stainless-steel, which cannot be stamped. Tesla claims that the body is "made for ultimate durability and passenger protection." Tesla's design chief demonstrated its impact resistance by swinging at

"Made for ultimate durability and passenger protection"

it with a sledgehammer, which did not leave a mark on the panel. The windows on the vehicle, according to Tesla, are made of Ultra-strong glass, dubbed "Tesla Armour Glass." However, the first few layers of the glass shattered when

thrown at with heavy metal balls during the presentation.

The higher-end model, with a triple motor setup, has a 0-60 MPH time of under 2.9 seconds, which is absolutely ridiculous for such a heavy pickup truck, rather cybertruck! More than improving performance, the cybertruck aims to be the most practical Tesla. Already in high demand with more than 200,000 reservations, this vehicle is expected to reach markets by the end of 2022.

VR Headsets On Cows

Our recent past expected a near future of flying cars and personal robot assistants, yet here we are, sticking virtual reality headsets on cows. Fun aside, the headsets are being used on cows in the Moscow region of Russia to simulate a "calming summer



Cybertruck // Tesla

environment." This reportedly has resulted in decreased anxiety levels and increased the overall emotional mood. Interestingly, this experiment was not conducted by a university, but rather by a news site for the Russian diary industry. Overall, their aim is to test whether this method contributes positively to the yield.

Facebook Acquires Beat Games

The developer behind the highly popular game Beat Saber, was acquired by Facebook and eventually grouped under Facebook's Oculus Studios as an independently operating developer, similar to WhatsApp. With more than one million copies sold worldwide, the rhythm game provides an incredibly satisfying experience as you smash through blocks in tune with the music. Following the acquisition, the developer reported that the game will continue to be supported on all platforms

and that their 360 degree levels are still on track for a December release.

Android's Ambient Mode

Google is set to launch Ambient Mode, which effectively converts your android smartphone into a smart display when it's charging. The ambient screen displays a set of quick actions that help you accomplish most daily tasks through a single tap. Alternatively, the screen can be used as a digital photo frame as well as a control panel for your smart-home devices. Google assistant's product manager stated that "It's fundamentally about moving from an app-based way of doing things to an intent-based way of doing things." This represents a new shift in how general, everyday tasks are tackled through your android smartphones. He also stated that since it's closely integrated with the android operating system, it's not a standalone

feature. This "proactive experience" is one of many that are expected to roll out in the future.

NASA's ISS Robot Trio: "Bumble", "Honey", & "Queen"

The International Space Station receives a new crew member - Honey, a free-floating autonomous robot. Honey and its slightly older companion Bumble are "Astrobee robots", which are aimed at helping ISS astronauts manage daily life tasks and activities. If this sounds similar, you're not wrong. The movie "Interstellar" depicts robots helping astronauts as well, albeit in a highly futuristic and advanced way. Another Astrobee robot, named "Queen," is set to be activated soon. Apart from helping astronauts, these robots are tasked with the immense responsibility of maintaining the station. The robots truly mark an interesting step towards human-robot collaboration.



VR Headsets On Cows // Moscow Ministry Of Agriculture And Food

SCIENCE

science.felix@imperial.ac.uk

The Power of Bugs in Today's Climate Crisis

We all know the climate crisis is not one to be ignored for many reasons: increased natural disasters, extinction of wild animals, rising sea levels, food shortages and many more – but microorganisms may be the one to watch

SCIENCE

Mery Shahin

Science Writer

From daily news features to public transport disruptions and political manifestos, climate change and all its consequences have finally become impossible to ignore. As temperatures rise, our relationship with nature will have to begrudgingly adjust. This adjustment will certainly involve the weathering of unprecedented natural disasters – droughts, wildfires, pollution, food shortages and sinking cities. But, just as importantly, our interaction with other living organisms will also undergo a substantial transformation.

We all hear the same stories about wild animals on the verge of extinction, declining numbers of bees, forests being demolished to accommodate capitalist greed and crop failure. Less widely known is what happens to bugs (or rather microorganisms) in a climate crisis – so what goes on?

Humans and microbes have co-evolved over hundreds of thousands of years of a relatively steady climate state. There are bacteria and viruses, such as the gut microbiome, that we happily co-exist with; and there are microorganisms that wreak havoc on our bodies and immune system, causing dangerous disease and sometimes death. Our relationship with the latter type of microorganisms is often described as an arms race, with humans occasionally gaining the upper hand over a virus or a bacterium with the serendipitous discovery

of a new drug or vaccine. However, with antibiotic resistance on the rise, and the compounded effects of climate change, it looks like we may be ceding our advantage. With global warming comes change; both old and new microorganisms can re-surface, re-locate or even re-evolve into more dangerous forms.

Melting ice caps and

“With antibiotic resistance on the rise, and the compounded effects of climate change, it looks like we may be ceding our advantage”

permafrost soil, apart from releasing greenhouse gases into the atmosphere and steadily raising the sea levels, also represent frozen layers of infectious history. Preserved in the Arctic ice are a multitude of unique microbes that we have never been exposed to; not only as a generation, but as an entire species. During the 2016 summer heatwave, thawing permafrost in the Arctic Circle uncovered the carcass of a reindeer that had died from an anthrax infection over 75 years ago. The anthrax from the corpse spread into the nearby water and soil, infecting more than 2000 reindeer and even killing a 12-year-old boy. Scientists have also discovered remnants of the 1918 Spanish flu virus (which,

in its duration, claimed more lives than World War I) in a mass grave in Alaska. Moreover, it is suspected that smallpox and bubonic plague are buried in Siberia, raising the frightening possibility that these 18th and 19th century diseases, once thought to be extinct, can re-surface and re-infect the human species.

In a stable climate, the endemic zones of certain microorganism-spread diseases are geographically well demarcated. Vector-borne viruses, such as dengue, yellow fever and zika, are restricted to tropical areas where their mosquito carriers thrive – but as temperatures rise and the tropics expand, these can rapidly conquer new territories. Indeed, yellow fever, originally restricted to the Amazon basin, has now spread through the rainforest and reached Brazil's two

largest cities, São Paulo and Rio de Janeiro, with a 34% case-fatality rate. Mosquitoes spreading zika and dengue are also on the move, with current models forecasting that by 2050 nearly half of the world's population will be at risk of one of these two perilous infections.

Current research is already focused on investigating microorganisms that may resurface using DNA analysis to evaluate their infectious capabilities and antibiotic susceptibilities. Vaccines against mosquito-borne diseases are in the pipeline, with new promising candidates emerging every year. In this arms race, we appear to be one step ahead. But we cannot forget about our bodies, which also contain trillions of microorganisms – on our skin, in the mouth, lungs and the gut, all of which are crucial to our health. At

the present moment, we have evolved a mutually beneficial relationship with these, forming a symbiotic microbiome.

But as the climate changes, this relationship can reinvent itself in unpredictable ways.

In 2015, nearly two-thirds of the global population of the saiga

“Current models forecast that by 2050 nearly half of the world's population will be at risk”

antelope died within just a couple of days, over a large region in central Kazakhstan. The cause of this mass extinction event was revealed to be

a bacterial infection – the bacteria *Pasteurella multocida* typically lives in the saiga's tonsils without causing any harm, but the unprecedented humidity levels and elevated summer temperatures led to the bacteria's rapid proliferation and its invasion of the bloodstream and vital organs, killing the antelopes. As Ed Yong wrote in *The Atlantic*: “Climate is the trigger. *Pasteurella* is the bullet.”

As the planet is slowly warming up, we are leaving behind the environment that supported our evolution and survival; the environment that has maintained the precarious status quo between us and microbes. With rising temperatures come new evolutionary pressures, and microorganisms are notoriously better at adapting than us.

So who will win?



The Saiga antelope; two thirds of the global population died from a disease altered by climate change // Yakov Fedorov

SCIENCE

science.felix@imperial.ac.uk

Reimagined, Redesigned, and Revamped

It makes up part of the scenery at Imperial, sitting just a right turn out of the South Kensington tube station on Exhibition Road, but the Science Museum's latest gallery is more than just background viewing

SCIENCE

Christine Parry
Science Editor

Earlier this month, the Science Museum unveiled their latest exhibition, 'Medicine: the Wellcome Collection', a gallery that, put simply, showcases the history of medicine, taking up 3000 square metres of space, spanning over 500 years of history right up to the present day, and presenting with a global reach. More accurately, though, it is a collection of stories that spotlight both the people practising medicine or driving forwards its advancement, and those on the receiving end who have profound experiences to share.

Science Museum veterans might recall the previous medical history gallery which was displayed in specific time-bound periods, such as medicine in the war era. This new gallery takes the best of the old but is completely reimagined, redesigned, and revamped with items from the world's most extensive medical archive: the Wellcome collection.

Reimagined

"We wanted to take a new approach." Katie Baumer, Curator of Medicine at the Science Museum, explains the Museum's masterplan. "We've gone for a more thematic exploration of our collection and the history of medicine... So: our exploration of the body, our development of treatments, and looking from a community scale

of how we deal with medicine as a society."

This thematic presentation is powerful, with items like an alchemist's glassware for boiling up batches of urine placed in the same cabinet as a modern-day toxicologist's autosampler, used to run blood and urine samples on for the detection of drugs. Advertisements for cigarettes over the last century are displayed side-by-side, showing changes in public perception of the health risks of smoking.

The chosen themes seem to suit the fast-changing, and arguably, more scientifically complex advances of the recent time period than perhaps a traditional chronological display would, allowing developments in instrumentation for understanding disease or human health to be showcased. There's X-ray crystallography, DNA sequencing, and electroencephalography

(ECGs) – by grouping into subthemes such as 'seeing' or 'measuring', the generalist visitor can understand the technique as an extension of more familiar ways of seeing and measuring. And for those of you who thought physiology dominates medical history, it's gratifying to see the advances in fields like biochemistry, molecular biology, toxicology or analytical chemistry take a bow!

Redesigned

The exhibition is not just redeveloped in space, but also redesigned in expression. This gallery incorporates various interactive and multimedia elements, including a 'battle the virus' game station and a Victorian Pharmacy you can enter and 'shop' round. But for me, the most compelling were the videos and audio tapes of individuals telling their own stories, such as Caroline Presho,

who discovered she had the BRCA 2 gene (which increases her risk of developing breast cancer later in life), and chose to undergo a preventative double mastectomy. Strong stuff – especially when I realised the nearby cabinet displayed a cast of her breasts before the mastectomy.

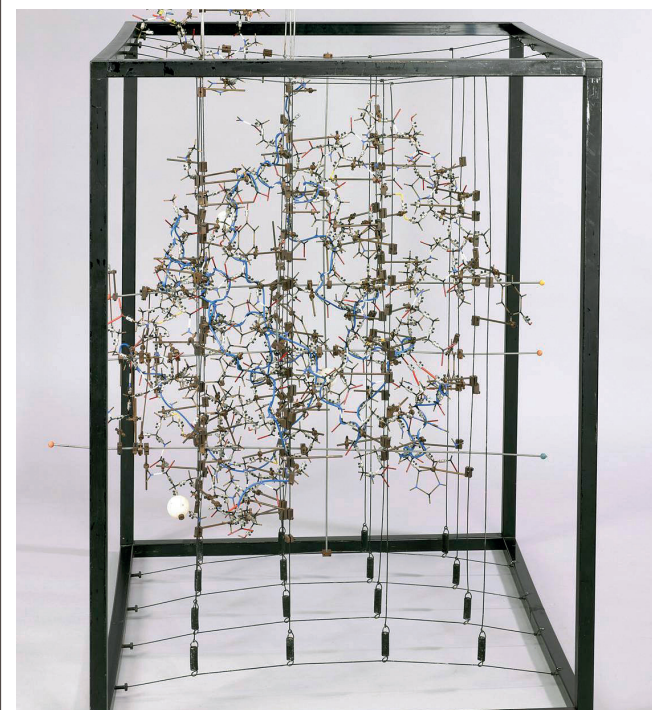
It is really something to experience the exhibition from within pockets of personal stories – and there are many more than Caroline's to hear. In fact, the whole exhibition is connected by the strong sense of community and how we as individuals interact with medicine and healthcare. The emotional journeys we go through in health scares or battles with disease can generate as much hope and fear as a religion inspires, and this sense comes through in many of the stories on offer.

Revamped

The history of medicine has a few staple facts that always get trotted out; the invention of penicillin by Alexander Fleming, the first vaccination for smallpox by Edward Jenner, the discovery of the double helix of DNA by Watson and Crick (and Rosalind Franklin's data, as we now know) – as Baumer calls them, the 'big boys'.

But my favourite part of the exhibition was the wealth of new stories it tells – and stories of women. Those big boys are still there, but they aren't, for once, the focus of their cabinets. Instead, they are joined by a litany of women counterparts.

So, when you visit, you might need to make room



Insulin // Science Museum

in your famous female scientist list, right there, between Marie Curie and Florence Nightingale. Now you can add the two X-ray sisters, Edith and Florence Stones, who made their own way to the frontline in WWI with mobile X-ray machines after being denied entry into the Red Cross on grounds of gender; and Dorothy Hogkins, whose work in X-ray crystallography was key in determining the structure of insulin and advancing diabetes treatment. There's the American Mary Jacobi who disproved the prevailing theory that women's pulses weakened during menstruation. Or Edith Widdowson, who took it upon herself to undergo extreme diet experiments to support the Government's wartime food ration policies.

It was my personal favourite, however, that really struck home; brain specialists Vivian Davey and her husband William Walter, who built the

first autonomous robots modelled on the human brain. To see the description written that way made me hopeful that this generation of children brought to the Science Museum on school trips or family fun days would grow up seeing both men and women they could connect with in their experience of science.

Re-visit

I'm sure the Science Museum is a regular trip for many Imperial students, given its proximity, and of course a few other vital student qualities like being dry, warm, and most importantly, free. But even if it wasn't, I'd highly recommend the next time you come out of the tunnel on Exhibition Road, make a right turn – the Science Museum certainly has.



A weird and wonderful item // Christine Parry

SUSTAINABILITY

sustainability.felix@imperial.ac.uk

General Election 2019: What are the environmental policies and promises of the parties?

SUSTAINABILITY

Xiuchen Xu

Sustainability Editor

The public concern towards environmental issues are at a peak, and this is reflected in the manifestos of political parties, which have a heavier focus on environmental policies than those of previous years.

As manifestos are long and hard to navigate through, I have picked out relevant environmental information from the main parties of Conservatives, Labour, Liberal Democrats, and Green. To keep things concise, I have not included the DUP, SNP, and Plaid Cymru, although they do discuss environmental issues in their manifestos, so please

read about it especially if you have the choice to vote for those parties. The objective of this article is to summarise the environmental policies and promises of the different political parties in a non-biased way. Please do keep in mind that the manifestos aim to appeal to the eco-conscious voters, and whether they actually deliver on their promises is uncertain for sure. It would definitely be great to do further research on the track record of the parties as well as the individual MPs you are voting for. The summary of proposed plans to target climate change are as follows:

Conservatives

Reach Net Zero greenhouse gas emission by 2050 with investment in

clean energy solutions and green infrastructure to reduce carbon emissions and pollution. In the Costing document it is said that there will be £640 million capital spending on Nature for Climate Fund over five-year period.

Support environmentally friendly homes that have low energy bills and line all new streets with trees.

- Moratorium of fracking (a pause rather than a ban). The manifesto stated that the Conservatives “will not support fracking unless the science shows categorically that it can be done safely.”

- Support gas for hydrogen production and nuclear energy, alongside increasing commitment to renewables. Aim for offshore wind industry to reach 40GW by 2030
- Use the UN Climate

Change Summit in Glasgow in 2020 to ask global partners to match the ambition of reaching zero greenhouse gas emission by 2050.

- Set up new international partnerships to tackle

“Lower energy bills by investing £9.2 billion in the energy efficiency of homes, schools and hospitals”

deforestation.

- Establish a new £500 million Blue Planet Fund to help protect our oceans

from plastic pollution, warming sea temperatures and overfishing.

- Extend the Blue Belt programme to preserve the maritime environment and lead diplomatic efforts to protect 30 per cent of the world’s oceans by 2030.

- First Budget will prioritise the environment, with investment in R&D, decarbonisation schemes, electric vehicle infrastructure including a national plug-in network and Gigafactory, clean energy, and flood defences, which will receive a total of £4 billion in new funding.

- Invest £800 million to build the first fully deployed carbon capture storage cluster by the mid-2020s and £500 million to help energy-intensive industries move to low-carbon techniques.

- Help lower energy bills by investing £9.2 billion in the energy efficiency of homes, schools and hospitals.

- Support clean transport to ensure clean air, set strict new laws on air quality, and consult on phasing out the sale of petrol and diesel cars.

Labour

- Green new deal: aiming to achieve the majority of emissions reductions by 2030 while delivering an economy that “serves the interests of the many, not the few”

- kick-start a Green Industrial Revolution that will create one million jobs in the UK to transform our industry, energy, transport, agriculture and our buildings, while restoring nature.

- Create a Sustainable Investment Board to bring together the Chancellor, Business Secretary and Bank of England Governor

to oversee, co-ordinate and bring forward public and private investment. Change investment rule to ensure investment is compatible with environmental targets. £250 billion will directly fund the transition through a Green Transformation Fund dedicated to renewable and low-carbon energy and transport, biodiversity and environmental restoration.

- Build 7,000 new offshore wind turbines, 2,000 onshore turbines, and solar panels spanning the equivalent of 22,000 football pitches.

- Introduce a zero-carbon homes standard for all new homes.

- Introduce a windfall tax on oil companies.

- Increase the funding available for cycling

“kick-start a Green Industrial Revolution that will create one million jobs in the UK”

and walking, bringing railways back into public ownership, and reinstating the 3,000 routes that have been cut. Invest in electric vehicle infrastructure and accelerate the transition of public sector car fleets and public buses to zero-emissions vehicles.

- Introduce a new Clean Air Act, with a vehicle scrappage scheme and clean air zones

- Extra £5.6 billion in funding to improve the standard of flood defences and respond to the increased risk of flooding.



Labour put environmental issues at the front of their manifesto, reflecting the increased eco-consciousness of voters // Wikimedia

SUSTAINABILITY

sustainability.felix@imperial.ac.uk

- Support local food networks, and set maximum sustainable yields for all shared fish stocks
- Make producers responsible for the waste they create and for the full cost of recycling or disposal.
- Permanently ban fracking.
- Set legally binding targets to drive the restoration of species and habitats.
- Establish a new environmental tribunal to ensure that administrative decisions are consistent with environmental and nature-recovery obligations.

Green

- Get the UK on track to reducing climate emissions to net zero by 2030.
- Meet most energy needs through the domestic production of renewable energy.
- Plan to have a combined investment of over £100 billion a year in the Green New Deal.
- Introduce new support for solar, geothermal, tidal, hydro and other renewable energies to provide much of the remainder of the UK's energy supply by 2030.
- Spend £2.5 billion a year on new cycleways and footpaths, built using sustainable materials, such as woodchips and sawdust.
- Remove subsidies to the oil and gas industries.
- Invest £2 billion a year in training and skills (including new apprenticeships), to help people access the new, decent jobs created through the transition to a low carbon economy.
- Prepare for the rapid decommissioning of North Sea oil rigs and the phasing out of the UK's remaining coal plants and coal mines, ensuring a just transition for workers affected.
- Support the transition to plant-based diets by

phasing in a tax on meat and dairy products over the next ten years, to reduce the 5%

- Apply a Carbon Tax on all fossil fuel imports and domestic extraction.
- Expand and improve the electricity grid and expand short-term capacity for energy storage.
- Plant 700 million trees and support sustainable food and farming systems and aim for 50% of all farms to be engaged in

“Ban advertising for flights and introduce a Frequent Flyer Levy”

agroforestry by 2030.

- Prohibit the construction of nuclear power stations. The green party has stated that nuclear is “a distraction from developing renewable energy”, and it carries “unacceptable risk for the communities living close to nuclear energy facilities”, “creates unmanageable quantities of radioactive waste” and is “linked with the production of world-destroying nuclear weapons.”
- Ban advertising for flights and introduce a Frequent Flyer Levy to reduce the impact of the 15% of people who take 70% of flights and stop building of new runways.
- Ban fracking, and other unconventional forms of fossil fuel extraction
- Reduce pesticide and fungicide use by at least 50% by overall weight by 2022.
- ‘Rewilding’ of spaces to provide new habitats for wildlife.

Liberal Democrats

- Require all companies registered in the UK and



The Lib Dems focuses policies on business regulation and encouragement // Flickr

on UK stock exchanges to set targets consistent with the Paris Agreement on climate change and to report on their implementation; and establish a general corporate duty of care for the environment and human rights.

- Regulate financial services to encourage green investments, including requiring pension funds and managers to show that their portfolio investments are consistent with the Paris Agreement
- Establish a Department for Climate Change and Natural Resources and appoint a cabinet-level Chief Secretary for Sus-

“End support from UK Export Finance for fossil fuel-related activities”

tainability in the Treasury.

- Guarantee an Office of Environmental Protection that is fully independent of government

- Establish UK and local Citizens’ Climate Assemblies to engage the public in tackling the climate emergency.
- Provide an additional £12 billion over five years to support renewable energy and aim to reach at least 80 per cent renewable electricity in the UK by 2030.
- Require all new homes and non-domestic buildings to be built to a zero-carbon standard.
- Cut energy bills, end fuel poverty by 2025 and reduce emissions from buildings.
- Expand the market for green products and services with steadily higher green criteria in public procurement policy.
- End support from UK Export Finance for fossil fuel-related activities, and press for higher environmental standards for export credit agencies throughout the OECD.
- Accelerate the rapid take-up of electric vehicles by reforming vehicle taxation, and invest in public transport, buses, trams and railways to enable people to travel more easily while

reducing their impact on the environment.

- Introduce a Nature Act to restore the natural environment through setting legally binding near-term and long-term targets for improving water, air, soil and biodiversity, and supported by funding streams of at least £18 billion over five years.

Terminology

- Green new deal – principles to guide policy

“it is important to take the promises of the parties with a grain of salt”

changes, with the aim of tackling climate change while creating new jobs and reducing social and economic inequalities.

- Fracking – process of drilling into the earth and pumping with water and chemicals to extract natural gases. Disadvan-

tages include the use huge amounts of water, causing earthquakes, release of methane, and severe contamination of water resources.

- Blue Belt programme – programme supporting the UK government’s commitment to provide long term protection for the marine environment.

Conclusion

Once again, it is important to take the promises of the parties with a grain of salt, as there isn’t a system holding them responsible for delivering what they propose; nonetheless manifestos give a general insight to the goals of the party and how they try to deliver on them. Also, to achieve anything, there will be financial and opportunity costs, which are not mentioned in the manifestos; this is something else to be wary of.

Climate change and environmental issues are the most important issues of our generation, and therefore it definitely should be considered when casting your vote.

INVESTMENT

icu.investmentsociety@imperial.ac.uk

Private Equity vs. Venture Capital: A closer look

INVESTMENT

Pavan Singh Gill

ICIS

Investment Co-Editor

Private equity and venture capital both refer to investments by individuals or firms/institutions in companies. However, the scale of the investment and the stage of companies they invest in differ.

“... investment is not limited to financial capital”

Private equity

You can think of it as equity that is held privately, either by wealthy individuals or firms. Where equity refers to shares/stocks and this represents the ownership of a company. These investors would purchase shares of privately held companies or public companies (companies traded on the stock exchange). The purpose of such investments is often to gain control of a company or companies and possibly sell these investments at a later stage. In the case of public companies, this might result in the de-listing of the company from the stock exchange. De-listing refers to removing the stock from being publicly traded on a stock exchange. When this happens, the delisted company would be considered a private company. What if I own stock in the company that is about to be delisted?

Well, private equity firms usually purchase a

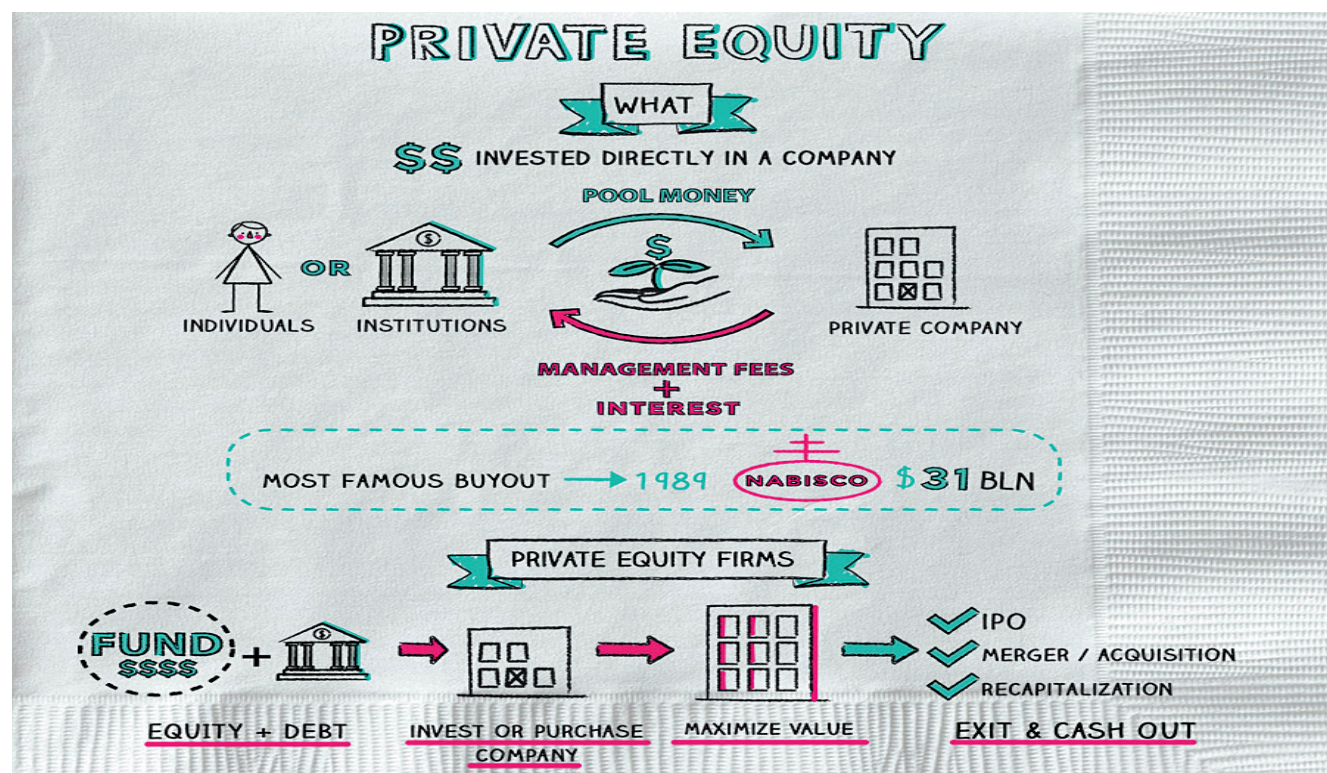
hundred per cent of the company, so it is not likely that an individual would be faced with a situation that he/she is unable to trade their shares on the exchange, due to delisting caused by private equity.

Some examples of private equity are pension funds like London CIV (London Pension Collective Investment Vehicle) and the private equity divisions of Rothschild & Co Merchant Banking.

Venture Capital

This refers to investment from firms or wealthy individuals in start-ups and small businesses. The investment is not limited to financial capital (cash), it can also be in a form of expertise, technical and non-technical. The purpose of such investments is to achieve an unusually high rate of return or ROI (Return on Investment). This refers to making significantly more money for every pound invested. For example, if you invested five pounds in a company's stock; you would hope that your five pounds becomes five hundred pounds after selling that stock. In the case of expertise, it could be seen as trading things of significant value to the start-up or small business in return for equity.

The risk in these investments is significantly higher than private equity, but the potential upside could make such investments more lucrative. Imagine investing in Google when it was a start-up and owning ten per cent of it. It wouldn't have cost over a thousand dollars per share, like it does now. This also brings us to the point that such investments are cheaper compared to private equity because private equity refers to investment in more estab-



Private Equity firms invest via equity and/or debt directly into a company and attempt to maximise value before cashing out with various means // Napkinfinance.com

lished companies.

Venture capital is also an important part of the start-up ecosystem because the risk associated with a start-up is high and thus makes it difficult for start-ups to obtain loans and other debt instruments from traditional banks. However, having venture capital also introduces the influence of new shareholders to the start-up, this may or may not be desirable.

In the news: Female Founders on the rise

There have been concerns in the past that most venture firms know or unknowingly fund a significant majority of start-ups founded or co-founded by men. This has led to concerns that there could be bias against female founders. However, in the recent years, some funds have made a move to fund more female founders or in some cases exclusively female founders. And it seems to be paying off. An article in Forbes by Elana Lyn Gross, titled “The

Number of Venture Capital-Backed Companies with Female Founders Is on the Rise” highlights just that. It talks about the high returns from funding female-led start-ups. If this topic interests you, you might want to check out Melinda Gates's Female Founders Fund.

In the news: The Private Equity Rush

In a low interest rate environment, investors are constantly on the lookout for opportunity and investments. Might private equity just be that

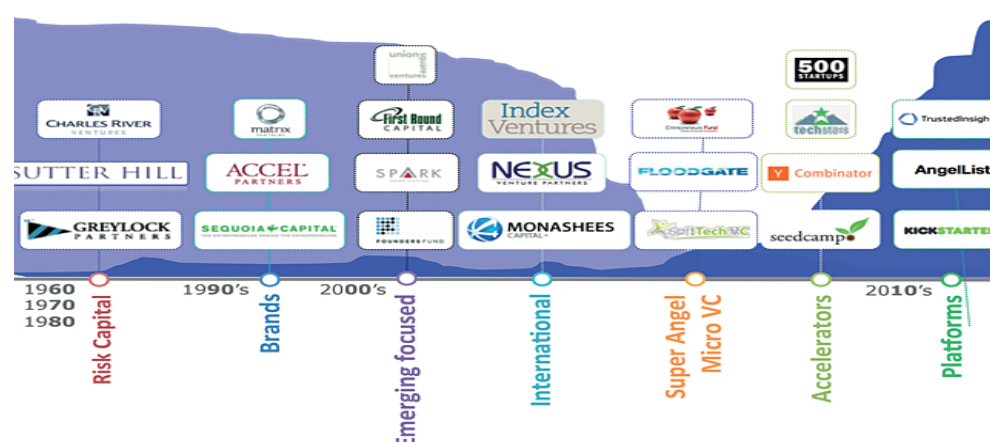
opportunity? An article by Robin Wigglesworth, titled “Investors pay up to join the private equity rush” by Robin Wigglesworth” in the Financial Times, discusses these funds attractiveness and future downside to investing in them. He discusses the political climate in America and the potentially lower returns in the future due to high valuations and other indicators.

In the news: Private Equity about to screw Non-profits?

It is no surprise that

private equity investment has real societal impact and this can be extended to investments in general. An article by Karl Bode, titled “Private Equity Is Going to Ruin the .Org Domain System and Screw Non-profits” in VICE outlines the concerns brought about when the Public Interest Registry (PIR) announced it would be bought by a private equity firm. The PIR manages the .org domain which is used by non-profits and such a buyout could lead to expensive .org domain names for non-profits.

History and evolution of Venture Capital



The evolution of venture capital from traditional firms to platforms // Erin Griffith

INVESTMENT

icu.investmentsociety@imperial.ac.uk

Why Asset Diversification & Hedging is Necessary

INVESTMENT

Eugene Gwan

ICIS
Investment Student Writer

The old adage “Do not place all your eggs in one basket” is probably one of the most important things to remember when investing. It is easy for beginner investors to see gains in a particular stock and

“Systematic risk is commonly referred to as market risk”

have the urge to allocate more of their funds into it, hoping to generate even higher absolute returns. However, it could very well go south the next day.

There are many financial instruments such as stocks, bonds, Indexes, exchange-traded funds (ETF), commodities and real estate investment trusts available to investors.

For this article, I will be focusing on diversifying a portfolio consisting of stocks and bonds as it is more commonly accessible for retail investors.

Stocks represents the company that you buy shares in. A company offers its shares to investors to raise money to grow its business or acquire new assets and when you buy a company’s shares, you become a shareholder of the company. Its share price will also fluctuate depending on economic, industry/company specific events.

In finance, we divide these risks (unexpected

price fluctuations) into systematic and non-systematic risks.

Systematic vs Non-Systematic Risk

Non-Systematic risk is commonly referred to as company-specific risks (e.g. when the company misses its quarterly earnings target, company in financial distress etc.). These events do not affect the market on the whole. Imagine that you invested 100% of your funds into 1 stock, your gains and losses are solely dependent on the performance of the company.

Systematic risk is commonly referred to as market risk (e.g. recessions, changes in interest rates, political unrest). These events affect the overall performance of the financial markets. Now imagine that you invested your funds equally into 10 stocks instead, when there is negative company-specific news on one of the stocks, only a small portion of your portfolio is affected.

2 portfolios to consider

When constructing the optimal portfolio, we are trying to eliminate the non-systematic risks through asset diversification. Note that it is impossible to diversify away the systematic risks. As you can see from the graph below, as the number of firms increases, the non-systematic risk decreases and tends towards 0, leaving only the systematic risk.

From the earlier example, if you invested your funds equally into 10 stocks and there is negative company-specific news on one of the stocks, only 10% of your stock portfolio is affected, the other 90% will remain untouched. If we extrapolate this portfolio to 500 stocks, similar to the S&P500, we are able to completely eliminate all non-systematic risks.

“By buying into this ETF, you expose yourself to the 500 companies ...diversifying away all non-systematic risks”

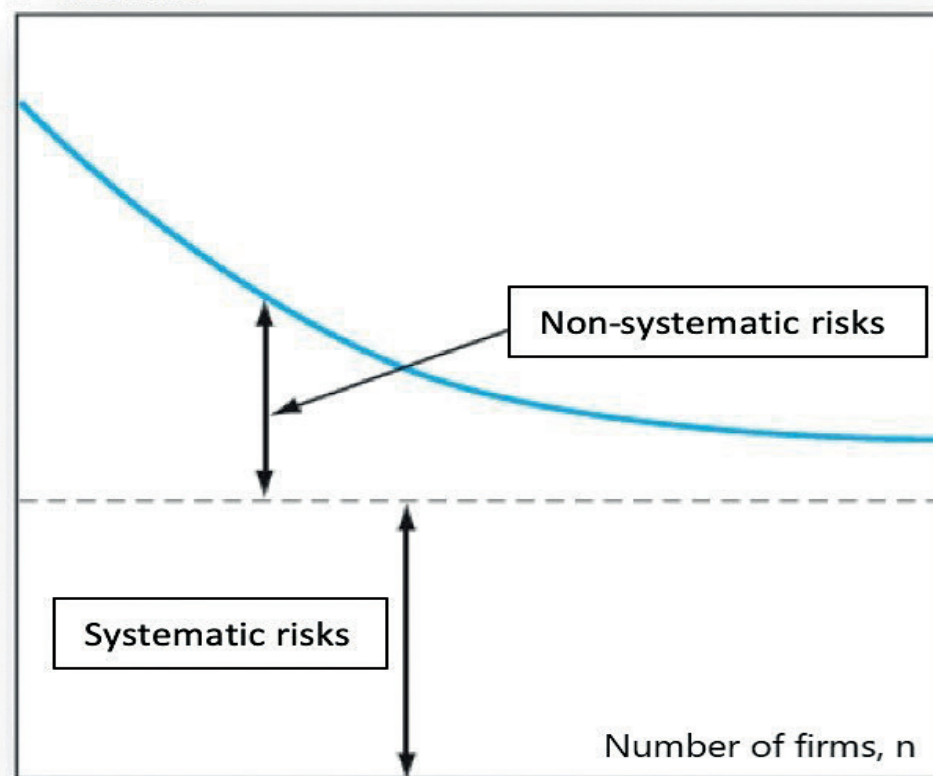
olate this portfolio to 500 stocks, similar to the S&P500, we are able to completely eliminate all non-systematic risks.

So you might ask, if diversification is so important, why shouldn’t I just invest in an index such as the S&P500?

This strategy is indeed highly favoured by passive investors as they only need to monitor the macroeconomic performance of the country and global economy rather than monitoring each stock individually. Investors are not able to directly invest in the S&P500 but rather invest through an Exchange Traded Fund (ETF). ETFs are just a basket of securities that tracks an underlying index and is traded on an exchange. One common ETF that tracks the S&P500 is (NYSEARCA:SPY). By buying into this ETF, you expose yourself to the 500 companies that comprises the S&P500, therefore diversifying away all non-systematic risks.

For investors that are looking for returns above the market (S&P500), they should split their optimal portfolio into an active and passive portfolio, whereby the passive portfolio consists of ETFs, bonds and treasury notes. The active portion consists of stocks that they

σ Total Risk



Systematic risk is not a function of the number of firms and cannot be removed no matter how many stocks are added to diversify the portfolio // Eugene Gwan

have individually picked. If executed properly, the active portion of the portfolio will be able to generate much higher returns and increase the overall returns of the entire portfolio. As with any form of active investing, due diligence is required to analyse the individual companies before buying into them.

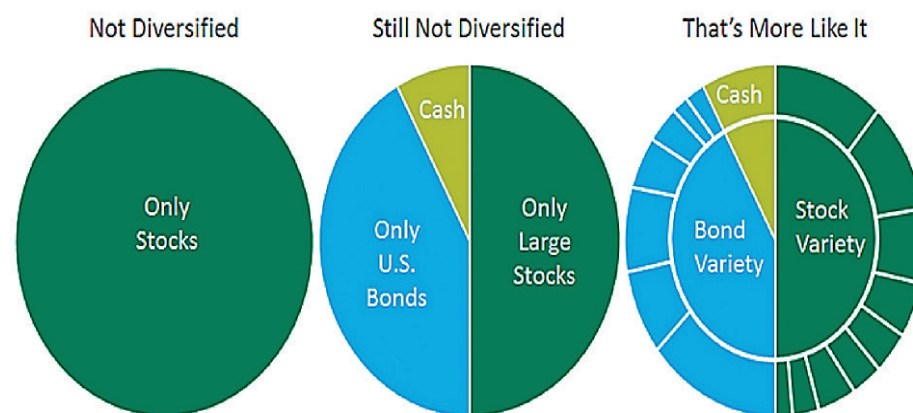
Role of Bonds

Bonds serve as a hedge to your stock portfolio and

investors consider bonds a safe haven. When the market is showing signs of weakness, investors flock to bonds and this is known as a “flight to safety”. This increase in demand pushes the bond prices upwards, offsetting the losses in your stock portfolio. As a retail investor, it is recommended to only purchase investment grade bonds, BBB rated and above. Investors are to monitor for interest rate risks, such as when the central banks increase interest

rates. This means that other investors are able to seek higher returns in the market than what your bond can offer, therefore lowering the price of your bond.

Together, the active portfolio, passive portfolio and bond portfolio provides a good starting point from which you can explore the different strategies to manage the risks and maximise your reward-to-risk ratio.



Example of a breakdown of 3 levels of diversified portfolios // americancentury.com

INVESTMENT

icu.investmentsociety@imperial.ac.uk

New Finance vs. Old Finance

INVESTMENT

Marios Papadopoulos

ICIS
Investment Student Writer

Non-traditional banks, such as Revolut and Starling, among many others, have disrupted the banking industry. Banking had traditionally been a difficult sector for startups

“Banking had traditionally been a difficult sector for startups due to the regulations...”

due to the regulations that dictated the establishment and operation of a bank. Following the 2008 financial crisis, regulatory frameworks around the world were significantly overhauled. In the UK, the 2012 Financial Services Act was written in a way which enables new companies to enter and compete in the banking industry. The changes in legislation combined with continuous technological innovation led to the set-up of a new type of banks, which provide services exclusively online as they do not have local branches. Customers use mobile apps to manage their accounts and can receive support through online chat. Most ‘established’ startups now provide customers with a debit card, which has the same characteristics

as a traditional bank’s cards, such as an account number and a sort code, as shown in the Figure 1.

Advantages

What makes this new type of bank special? In broad terms, they allow their customers greater control over their accounts. Particularly, they notify their customers about the details of a transaction immediately after it has been completed. They also generate monthly expenses reports and forecasts about future spending. One of the most important features is the ability to set savings goals, which has now been replicated in the mobile applications of their established competitors. A large number of customers also appreciate the bill-splitting feature which has proven useful in several social contexts. In terms of currency exchange fees, they differ significantly from their conventional rivals as they tend not to charge commission for transactions abroad. This decision renders them significantly more attractive for customers wishing to spend money outside of their home country without incurring fees from mainstream banks. Finally, certain challenger banks allow their users access to cryptocurrency trading.

What about security?

The sign-up process for these banks is just as rigorous as that of established institutions. Upon creating an account, users are asked to submit a digital copy of their passport or national identity card as proof of identity and provide several identifying details, such as their address, amongst others. As far



Fig 1. Some of the established start-ups that readers will definitely be familiar with // startupmagazine.co.uk

as accessing an existing account is concerned, these newly created financial institutions offer the highest safety standards possible. Their authentication methods include fingerprint scanning along and facial and voice recognition alongside the regular PIN code. In the event that a card has been lost or stolen, customers can login to their account to immediately freeze it. Needless to say, the card can be unfrozen in the exact same manner, if it is recovered. Perhaps the most important concern potential customers will have is: Can they trust these banks with their savings? These institutions are regulated by the Financial Services Authority (FCA) and the majority of them covered by the Financial Services Compensation Scheme (FSCS), which guarantees deposits up to £85,000. Those wishing to create a new account should definitely check whether the provider they are interested in has gained regulatory approval and access to the FSCS. Months-long delays have been observed between the launch of an app-only bank and its receiving the pertinent licence. Moreover, these

app-based banks tend to partner with fully licensed banks, which are the ones that actually hold customers’ savings.

How do these challengers vary amongst themselves?

Over time, most of these challenger banks seek to emulate their traditional competitors as closely as possible. However, the way they have started their businesses has been different as they have sought to target their applications towards specific audiences. On one hand, there are those which shine in international money transfers. They can be used in hundreds of different currencies and at a significantly reduced cost compared to high-street banks. Revolut has been one of the most prominent in this area. It charges no extra fees for global money transfers and also uses the Interbank Exchange Rate, which helps save consumers even more. The Interbank Exchange Rate is the rate used by two banks to transfer capital between themselves. Banks tend to charge a fee on top of the rate used to make the

exchange, a trend that Revolut has decided not to embrace for transactions between Monday and Friday, when the currency markets are open. On the other hand, there also exist those focused on a more conventional banking experience, such as Starling. This kind of upstart institutions offer a current account and usually, though not always, pay interest on their customers’ balance. The list of services available typically includes overdraft; challenger banks clearly state what fees they will charge for using their overdraft feature. In March 2017, Starling launched the UK’s first app-based current account. Monzo and Berlin-based N26 soon followed suit. Another UK company, Monese, can appeal to foreign nationals and freelancers because it aims to remove as many obstacles as possible from the account set-up process. It lets people create a bank account without needing to provide a permanent UK address. Figure 2 offers insight into the features offered by the digital-only firms currently active in the digital bank space. financial services sector.

“In broad terms, they allow their customers greater control over their accounts”

The figure demonstrates that certain companies, such as Revolut and Curve, specialise in international transactions, while Starling, Monzo and Atom Bank, among others, emulate the functionality of their domestic competition.

What are the challenges they face?

The most obvious difficulty faced by a bank operating based on a purely digital infrastructure is the reliability of said infrastructure. Customers cannot manage their finances unless they are connected to the Internet via Wi-Fi or mobile data. The December 2018 O2 outage demonstrated once again that Internet access should not be considered a given. The number of cus-

INVESTMENT

icu.investmentsociety@imperial.ac.uk

New Finance vs. Old Finance

| | Atom bank | monzo | STARLING BANK | Revolut | Curve |
|---------------------------------|-----------|-------|---------------|---------|-------|
| Real-time spending notification | ✗ | ✓ | ✓ | ✓ | ✓ |
| 24/7 in-app support | ✓ | ✓ | ✓ | ✓ | ✓ |
| Freeze/unfreeze cards | ✗ | ✓ | ✓ | ✓ | ✓ |
| FSCS Protected | ✓ | ✓ | ✓ | ✗ | ✗ |
| Overdraft facility | ✗ | ✓ | ✓ | ✗ | ✗ |
| Speedy in-app mortgages | ✓ | ✗ | ✗ | ✗ | ✗ |
| Free cash withdrawals* | ✗ | ✓ | ✓ | ✗ | ✓ |
| Savings pots/jars | ✗ | ✗* | ✓ | ✓ | ✗ |
| Free payments abroad | ✗ | ✓** | ✓** | ✓ | ✓ |
| Direct debits/standing orders | ✗ | ✓ | ✓ | ✓ | ✗ |

*Feature not currently available, but set to return
 **Only with Mastercard

Fig 2. These new start-ups vary in functionality but none can provide the same breadth as traditional retail institutions // moneysupermarket.com

tomers impacted reached 32 million; nobody can guarantee that events like this will cease to occur in the future. As Figure 2 illustrates, the functionality offered by the new entrants in the banking space can sometimes be quite limited. Customers cannot yet find all of the services provided by a traditional retail institution, such as credit cards, loans and direct debits. This limitation will especially be felt by older customers, who expect a bank to provide all of the above-mentioned features.

Therefore, the risk of these applications not expanding beyond their young-adult user base still persists. How popular these financial services providers will become directly affects their profitability. Most currently enjoy a high valuation. However, questions remain about if and how

can they build a business model which will lead them to profitability.

For instance, Monzo saw its net losses increase by 54 percent in February of 2019, following a massive personnel expansion in order to cope with its increasing user base. Challenger bank's answer to the issue of profitability has centered around revenue generation through monthly subscription services and in-app marketplaces. They usually offer customers core services via their free tiers and seek to entice them to upgrade to premium tiers in order to gain access to niche services.

As far as marketplaces are concerned, they generally appeal to business users by allowing them to link their accounts to a variety of business tools, including professional chat and accounting applications. The ultimate aim

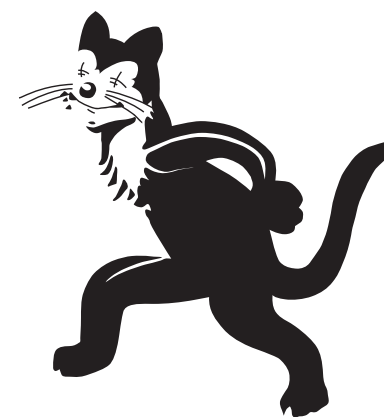
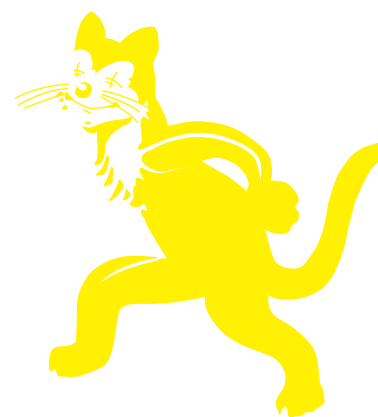
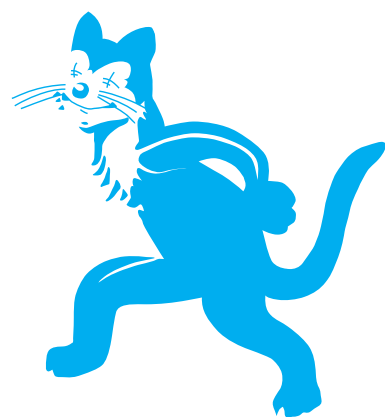
is to limit their reliance on individual consumers and expand their reach into the business community.

Conclusion

Digital-only banks have indisputably disrupted the banking sector. With a host of features related to helping customers assume more control over their spending and simplifying transactions, they have managed to attract a significant user base and forced traditional competitors to adapt to an ever-changing technological landscape.

Given the challenges they currently face, it is difficult to argue that they can fully replace high-street providers. Nonetheless, their presence benefits the financial services and fintech sectors as a whole. In the end, more competition is always considered desirable from consumers' point of view.

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

TRAVEL

travel.felix@imperial.ac.uk

How is Brexit Going to Affect My Next Holiday?

Wanted to spend the summer in Amsterdam but worried about how Brexit will affect your holiday? Fear not - Felix has you covered...

TRAVEL

Eva Tadros

Travel Editor

I know what you're thinking - another day, another Brexit article. But if you're anything like us and have the travel bug, then you're going to want to read this one. With Brexit being delayed once again to January at the soonest, there's no better time to grab a bargain and finally book flights to those European destinations you've always wanted to go to.

Flights with airlines like Ryanair and easyJet have been able to stay reasonably priced due to the "open skies" arrangement within the EU. Leaving with no deal means the UK will need to reach a similar agreement to maintain these low fares, otherwise we could be hit with fewer flight routes

and more expensive journeys.

If we end up leaving the EU with no deal at all, be prepared for longer queues, more customs checks and stamps all over your passports. Although we still have our "no deal contingency plan" to fall back on for about 12 months, officials at Brussels have confirmed the return of stricter border checks in the event of a no-deal Brexit. British nationals can also be subject to more rigorous questioning at borders, and can be required to provide extensive information on their visits and stays in EU countries. There has been conjecture over whether we will need a European Travel Information and Authorisation Scheme (ETIAS) document to travel around Europe, but most officials have agreed that even if needed, that won't come into effect until at least 2021.

It's not all bad news though - UK nationals will still reserve the right to visa-free travel for short stays in the EU (up to 90 days), as long as the

UK gives EU citizens the same rights. British travellers could also potentially get to claim VAT refund on goods purchased in EU countries as well.

What about staying safe whilst abroad, you ask? UK nationals could lose their right to healthcare access through the European health insurance card unless a deal is agreed upon, meaning not only will you have to pay for treatment abroad, but you could potentially need to wait longer to be seen in emergency situations. You might also lose your right to roaming-free mobile phone use, and we might end up having to pay overseas mobile charges when using our phones in Europe, however, some mobile providers have promised to keep European mobile prices in line with prices here at home.

One thing we all love about going abroad is how much cheaper food and accommodation usually is (okay fine, Paris doesn't really count here) - that might be about to change. It is speculated that due

to the lack of economic security following Brexit, the value of the British pound has been steadily dropping, making exchange rates worse for travellers - meaning everything suddenly seems more expensive, and our pounds no longer stretch as far as they used to. The pound still remains fairly strong against currencies like the Polish zloty though, so why not book yourself a holiday to Kraków soon?



UK EU Brexit // Max Pixel



Brussels, Belgium // Eva Tadros

TRAVEL

travel.felix@imperial.ac.uk

Exploitation of Animals in Wildlife Tourism

Behind the scenes, animals involved in the tourism industry often lead miserable lives, and just how miserable are we talking here?

TRAVEL

Maya Prashad

Travel Writer

Ecotourism has gained traction in recent years, focusing on socially responsible travel to destinations where flora, fauna, and cultural heritage are the main attractions. Wildlife-encounter tourism is not a new phenomenon, but thanks to social media it has steadily gained popularity. Who amongst us would not want to cuddle a baby tiger, or ride upon the back of an elephant?

That is, until the illusion is dispersed; in some institutions with unscrupulous handlers, tourists are oblivious to the fact that many of the captive animals have been abused. Even more abhorrent is the discovery that elephants at a resort in Thailand, where elephants can be seen roaming

freely, are the same elephants that perform tricks under the watchful eye of their masters, sometimes 'prompted' with a sharp metal stick, at another attraction mere miles away.

For all the visibility that social media provides, notably advertising activities that were once confined to guidebooks, it doesn't appear to encompass the view beyond what is initially portrayed. Most tourists that enjoy a close encounter with a tiger are blissfully unaware that they may be declawed, drugged, or both. Or that the abundance of cubs waiting to be held and cuddled have in fact been bred at speed and snatched from their mothers only a few days after birth. Or that the three performing bears and their cubs at the Bolshoi State St. Petersburg Circus are kept chained to a wall to force them to become strong enough to walk on their hind legs.

The wildlife tourism

industry caters to the public fascination with wild animals and often seeks to maximise profits by exploiting animals from birth until death. Bottlenose dolphins are integral to an industry that spans the globe; swim-with-dolphin institutions utilise dolphins both caught in the wild and bred in captivity to interact with tourists. The media increasingly denounces aquatic shows featuring dolphins performing tricks, yet many travellers are photographed swimming with captive dolphins at a holiday resort, often in an all-too-small pool.

There is controversy surrounding whether establishments with 'high standards', including pools filled with ocean water and veterinarian staff on-call, can be considered humane for marine life. The Humane Society of the United States argue that dolphins have evolved to swim



Elephant Sanctuary - Chiang Mai, Thailand // Eva Tadros

vast distances and live in complex social groups, which cannot be replicated in the confines of an enclosed pool. Often, these animals are placed into unfamiliar groupings, making communication between them impossible.

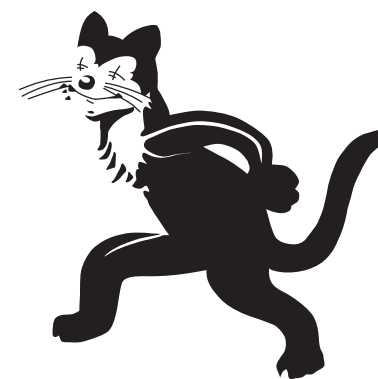
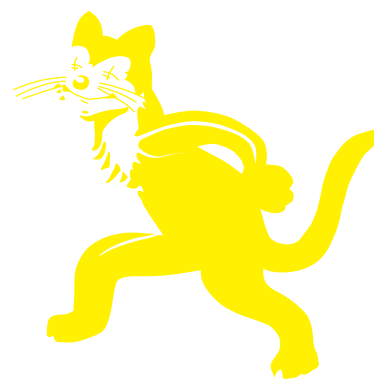
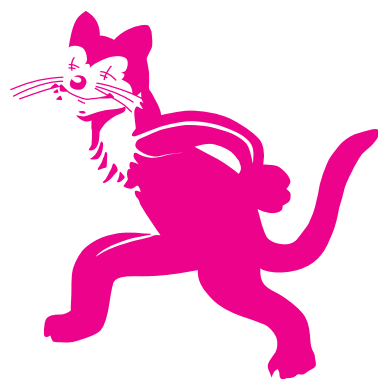
Coupled with the limited space, and bare and sterile surroundings,

captive dolphins experience little mental stimulation which frequently sparks frustration, even aggression.

Considering these mammals possess incredible intelligence and sentience and have been documented on numerous occasions engaging in playful activities like flips

and leaps out of the water, one begins to draw loose parallels to human behaviour and consider whether the same mistreatment would be glossed over in the mainstream media if the subject in question was a human?

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

Nottingham Varsity Report

IC Dance Club competed at Nottingham (in Stoke)

C&S

Alastair McMurray
IC Dance Club

This might be confusing, but last Sunday the IC Dance Club competed at Nottingham in Stoke. Held in Stoke's King's Hall by Nottingham University (does it make sense now?), the Nottingham Varsity is the first major competition on the university circuit. I admit that very few great days start at 3:45 in the morning or feature Hilton Park services, but once us 49 dancers (along with thousands of sequins and several gallons of hair spray) had arrived, you could feel the buzz in the air.

There's the entire spread of university dancers competing: ex-students who've been doing this sort of thing for many years as well as beginners who started learning to dance about five weeks earlier, but everyone's just as excited as one another and eager to compete.

"I admit that very few great days start at 3:45 in the morning."

Ballroom rounds take up the morning, featuring the elegant Waltz, the passionate Tango, the dizzying Viennese Waltz, the smooth Foxtrot and the speedy (duh!) Quickstep. Bowen Kwan & Man Qiu came second in Pre-Intermediate, Fern Hughes & Isabelle Wilson came sixth in Intermediate as well as second in the Same-Sex category and Victor Solecki & Iris Roatis came second in Advanced.

We also had several ex-student couples competing such as Florian Osterholzer & Avery Koh who came fifth in Ex-Student Beginner/Novice and four (count them four!) finalists in the main Ex-Student competition (Luca Florescu & Stephanie Rathmann (1st), Henry Hesten &



Slightly mental after 13 hours of dancing. // Carsten Beck

Sarah McMullan (2nd), Matthew Abdul-Rahim & Yue Shi (5th) and Alistair McMurray & Izumi Kurokawa (6th)). The open Viennese Waltz was also a strong competition for us with two finalists (Victor & Iris (2nd) and Luca & Stephanie (3rd)).

Latin followed in the afternoon, with the sharp Cha Cha Cha, the fiesta-like Samba, the sensual Rumba, the absolute bull of the Paso Doble and the kicky, flicky Jive. Bowen & Man came third in Novice and Jordan Kio & Anastasia Sheptitskaya came fourth in Advanced whilst Ben Biggs & Zoe McGee came sixth. Fern & Isabelle made a third final of the day and came fourth in Same Sex.

Carsten Beck & Gaia Young came fourth in Ex-Student Beginner/Novice and Christopher

Ho & Adela Capilnasiu and Teodor Rusu & Evgenia Agroti came first and second respectively in the main Ex-Student competition. Christopher & Adela also came second in the open Paso Doble.

But that wasn't the end. Oh no, for in the evening we had the Team Match. We form up into teams of four couples with each couple dancing one of the Waltz, Cha Cha Cha, Quickstep and Jive. Coming off the heels of Blackpool in February with an overall victory (and a first placing for our A-Team), the pressure was on.

Our A-Team were victorious for the second year in a row at Nottingham/Stoke defeating Cambridge whilst just missing out on the final were the B-Team (8th) and the C-Team (joint 9th). If we can keep this up, we may get another clean sheet when it comes to team

"We're all looking forward to next term... to defeat Cambridge"

matches throughout the year.

We're all looking forward to next term with three more competitions (including Blackpool) to defeat Cambridge at (especially now that we have a somewhat official Varsity with them in the form of the Liger Cup in May).

Special thanks go to Laura and Marika for training us so well – we certainly couldn't have done it without them.



The VICTORIOUS A-Team. // Carsten Beck

"Coming off the heels of ... an overall victory ... the pressure was on"

FOOD

food.felix@imperial.ac.uk

FOOD

Haider Nazerali

Food Writer

I first saw this amazing quick pasta dish being made in the Netflix film 'Chef' (100% great to watch when you're procrastinating your next lab report or essay) and it looked delicious. Thanks to social media sites stalking my life, it didn't take long for a recipe to appear on my YouTube suggested.

The simplicity of the recipe means that you can taste and appreciate every ingredient – which is why I would recommend using fresh ingredients if you

have the time (however for everyone who is busy with work I've included substitution ingredients which make the recipe even quicker!)

"The simplicity of this recipe means that you can taste every ingredient - so I recommend fresh ingredients"

Pasta Aglio e Olio

Ingredients

This will make 4-6 portions depending on how hungry you are!

- 500g of your favourite pasta
- 5 tbsp olive oil (can substitute a different so long as it doesn't have a strong flavour)
- 5 big cloves of garlic, thinly sliced (can be substituted this for 4 tbsp garlic paste)
- dried birds eye chilli flakes
- Bunch of parsley, finely chopped (can be substituted for 5 tbsp dried parsley)
- Salt and freshly ground pepper to taste (can be substituted for pre-ground black pepper)



Pasta time with this dish// Haider Nazerali

Instructions

Prep time: 10 minutes

Cook time: 20 minutes

1. Boil pasta until ready (follow packet instructions; always salt your water) - set aside 1/2 cup of the pasta water for later. Leave the pasta in the sieve so you can use the same pot to cook the rest of the dish.
2. While the pasta is boiling is a great time to slice the garlic and chop the parsley
3. In the pot which had the pasta, add the olive oil and turn on the heat.
4. You want to make a layer of oil at the bottom of the pot, but you can use less oil if you prefer however this might result in the pasta feeling a little dry.
5. Once the oil is HOT, add the sliced garlic, salt, pepper, and half the parsley - mix until the garlic is golden then add the chilli flakes.
6. Add the pasta, the pasta water, and the remaining raw parsley and mix!
7. Plate up, take a pic for your story, and munch. Try serving with grated cheese – parmesan or cheddar work best - garlic bread and a leafy salad.

This is a very versatile recipe. The simple, basic flavours are a great base to which you can add additional ingredients – from my experience, mushrooms, chicken and fresh chillies work really well. You would add the additional ingredients at the start of step 3 – be careful that the garlic doesn't burn so add it after

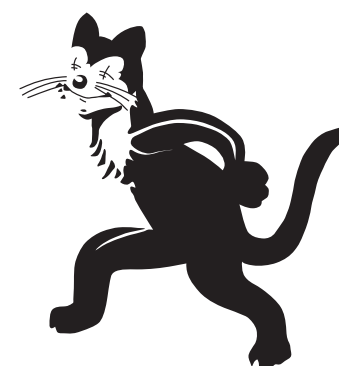
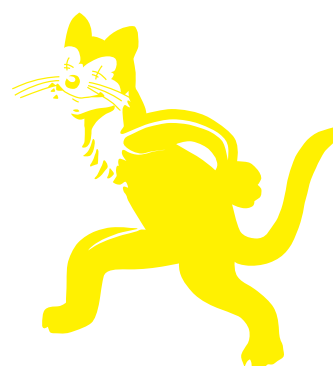
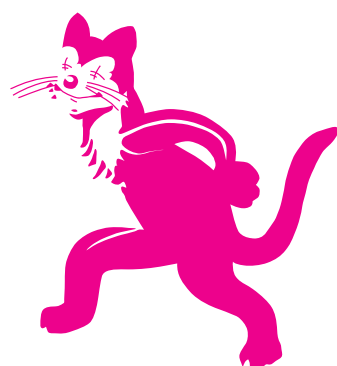
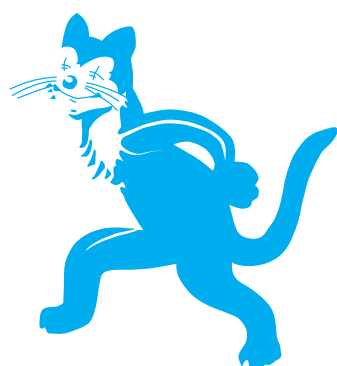
"This recipe's simplicity means that it makes for a great one to practice"

your extra ingredients.

This is an Italian classic as you can tell by the name. It literally translates to pasta with garlic and oil so nothing too fancy but it will be sure to wow your friends who love the prospect of being made an authentic dish. Bonus points if you wave your hands around as you say it.

Another great thing about this recipe's simplicity is that it makes this a great one to practice to perfection. That means you can become a pro at this to really become the show off of the group. A dish like this can quickly become second nature to you and your flare to it can become an staple of any group meal.

Felix is recruiting!



FOOD

food.felix@imperial.ac.uk

The Ultimate(?) Guide to Pasta Shapes

There is one universal constant, a single unifying language that connects generations, crosses borders, and is an immediate friend to all who encounter it. No, it's not maths (sorry Galileo, but you were wrong) or even music, but the gastronomical miracle that is pasta. Here is a guide to some exciting shapes to spice up your pantry and reignite your passion for a food that can sometimes get a little, dare I say it, dry.

FOOD

Syon Lee
Food Editor

Simultaneously a destitute student's staple and a feature in high-end restaurants, everyone understands pasta and, more importantly, everyone loves pasta.

However, even true love can get boring. Missionary and "words of affirmation" can only keep a relationship alive for so long. Likewise, fusilli and spaghetti are bound to grow tiresome at some point. But worry not, our Ultimate(?) Guide to Pasta Shapes is here to save you from the culinary equivalent of a stale marriage. Take it from someone who knows: loyalty is dead, long live variety.

We've limited ourselves to unfilled, dried pastas. Filled and fresh pasta are a whole different game and we don't have the

"To the people who snap their spaghetti in half before cooking, there is a special place in hell for you"

time nor the page numbers to dedicate to them. Similarly, wholegrain and gluten-free options are available but they're indefensibly gross and we're not here for indefensibly gross (apologies to the coeliac community in advance).

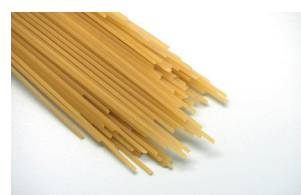
Spaghetti

Round, slurpable lengths of romance (think Lady and the Tramp). What's not to love? To the people who snap their spaghetti in half before cooking, there's a special place in hell for you.

Best served with: Loose, smooth sauces that can coat each strand and doesn't get in the way of the slurp. Think carbonara or tomato-based sauces. Surprisingly, meaty sauces like bolognese aren't a great fit but no one will be mad at you for doing it. Sometimes tradition trumps sense.

Capellini

Spaghetti's trendy, skinnier cousin. Has a twin sister, capelli d'angelo, which is somehow even



//gratuit

skinnier. Like lots of skinny people (I'm talking about myself really), prone to breaking and absurdly difficult to dress. I tend to avoid because

it's too reminiscent of rice vermicelli and then I just want a sizzling hot plate of Singapore noodles.

Best served with: Very light, oil-based sauces like aglio e olio or even in a soup preparation.

Linguine

A personal favourite, linguine is what happens if spaghetti and tagliatelle had a child. A best-of-



//Dagostino

"These are our chonky bois"

both-worlds, it has the heft for heavier sauces but also the elegance of spaghetti (re: Lady and the Tramp).

Best served with: Creamy sauces, chunkier meat sauces, light and aromatic sauces... I mean, what can't you pair it with?

Tagliatelle, Fettucine, Pappardelle

Tagliatelle, fettucine, pappardelle. These are our



//Sebastian Zurkuhl

chonky bois with nonno pappardelle leading the charge as the widest of them all. Apart from purported places of origins, the differences between them vary by source so don't stress the small stuff and go for the thickness you know you deserve.

Best served with: Sauces that are rich and meaty, like the man of your dreams. Or cheesy and creamy. The man of your dreams comparison still stands.

Bucatini

Good lord, what have they done? It's spaghetti but with a hole going down the middle. It's a



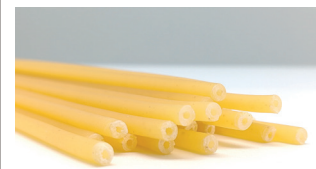
//Popo le Chien

straw but made of pasta. It is fantastic as a pasta and an absolute joy to eat. Don't believe me? Alex Delany from Bon Appetit Magazine wrote an article titled "Bucatini Is the Best Long Pasta There Ever Was or Will Be".

Best served with: Thinner sauces with strong flavours like tomato or squid ink. More important than ever to finish your pasta in the sauce so it can soak up all that flavour into its hole.

Penne

Gets a lot of stick for being the uninspired



//Popo le Chien

choice. But look a bit closer at the intricate ridges running along the short tubes and that oblique cut and you might begin to understand why it's such a popular work-horse pasta. It was almost designed for success.

Best served with: The ridges ensure even thick sauces can cling onto its

"Good lord what have they done? It's spaghetti but with a hole going down the middle"

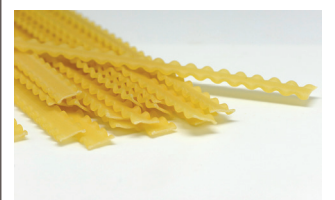
curved surfaces and the tube shape is great for collecting up bits of finely cut veg. Pasta salad is an obvious choice.

Mafalde

//Popo le Chien

Like the Argentine comic by Quino, Mafalda, Mafalde comes in strips. Unlike the Argentine comic by Quino, Mafalda, Mafalde looks like the beautiful tentacles you may find dragging behind a portugese man of war. When cooked right, you get the contrast between the delicate frilled edges and the sturdier central spine. Basically fettucine in a tutu.

Best served with: a medium weight sauce can show off the versatility of this pasta. Another case of centering the sauce around the playful texture of the pasta.



//Popo le Chien

Fusilli

It exists and I know some people love it. Does it excite me? Not really. Although the tricolore variety can be fun.

Best served with: A pasta bake? That sounds about right.



//Popo le Chien

Trofie, Gemelli, Casarecce

Our short little twists and turns. Trofie is the rustic, hand-smudged pasta twist that fusilli wishes it was. Gemelli means twins and is made from two entwined strands. Cute. Casarecce are like little scrolls. Also cute.

Best served with: Not a whole lot of surface area means it can't really handle a lot of sauces particularly well. Pesto



//From top-to-bottom: Tom dl, Indiamart

FOOD

food.felix@imperial.ac.uk



//Popo le Chien

works well.

Busiate

A friend got me this one as a souvenir one year. It's long, its spirally, it's old-timey ringlets or (similarly old-timey) turkey twizzlers, but a pasta. It's still in my cupboard.

Best served with: Apparently only served with pesto alla trapanese, a pesto with almonds, tomatoes, garlic, and basil. I have a nut-allergic housemate so, for me,



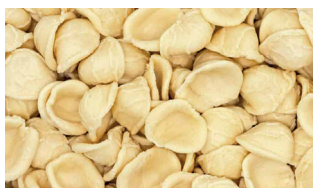
//Popo Le Chien

cooking this pasta may lead to death.

Orecchiette

Another versatile pasta, the little ears are perfect for scooping up sauces, meat, cheese, and the like. A fancy alternative to our penne and fusilli.

Best served with: Sauces containing small, round things (like peas,



//eataliano

"...the little ears are perfect for scooping up sauces"



Its like love at first sight//Freepik

mini meatballs), or rich, cheesy sauces.

Farfalle

They look like bowties, and that's why we love them. That and the textural distinction between the soft wings and the denser middle bit.

Best served with: Nothing overly rich or complex. Farfalle is the



// Wikimedia

protagonist and the sauce should only be nominated for supporting roles.

Conchiglie and conchiglioni

Conchiglie are your shell pasta and conchiglioni the shell if it held a small family of sumo wrestlers. If you hold

one close to your ear, you can hear the sea. Or the frenzied cries of Italian nonnas bemoaning your complete disregard for tradition. They both sound similar. Here's a fun experiment: hold a piece of

"They look like bowties and that's why we love them"

conchiglie next to a piece of orecchiette and record the results of this magical interaction.

Best served with: cheesy sauces! Something about the shape demands it be filled with a thick,



// Popo Le Chien

velvety sauce that isn't too much of a puzzle on the palate. It would also work well with sturdy meat-based sauces but that's much less sexy.

Rotelle

These are shaped like wheels with spokes and everything. I'm not exactly sure why they're a thing and its resemblance to an artificial real-world object just makes me think of that penis-shaped pasta so adored by giggly bachelorettes the world over. I'm sure it has a rich history but it's a pass for me.

Best served with: Plenty of glue and macaroni to make your own 3D pasta wagon.



// Popo Le Chien

Then drive it into ditch of heavily salted water at a rolling boil and throw the result away. Stop playing with your food.

Macaroni

One-trick pony. Mac and cheese. That's about it? Two tricks if you go full Asian and do a soup macaroni. That said, those two tricks are really quite good and perfect for a lazy night in so we recommend saving a bag for those rainy days.

Best served with: Lots and lots of cheese. Has there ever been a better comfort food than mac and cheese? A departure from tradition, but I like topping mine with sriracha (look away,

Italian grannies).

Anelli, Calamarata, Rigatoni

Anelli are our baby rings found in Spaghetti-O's amongst other things. Feed your Anelli enough rare candy and watch it evolve into calamarata, a mid-sized, smooth ring. By the time you're ready to face the Elite Four, you should have yourself a large, ridged tube by the name of Rigatoni.

Best served with: Anelli can't do more than swim around in soup. Calamarata is okay for most sauces but really, we're all waiting for rigatoni which can do all the things that



// Topquark22



// Popo Le Chien

CONSTITUENT UNION

felix@imperial.ac.uk



Goodbye

CGCU

Thomas Cross
CGCU President

Imperial is a strange place. A week here can be a long time, and yet two years can pass in an instant. I remember when, as a young fresher, I rather cockily walked up to the CGCU office, asking about some position they had vacant for “Bolt” editor.

Since then, in the words of the replicant Roy Batty in *Blade Runner*: “I’ve seen things you people wouldn’t believe.” The most talented students around me just get fucked over by their circumstances. The best of friends become the most bitter of enemies overnight. Such is life, and it can be hard at points.

Uni life, like Imperial and the mighty CGCU, is also diverse. I urge you to make the most of your time here. Get involved, and (although repeating it may make me seem like a broken record at this point) please take every opportunity that comes to you to do, and see, and learn. Grow yourself, get into politics and art, literature and psychology - as well the science or engineering or medicine you study and practice here as part of your degrees. Moreover learn from your mistakes; that is how we grow and develop.

Mistakes, misdemeanours, misinterpretations, and cock-ups happen. We all make them, and if you ask anyone who knows (or has known) me personally then they will know that I make them a lot. For this, I am sorry – in my own way. One of the many comments on life I would also like to mention to you now is that nothing in life is black or white. We are made of and live in a



The CGCU committee // CGCU

world of complex multi-variables. In all of this we need to be aware of our own traumas and the traumas of others, what is internalised, our experiences - especially those of our childhoods and formative years - and the many intersections present in all communities.

I recently started re-listening to an old podcast series that I was hooked on in first year, when I went through hard struggles and had to move halls. The podcast series (Russell Brand’s ‘Under the Skin’) is one I can thoroughly recommend, and not a set of interviews that some people would think I naturally gravitate towards: Interviews with people on the left, social activists, feminist authors, and philosophers.

For those of you with a

keen eye for Felix’s news, you’ll have seen in the ‘A Conversation With’ section last week that the Union President, Abhijay Sood, was questioned about my departure - at that point a very fresh and mostly unknown fact. For those of you who have already heard, please forgive me for reiterating, but for those of you who haven’t let it be known: I am resigning as CGCU President, effective 29th November. An email is in the works and should soon be going out to the 4200 students we as a Constituent Union represent.

I am to be succeeded by an outstanding Vice President to the Constituent Union, Fatima Khan, who I wish the best of luck. Our selection of a new Vice President (via internal AGM and email

voting) will be sent out over this weekend.

I understand that this is uncharted waters, as resignations and CU Presidents departing mid-term is an occurrence of around once-a-decade regularity (2009/10 being the last time). I also acknowledge that ‘co-opting’, as we call it, for such a senior role is in violation of the Union bye-laws. However, we felt in this case that not using eVoting for a broader public vote was for the best. I am sure the CGCU committee I leave behind will be open to that if it is what you, our students, think should happen.

To our 17 Clubs and Societies: it has been the greatest honour to be able to work with you. Your professionalism and dedication is what makes the

student experience here at Imperial so unique for so many.

To the engineering students I was elected to represent, the medics who stood next to me at the St Mary’s debate, and the postgrad students I’ve assisted in their fights within the Union and Council: I am sorry, but representing you, through your Unions and ICU in general are experiences that will never leave me.

To the ICU staff: I am sorry that the student union is currently in the state it is in. I really hope that the positive curvature imparted by the appointment of Tom Newman, the new Head of Student Experience, and the departure of some other staff members revitalises ICU – and enables it to become the great student

union it can be. You all try so hard, and as a student volunteer I’d like to thank you for what you do for the student body. I may not have always seen eye to eye on some issues, but I truly wish you the best for the future.

So it is now, softly, that I leave you, with much appreciation and admiration for my committee and our students for what we have achieved and the legacy that we continue to build on – that from our predecessors of the Central Technical College and the City and Guilds College, the great institution that, along with many others, merged to form Imperial in years past.

Goodbye.

CONSTITUENT UNION

felix@imperial.ac.uk



When am I going to be trained?

RCSU

Alex Auyang
RCSU President

Volunteering for a constituent union comes with a lot of responsibility. Not only do we oversee our own operations, but also act a management group for multiple societies, including the departmental societies of our faculties. Hell, my committee and I have a duty to represent the interests of all 3000+ natural sciences students.

All this being said, you'd imagine that ICU would ensure we're adequately prepared for our roles. Maybe provide me and my committee with a bit of training and ensure we at least had a basic handover. As you might've guessed from the title of this article, that

never happened.

Don't get me wrong, ICU tried to get me trained. They run a union volunteer training session called "Officer Academy" at the end of the academic year. Unfortunately, it was on my final day of second year exams, so I couldn't make it. To add insult to

"Fresher's fortnight, or maybe even the RCSU, might've been an absolute mess."

injury, the next training session was scheduled for the 27th of September, after the summer break was practically over.

Most of the planning for Freshers' fortnight occurs over the break, and I had absolutely no clue what I was doing, but at least I had my predecessor's handover to look forward to, right?

Well, my handover consisted of being led into a study room, having my responsibilities quickly explained to me (albeit with the aid of a whiteboard), and a short goodbye. And of course, there was no handover document, so if I forgot something, then tough titties.

Fortunately, with the help of a few experienced union volunteers, (thanks again Lloyd, Michaela and Aishy) I was able to learn most of what I needed to know. However, if I had been less fortunate, Freshers' fortnight, or maybe even the RCSU, might've been an absolute mess.

There were other

incidents regarding a failure to receive training. Typically, constituent union presidents are invited to attend certain sessions of the officer trustee training. For some unknown reason, we were not invited this year. ICU also planned a CU-president-specific training day near the beginning of this academic year, but they cancelled it a few days before it could take place.

If ICU wants us to do our jobs competently, they should give us proper training, not force us to learn by trial and error, or by asking the other volunteers. Not only is the current system a nightmare, but it feels like a goddam lottery, with the grand prize being a decent handover.

The strange thing is, ICU should have a pretty significant incentive to train us. We are all serving the same students, and if



RCSU President Alex Anyang // RCSU

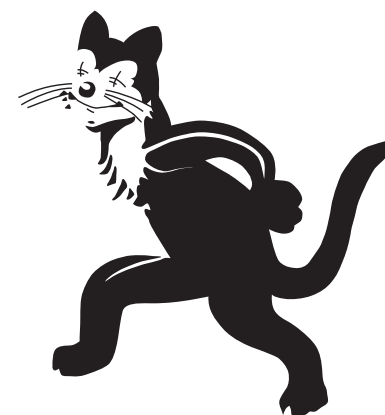
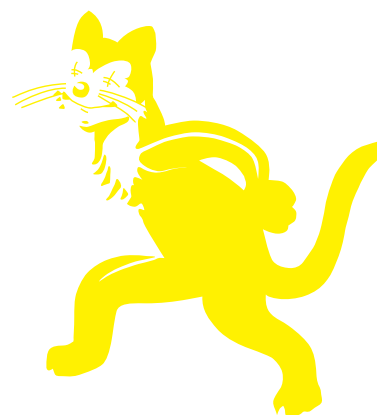
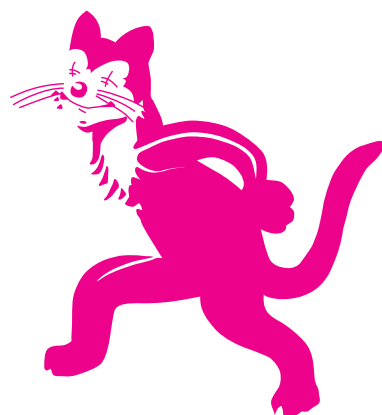
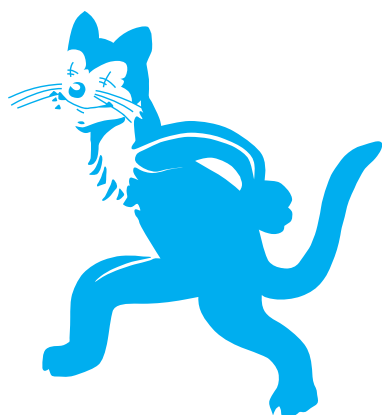
the CUs do their jobs well, they can take some of the load off the ICU.

Given that we are nearing the end of the first term, the answer to "When am I going to be trained?" is probably never. However, the Union president, Abhijay

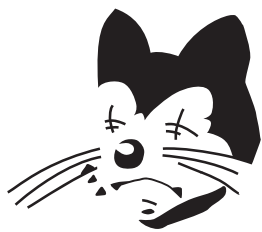
Sood, has promised to improve the training for next year, so I guess that's a plus. Time will tell if he can deliver on this, and all of his other promises.

Thanks for reading and have a great week.

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



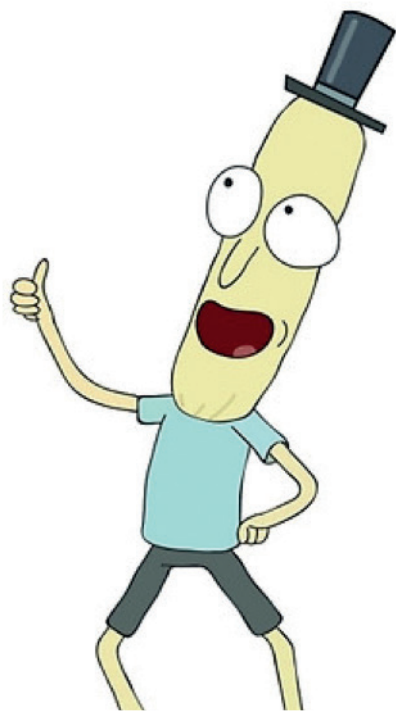
Hangman



Mick Nanrique, 21

📍 7 miles away

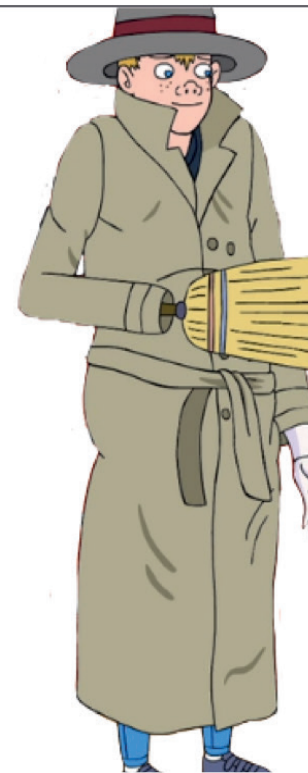
A people pleaser.
I'm just here to make friends.



Mandrew Elville, 24

📍 1 mile away

I'm really good at maths.
I can count the number of friends
I have without using my hands



Lyon See, 22

📍 5 miles away

I love the beach. Looking for a
hubby to take me there.

Looking for a date? One of these likely living organisms could be yours!! // People we hope don't sue us

Top Ten Steps to Nail a Date on Tinder

HANGMAN

Negafelix
Editor-in-Chief

Having a hard time from your friends about your permavirgin status? Well, worry no more, Felix has just the guide for you!

Step 1: Obviously, the first step in nailing a date on Tinder is getting that date in the first place. If you're struggling a little to get those elusive matches from people that are at least more than a 3/10, then you aren't doing Tinder right. You gotta

learn that sometimes, reality needs embellishing. A few exaggerations won't hurt. Photoshop out those acne scars. Give yourself a jawline. Say you got into Oxbridge.

Step 2: You've got a match! Finally. And this time they definitely have a pulse. Before you send out your first message you have to think about what kind of tone to set. Humorous? Romantic? Disinterested? Obviously, you want to nail this date, so whatever it is don't tell them what's under the patio.

Step 3: The conversation is going well. You're imagining you and your future spouse's lives

together and you ask them out on a date. Where do you bring someone on the first date, you ask. Our answer: somewhere you can really make your intentions known without violating your parole agreement. That means, of course, any café at least 100m from a school.

Step 4: It's date day! You've buffed up your mole and smeared Tipex on your teeth. Unfortunately, it's finally dawning that you're no way near as cool or as attractive as you were on your profile. You head to your date, with some trepidation.

Step 5: You arrive at the café at least 10 minutes early and settle

in to wait. Suddenly, they walk in, lightly brushing their hair aside in exactly the manner you predicted from stalking their Facebook, Instagram, Yelp and Google Plus accounts. You are overwhelmed by Feelings.

Step 6: First impressions are hard, particularly when you've given someone such unrealistic expectations, of beauty, intelligence and number of teeth. Instead, a better course of action is to do nothing. They can't form a bad first impression if there is no impression at all.

Step 7: Your date begins to look anxious, searching for their ideal

online match. You can't bring yourself to approach them so you sit and wait. Fortunately, your dates ideal online match has just walked into the café. They even have the face you stole from Getty images. They nonchalantly saunter up to your date and ask them a question. Within minutes they are both chatting, laughing, *firting*. You watch in silent horror.

Step 8: Your date and their new acquaintance settle down on the table next to you clearly enjoying one another's company. An hour passes and they exchange numbers, and make to leave. You hear your dates number and write it down.

Step 9: You call your date, pretending it was the acquaintance that bought them coffee. You tell them that you hope you never see them again and that they have a terrible personality. You have clearly upset them dreadfully.

Step 10: You have ruined something beautiful. Another few dates like this and your dream partner will finally have a self-esteem low enough to finally consider you. You look for more cafés at least 100m from a school.

HANGMAN

negafelix@imperial.ac.uk

Imperial Begins Crackdown on Black Market

HANGMAN

Negafelix
Editor-in-Chief

Imperial College London finally sends in Union security over allegations of an illegal marketplace

Imperial College London is finally responding to claims by a Union Staff member that a large black market is being operated out of West Basement. The Union Staff member

alleged that the black market has been providing students with critically desired items, such as mental health support, curly fries and adderall.

Staff member Arlath a Hora claimed that it was impossible for the Union to operate with this kind of competition: "They are capable of getting students whatever they need, exactly when they need it. Previously, we have been able to offer a pisspoor service simply because we operate a monopoly on campus. Maybe if there was some competition, we'd actually have to do our jobs properly. The

horror!"

Although the market was initially set up in response to the demand for study drugs to get procrastinating students through exams, over the past three months, it has rapidly branched out into many other crucial aspects of student life. One anonymous black-market racketeer told Negafelix in an exclusive interview, "Yeah, we can get someone counselling support almost immediately, with almost no wait time. It's just a matter of means testing what people can afford, with those that need the service and

are better off subsidising those that wouldn't be able to. Pretty amazing how many counsellors you can hire when you run that funding structure." Another vendor told Negafelix that, "since the closure of the Union bar, we've been making an absolute mint. Students will pay almost anything to get their hands on curly fries or a tasteless greasy pizza. Some don't just pay either. We've had to start turning down offers to do our coursework for us."

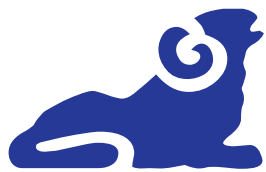
Negafelix was delighted by the high standard of hygiene upon observing the black market kitchen.

"We've got rats, but after some fairly high-powered and tense negotiations, we've managed to arrange a confidence and supply deal. They help us get the authentic union taste by running around the kitchen surfaces and food and we agreed that they can keep their nests by the fridge. It's been easier negotiating with them than the cockroaches. Bastards."

Union security ratted out the black market early today, through efficient use of one-way signage and a bloody-minded approach to the rules. Although sellers were

disappointed, one saw a bright future ahead. "The way the university is going with regards to rent increases in student accommodation, we're going to move into cheap, nasty and unsafe flats, purpose built for the poorer aspirational student. If Imperial aren't prepared to take the opportunity to exploit the paupers that want to come here, we sure as hell will."

When approached for comment with these concerns, Galice Fast responded by hissing and coiling tighter around a large pile of gold, covered in biscuit crumbs.



ARIES

This week, water starts flowing from your ceiling light

-
A water feature increases the property value, and your landlord can now charge more rent



TAURUS

This week you find out that women are more likely to orgasm when wearing socks

-
Just something we thought was interesting



GEMINI

This week you opt out of the organ donor register.

-
If that snivelling child wants your liver, they'll have to take it from your warm, dead body



CANCER

This week, your carbon monoxide detector won't stop beeping and its making you feel really dizzy



LEO

This week you call off your terror plot because the date you chose doesn't have a ring to it



VIRGO

This week your turkey tactically votes for Christmas

-
They win with a poultry majority.



LIBRA

This week you're the CGCU committee

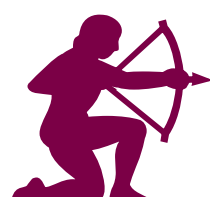
-
Anybody? Anybody?



SCORPIO

This week, in an attempt to improve postgrad engagement the Union tries to make 568 more like H-bar.

-
They remove the food service



SAGITTARIUS

This week, you realise its time for destroy-dick December

-
Finally, something you're qualified for



CAPRICORN

This week, the cockroaches in the cupboard make a reappearance.

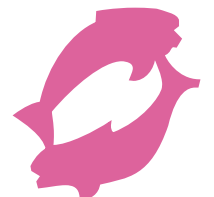
-
This week they're editing the newspaper



AQUARIUS

This week, you go to a climate change protest

-
You hope its enough to make up for consuming under capitalism for the next seventy years



PISCES

This week, you are the food at 568.

PUZZLES

fsudoku@imperial.ac.uk

Last week's solutions



| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | C | A | A | O | A | R | | | | | |
| R | E | A | L | M | C | E | N | S | U | R | E |
| E | S | B | I | U | G | N | | | | | |
| S | U | T | U | R | E | D | S | T | U | N | T |
| L | O | S | S | F | | | | | | | |
| T | H | E | I | S | M | U | L | S | T | E | R |
| A | I | E | E | | | | | | | | |
| K | A | N | S | A | I | S | T | A | B | L | E |
| E | O | Y | H | E | | | | | | | |
| A | P | R | I | L | A | N | A | G | R | A | M |
| W | D | O | C | R | E | I | | | | | |
| A | Z | I | M | U | T | H | G | A | F | F | E |
| Y | C | T | T | Y | T | N | | | | | |

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

Trivia: 1. Pizza Express, Woking 2. Galadriel 3. Either/Or 4. Webb Ellis Cup 5. Rossini (the aria in question comes from the Barber of Seville) 6. Sandwich

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

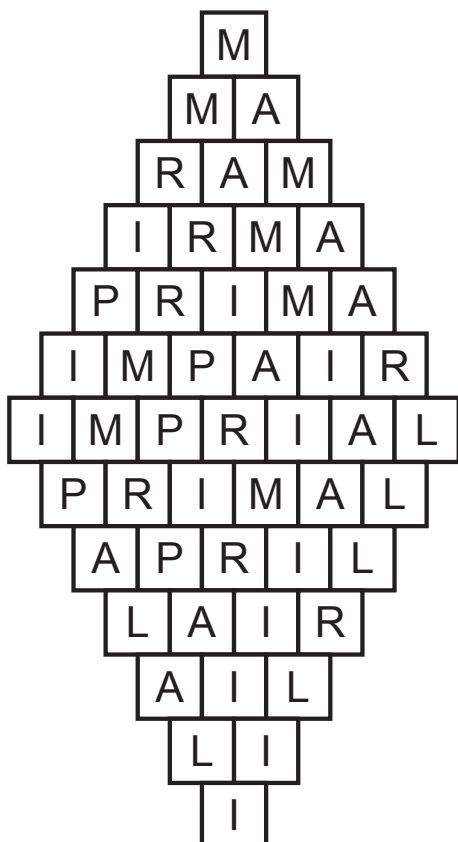
NONOGRAM

| | | | | | | | | | | | | | | | | | | | | |
|---|----|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 2 | 6 | 2 | | | | | | | | | | | | | | | | | | |
| 4 | 5 | | | | | | | | | | | | | | | | | | | |
| 2 | 3 | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 1 | 3 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 1 | 1 | 2 | 2 | 1 | | | | | | | | | | | | | | | | |
| | 1 | 3 | | | | | | | | | | | | | | | | | | |
| | 2 | 9 | | | | | | | | | | | | | | | | | | |
| | 13 | 2 | | | | | | | | | | | | | | | | | | |
| | 13 | 2 | | | | | | | | | | | | | | | | | | |
| | 3 | 4 | 3 | | | | | | | | | | | | | | | | | |
| | 4 | 4 | 3 | | | | | | | | | | | | | | | | | |
| | 3 | 3 | 3 | | | | | | | | | | | | | | | | | |
| | 3 | 4 | 5 | | | | | | | | | | | | | | | | | |
| | 4 | 4 | 5 | | | | | | | | | | | | | | | | | |
| | 19 | | | | | | | | | | | | | | | | | | | |

Cryptogram:

Worrying is like a rocking chair, it gives you something to do, but it gets you nowhere. ~ Glenn Turner

Christmas Notice: Puzzles is organising a Christmas present for you, delivered to your nearest Felix collection point on Monday, 9th December 2019 - also the 70th anniversary of Felix!



SPORTS

sport.felix@imperial.ac.uk



ICXCAC Squad at the end of the Brighton 10k // Georgia Curry

ICXCAC Success at the Brighton 10k

A 56-strong squad of Imperial's runners went to Brighton for a day of running and making history

SPORTS

**Minty Hampden -
Martin**

ICXCAC Media Officer

Aymeric Regnier

ICXCAC Secretary

On Sunday 17th November, a rowdy group of 56 of Imperial's finest specimens woke up in the wee hours to catch their 6:36 train from London Bridge. While most would cringe at the idea of such an early wakke-up on their rest day, the ICXCAC runners all rose to the challenge and (nearly all) made it on time as it marked the beginning of a very special day in the club's traditions: the Brighton 10k: a flat and fast race on the seafront with a main out-and-back loop followed

by a 1.5km out-and-back finish which provides all the runners with relentless encouragement from their teammates, regardless of their position in the race.

While some finished (and others just began) their night on the train to the seaside town, the sun rose and started shining upon the athlete's game faces. With a habit of breaking PBs at this event, and perfect race

"On the train to the seaside town, the sun rose and started shining upon the athlete's game faces"

conditions on the day, all were ready to put in strong performances.

Heading to the Bright Helm Wetherspoons first to get changed, have one (or two) last coffees and loo stops, the team then set out to the waterfront to drop their bags, get their face paint on and warm up for the main event.

At 9:30, the gunshot signalled the start of the competition and the 1500-strong crowd hit the tarmac and the fierce race was on.

The boys were led by super-speedy Niki Faulkner who managed a rapid 32:19 to take overall 12th in the race, hot on his heels was captain, Henry Hart, with 32:44 and an overall 15th spot. Mihaly came in just 10 seconds behind. Tour Sec Misy also came in an outstanding 25th place in a blistering 33:36! Treasurer Tom Bayley ws

next in for the men in 46th place in 34:45, followed by Euan Bell in 54th place in 35:07, just a second ahead of men's captain Charlie McFadzean!

First of ICXCAC's girls was Women's Captain Georgia Curry who adds to her strong season by nailing a 10km PB with 36:50 and also took overall 9th Women. Sarah Johnson came in close behind in 36:58, followed by Social Secretary and rising star Alix Vermeulen in 38:18.

Catherin Spurin finished in 42:20, gaining a 10km PB which means she's managed to PB at 5km, 10km, half-mara, mara and ultra this year - no mean feat!

Other notable performances include Jessica Dring-Morris who smashed her 45 minute target by coming across the line in 42:46. As well as Charlotte Barratt who

succeeded on the negative splits, finishing the race with a 4:10min/km to come across the line in 44:47!

In the alumni, Chris Thomas put in an extraordinary performance coming 5th overall in a

"Catherine Spurin finished in 42:20, gaining a 10k PB meaning she's managed to PB at 5k, 10k, half and ultra this year!"

mind-racking 31:42 and Fergus Johnson made a welcome return to manage a 10km PB of 33:26 which

also featured a new 5km PB!

After a nice lunch, some rest, a few pints and a swim in the sea for the most courageous, the team headed home mid-afternoon, feeling content from this very successful day.

Brighton rounded off a cracking Autumn term for our team with strong efforts both in training and at races from all 200 (and growing...) members.

If you want to get involed with the club, make sure to contact us at run@ic.ac.uk for more information!

SPORTS

sport.felix@imperial.ac.uk



Toby Daneils (TUBE) 'throwing a dart' // Wikimedia

Heartache for Hertfordshire

IC Men's Rugby 1st XV thrash Hertforshire again, keeping their opponent's wounds fresh as they had inflicted a severe defeat just 5 weeks before

SPORTS

Toby Daniels

IC Men's Rugby Member

With the squeals and whimpers of the Canterbury 'players' still fresh on our minds, we headed back to fortress Harlington to kick off our cup run. Today's victims were familiar faces, they'd received a gentle 26-7 spanking a mere 5 weeks ago, an experience they were clearly unsatisfied with. The naughty boys had travelled far from their quaint Hertfordshire village, begging for a firmer hand. We were only too happy to oblige...

The game started well, from the very first phase Sochi's fifth appendage came swinging through their back line, catching

both centres across the cheek. A penalty lead to an early lineout, driven over the line by the valiant forwards of ICURFC. Hiding at the back of the mall, I was able to claim all the credit for the third time this season. An easy snipe for FAF followed not too long after, it was all going swimmingly.

Being the 'take no shit' 'bad boys' of the South Eastern BUCS leagues, we inevitably gave away a series of penalties. Unfortunately, being too handsome and doing whatever the f**k we want has its drawbacks and saw us defending a lineout just 5 metres from our try line. After winning approximately ZERO lineouts in the last game, Hertfordshire had given up all conventional tactics from the set piece. A sneaky short ball and a lapse of concentration, led

to the sweatiest of try's, lifting the opposition's spirit. We were determined to put them back in their place.

After some sensual interplay between our backs the boys had quickly run the ball out of our own half with a single strike play, putting Al Amino over the line. Jealous of all the attention, the forwards followed suit, scoring from yet another driving maul. The tries just kept coming, I'm watching the recording and I still can't keep count. A particular highlight has to be the efforts of Air Marshal Wheaton who had just landed his single prop pitch-side not 2 hours before. Selflessly lurking on the wing all game had finally payed off when he took off down the touchline, leaving their entire backline in the dust. A final (and laughable)

attempt at a tap tackle was shrugged off by the fighter Ace, allowing him

"A particular highlight has to be the efforts of Air Marshal Wheaton who had just landed his single prop pitch-side not 2 hours before"

to score under the posts.

Finally, something snapped, the shock

substitute for the number 10 position, had spat his dummy out. Not only had he helped us answer the age-old question 'Who ate all the pies?', he was about to bless us all with some quality entertainment.

The ball had only entered his orbit a handful of times before he'd had enough. His cheeks were red raw, hot to the touch. The open palm of the Imperial men's 1st XV had struck one too many times, the toys were firmly out of the pram.

Despite attempting to bully our honourable scrum half all game, Egor wasn't happy about Elliot's reaction. "Don't touch me!" He whelped (to a man the size of his breakfast), scampering to the other side of the field with tears in his eyes. "I said, don't touch me!" he exclaimed once again, clearly misunderstanding

the definition of a 'contact sport'. The onslaught was taking a toll, and it was only about to get worse.

The pummelling continued, what a sight it was. The final score line of 55-10 had us huffing our own farts for the second week in a row. The smell of victory is sweet. The defeated team left the premises with mixed expressions. Most with a coy smile, blissfully rubbing sudocrem onto their botties, having received the treatment they'd come for. Others hanging their beer bellies in shame, waved on by ICU's finest "See you in the new year fellas!" *blows kiss*

SPORTS

sport.felix@imperial.ac.uk



IC Triathlon Squad // Alex Luisi

Imperial Triathlon triumph at BUCS Duathlon

Imperial Triathlon excel at BUCS Duathlon after an equally adventurous journey to their race

SPORTS

David Ho
IC Tri Captain

Sunday 24th November was one of those days where the world seemed to be set against the Imperial College triathlon team as they prepared for their first British Universities championships: in duathlon, a multisport event comprised of a run, followed by a cycle, then another run to finish.

The difficulties began before race day, when a series of transport disasters occurred: a series of unfortunate events (or in less euphemistic terms, a colossal cock-up from someone who should know a lot better) resulted

in a conspicuous lack of a minibus to transport the majority of our competitors. A stress-filled and hectic day of contingency planning took place, and eventually the pumpkin of a situation became the beautiful carriage that is Great Western Railway.

Transport trials and tribulations overcome, our athletes gathered in the waiting area by Castle Combe racetrack, the air filled with anticipation and moisture. But the troubles were not yet over: just as the first wave was lining up to begin, the race was “postponed indefinitely” following a serious medical incident in a non-BUCS race previously. The competitors re-donned their layers and waited for news. After deliberation from the organisers, it was decided

that the race would be shortened to a two-mile run, six-mile bike, two-mile run.

After a very quick second warmup, the men’s elite wave were off. New recruit Leo Maisonobe was out first for IC, completing the first two miles in a scorching 10 minutes 17 seconds. Just seconds behind were Matt Ryan and Tom Butler, the latter of whom was very pleased that the shortened course favoured the strongest runners. On to the bike leg, where Leo kept on moving up the pack. Matt Ryan and Alex Wilson also put in stunning cycling performances, both well over 40 kilometres per hour. After battling through a painful final leg Leo Maisonobe remained best-placed with an incredible 22nd place

out of over 300 competitors, including many international athletes.

Next to go were the elite women: at the front of the Imperial crew were Minty Martin and Marion

“Matt Ryan and Alex Wilson also put in stunning cycling performances, both well over 40 kilometres per hour”

Artigaut, neck-and-neck out of the first run with 0.2 seconds between

them. Minty pulled ahead on the bike leg despite Marion’s well-rehearsed transitions, and narrowly held on through the final run to give her a fantastic 73rd place, the best female athlete from the club. Special mentions also to Remi Simpson, who finished her debut duathlon in style, pacing perfectly to finish well below the 50th percentile at national university level.

Finishing off the day were Noah Sprent and Harshil Joshi representing in the mixed wave. Noah demonstrated perfectly that consistent training pays off, with a bike leg that wouldn’t have been out of place in the elite competition. Harshil was plagued by a mechanical issue on the bike course, but kept his cool to round

out Imperial’s day with another solid performance, crossing the finish line to cheers from his supporting teammates.

In an exemplary display of grit and determination, the TriIC team proudly returned, looking forward to the relaxation and rewards of the festive season to come. Special thanks to our drivers Emma Claxton, Harshil Joshi and Alex Luisi, without whom the day would not have been possible.