



# Felix

The Student Newspaper of Imperial College London

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Dr. Kelly Ramirez from 500 Women Scientists at last week's edit-a-thon // Dr. Jessica Wade

## 500 Women Scientists

*In light of International Women's Day, Felix caught up with Dr. Kelly Ramirez and Dr. Jess Wade to discuss the issues facing women in STEM*

**NEWS**

**Isabelle Zhang**  
*News Writer*

**O**n Wednesday, 27<sup>th</sup> February, Dr. Kelly Ramirez

visited Imperial College London to give a talk on “Transforming scientific institutions through crowdsourcing and gritty determination”. The theme of the discussion was “empowering women scientists through public engagement and advocacy”.

In late 2016, after the huge upset of Hillary Clinton’s failed presidential run, Kelly and three graduate school friends decided to create a grassroots organisation committed to championing minorities – women, immigrants, disabled, LGBTQ+ - in the field

of science. Their first action after the November elections was to publish an open letter reaffirming this commitment, with the aim of getting 500 signatures. Within 4 days, they far surpassed this to reach 5,000 and, by January, reached 20,000. The name of their organisation,

“500 Women Scientists”, memorialises the 500 signatures target that at first seemed aspirational, but is now a constant reminder of their success. Today, this letter is found as a pledge on their website translated to 9 other languages.

Kelly explained the *Cont. pg 4*

## Voting opens noon, Monday

[imperialcollegeunion.org/vote](http://imperialcollegeunion.org/vote)

Manifestos inside



# EDITORIAL

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Printed by Mortons Media  
Group, Boston Road,  
Horncastle, Lincolnshire  
Registered Newspaper  
ISSN 1040-0711  
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## Happy International Women's Day

Today marks International Women's day and this week's cover story features a discussion with Dr. Jess Wade and Dr. Kelly Ramirez about the issues facing women in STEM. It was really interesting to catch up with them and look out for another interview in next week's issue with Dr. Shini Somara.



Andy Djaba – Felix Editor

Election fever arrested Imperial this week, with the successful Leadership Elections Live Debate taking place in Metric on Wednesday. I thoroughly enjoyed the debate and I want to massively commend Felix Comment Editor and social boi, Charlie Titmuss, and my guy DH and his ICTV team, for their remarkably smooth running of the event. The debates were a fantastic opportunity to meet the candidates and I encourage all students and voters to watch online to better make an informed decision.

Naturally, I was most invested in the Felix Editor role, providing punditry following the debate. The biggest challenge facing the next Editor is recruitment. As I've said many times, Felix would be nothing without the amazing Editorial team,

who volunteer their time to make my job (and life) easier. The role of Felix Editor is unlike any other sabbatical role in that the Editor directly leads such a large team and, therefore, a huge aspect of the position is related to the social side of club Felix and keeping the team morale high. Unfortunately for my successor, quite a few core members of the Felix family are moving on to pastures new. Drawing on my favourite analogy again, much like Sir Alex Ferguson in 2013, I'm leaving behind an ageing squad and it will be up to the next Editor to embark on an aggressive recruiting campaign to ensure

that their year in the role resembles Ole Gunnar Solskjaer's magical tenure and doesn't resemble the disastrous tenures of David Moyes, Louis Van Gaal and Jose Mourinho. Speaking of Man United, I'm going to use the rest of this Editorial to wax lyrical about our glorious comeback aggregate victory. I retract all of the bullshit I wrote in my 15<sup>th</sup> February Editorial following the first-leg defeat. The honeymoon period rolls on and it would be a disgrace, a tragedy and almost a case for national emergency if Ole Gunnar Solskjaer isn't offered the permanent managerial role now. Anyone

around the Media Hub on Wednesday night would have heard my screaming and raucous applause - I'll be (illegally) streaming the rest of United's Champions League campaign from the office and operating an open door policy so come down and witness history! #GGMU

For those of you saying, "but Andy, I thought you don't watch football?"... don't watch it. Mind the business that pays you. I was protecting my peace during the dark days at the start of the season and now I'm enjoying witnessing my team play with passion, pride and purpose again. After the disaster which was submitting the last 2 issues of Felix (don't even ask what time I left the office last week), I'm currently writing this Editorial earlier than I've ever written it and the paper will be submitted as early as it's ever been. My performance clearly subconsciously mirrors that of my team.

Section of the week goes to the Comment Section. Once again, I have to commend the immense work of Charlie, who not only chaired the Meet the Candidates debate but also managed to edit this week's largest section. Nice one mate!



### The Felix Team

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# NEWS

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## StudentShapers Project opportunities available across College

### NEWS

**Alejandro Luy**  
Deputy President  
(Education)

**Mike Streule**  
Director, Imperial  
StudentShapers

*StudentShapers offers opportunities for students and staff to break down traditional power-hierarchies and work together in educational design and research*

Staff and students often assume hierarchical positions in their relationship with one another – that of expert and novice, teacher and student or instructor and apprentice. You've likely already experienced this during your time at Imperial. In some ways it is a necessary part of education, but it doesn't always have to be, nor is it always the most effective model to achieve the best outcome. StudentShapers, which the Union and College have worked together to develop over the past twelve months is about cultivating authentic staff-student partnership in education, providing a way for both UG and PG students to get involved in educational design or educational research projects.

In all StudentShapers projects, staff and students are encouraged to break down those traditional power hierarchies to work constructively and creatively together. Why? Because students

are experts too, just in a different way to staff. Students are experts in being students, thinking like students and know exactly what it's like to work through challenging content both individually and with other students at Imperial. By recognising this and enabling staff and students to work together in authentic partnership – the creativity, quality and impact of project outputs is made all the greater and more wide-ranging.

Imperial is not alone with the development of StudentShapers – a number of other universities have similar schemes. However, what we have here is a strong Academic Rep Network which does a great job at providing the College with feedback and ideas on how to improve our educational experience. Now, with StudentShapers, the College can not only listen to feedback from students but also collaborate with students to work on that feedback, continuing to develop education at Imperial.

**“Joining a Student-Shapers project is a fantastic way to set yourself apart and challenge yourself”**

So what's in it for you? StudentShapers is a great opportunity to engage with your education in a new way, where your creativity, input and ideas will be just as important as those from anyone else



involved in the project. Not every student has the opportunity to apply their skills to shaping education at Imperial – joining a StudentShapers project is a fantastic way to set yourself apart and challenge yourself in a new field. On top of this, all StudentShapers projects have an associated bursary to support the engagement of the student(s) involved in the project.

**“All Student-Shapers projects have an associated bursary”**

Most StudentShapers projects run over the summer vacation, but there are a few long term projects that run for longer periods of time. If you are thinking about what to do this summer, take a look at one of the many projects available

at <https://www.imperial.ac.uk/students/student-shapers/how-to-get-involved/current-projects/>. The projects vary in both length and content – from redesigning a module or lab through to researching how students interact with digital learning. Check out the featured projects here to get an idea of what to expect!

**“The projects vary in both length and content - from redesigning a module or lab through to researching how students interact with digital learning”**

Something to do this Summer? // Imperial College London

**Featured project: Imperial Visualisations**

Over the past few years a project in Physics has been developing a digital visualisations library of science and engineering concepts. These allow the learner to interact with the concept, understand the underlying mathematics and see how they apply to their particular learning. The project is now expanding to other departments and will be implemented more widely in learning of key concepts in subjects- As one recent student partner on the project noted:

*“As I had just finished first year myself, I felt I had a good idea of the areas that could be supplemented by a visualisation”*

The project continues this year with further Student-Shapers opportunities available.

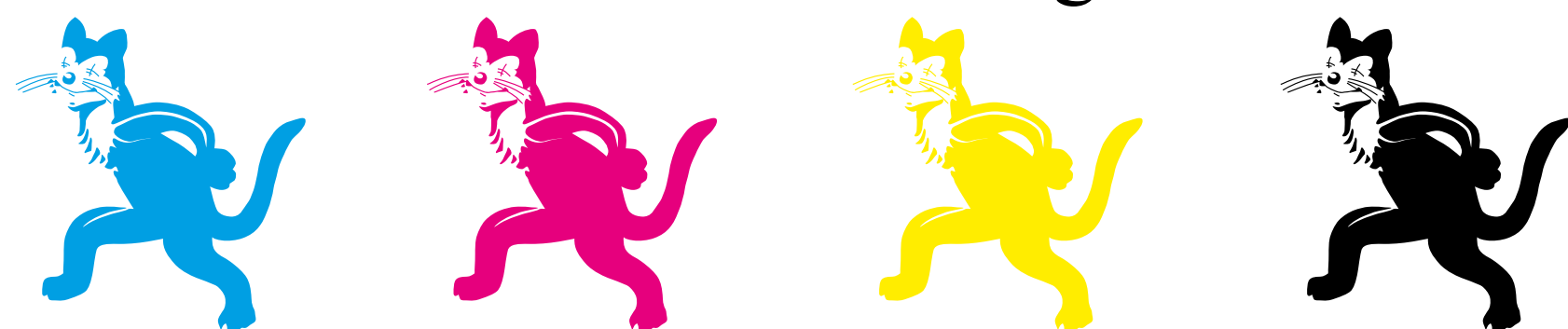
**Featured project: Imperial MedSTEP**

Last summer staff in the Faculty of Medicine partnered with year 1 and 2 students to develop the ‘Self Tests for Exam Preparation’ platform. By engaging with students the design of the online portal particularly suited the way students study and prepare for exams and how questions could be designed, whilst the staff partner ensured the content was clearly linked to the curriculum and matched to module learning objectives. One of the student partners within the team commented:

*“The implementation of weekly group gathering (round table) helped improve my capacity to receive and give criticism in a professional manner, which undoubtedly improved my teamwork skills”*

The project continues this year with further Student-Shapers opportunities available.

## Felix is recruiting!



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



# NEWS

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## 500 Women Scientists

**NEWS**

(cont.)

“leaky pipe” metaphor as a key issue tackled by 500 Women Scientists. The metaphor illustrates the “leaking” of women from the scientific talent pipeline, starting from high school science classes (49% women) to bachelor’s degrees (32%) to PhDs (25%) to top academic positions (only 11%).

This is due to the “institutional discrimination” within science, where the structural system for advancing one’s scientific career is built for only one kind of person: a cis white male. These discriminations take shape in the form of unequal pay for equal work, inadequate family leave policies, and workplace harassment. These factors build upon each other to pressure women to leave the field earlier.

Through 500 Women Scientists (500WS), Kelly and Co-founder Jane Zelikova implement solutions to institutional discrimination, although the full scope of the organisation’s work is much broader and has expanded beyond its original parameters. Kelly explains, “we quickly evolved from our reactionary beginnings towards a broader mission to serve society by making science more open, inclusive, and accessible.”

500WS provides resources to its local chapters, endearingly named “pods”, such as ones addressing “get out the vote” initiatives, public policy, ending workplace harassment, and science communication. They catalyse change by providing training, mentorships, and public outreach opportunities to members; they actively try to promote

women into positions of power and leadership, to become award winners or society presidents and more; they aim to make science accessible to everyone through events organised by local pods to bring science to the community, such as family night science camps. It is through these approaches, through crowdsourcing and gritty determination, that they want to transform scientific institutions.

Felix sat down with Kelly and Imperial Department of Physics research associate Dr. Jessica Wade, who is also known for her advocacy for women scientists. Jess writes biographies on Wikipedia of impressive women scientists whose work have not been celebrated or recognized enough. Dr. Shini Somara, host of the Scilence podcast, that interviews women in STEM about the challenges of being a woman in STEM, also joined the discussion.

**Felix:** *Has your organization faced any backlash or resistance, or come across people who strongly disagree with your mission?*

**Kelly:** Yes. We are women speaking out and any woman who speaks loud enough will get backlash. Mostly from emails or Twitter. The benefit of our organisation is that we do it behind the 500 Women Scientists wall. For a lot of the stuff we do, we sign it as 500 Women Scientists so there’s not an individual.

**Jess:** After I called someone out last year for being a horrible sexist, because he was, I got a bunch of emails for about a month every day, and also



Dr. Kelly Ramirez delivering her “Transforming scientific institutions through crowdsourcing and gritty determination” talk // Dr. Jess Wade

handwritten letters sent in these funny envelopes to me at Imperial. Quite a few very right-wing websites took against me and directed their hundreds of thousands of horrible people towards me as well.

**Kelly:** We did an AMA [Ask Me Anything] on Reddit. Horrible. The moderators running it, under the science subreddit, were unprepared for how many nasty comments there would be and they had to bring in way more moderators than they ever had to with any other science AMA. It was horrific.

**Jess:** You’ll always get haters, that’s fine, I don’t care. If they liked me, I’d be worried. That’s generally had to be my approach to it. The backlashes that upset you more are the ones where, professionally, people may not take you as seriously because you care about this kind of stuff.

**“It doesn’t matter what you do. You will always get haters”**

*How does someone who is being sexually harassed, or someone who feels discriminated against because they’re a woman, speak up in the workplace?*

**Kelly:** It’s really hard. Some institutions are going to be better about it than others. If you’re lucky, you’ll have a supervisor that you can go talk to and share your experience with, and who will be there to support you through the process.

**Jess:** I think that’s the tricky thing, that the majority of places, take the

UK, don’t have any policy to protect people who are suffering this.

*When I came in, I noticed a lack of men in the room. I think there was only 1, maybe 2 [the crowd ratio was 1 male to 15 females]. How do you affect real change, if you are having these conversations but only women are there, and women already know the problems?*

**Kelly:** I don’t think all women already know the problems. I think some women know, the majority probably “feel like something’s off”. I think that’s true for a lot of women, especially younger women. There are women who are just completely unaware and they’re probably in a very nice position of privilege, so they haven’t

been confronted with a challenge, so why would they know?

**Jess:** I think there are really great men, especially at Imperial, who are really championing the cause. I think Stephen Curry’s position [Assistant Provost (Equality, Diversity, Inclusion)] is so, so, so important. I do think men have to be involved, and it’s very similar to the kind of conversation about the lack of minority ethnic academics, right? It can’t only be on the few black professors already there to speak up; it can’t be up to them to fix that for all of the other black students coming through, you have to have other people doing it.

*20 years ago, there were 5% of the professors at Imperial were women. That rose to 15% in 2009.*

# NEWS

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*Since 2009, it’s only increased by 1%, so it’s going a step in the right direction but the pace of change is extremely, extremely slow.*

**Jess:** I think it’s departmental. You have departments like Medicine with 50-50 men and women and that’s because people take it really seriously. The Athena Swan Award is great because it was pretty terrible before for women academics.

It makes people collect data and to try and initiate practices to better support underrepresented communities and that’s always a good thing. You can’t get funding in Medical sciences unless you have at least the Athena Swan Silver, that’s had a really, really big impact and that’s why you have 50-50.

*Do you know the gender ratio of students at Imperial?*

**Jess:** Physics is about 20-25%. Really interestingly, Physics A-Level is 20-25% girls and Physics at university is 20-25% girls, so the girls who do Physics A Level are the only ones doing it at university. No-one does it as just a “hey cool, the universe is fun, I’m going to do it as a side project”,

and that’s really sad.

**Kelly:** That just highlights that each different discipline has a different challenge. In my field, biology and ecology, through undergrad and grad it’s 50-50, but there’s just a huge drop-off for postdocs and then for professors, whereas Physics already starts with a drop-off.

**Jess:** I think we really need to get better at how we talk about it. Women leaving isn’t because they are leaving and failing, it’s because every single job in the whole world wants to employ academic women scientists. When you finish your degree here you can choose to do a PhD if you want, but consultancy will want you, investment banks will want you, policy will want you, people will beg

		Female	Male
2017-2018	Undergraduate	35.8%	64.2%
	Taught postgraduate	47.5%	52.5%
	Research postgraduate	38.1%	61.9%
	<b>Average Percentage</b>	<b>38.9%</b>	<b>61.1%</b>
2016-2017	Undergraduate	35.6%	64.4%
	Taught postgraduate	47.3%	52.7%
	Research postgraduate	37.0%	63.0%
	<b>Average Percentage</b>	<b>38.4%</b>	<b>61.6%</b>
2015-2016	Undergraduate	35.1%	64.9%
	Taught postgraduate	45.2%	54.8%
	Research postgraduate	36.5%	63.5%
	<b>Average Percentage</b>	<b>37.5%</b>	<b>62.5%</b>
2014-2015	Undergraduate	34.1%	65.9%
	Taught postgraduate	44.7%	55.3%
	Research postgraduate	35.6%	64.4%
	<b>Average Percentage</b>	<b>36.6%</b>	<b>63.4%</b>
2009-2010	Undergraduate	34.4%	65.6%
	Taught postgraduate	39.5%	60.5%
	Research postgraduate	37.3%	62.7%
	<b>Average Percentage</b>	<b>35.8%</b>	<b>64.2%</b>
2004-2005	Undergraduate	37.1%	62.9%
	Taught postgraduate	40.4%	59.6%
	Research postgraduate	33.3%	66.7%
	<b>Average Percentage</b>	<b>37.0%</b>	<b>63.0%</b>

**Data shows incremental change in the percentage of women at Imperial in the last 15 years // Imperial College London**

for you to teach. There are so many different career options that you can do and you can go into one

where you’re not going to be subjected to sexism or isolation all the time.

## Staff consulted over pensions in bid to avoid "undeniable threat to jobs"

**NEWS**

**Joanna Wormald**  
Deputy Editor

Lecturers are once again being consulted about the future of their pensions as universities prepare for a planned increase in employer and employee contributions that is set to come into force later this year.

With the 2017 valuation of the Universities Superannuation Scheme (USS) concluded, universities have until 14<sup>th</sup> March to respond to the 2018 valuation of the pension scheme to which most lecturers belong. Imperial will circulate its proposed response to

staff on Monday, with a final meeting to be held on Tuesday. A formal response from the USS is expected in early April.

USS is offering two possibilities to overhaul previous planned changes that resulted in strikes and industrial action at more than 60 universities across the country. The “upper bookend” approach would require total contributions of 33.7% to maintain the current benefits; 23% of this would be paid by employers and the remaining 10.7% paid by employees. Universities UK, which represents the country’s higher education institutions, has claimed that this would be “unsustainable” and an “undeniable threat to investment and to jobs”.

The “lower bookend” approach would see

contributions set at 29.7% (20.4% from employers and 9.3% from employees). However, the USS is only willing to adopt this lower bookend approach if additional contingent contributions can be guaranteed in the event that “market events caused a further deterioration in the recovery of the deficit” (i.e. contribution levels would increase if funding for the scheme significantly decreased). As of March 2018, the pension scheme was operating with a deficit of £3.6 billion.

Employers are now being asked for their views on these proposals, as well as on the eleven principles set out by the USS under which it would be “prepared to consider” contingent contributions. These include the requirement for an objective “trigger metric”

that will only bring contingent contributions into force in the event of an “adverse scenario” (as opposed to normal market fluctuations); contingent contributions to be set at levels that will “substantially improve the funding position”; and a guarantee that contingent contributions will be paid in full if invoked. A letter to USS chair Sir David Eastwood from The Pensions Regulator confirmed that any decision to move away from the proposals that arose from the 2017 valuation would need to be

“fully backed by additional, tangible, and realisable contingent support from the employers”.

If no agreement is reached between USS and UUK, contributions will increase in accordance with results from the 2017 valuation. This would mean a phased increase in employer and employee contributions beginning in April this year. By April 2020, contributions would total 35.6%, with 24.2% coming from employers and employee contributions making up the remaining 11.4%. Imperial

recognises that these rises would be “unsustainable” for many staff.

If – as UUK hopes – the USS does adopt the lower bookend approach, the arrangements will be time-limited. A report on the long-term sustainability of the USS is due in autumn; its findings are likely to impact the next valuation (currently scheduled for 2021) and could effectively “reset” any decisions made regarding contingent contributions.

Effective date	Employer contribution	Employee contribution	Total
1 April 2019	19.5%	8.8%	28.3%
1 October 2019	22.5%	10.4%	32.9%
1 April 2020	24.2%	11.4%	35.6%

**Current planned changes // Imperial College London**



## COMMENT

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## The Imperial Bursary Scheme: a retrospective

Comment writer **Rhidian Thomas** discusses the impact of the errors made in the Imperial College bursary scheme and the mediocre efforts to reimburse students.

## COMMENT

**Rhidian Thomas**  
Comment Writer

Oh no, it's another article about bursaries in Imperial! Though I can't promise to be brief, I do promise that this is the last you'll hear about it, from me, at least.

I'll begin with the same preface given to every discussion of the bursary: genuine praise for the Imperial bursary scheme as a whole. College never tires of reminding us that the Imperial bursary scheme is amongst the most generous in the country, and nor should they – it's one of the very best and most commendable things about Imperial. Never mind the stellar research or the star academics; far more impressive is how the university tries, through the bursary, to afford their poorest students a university experience on par with their richer peers.

It's worth bearing these avowedly good intentions in mind when thinking about my topic today. A primer: the bursary entitlement for low-income students has changed several times over the last few years. The UG cohort entering Imperial in 2015 noticed that those in the £35,000-£60,000 income brackets received substantially less – by nearly £2000 a year in some cases – than they would have received



Imperial should offer White City bursaries // Imperial College London

had they enrolled a year earlier under the 2014-entry bursary scheme. Analysis by Imperial College Union showed that students in these "squeezed middle" brackets were now falling below College's estimate for the cost of living in London as a result. A total overhaul of the bursary structure followed, to ensure that every bursary recipient could – through a combination of maintenance loans, bursaries, and family contributions – afford to live and study in Imperial. From 2016 onwards, students in these middle-income

brackets would again receive several thousands more per year than they would under the 2015 bursary scheme, and in theory everyone could afford to study at Imperial – hurrah!

The problem was fixed, then – so what? Well, not quite. The catch is that the changes were not retrospective; once you're on a particular bursary scheme, you stay on it (provided your household income continues to fall below the threshold). This means that those students who signed on the dotted line in 2015 as incoming freshers have continued

to be short-changed for the duration of their degrees. Many of those affected graduated last year, and most of the rest – including me – will graduate in 3 months' time, often having received in the region of £8000-£10,000 less over the course of the degree than students a year older or younger.

This is not a small amount of money, even to those in the higher brackets of the bursary scheme. Bursary recipients comprise the bottom third of home students by household income. For reference, a household of two Imperial

graduates would expect to be bringing in close to £75,000 only 12 months after graduating, way above even the top bursary bracket (and over double the lowest household income of those affected).

Let's estimate how much money this would have cost Imperial to address. There were around 160 affected students when I brought this issue to the university's attention over two years ago in a

**"Students will graduate having received £8000-£10,000 less than those a year older or younger"**

Union Council paper. With the advent of the new scheme in 2016, students in the £45,000-£50,000 income bracket would receive £3100 more per year than those in the 2015 scheme. If every one of the affected students was in this bracket, it would cost College around £500,000 a year to fix the problem. A pretty serious sum of money, then, but remember that the 2016 scheme is the one devised by College themselves to ensure that every bursary recipient could afford to live in London.

Alternatively, the affected students could have been shifted onto the previous 2014 bursary scheme. This would be a cheaper option, with the biggest cut in the 2015 scheme compared to its predecessor being around £1900 a year (this time for those in the £40,000-£45,000 income bracket). A more modest £300,000 or so would be enough to cover this. Of course, these are all upper bounds for the cost of rectifying the situation; in reality, most students would stand to receive less than this, and the cost to College would be a lot lower.

I hoped that my Council paper would draw the attention of College management to what I assumed was an honest error in their calculations, something that had been overlooked by people with the best of intentions. I hoped that we'd ultimately receive a bursary in line with College's cost of living calculations; at the very least, I hoped it would be the start of a conversation between College and the affected students.

What followed instead was a tersely-worded dismissal, followed by two and a half years of... nothing. I thought that perhaps College would reach out to those of us affected, either directly – they knew who they were paying, after all – or through the Union. Sadly, this never came. I chased it up initially but my initial hopefulness was steadily diminished

## COMMENT

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by each hurried meeting and vague promise. Like most students who were affected, I eventually abandoned all hope that there would ever be a resolution.

\*

That's where we were until January 2019, when Felix reported on a new development in the saga: over two years since their original clipped response, and with a chunk of the affected students having already graduated, College have pledged a cash bung of £250,000 to put things right.

Great news, if a little belated – but there's a caveat. Rather than being given freely to affected students, in the same way as the bursary itself, this new money will go towards funding exclusive "specific opportunities" – namely UROPs, medical electives, and a bespoke careers package from the Careers service.

It's hard to understand the rationale behind this decision. If College were concerned about the situation all along, why not say so? Why reflexively dismiss the issue outright two years ago, when there was still time to do something meaningful about it?

And why insist that the money be worked for, in the form of UROPs or medical electives, when the whole point of a bursary is to remove the burden of having to perform extra work to get by?

You'd be forgiven for thinking that College were hedging their bets for two years, patiently waiting for the last of the 2015 cohort to graduate before burying the issue forever. A pretty cynical tactic, but it was working – the issue had all but died in the student body, and soon enough everyone



Metric bursaries? // Imperial College London

who ever remembered it would be long gone. But from the jaws of victory, College instead snatched a mealy-mouthed mea culpa.

I can think of a couple of ways this may have come about. The first would be the emergence of a split at the top of College between those who (rightly) think that College's responsibility towards some of its poorest students has been neglected in this instance, and those who (also rightly) worry about the PR implications of stirring the hornet's nest at this late stage and would prefer to continue playing the waiting game. Such a split would explain some of the less thought-through aspects of the proposal; take, for instance, the decision to fund UROPs for students who are mostly about to graduate, many of whom will soon be

without a place to live in London and who (by virtue of being final-year students) are unable even to apply for summer accommodation in halls at student prices.

What's more, students were informed of this opportunity in a joint email from the Provost, the Union President, and the DPW, sent on the 18th of February. The deadline to submit the 1000-word application form was the 28th of February, giving students ten days to identify a novel research topic, approach potential supervisors, assess whether they would be able to find accommodation over the summer, and agree on a provisional timeline with their supervisor. I suspect that I don't have to explain the implausibility of this, especially for the ever-frantic final-year students.

What troubles me more is the notion that

this is instead a last-gasp attempt to control a narrative. In the silence following College's initial response in 2016, those who were aware of the situation grew disenchanted with the university's reticence to engage. Discontent among staff has been a tinderbox for a while; last year's pension dispute provided the necessary match for it to ignite in unprecedented industrial action. In breaking their silence on the lingering bursary issue at this late stage, College may have been hoping to sweeten their image in the minds of graduating students – students who will shortly be filling in the dreaded NSS; and if they happen to soften the resolve of the more militant staff members in the process, so much the better for them.

\*

**"Imperial spends £5.6 million on 'Key Management Personnel'. £500,000 would fix the low income bursary"**

would be a shame for the money not to be used given the above. But one question remains: what went wrong in the

first place? College will correctly say that there were probably various legal impediments to fixing the issue; that the access agreement is drafted years in advance; that the Union agreed to the changes in the first place, so that students themselves are partly to blame. These arguments are all fair and true; they are also all undermined by the fact that College eventually managed to find £250,000 down the back of the sofa at the eleventh hour.

Couldn't College have fixed this issue years ago, then? Would it have bankrupted the country or, worse, the university? I can't answer these questions because, fortunately for all involved (not least myself), I am not in charge of the university finances. Before finishing though, I'd like to highlight a few things that may help you come to your own conclusions.

In 2017, Imperial had by far the highest expenditure on senior management pay in the UK (as reported in *Felix 1688*), with each of the 20 "Key Management Personnel" earning, on average, around £280,000 – for a grand total of over £5.6million. The next highest was Southampton at £3.7million, nearly £2million (or 4 times £500,000) less. Imperial's president, Prof. Alice Gast, earned £433,000 alone last year, and she wasn't even the College's highest earner; this is separate to the £300,000 she receives from Chevron for her work as one of its non-executive directors, as recently disclosed in an email to all staff. £500,000 to fix the low-income bursary, then: a stretch too far? To adapt a well-worn cliché: it's not about the size of the budget, it's about how you use it.



# COMMENT

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## The Anti-Vax movement

*Questions I have about this movement and my own answers to them*

### COMMENT

**Isabelle Zhang**

*Comment Writer*

**E**t h a n Lindenberger is an American high-school senior who, on Tuesday, testified before the US Senate Committee on Health, Education, Labor and Pensions. He got himself vaccinated after asking on Reddit how to do so against the wishes of his anti-vax mother.

In his testimony, he attributed his mother's misinformation to anecdotal guidance from Facebook and church. His mother believes vaccines cause severe side-effects such as autism or permanent brain damage.

**"He got himself vaccinated after asking on Reddit how to do so against the wishes of his anti-vax mother"**

I always dismissed the anti-vax movement as another social media and populism fuelled phenomenon, but I never stopped to wonder why this is still a topic under discussion. There is overwhelming research backing the safety and

efficacy of vaccines, disproving its link to autism, how is there still room for debate?

**"I always dismissed the anti-vax movement as another social media and populism fuelled phenomenon"**

But before getting into the more intricate arguments, a couple of quick cases against vaccinations and why they are unfounded. One common claim is that, "Vaccines contain harmful chemicals such as aluminum, mercury, and formaldehyde." These are, in truth, present in vaccines, but not in large enough amounts to be dangerous; children get more exposure to aluminum through breast milk than from vaccines. Another, "Autism frequency has increased (in the US, 1 in 59 children are on the autism spectrum) with the rise of vaccination rates." This can be attributed to better and more accurate diagnosis of autism, not an actual rise in its occurrence. These two observations are linked only through a progression of modern medicine; correlation does not equal to causation. And lastly, "vaccines cause severe side effects like anaphylaxis." The risk of anaphylaxis (a

severe allergic reaction) induced by a vaccine is 1 in a 1,000,000. The risk of dying in a car crash, however, is 1 in 303. And before the measles vaccine was introduced, measles infected 4 million Americans every year.

The arguments get more complicated and difficult to rebuff from here. Most anti-vax parents refuse to vaccinate their child out of genuine concern and suspicion - they believe the risk of vaccination is higher than the risk of catching a vaccine-preventable disease. It's an easy mistake to make: there are a decreasing number of cases of vaccine-preventable disease, making their threat seem small. But of course, the only reason for this decrease is because vaccination rates have, until recently, been increasing. What people aren't told, but should be, is the number of people who would be infected when different population percentages are vaccinated.

Whether or not vaccines should be mandatory (with exemptions to immunocompromised individuals and those at risk of anaphylactic shock) is yet another debate. The financial cost of preventing disease is much less than that of treating and recovering. There is also the explanation of herd immunity, where infections cannot spread when a threshold percentage of the population is vaccinated, so even unvaccinated individuals cannot contract disease. The crux is, whether a government can infringe

on individual freedoms, make health decisions for everyone, even if for the public good. Furthermore, in order to be compulsory, the government must be able to track the vaccination status of everyone, likely through a database, which is yet another way the government would irritate the anti-authority libertarians. But, living in a democratic society has been, and always will be, an ultimate paradox of freedom and sovereignty. You give up the right to certain freedoms (following the law) in exchange for the benefits of living in a society.

**"Most anti-vax parents refuse to vaccinate their child out of genuine concern and suspicion - they believe the risk of vaccination is higher than the risk of catching a vaccine-preventable disease"**

So, who can we blame? The health industry, for one. There is a staunch belief amongst a certain wing of anti-vaxxers in

a global conspiracy to deliberately make people sick so that Big Pharma can profit from treating them. They ignore the scientific basis for vaccines because they're sure that Big Pharma tampers with statistics and cherry-picks data. I read a comment online from a mother who wasn't going to vaccinate her son because she thought her doctor would ignore her concern of vaccine-induced side effects, and ridicule her for even considering the possibility. It's no surprise people are unwilling to trust the health industry; they've had their fair share of scandals: the opioid crisis, Big Sugar...

I believe that improved science communication and transparency is at the core of halting the anti-vax movement. What links populism to this movement is a deep-rooted distrust in the government, suspicion of big corporations and establishments, including scientists. Scientists should stop underestimating their audience, but also shouldn't scoff at the doubt in vaccines and expect anti-vaxxers to discover the flaws in their own argument. The sentiment that science can only be understood and discussed by experts has to be destroyed! It is this very sentiment that infuriates anti-vaxxers when their concerns are met with jeers instead of proper, clear explanations. For all the scientific papers that anti-vaxxers reference that do somehow show a causation between vaccines and other diseases, the

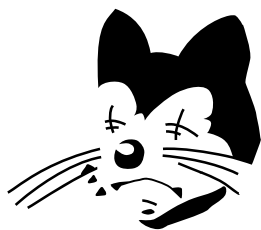
scientific community should acknowledge the existence of these articles, then explain why they are not credible: too small a sample size, conflict of interest, unreliable source, faulty methodology etc. Simply repeating to them that there isn't any correlation without explaining the basis for the statement, or discussing their erroneous sources amongst only themselves, is not convincing.

There should also be more information on government websites explaining vaccination on a societal basis instead of only providing information for individuals. We should also learn to weed out misinformation campaigns based on discord and fear-mongering of the public and acknowledge that these groups are separate from parents who act out of genuine concern for their child's health. Lastly, a campaign of promotion instead of suppression should be pursued. Even if untrue information is being suppressed, it makes anti-vaxxers to feel even more alienated and that their opinion has been overlooked, and only serves to reinforce their distrust in the government and in industry for controlling what they have the freedom to say.

**"The crux is whether a government can infringe on individual freedoms"**

# COMMENT

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## Grumpy Bastard's Elections

This week, **Grumpy Bastard**, writes about the student elections...

### COMMENT

#### Grumpy Bastard

Comment Writer

I'm unsure how many of you are aware of this but apparently voting in the student elections opens at 12 am today. A keen follower of student politics myself, I am excited to find out just who my representatives to the Union are going to be. Despite several years watching every single team of sabbs accomplish almost nothing of note during their tenure, it is

always exciting to find out just how this next crop will fuck up.

I'm especially excited to find out just how they will waste all of the £30000 being funnelled into their pockets. Given that they are mostly brain dead by the time they have finished the role, I imagine a significant proportion of it is spent on life support- although they clearly did not invest enough to allow the sabbs to breathe and approve payments at the same time. That's what happens when you have the IQ of a small legume.

However, I'm getting ahead of myself. At this

point in time, we have not yet made the choice of which mindless clone we're going to have in the Union, or exactly how far college will have an arm up their arse telling them exactly which way to yelp. No, we are still in the sweet spot beforehand, where anything may yet be possible. Campaigning began on Wednesday and already I've seen at least 8 or 9 shit posters with a pun on their name based on the role they were applying for. In all honesty the KGB probably had a better sense of humour.

I'm unsure if you were unlucky enough

to catch the Meet the Candidates debate, but let me assure you, I was an avid viewer. ISIS haven't been releasing quite as many execution videos as they used to and I was excited for a recreation of Meet the Candidates 2018. However, I was disappointed when the event proved to be remarkably well put together and ran semi-smoothly, despite audio issues and a host that looked like Princess Diana immediately before she went through the car dashboard. It was also weird that they let Edward Snowden commentate on the sofa. I thought he was

still holed up in Moscow being choke-fucked by Vladimir Putin. This year's candidates at least seem promising; they made a lot of promises.

However, it may be that, by roasting our student representatives, I am missing the point. Every year, candidates promise meaningful reform and change, and yet every year they completely fail to deliver. At present we are witnessing a very real reduction in services offered to students, with cuts to the food available on campus and failures by college essentially going unpunished. Is it truly fair

to blame the candidates, who I genuinely believe, cross the Union threshold on their first day with the best of intentions? It's not their fault that the world of graduate employment just wouldn't suit them at the present time. The problem ultimately lies with the Union bureaucracy being run not for the benefit of the students at Imperial, but to meet budgetary targets set far in the past. The fact that the sabbs are there for me to fling shit at only shields those that act behind the scenes to fuck everything up. But I'm not here to offer solutions. I'm just here to hate.

## Leadership Elections 2019

### Glauca Pereira - International Officer Manifesto

There are a multitude of students from a wide range of backgrounds who call Imperial College their home. As a University placed in one of the most diverse and metropolitan cities in the world, it is only natural that the university reflects that, and the number of students who travel from abroad to study at our great university is only increasing. Therefore, it is vital that students who have come from abroad, have the representation that they deserve. As this country faces the major changes that come with transitioning outside of the EU, a key focus should be on providing proper support to all current and future students, not just from the EU, but other destinations overseas as well.

Emphasis should therefore be placed on ensuring that International students are properly supported throughout their time at the university with the many challenges and difficulties that arise from living abroad. Moving to such a large urban city can be daunting and ensuring that students are supported during this transition phase would be a top priority.

London is a cultural melting pot and by promoting the respective international societies within the university and integrating them more deeply within the student experience, Imperial College can better capture a truly unique atmosphere to foster a sense of harmony, diversity and acceptance.

The international itinerary:

Ensure the university continues to provide support and remains committed to EU students, giving them a voice in these tumultuous times.

Create more events to give International students a stronger sense of belonging

Tackle racial discrimination and xenophobia within the university

Work closely with the Welfare department to ensure essentials such as accommodation and VISA documentation are guaranteed, and a seamless transition is possible for students approaching second year.

### Glauca Pereira - Deputy President (Welfare) Manifesto

We shall no longer accept the culture of abuse, veiled within an institutional system. We shall no longer accept the Imperium of a decadent, fake, culture of castes. We are multicultural, multiracial, multinational, multigender. Rich in complexity and beauty. Every student, independent of background, social standing, physical appearance, gender, and age is a unique and fundamental piece of the puzzle, that makes Imperial worth its international reputation. Welfare, wellbeing — these are key. We wish an Imperial freed from prejudice and apartheid. We wish an Imperial we are proud to be a part of. We will not close our eyes anymore. We shall not be naive anymore. We wish for regulations and words that are mirrored by attitude and action.

It is hard to keep on track with all the communication received via multitude of mailing lists. Hard to see beyond the good news, when one is not there, to see behind the curtain. We are proud to say that Imperial college is home to the greatest concentration of high-impact research in the country. However, the Imperial institutional culture of silence in face of abusive behaviour is "outstanding". A long list of complaints and several testimonials, alongside independent research, carried out to assess Imperial College's institutional culture and its impact on gender equality were carried out in 2015. A review on these findings, was communicated to the Imperial College community, in early 2016. The results were astonishing.

Now, 3 years later, one may wonder what has changed. One may inquire on which lessons were learned and how exactly has this prominent educational institution managed to educate its members, to think outside the box, recognising that innovation, prestige, and technological advancement might benefit society, and therefore, should not sacrifice people's wellbeing. How do we educate a community and promote a change in behaviour?

More importantly, shall we infer that the problem goes beyond gender inequality? It is not all about gender. We do not wish to fall into this cliché. Let's invite ourselves to reflect on our concerns, to observe our environment, to open our eyes to what goes wrong. Let's put an end in the culture of "it is not my problem". We are a community. Therefore, if one orange is contaminated, sooner rather than later, the whole basket will be compromised.

I spent several years in this university, I personally experienced how negative the Imperial institutional culture can be. Unnecessary obstacles placed in one's way, by the ones who are supposed to be here to support. An endless chain of complaints, which for one reason or another stay in closed drawers for ages. Biased application of college regulations, distorting the rules that should be there to assure priority on individuals' wellbeing. The academic life may naturally entail a certain degree of pressure, to achieve excellence. This, enhanced by ignorance, abuse, and impunity may severely risk both people's mental and physical health.

We wish to be different. Before, we wished to see our children being judged by the strength of their character not by the colour of their skin. Now, we wish more. We wish a utopic community where differences (gender, race, background, nationality, ...) make us stronger, instead of segregating. We believe that together, taking responsibility, we can make this utopia come true.



# POLITICS

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## War, What Is It Good For? Absolutely Nothing!

### POLITICS

**Avirup Banerjee**  
*Politics Editor*

On 14<sup>th</sup> February 14, 40 Indian paramilitary soldiers were killed by a suicide bombing in Indian-Administered Kashmir. Whilst the bomber was born and raised in India (a fact ignored by the Indian media), he was funded and equipped by the Pakistan based terrorist organisation JeM, who have publicly taken credit for the attack. Over the last two weeks in tit-for-tat the militaries of both countries have conducted cross border operations, thus escalating the tensions between the nuclear armed states.

**“On 14th February, 40 Indian parliamentary soldiers were killed by a suicide bombing in Indian-administered Kashmir”**

When the last three American presidents were asked which region gave them the most sleepless nights, the answer wasn't

Russia, North Korea, nor Iran. The India-Pakistan conflict over the disputed region of Jammu and Kashmir has been at the epicentre of at least three nuclear flashpoints in this millennium. This colonial era conflict has already resulted in over four wars, with the latest one being in 1999 when both countries had declared nuclear arsenals.

**“The India-Pakistan conflict over the disputed region of Jammu and Kashmir has been at the epicentre of at least three nuclear flashpoints in this millenium”**

But before we move forward, perhaps a brief historical refresher is required. In 1947, as 200 years of British colonialism in India was winding down, the borders of the region had to be redrawn for the creation of Pakistan. Partition was a messy affair with over 1.5 million deaths in Punjab and Bengal over the contentious border, let alone the question of the princely states. The border which was drawn by a British civil servant

who before had never been to India, had omitted the three princely states whose rulers had refused to merge with either India or Pakistan. Whilst Hyderabad and Junagadh was successfully annexed into the Indian union, the question of Jammu and Kashmir remained. Kashmir had a Hindu Maharaja ruling over a kingdom which had a 70% Muslim population, and controlling vital rivers for both India and Pakistan.

Voltaire famously said of Prussia that unlike most states which have an army, in Prussia the army had a state. This description perfectly describes Pakistan, with most of the period since independence having been ruled by the military. In order to sustain its disproportional budget allocation, for pure survival the military establishment must maintain the constant fear of a perennial enemy. Since the Soviet invasion of Afghanistan, it has been the policy of Pakistan's military establishment to use Islamic militants “to bleed India through a thousand cuts”. When Pakistan-funded militants bombed the Indian parliament in 2002 and laid siege to Mumbai and killed 174 people in 2008, tensions between both countries were at boiling points. Yet previous Indian governments had the good wisdom of practising restraint. But this is an election year in India.

The Modi-led Indian government launched “pre-emptive” airstrikes within Pakistani territory, the first ever military response outside the

disputed Kashmir region since 1971. In order to save face, Imran Khan, Pakistan's cricketer turned Prime Minister, ordered retaliatory air strikes last week. Whilst the details remain murky through the fog of war, an Indian MiG 21 was shot down in Pakistani airspace whilst shooting down a Pakistani F-16. Thankfully all the airmen safely ejected.

**“This colonial era conflict has already resulted in over four wars, with the latest one being in 1999 when both countries had declared nuclear arsenals”**

What started off as a measure to appease Modi's right wing flank ahead of the upcoming general election, a series of miscalculations have had the subcontinent, if not the world on the verge of nuclear annihilation. In fact, the capture of Indian Airforce Wing-Commander Abhinandan, which was recorded by smartphones of Pakistani villagers, forced both sides to deescalate. As a peace measure, Pakistan released Wing-Commander Abhinandan back to Indian hands last Friday

as per the Geneva Protocols. So the world can rest easy once again, till the next time these two quarrelsome neighbours think to raise the collective blood pressures of people around the world.

In order to avoid a repeat performance, there must be concrete measures undertaken by both countries. Firstly, Kashmiris must recognise that an independent Jammu and Kashmir will never materialise because the geopolitical reality will never tolerate an independent state sandwiched between three nuclear powers (the third one being China). Therefore, the many rightful grievances of young Kashmiris must be settled within the Pakistani and Indian states. Secondly, the Pakistani state must abandon its foolhardy use of proxies to change the borders of the Line of Control. For too long, international terrorists like Hafiz Saeed and Massod Azhar have walked the streets of Pakistan with impunity. For who can forget that Osama Bin Laden was living a few kilometres off their GCHQ. If Pakistan doesn't want to be a pariah state, it must accept the diplomatic norm of this century, Pakistan must stop funding terrorist organisations and help to bring them to justice. Not only India, but Iran and Afghanistan have suffered in the hands of Pakistani terrorist. But above all, the good people of Pakistan have lost over 70,000 fellow citizens to the scourge of terrorism since 2001. And lastly, Indian politicians must

not heed the sabre-rattling of the Indian far right and recognise there can be no winners by provoking Pakistan with military attacks, especially because Pakistan has not declared a no-first use policy with respect to its growing nuclear arsenal. Above all, India must recognise the legitimate grievances of the Kashmir people. To start with, India can repeal the Armed Forces Special Powers Act, which has effectively militarised the state for too long, and begin meaningful talks with Pakistan and separatists to peacefully resolve the conflict.

A hundred years ago, the first world war consumed the lives of 21 million people and changed the course of history. The book *Guns of August* examined that at the heart of WWI was the miscalculations by each side. With nuclear weapons in the equation there can be no such miscalculations. The fate of humanity is within the hands of Pakistan and India. Let us hope that cooler head will always prevail.

**“Partition was a messy affair, with over 1.5 million deaths in Punjab and Bengal over the contentious border”**

# SCIENCE

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## From single cells to multicellular organisms: witnessing evolution

### SCIENCE

**Henry Alman**  
*Science Editor*

Researchers from the George Institute of Technology and University of Montana have witnessed in real-time the development of single-cell algae into more complex multicellular organisms – and, astonishingly, the process took only 50 weeks, or just 750 generations. The only driving environmental factor was predation by another simple, single-celled organism.

The research resulted from a relatively new approach to investigating the transition from unicel-

lular to multicellular life. As opposed to retrospective approaches, which rely on incomplete fossil records and comparing more recent multicellular to distantly-related extant unicellular organisms, this “experimental evolution”

**“the development of single-cell algae into multicellular organisms took only 50 weeks, or 750 generations.”**

is more prospective in style.

Two of the five experimental populations evolved into multicellular life – and both showed a high degree of variance in their traits and life cycles, within each population and between the two. As evolution works on the basis of beneficial mutations becoming normalised over a population over multiple life cycles, this is exactly what one would expect; however, witnessing it develop in real-time is an exhilarating development.

The reason the mutation into larger, multicellular organisms was beneficial is that, like many predators, the filter predator used (*Brachionus calyciflorus*) can only

prey on a narrow range of sizes, referred to as the “predation threshold”; larger organisms, in this case the evolved multi-

**“The reason the mutation into larger, multicellular organisms was beneficial is that the filter predator used can only prey on a narrow range of sizes”**

cellular algae, are largely immune.

Key to note is that the algae (*Chlamydomonas reinhardtii*) displays a tendency to form palmelloids under certain conditions, which are globs of divided cells resulting either from daughter cells failing to break free of the cell wall upon division, or the cells producing a gelatinous or mucilaginous substance which then cements them together. The unicellular algae therefore already had access to “a toolkit for producing multicellular structures”, although an “optional” one as opposed to the evolved form’s obligate multicellular structure.

That this response occurred purely in

response to predation, with no other selective pressures, shows that predation likely played some part in the initial evolutionary leaps to multicellular life - leaps that eventually culminated in complex organisms like humans.

It also produced some stunning timelapses, viewable on the original article in *Nature*.

## Infectious diseases could be diagnosed with smartphones in sub-Saharan Africa

### SCIENCE

**Henry Alman**  
*Science Editor*

A new Imperial-led review has outlined how health workers could use existing phones to predict and curb the spread of infectious diseases.

The review was published in *Nature*, and involved researchers from Imperial, the Karolinska Institute, UCL, The University of KwaZulu-Natal, the Africa Health Research Institute, and the London School

of Hygiene and Tropical Medicine. It outlines how healthcare workers in low-income countries, like those in sub-Saharan Africa, could use existing smartphones to diagnose, track and control infectious diseases.

It also says that smartphones could also help enable people to test themselves and get results and support in their own homes. This would make it easier for people to look after their own health - particularly in rural regions, where clinics can be very distant. For example, patients worried about a potential HIV infection might be

more inclined to get tested if they could do it at home and avoid the stigma of attending a clinic.

Many smartphones have sensors built in that could aid diagnosis, such as a heart rate monitor and an oximeter, as well as a camera and microphone that can be used to analyse images and sounds like a person’s breathing.

In addition, simple testing technologies are being developed that can be linked into a phone, via a USB stick or wirelessly. In theory, a person could test themselves using an easy to collect sample, such as a pinprick of blood, and the results

would be scanned onto mobile apps. Approaches outlined in the review include apps that use the phone’s camera to interpret test results, send findings to local clinics or healthcare workers, and host virtual follow-up appointments with healthcare workers.

Combined, the test results would then build a picture of symptoms across a region to help predict and fight current and future outbreaks.

The authors add that these ideas are not without challenges. Although rapid technological advances have improved access to testing, more

than 35 percent of the world does not have access to mobile phones. It is also easier to accurately collect and analyse samples in a healthcare setting, where there are trained staff and the environment is designed to be sterile, than in a person’s home.

Furthermore, safeguarding measures must be put in place to protect the privacy and confidentiality of patient data, the authors say. These measures must also be fully explained to users to build trust in and encourage adoption of these new healthcare services.

Still, the report’s

authors remain optimistic. As of 2016, global smartphone adoption has reached 51 percent and is predicted to keep growing - particularly in resource limited settings such as sub-Saharan Africa. The potential to develop these powerful new tools in diagnosis and disease outbreak predictions is only growing.



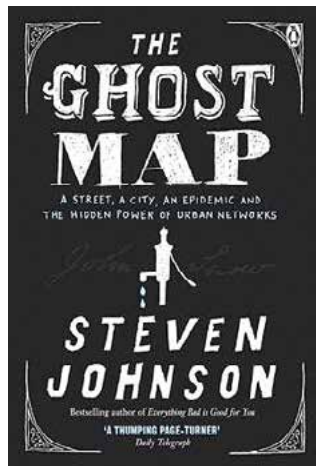
# BOOKS

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## *The Ghost Map*: dive into the 1854 London cholera outbreak

### BOOKS

**Jia Qi Tan**  
Books Writer



The setting of this book - a cholera outbreak in Victorian England revolving around cesspools contaminations - is not particularly the most attractive thing in the world, yet it's fascinating to see the story behind how we came to understand that cholera is water-borne, how it established the base of epidemiology, how the public health and city planning system evolved, and how it made urban-living possible. There are many aspects to this cross-disciplinary case study that it's difficult to string all my thoughts on it together.

### The premise

It's 1854. Enter the thriving, rising city of London with 2.5 million people in the cramped, underdeveloped Elizabethan infrastructure. With the population skyrocketing but without proper sewage system, residents at the

time simply discarded of their wastes in cesspool, and following The Nuisances Removal and Diseases Prevention Act of 1846, into the river. Miasma theorists concluded that cholera was air-borne, caused by "miasma" particles spreading in air. Therefore legislations based upon that idea, originally meant to stop the spread of infectious diseases, ironically encouraged the disease we now know is water-borne. By late August and early September, the infamous Broad Street outbreak occurred, with over 10% of the population dying in the span of seven days - giving way to physician John Snow a chance to prove his germ theory with raw data.

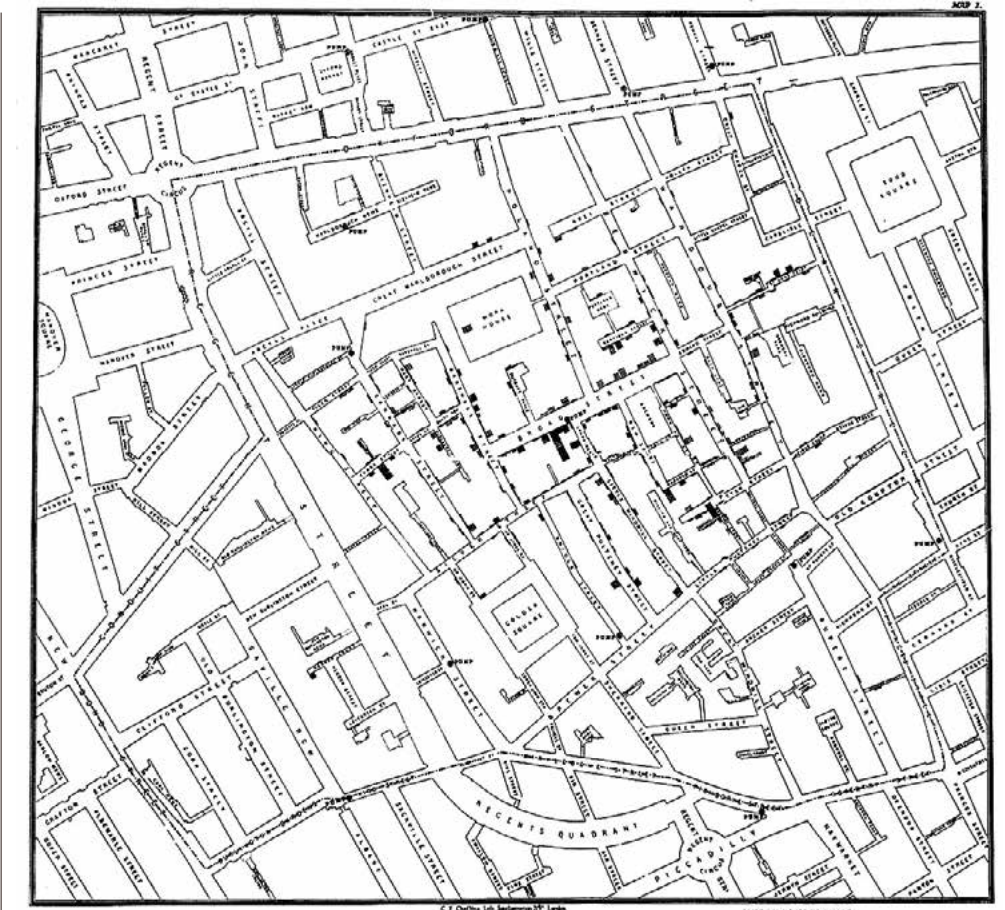
### The double-blind experiment and the data collection

Now looking back, it's absolutely impressive that Snow seized the opportunity to utilize the event as an intersection between a natural experiment and an observational study to examine possible causes, since controlled experimentation was certainly not a viable option given technical limitations and ethical concerns. As with all observational studies, obtaining accurate, reliable information required tremendous effort. Fortunately, Snow recruited the help of Henry Whitehead, a local curate with access to information otherwise unavailable to Snow. Whitehead had the advantage of first hand experiences with the community members.

As a result, he was able to acquire a diverse set of data, which enabled him to observe correlations between unusual factors. From there Snow drew the ghost map that shows clearly how concentrated the cholera cases were around a single source that is the contaminated water pump. It's worth pointing out that this fits into the framework of a double-blind experiment, as neither the patients nor the investigators knew the true cause of cholera was, thus eliminating potential biases. In a traditional experiment, water supplies might be overlooked as a predictor, but in observational studies, all the confounding factors eventually steering clear and the true independent variable eventually coming to the surface. This mode of collaboration sets the foundation for modern day epidemiology, combining demographic study and scientific data.

### How faulty ideas persist despite evidence

An idea that had personally intrigued me and appeared many times throughout Snow's investigation was how the Miasma theory persisted despite the concrete evidence against it. Even before the outbreak in 1854, Snow grew skeptical of the theory, doubtful of how the same doctor who attended the infected patients during the infectious phase stayed free of cholera. Yet its proponents remained fiercely for the miasmatic theory to a point where their confirmation



Cholera Map // Wikimedia

bias "blinded them to the patterns that Snow and Whitehead perceived so clearly". In an attempt to test Snow's findings, Hall's team, the Board of Health Committee, failed to examine the factors resembling water consumption patterns and instead focused on those relating to miasma and sanitary conditions, which happened to be confounding factors. This is not the first story of one theory overthrowing another, but nevertheless the difficulties involved shows how stubborn the scientific community could be and the possibility of the right ideas out there waiting to be proven right.

### A glimpse into alcohol in preventing cholera

Another aspect that stood out to me was the role alcohol played in the quest for the true cause

of cholera. Historically, the solution to combat the lack of unpolluted water was through consumption of alcohol, as its antibacterial properties helped fight off waterborne diseases like dysentery. Before the arrival of coffee and tea, beer and wine domesticated "one microbial life-form in order to counter the threat posed by other microbes." In many instances in the investigation of cholera, alcohol found its way back to the stage and later leading Snow to conclude that cholera was caused by the bacteria *Vibrio cholerae*.

### The effects

Consider the effects of such an outbreak - not only the deaths, but also the chaos and the helplessness - and the idea that perhaps high-density living is not feasible, that a

city may just collapse. Therefore identifying the contamination as the cause of the outbreak and proving that cholera is waterborne gave many a glimmer of hope and takes away that fear of urban-living.

### Some final thoughts

His writing paints a vivid picture of Dickensian London, summarizes well a multidisciplinary case without overemphasizing on any aspect and adds colour to a subject that could be a little dry otherwise. This story, as author Steven Johnson puts it, of "a deadly bacterium, a vast city, and two gifted but very different men" is certainly a worthwhile read for those interested in learning a thing or two about history, statistics or public health.



# MUSIC

music.felix@imperial.ac.uk

## Powerful lyricism and unbridled virtuosity

*That's right, Felix Music has gone classical.*

### MUSIC

ROYAL PHILHARMONIC  
ORCHESTRA



Venue: Cadogan Hall. Date: 28<sup>th</sup> February 2019. Ticket Price: From £15.

**Elizabeth Thong**

Music Writer

### PROGRAMME:

**STRAVINSKY:** Suite for Small Orchestra Nos.1 and 2

**KORNGOLD:** Violin Concerto

**DVOŘÁK:** Symphony No.9, From the New World

**S**eeeking *New Horizons II: New Discoveries* is the second of a three-part series celebrating the composers who pushed the musical boundaries of the period. The Royal Philharmonic Orchestra concert paid homage to the integral roles Stravinsky, Korngold, and Dvorak played in the transitions from late Romantic to 20<sup>th</sup> century music, with the integration of Romantic lyrical harmonies with the dissonance of 20<sup>th</sup> century melodies. And what a celebration it was!

The concert opened with some of Stravinsky's (1882-1971) lesser known works, the *Suite for Small Orchestra* Nos. 1 and 2. Originally written as piano duets, the Russian composer orchestrated the works between 1917-1925, shortly after completing his famous *Firebird* and *Rite of Spring*. They represent Stravinsky's early Russian period transitioning into his Neoclassical period, with lighthearted tones and prominent syncopated

ed rhythms contrasting the occasional dissonant melodies and harmonies. The colourful rhythms and expressive wit permeate the *Suites*, lending an infectious charm to the structured dance forms as Stravinsky explored his compositional voice. The RPO did justice to Stravinsky's curious and explorative voice of the *Suites* as the orchestra's tenacity brought the audience onto the dance-floor in spirit.

Heralding in the Austrian composer Korngold (1897-1957) was British violinist Jennifer Pike. Korngold was a child prodigy, having written his first ballet at eleven years of age, and was lauded in Vienna for his natural musical talent. He is one of the most influential composers for Hollywood films of the era, and much of what we recognise

**"Startling clarity of notes and perfect intonation of chords"**

as the quintessential dramatic Hollywood music is none other than Korngold's personal style. Korngold was Jewish and vowed to not write anything besides film music, which he used to support his family whilst Hitler was in power. His *Violin Concerto* was the first that Korngold wrote following the resolution of the Second World War and is one of his most celebrated pieces. Its three movements share many of the themes and melodies he used for Hollywood



That walk you do when you've just bowled a strike // RPO

films such as *Juarez* and *The Prince and the Pauper*, but with the dramatic flair required for film music stripped back to more clean, poignant melodies of the violin.

Whilst soloist Pike was technically impeccable, her interpretation of its two interlinking themes in the first movement, 'Moderato nobile', was a touch too stoic for my liking, and could have done with greater emotional depth. However, Pike warmed up in the second movement, 'Romanze'. Its slower, sweet melodies soared high and pulled at the audience's heartstrings, with Pike's startling clarity of notes and perfect intonation of chords lending a precision and yearning to the movement. The final movement, 'Allegro assai vivace', is the most technically challenging and theatrical, as evidenced by Pike's E-string dramatically snapping halfway through. She was quick on her feet and borrowed the concertmaster's violin

to continue playing, never missing a note – leaving the concertmaster to swap violins with the assistant concertmaster so that he could play a brief short solo during the movement (in addition to leading the orchestra, of course!) Despite all of this, Pike completed the movement beautifully, having fully warmed up from the slightly wooden first movement to deliver a truly impressive and technically-perfect performance, staccato jigs and all. She finished her performance with an encore piece – Bacewicz's *Polish Caprice* – that showcased her skills with quick, challenging chords and slow, deep melodies. This British soloist is definitely one to keep an eye out for.

The concert finished with Dvorak's (1841-1904) famous Symphony No. 9, *From the New World*, written when he was the director of the National Conservatory of Music in New York City. Dvorak's syncopated rhythms with modal

melodies pay homage to traditional folk tunes of both America and Europe, with whispers of famous Native American melodies such as 'Swing Low, Sweet Chariot' and 'Massa Dear' reflecting his fascination with native African-American music. The *New World* symphony opens with a motif heavily influenced by Beethoven's *Ninth Symphony*, before the poignant American melodies of the second movement, 'Largo', are rendered beautifully by the woodwind section. The dance-like third movement, 'Scherzo', is influenced by Longfellow's poem 'The Song of Hiawatha', with Dvorak's signature rhythmic drive. Finally, Dvorak's conservative Brahmsian style transforms to a more experimentalist Wagner style by the finale. Repeating motifs adopted into different forms and played by different instruments showcased both the simplicity and versatility of an extended theme.

The RPO pulled off a

stunning performance of Dvorak's symphony. They truly breathed together, with nary a single note out of place. Each orchestral section moved and functioned as one, with all the sections working together in perfect synchrony to completely take the audience into a new world,

**"A truly impressive and technically-perfect performance, staccato jigs and all"**

one filled with fascinating colours and delightful melodies that took your breath away. The standing ovation they received was well-deserved, and was a perfect end to a most enjoyable evening.



# ARTS

arts.felix@imperial.ac.uk

## All in Good Time: In Due Course But Without Haste

A belated review of DramSoc's latest production.

### ARTS



**Where?** Union Concert Hall  
**When?** 20<sup>th</sup>-23<sup>rd</sup> Feb  
**How Much?** £7-9

**Helen Money-Kyrle**  
Arts Editor

Written by Bill Naughton in the 60s, *All in Good Time* follows the story of young newly-weds Arthur and Violet as they negotiate the beginnings of married life. But money is tight and they are forced to move in with Arthur's good-natured but overbearing parents. Laden with innuendo, the storyline becomes increasingly ridiculous, with everyone from nosy neighbours to loud snorers getting in the way of the couple having

any privacy at all...

What could have been a truly cringe-worthy experience was rendered outright funny. Rohan Mitta played a suitably awkward and troubled Arthur, making an endearingly naive couple with his new wife Violet, brilliantly played by Maddie Roche.

Arthur's ever-present parents, played by Olivia Revans and Christian Burton, made a brilliant pair, authentically setting the scene in mid-20<sup>th</sup> century Bolton. This was further impressed on the audience through a fantastic set, designed by Thomas Allen, which gave the audience a prime view into the bedroom, removing any sense that the couple had any privacy at all.

A stellar performance came from Calum Drysdale, who played

a charismatic Geoffrey Fritton, and a special mention to Georgie Davis as a brilliantly funny Molly Thompson. With impressive acting across the board, hats off to Director Harriet Powell and Asst. Director May McCool and the Production Team for a highly entertaining Friday night.

*Are YOU keen to be part of their next production? Auditions start Monday for their next production, which they will be taking to the world's largest arts festival, the Edinburgh Fringe! Written by Felix's own Calum Drysdale, Compost is a comedy about two rubbish collectors who claim to be able to turn plastic into compost... Sign up for auditions via [www.bookdramsoc.timetap.com](http://www.bookdramsoc.timetap.com) or email [vice@dramsoc.org](mailto:vice@dramsoc.org) for more information.*



Nobody wants to consummate their marriage in their childhood bedroom // DramSoc

## Come From Away

A triumphant exploration of human kindness.

### ARTS



**Where?** Phoenix Theatre  
**When?** Until 14<sup>th</sup> Sept  
**How Much?** From £12

**Ozbil Dumenci**  
Arts Writer

**O**f all the shows I've been lucky enough to see recently, *Come From Away* is arguably the most important one. Daring to deal with a topic as sensitive as 9/11, *Come From Away* is a surprisingly feel-good show, while being executed absolutely tastefully.

Based on a real story, this musical tells a (previously) little-known story of human kindness in

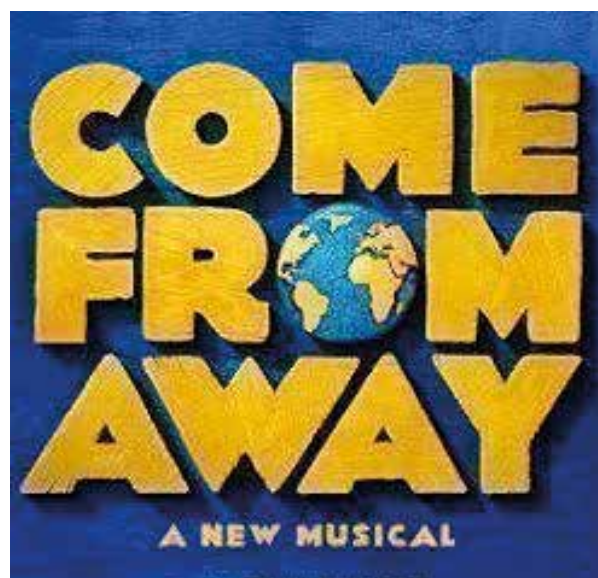
times of need. Following the devastating attacks on September 11<sup>th</sup> 2001 that resulted in the deaths of almost 3000 people, American airspace was shut; this resulted in 38 planes carrying nearly 7000 passengers to be diverted to a small town in Canada called Gander, whose population size was to suddenly double. The locals embrace the newcomers, providing food, shelter and clothes, while forging unique bonds in the face of their unique situation.

What makes the show the emotional juggernaut that it is isn't simply its setting but also the way the show brilliantly explores the intricate ways each character is affected by the events that lead to

their current situation; a Muslim passenger constantly being subject to judgemental looks and a thorough full body search, a mother desperately waiting to hear from her son who is a firefighter in New York City, as well as a pregnant chimpanzee!

The themes of hope, desperation, grief and love are touched on beautifully through a score that is catchy, consistent and touching throughout. Having been familiar with the music prior to seeing the show, it wouldn't be out of line to say that the music, which is brilliant in its own right, is elevated by the staging.

*Come From Away* is a true company musical, with 12 cast members alternating from roles as



Come From Away // Phoenix Theatre

Gander locals to roles as "the plane people". Although at first, I thought this would get confusing or tedious, this approach works miraculously well, as with the addition of a hat or a coat, the characters transform into completely different people in the blink of an eye. Although this can in part be attributed to the acting abilities of the

individual cast members, the direction deserves some of the credit in making this as seamless as it is. The show is so slick and looks so simple that it is easy to overlook the level of complexity of such in-sync scene and character transitions.

Although it is extremely hard to choose standout cast members, Rachel Tucker, whose roles

include Beverly Bass, the first female captain at American Airlines, who piloted one of the planes landing at Gander, gets to perform the show's only solo number, an emotional piece exploring Bass's passion for flying, and her feelings towards what has taken place. Tucker performs the piece beautifully, and the scene works wonderfully as one of the emotional climaxes of the show.

A one-act show just short of two hours, *Come From Away* is able to say all it needs to say without diluting the message with unnecessary sequences, or a break to take away from the intensity of the performance. This is not only a show that reflects on the events on 9/11, but one that is as relevant as ever in these divisive times.



# GAMES

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## Smash Corner-Piranha Plant, leader of the Plant Gang

### GAMES

**Michael Cognet**

*Games Writer*

He is Sakurai's Christmas present to every Smash player, the character no one expected but now everybody loves, we are of course talking about the very first DLC fighter of Ultimate, #70 in the roster, Piranha Plant.

First appearing in 1985 in the original Super Mario Bros, he is the infamous generic enemy that lives in the green pipes of the Mushroom Kingdom. Appearing in many games of the Mario franchise after, Piranha Plant has paved his way into history by becoming the newest fighter in Super Smash Bros. Ultimate, available for free to all players who

bought the game before the 31st of January. He instantly won the love of the community as a close to mid-range character with such a smooth gameplay feeling as well as unique new abilities to offer.

With his teeth and leaves, Piranha Plant has decent close-range combat capability both on the ground and in the air. In particular, his side- and up-smash are both very fast and powerful with a generous hitbox, making it easy to hit your target out of the park. Then, when in the air, you can do either his neutral to get nice safe damage or his back-air to end them with a fiery blast. Another notable finisher is his up-throw, which will kill reliably above 150% if you manage to grab an opponent wandering too close.

Piranha Plant is also

fantastic for mid-range combat, with his special abilities being able to dish out the damage from the comfort of his pot.

His neutral is his Ptooie, an attack you can hold to blow out a spike ball above his head, which can be then thrown on either side with a directional input. Difficult to use at first, but, if you hit an opponent it can kill them from 100%!

Then it's his side-special Poison Breath, a charged attack where Piranha Plant spits out a thick nauseous cloud of poison in front of him, which won't stagger his opponents but will deal an insane amount of damage if they stay in it.

His down option is the Long-Stem Strike, another charged attack where he extends his neck to perform a long-range bite to finish his enemies.



The secret level of Super Mario Bros unlocked in SSBU// Nintendo

Finally, his up-special is the Piranhacopter, an easily steerable recovery tool which can travel both a great vertical and horizontal distance.

Now he may be new the roster, but Piranha Plant players have already found some cheeky combos and techniques with him. The first is a simple use of Ptooie to ledge guard your opponent. If you position Piranha Plant just on the edge of the map hold down your neutral-spe-

cial, it will keep floating in the air and block any high recovery. Furthermore, if they instead want to attack you whilst climbing back on the stage, you can drop the spike ball and hit them back off-stage. Another general technique is the 'Camouflage', a great way to confuse your opponent by hiding behind the dense poison of your side-special to surprise your enemy with an unseen attack, such as your Long-Stem Strike.

So even if originally nobody even considered Piranha Plant to ever be a fighter for Smash, Sakurai has impressed everyone by making a creative and well-designed character. His overall decent moveset brings him only up to mid-tier but his unique tools make him very fun to play. I hence highly suggest you join the Plant Gang to slash and bite your way to victory.

## Smash Corner-Rosalina & Luma, Fighting Stars

### GAMES

**Freddie Ugo**

*Games Writer*

This powerful duo first appeared in 2010 as a mysterious character of Super Mario Galaxy on the Wii. They are relatively new to the series, having only appeared once before in the Wii U version of the game. While not being as powerful as her previous iteration, there is still plenty of room to show off with this complex 2-in-1 package.

The unique aspect of Rosalina and Luma comes from Luma copying all of Rosalina's attacks. Whether Luma is close (by default) or far (after using Luma shot, the neutral special) she will function as a second

character you can control. This allows for amazing mix-ups and should be practiced a lot in order to maximise potential. A common way of utilising this is sending out Luma, and then grabbing the opponent. Rather than throwing the opponent, instead, pummel them and once they are released, they will float towards Luma, if you use an up smash at high percent this will result in a kill.

Their up B 'Launch Star' is a useful yet exploitable recovery. Although it has a very large range, the trajectory it takes is not very manipulatable and thus easy to predict and punish. Be careful when using this as once Rosalina is off-stage without a jump, she is at a massive disadvantage due to her slow fall speed and lightweight, meaning she

is very easy to kill.

The other two special moves are quite situational. Star Bits is their side B which shoots out a small cluster of stars from Luma. This has quite low damage and no knockback so is only useful when trying to stop the enemy going back to the ledge or if you want to jab lock the opponent. Gravitational Pull is their down B which has two uses: It pulls Luma back to Rosalina after being fired out by a Luma shot and it also absorbs projectiles. This is very useful as it allows easier control of Luma, as well as giving Rosalina a good tool to deal with projectile users.

The main strength of Rosalina comes in her powerful aerial attacks, especially up air. You can hit most of her aerials out of a throw, so a common



These star-crossed brawlers watch over the universe// Nintendo

play is to up throw the opponent into a string of up airs. Hitting the opponent with Luma's up air (rather than Rosalina's) will cause far more knockback and damage and often leads to a K.O.

The key with Rosalina and Luma is to be patient. You have enough tools to help get you out of pressure (gravitational pull is great against projectiles and all of Luma's attacks have a huge amount of priority)

meaning that if you wait until the right moment to strike you will be able to massively punish the opponent.

Overall, I would rank Peach's Daughter (we think) solidly in mid-tier. Although this duo has powerful kill potential and punish game, the fact that they are so light means they can be knocked out far too easily. Not only this but if Luma sustains enough damage she can

be knocked out herself leaving Rosalina screwed as she loses most of what makes her strong.

If you want to find out more about how to play Rosalina and Luma at a high level I recommend you check out 'Fall'n' a professional player with decent results. Happy Smashing!



## TRAVEL

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## Last night I dreamt of Boipeba

*The Brazilian biosphere reserve battling for its UNESCO protected status*

## TRAVEL

**Chris Richardson**  
*Travel Writer*

I hesitate to utter the word “Bahia”. Bah-eee-yah. It’s beautiful to say it aloud. Also known by its epithet, the “land of happiness”, Bahia is a vibrant state in Northeastern Brazil that for whatever reason has managed to evade many a Latin America travel itinerary. My hesitation to utter the word is in part because of this: what makes the region so special is its unrivalled beauty, twinned with the fact that it still remains in

relative obscurity to much of the international community. Until now, Bahia has retained so much of its rich cultural heritage, protected national parks, and beautiful coastlines that have not suffered the fates of Bali and Goa. I hope that it can continue to do so, and that to utter the word is not to let the cat too far out of the bag. While it is home to the biggest – and arguably best – carnival in the world, in the state capital of Salvador, Bahia is perhaps most known for its beaches. Those making the pilgrimage up from or down to Rio generally do so at a laid-back Brazilian pace, hopping from secluded spot to

secluded spot, with plenty of fresh fruits including hydrating coconuts to accompany the journey along the coast. To the cynic, the never-ending coastline may seem like much of a muchness, but there are some gems to be found that truly stand out. Boipeba is one such place, a tiny island tucked against the shore just a few hours south of Salvador. Despite its relative proximity, it is hard to imagine that the island even occupies the same state as the bustling city. Boipeba moves to a different beat. Just ask anyone who has been about the energy or the vibe, and they’ll tell you. But be prepared for a long, meandering monologue of

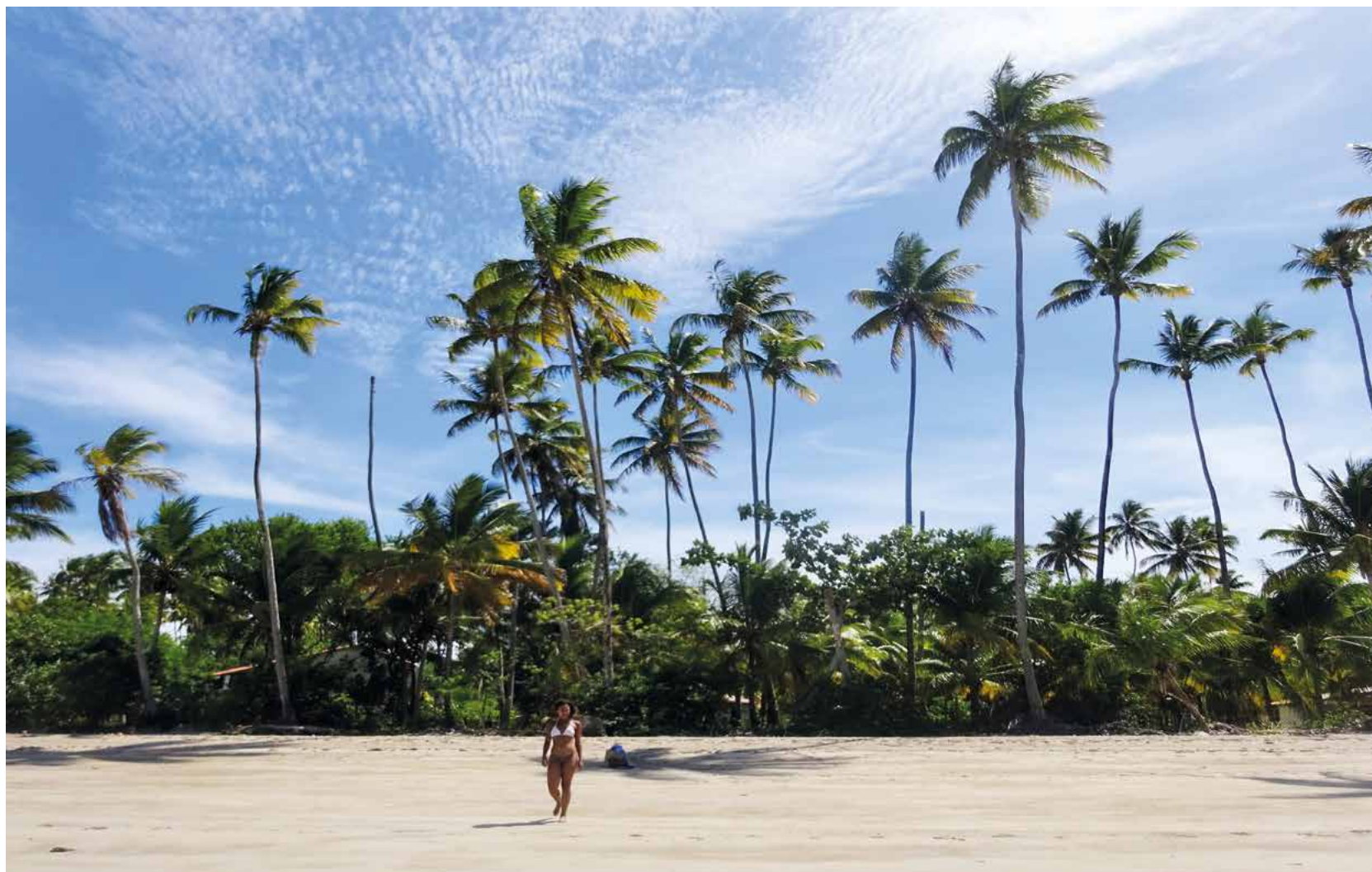
inexplicable details that will never compare to the joy of experiencing it for yourself. Named after the sea turtles that populate its coastlines, Boipeba is a paradise of ecological diversity. Home to rich Atlantic rainforest ripe for inland hiking trails, secluded beach spots framed by boulders and swaying palms, and a massive mangrove forest best navigated by kayak, the island has plenty to keep you entertained for a sleepy yet action-packed Brazilian getaway. Oh, and the coast is also sprinkled with natural pools boasting colourful corals and marine life, when you need to escape that intense midday heat. While that

might sound like any other island paradise, there are a few standout features that make Boipeba a unique gem within Brazil. For starters, you can leave any safety concerns back at the mainland docks. Although the nation has seen a surge in crime in recent years, the island is composed of small villages in which everyone knows everyone, and visitors are free to walk through the night

**“Boipeba is a paradise of ecological diversity”**

and day, comfortably carrying phones, cameras, and cash – a luxury that cannot be said about the mainland. While the children of the west have been relegated to dark rooms and smartphone

screens, the kids of Boipeba are out in force as much as the island’s population of friendly, community-owned pups, making the most of the sun and sand. It’s refreshing to visit a place where people still know their neighbours and make an effort to keep the sense of community that much of the world has lost. It is that sense of community that binds the people of Boipeba to one another, and to their home. The island is bestowed with world heritage status from UNESCO, an accolade that its people wear with pride and are apt to maintain. Motorised vehicles are banned from the island, with visitors instead relying on old fashioned tractors – or their own trusty feet – to shuttle them across the island. With many of the community still relying on traditional agricultural and fishing methods for their livelihoods, it is important that development on the island is kept in check, and not allowed to interfere with local customs. Amabo, the Association of Residents and Friends of Boipeba, was founded to protect the life of residents and the local environment, as well as educating people on the conWwtemporary issues at play. It is just one of the groups that are protecting that coveted UNESCO status. With the constant threat of international developers intent on building resorts on the island, groups like Amabo play an important role in the discussion. While the would-be developers argue that the island belongs to Brazil and is fair game for acquisition and development to help bolster the nation’s economy, residents and conservation groups take the view that the island’s delicate ecosystems belong to all of humanity and cannot be decimated in the name of capital and growth.



Boipeba Island // Chris Richardson

## TRAVEL

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With a little help from a team of dedicated pro bono lawyers, the residents and friends of Boipeba have – for now at least – managed to keep unwanted, unsustainable resort development at bay. But with President Bolsonaro intent on opening the nation to international investment, with little regard to the delicate ecosystems worth fighting to maintain, the security of Boipeba’s UNESCO status – and the livelihoods of its residents – is still under threat. In this regard, Boipeba Island becomes a symbol to which we can all relate, and its fight for sustainability a cause we can all get behind. Whether it’s a faraway tropical island, an even farther polar glacier, or a beloved woodland by our own backyard, we know that it is worth standing up for voiceless entities, against capitalist growth. That way our planet may retain its balance and beauty – indeed, remain a place on which we all can live – for many years to come.

**A tale of two towns:**

No trip to Boipeba would be complete without ample exploration of its two famed villages, Velha Boipeba and Moreré. To help you better understand the island and community while keeping in line with sustainable ideals, we recommend two lodgings offering a unique Boipeba experience. Fernando’s: Instagram @FFernandoSS11.

Tucked behind the little cobbled streets of Velha Boipeba is the home of Fernando and his mother, Dona Nilda. The family offers simple rooms within their home, use of the kitchen, and a delicious breakfast prepared by Nilda to set you up for a hard day at the beach. At Fernando’s you will come



EcoCasaBobo // Liliane Laborde-Edozién on Instagram

to understand family life on the island, which will probably include drop-in visits from some of the local children looking for a fresh juice made from fine fruits you’ve probably never heard of, and some of the local hummingbirds on their morning flight. The family are happy to help make your stay as much as they help the local community, offering guidance on places to walk and where to eat. Perhaps most importantly, Fernando is a talented chocolatier creating a range of delicious products using freshly-picked cacao, as well as teaching local children about his craft. Do not leave without sampling some of the tasty treats on offer, and taking some for the road.

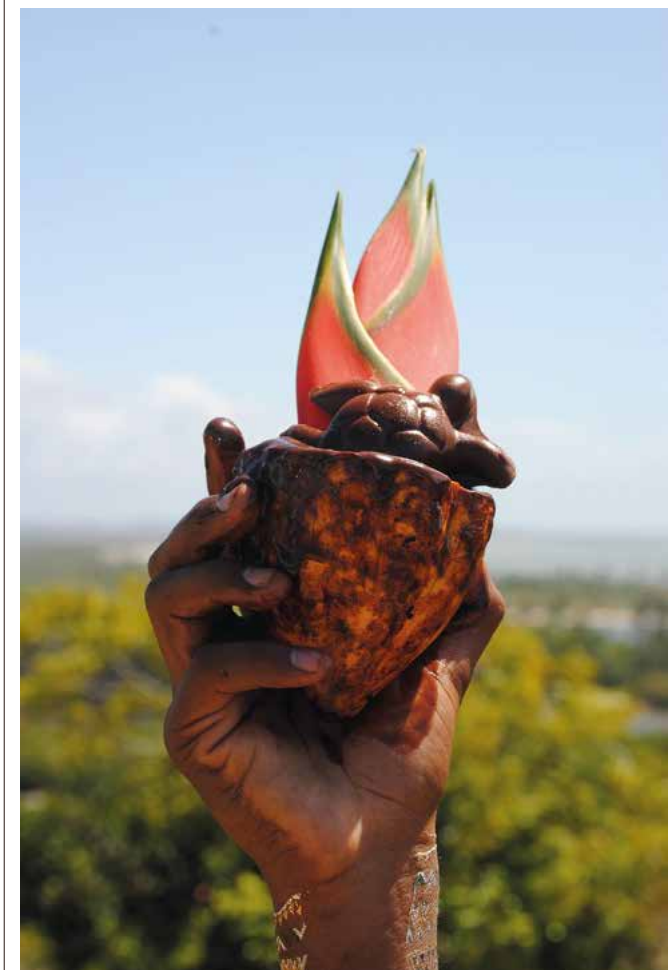
Casa Bobo: Instagram @EcoCasaBobo. Perched from a terrific vantage point above Moreré and neighbouring Bainema beach sits the island’s top rated eco pousada. The

reputation that couple Myriam and Nilton have built up over the years is legendary, with plenty of awards and reviews that speak for themselves. Casa Bobo is a set of three gorgeous bungalows constructed using locally-sourced labour and materials, with beautiful communal spaces to enjoy both sunrise and sunset. Worthy of its eco pousada title, Casa Bobo is involved in many sustainability projects: providing space to build much-needed water tanks, donating materials to university recycling programs, and organising regular beach cleanups. They are also on the front-lines of the ongoing battle to protect the island’s UNESCO status. And then there’s the wonderful selection of food, freshly prepared with ingredients sourced from the ranch’s stunning gardens, laying to rest the idea that Brazil can’t deliver gastronomy. With Myriam on breakfast

duties, and Nilton’s sunset bar whipping up tasty acai bowls, caipirinhas, and grilled fish, you are in the safest of hands. Oh, and you’ll also find a selection of Fernando’s treats available at the mini bar. Above all, Casa Bobo is a place filled with love. Love for the island, support for its local businesses, and an unforgettable experience for any visitor lucky enough to bag a bungalow for a few days.

You can help the Boipeba community curb unsustainable development on the island by taking a moment to sign the petition at [bit.ly/2tmNAXY](https://bit.ly/2tmNAXY).

For more information on visiting Bahia or Boipeba, please contact the Editor.



Fernando the Chocolatier // @FFernandoSS11



# ICU Belly Dancing



# HipN

11.03.19 • M





# CANDIDATES

[imperialcollegeunion.org/vote](https://imperialcollegeunion.org/vote)

Inside this supplement are the manifestos for candidates in key positions.  
To see all manifestos, visit [imperialcollegeunion.org/manifestos](https://imperialcollegeunion.org/manifestos).

All information enclosed came directly from the candidates, has not  
been altered, and any views expressed are entirely their own.

All information correct at the time of print.



Use your voice



#icuelections

Things affected by these elections:

every aspect of student life

**VOTE**

[imperialcollegeunion.org/vote](https://imperialcollegeunion.org/vote)

Voting opens noon, Monday 11 March



# Manifestos

## Imperial College Union President

I'm Abs. For three years, I've worked to improve things at Imperial. As an academic rep, I fought to end the zero-tolerance policy on late coursework, and for a Life Sciences common room. I brought paid 4<sup>th</sup> year undergraduate teaching assistants to my department, giving first-years extra support. I've been on the RCSU's executive committee, and currently sit on Trustee Board, overseeing finances and governance across the Union. I'm running for Union President because for all its strengths, Imperial could do much more for us. Student services are cut every year despite our ~£80m surplus. I've seen first-hand how far-reaching changes to our degrees can be made without consulting students, or even academic staff. The Union behaves similarly, with bureaucratic hurdles making engagement difficult, and students excluded from decision-making. This needs to change. I believe together, we can:



**Abhijay Sood**

### FIX THE UNION:

- Pay student staff the London Living Wage, in line with other London universities
- Get the room-booking system automated- Resist proposed cuts to Reynolds bar
- Improve transparency: keep students informed regarding major decisions

### CHALLENGE THE UNIVERSITY:

- Take a stand against cuts to catering outlets (e.g. h-bar) and other student services
- Fight for student space and a stronger counselling provision
- End unethical investments

My plan to change Imperial is simple: increase student representation on high-level College committees. I am already working towards this with senior academics. With this approach, we can improve all areas of university life, from campus services to our curricula. For meaningful change, #voteAbs for Union President.

### Mason Banks

*No image or manifesto provided*

### Vigan Ajvazi

*No image or manifesto provided*

Another year, same old unicorn. Where was our president when meat-free Mondays were introduced? Where was our president when H-bar stopped serving food? Where was our pre - No, my dear students, we have been alone all these years. Inability of the union to understand how student volunteering works nearly resulted in cancellation of one of the biggest (and most profitable) student led events. What next? Derailing student societies? Students voice has not been taken into account for far too long. I campaign for the many, not for the next-to-no-one. I will fight for your right to prosperity, truth, and bliss. Hardest choices require strongest wills. It will never be easy to realize that one unicorn makes more sense than an entire sabbatical team this year. But once you do, there is no way back. There is so much more I want to write, but this margin is too small to contain it. Let my actions speak louder than any words. Make ICU great. For once. Endorsed by Paul Balaji and balanced well with some memes. As all things should be.



**Dmitrii Usynin**

This is democracy manifest. Corruption has plagued our university for too long. In the beginning we were assured that we could speak to the managers. We were lied to. Instead we were apprehended against our will. Our dignity was shattered by the great skill the apprehender had in martial arts. They knew their Judo well. I pledge to end this madness and crush this corruption from the top. I pledge to dissolve the union and donate my £30000 to charity. I also pledge to vastly improve the range and quality of Chinese food on campus. I will even try my hardest to ensure the food is free. No longer will we be charged for eating succulent Chinese meals. Tata and farewell



**Mahmoud El-Khatib**

Okay, starter for 10: When did Imperial College last win University Challenge? 2001. Next year's freshers will be the first to join the College that were born after this historic moment. Imperial deserves better.

#ThisPrezCan

- Ensure all students have University Challenge training and in 2020 - It's Coming Home.

Now the bonus questions: How will we improve student satisfaction?

#ThisPrezCan

- Award every student a First Class degree which will serve to end grade inflation and boost both graduate employment and student satisfaction.
- Build a slide around the outside of Queen's Tower to help students with stress relief.
- Abolish lectures before midday to allow all students to visit Metric every night which will also swell the Union's coffers.

What about the economy?

#ThisPrezCan

- Raise the Union President's salary to the same as College President Alice Gast's - £433,000.00. This 'Gastly pay-packet' will be paid for by the booming economic policies detailed in this fully-costed manifesto.
- Levy a tax on coughing in lectures.
- Launch an Imperial Cryptocurrency - Coiny McCoinFace - which will appreciate in value faster than Gast's bonus to soften the blow of tuition fees courtesy of Machine Learning.

Any other policies?

#ThisPrezCan

- Restore credibility to Ethos by banning more scandalous U-turns.
- Promise there will be no hard border with the White City campus due to the Acton backstop.
- Move South Kensington tube station closer to campus.
- Demolish the Union Offices and replace them with an ivory tower.
- Adopt a real cat for the Felix Editor.



**Fergus Johnson**



# MANIFESTOS

news.felix@imperial.ac.uk

## Imperial College Union President

**B**eing a Union President does not make oneself special from others, no matter how talented he/she may be in their own field; Being a Union President does not give oneself power to reject others' requests, no matter how small the thing you think to be. Being a Union President means the responsibility, the responsibility that others may regard as drudgery but you consider as the source of happiness. Being a Union President means sacrifice, sacrificing the time which you may have used to amuse yourself rather than help others. Being a Union President means being equal, for which you are standing on the behalf of all students you represent and what you do must represent the interest of majority. This job is going to be hard and not to be easy. It is not a causal game to simply play with. It means responsibility, means the desire to help others, to stand for your group, to stand for the profits of all people involved, and it means you have been determined to listen to all the feedback from students that you represent, to present each students' ideas equally, and to treat others warmly. I often ask myself, 'Do you think you can take this heavy task?'. It is hard, I have to admit, and there might be some difficulties that I have never met; but I promise that I will try my best and spare no effort to make imperial a better place.



**Junrui Wang**

**A**fter I talked about my working purpose and feasible plan to our now union president Rob and some international students, I get my final manifesto:

1. Although there will be BREXIT at the end of this month, Imperial and the student union will be same "European and Global", continue to focus on provide a good environment for EU and international students.
2. I will lead the union to suggest Uni to invite more sponsors to provide different degrees of small scholarships, in return, the union can help them hold different forms of job fairs.
3. Organizing more events can be held on campus for different groups to create a more conducive environment for people of different beliefs and sexual orientations to live and study, that, such as e-sports competitions, so that more students can enrich their spare time and find their own interests
4. To submit a formal letter to suggest Uni and government to extend the duration of the student visa, so that more international students can feel the inclusiveness of the school and the UK, and get more job opportunities
5. To suggest Uni for more flexible options for failing grades. For example, if you only failed in one exam, you may could get a merit or distinction if you have an average final grade more than 60 or 70, but if you failed more than one, that means you only can get a pass.



**Yinlin Wang**



**Michael McGill**

Departmental Representative, I have led on a number of initiatives that have benefited students now, and in the future. My goals are:

- Save Our Services & Back our Bars - Improve commercial services rather than cut them and keep major facilities (Reynolds/h-bar/Union Bar) open.
- Support Constituent Unions - Support and Grow the Constituent Unions (RCSU, ICSM, CGCU, RSM & GSU), so that they are celebrated and at the centre of the student experience.
- Create Campus Coordination - Provide the opportunity for students at all campuses to feel engaged with the student community and get involved in all union activities.
- Champion CSP volunteers - Reduce the level of administrative work for volunteers so they can focus on being involved in the Club/Society/Project they love.
- Develop Direct Democracy - Implement methods that makes Union Council more accessible and effective in applying solutions to issues affecting students.
- Fix the NSS Mess - Work to raise issues to College that are frequently mentioned in the NSS survey, and ensure they are fixed. College, like the Union, should be proactive in improving the student experience.
- Increase Counselling Support - Improve on waiting times for the Student Counselling service, increasing provisions and support they can provide to students.

Please check out my full manifesto at my website: <http://mikeforunionpresident.strikingly.com>

**T**here are several issues to address to improve the experience for our 17,000 students. This is why I am running for Union President - to lead positive change for ALL students. Through my work on Constituent Unions as the RCSU President and Treasurer, CSP Committees, and as a

## Deputy President (Education)



**Ashley Brooks**

**H**i Fellow Learner! Thank you for considering to vote for me, to improve educational experience and outcomes at Imperial for ALL students. Imperial's new Teaching and Learning Strategy promises to enhance the educational experience & quality for students. There is significant funding for department-wide curricula and pedagogic transformation. It is imperative that this translates to a better learning experience and outcomes for all students.

Assessment & Feedback: The National Student Survey (NSS 2018) and Postgraduate Taught Experience Survey (PTES 2018) scored 64% and 58% respectively in this area. These are worrying figures and I will work hard with departments to ensure clear assessment criteria and quality, timely feedback.

Student Engagement in Curriculum Reviews: We are currently undergoing UG & PG Curriculum Review with implementation imminent. Moving forwards, it will be critical to have student engagement in this process, particularly from postgrad taught students.

Ensure Accurate Reporting: The college intends to evaluate and research innovations in education, and to publish outcomes. I will make sure reporting is done in a reliable and transparent manner; moreover, to ensure that innovations result in a better student experience.

Postgraduate Research Experience: Often a neglected part of the Imperial community. I will make sure "innovations in education" are also applied to the PhD student experience. This includes offering services and experiences to the other Imperial campuses.

Find out more here: [ABforDPE.weebly.com](http://ABforDPE.weebly.com)

"Teaching should be such that what is offered is perceived as a valuable gift and not as a hard duty.", Albert Einstein

# MANIFESTOS

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## Deputy President (Clubs & Societies)

**H**i, I'm Jerry Li (aka. Junhua Li) and I am a 3<sup>rd</sup> year Aeronautical Engineer, the current Vice President Technology for Investment society and, for the past two years, Ambassador for Anime society. Imperial's clubs and societies are the highlight of our university life, yet the Union's supporting processes and technologies are inefficient and inadequate. We process some of our processes 30% slower than other universities. We use decade-old software to manage mailing lists. We even did some of our room bookings manually, unlike many other London universities. Makes you think, right? Don't just think, act: I have detailed solutions to modernise the Union's technologies and processes. Vote Jerry to make the Union modern again!



**Junhua Li**

- SCRAP THE PAPERWORK**
- Implement a new automated room booking process, including easier ad hoc bookings
  - Invest in a major overhaul in the Union's technology stack
  - Standardise and simplify Union forms, eg. External Speaker and Financial Transaction applications; expedite Union processes by reducing paperwork

- EXPAND THE RESOURCES**
- Review the resources (rooms, minicars, storage) and seek to put underutilised resources to use
  - Pressure the College to release more activity/storage space for CSP use

- A MORE RESPONSIVE UNION**
- At least 4 hours per week for walk-in query sessions
  - An open online forum to track the problem-solving progress
  - Regular dev-blogs on the progress of my initiatives
  - Regular visits to CSP activities to solve problems on the site

For more information, checkout: Facebook Event: <https://www.facebook.com/events/1980725105569833/>

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**Yinlin Wang**

### Hayley Holt

No image or manifesto provided

**P**lease consider the environment before printing this recycled manifesto. Also, I might distribute cheese and chicken nuggets as part of my campaign if I can be bothered (DeAdLiNeS), so keep your eyes peeled for that on Facebook. (EDIT: I've just read #ice8496, thank you to the K-Pop studies student who submitted that <sup>(1)</sup>. If I'm elected, I'll personally make sure that a K-Pop society gets set up because I won't be '[a] nob [who can't] figure out that Hallyu and KSoc have different goals'.) Here is a list of some of the cheeses I most enjoy:- Halloumi (on the subject, do check out Halloumi Memes for the Gloomy Teens on Facebook <sup>(1)</sup> - great OC)- RoulÃ©- Wensleydale- Smoked Gouda- ComtÃ©- GruyÃ©re- Danbo- Babybel original I dislike vegan cheese, however, I support veganism continuing to be legal in the United Kingdom. I am always open to recommendations for new cheeses to try. If I am elected, please feel free to get in touch to suggest some, as well as good wine pairings for those among you who are (trying to be) more bourgeois <sup>(2)</sup>. Please also feel free to add me on LinkedIn. I believe that a large number of connections helps to compensate for my lack of personality.



**Maurice Yap**

<sup>(1)</sup> Facebook. Halloumi Memes for the Gloomy Teens. Available from: <https://www.facebook.com/HalloumiMemes> [Accessed 24th May 2018]. <sup>(2)</sup> Urban Dictionary. Bourgeois. Available from: <https://www.urbandictionary.com/define.php?term=bourgeois> [Accessed 24th May 2018]. <sup>(3)</sup> Anonymous 2nd year K-Pop studies student. Imperial College Exposed. Available from: <https://www.facebook.com/icxposed/posts/387901565359626> [Accessed 2nd March 2019].

**I**'m Tom and over the last couple of years, I've been one of your Bar Managers at the Union, tennis president and now Sports (ACC) Chair. Extra-curricular activities are a key part of the student experience, yet our volunteers aren't supported enough, nor do they have sufficient resources available to shape their clubs the way they'd like. Being responsible for 55+ clubs and having been engaged with students throughout my time at Imperial, I believe I have the experience and know-how to help our volunteers achieve their goals.



**Thomas Fernandez Debets**

- \*NEW SPORTS COMPLEX\*  
Our current sports facilities at Heston/Harlington are outdated and not fit for purpose. Pressure College to action tackling this and get new sports grounds.
- \*PROMOTE CSPs' ACTIVITIES\*  
Introduce regular 'Arts & Entertainment Nights'  
Create student-led committees for Union-wide events (e.g. Summer Ball) so YOU shape the student experience  
Advertise clubs & societies' events through the Union's publicity channels

- \*IMPLEMENT THE NEW ATHLETICS UNION\*  
Introduce 35+ clubs to the Sports Hub  
Introduce a one-off payment fee, making sports cheaper for all  
Undertake a kit review and secure a new supplier for all sports clubs
- \*IMPROVE SPACES & PROCESSES\*  
Revamp the training available to club officers and streamline budgeting  
Implement a more effective room booking system for annual allocations

- \*BETTER CONSULTATION & STUDENT INCLUSION\*  
Implement the feedback from over 3,000 responses in the Student Experience Survey, and ensure student voices are heard.  
Review Postgrad and non-SK-campus activity within CSPs to improve engagement  
Open invite 'town hall' style progress meetings



# MANIFESTOS

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## Deputy President (Finance & Services)

**H**! My name is Fifi, I'm a third year Materials Engineer and I'm running for DPFS. This role requires experience, dedication and trust between the sabbatical officers and you, the students. With 3 years of bar experience, including a year as a manager at Beit Bars, I have valuable knowledge in union finances, events and services at Union outlets, and an unwavering dedication to the student experience. I know what works, what the students want, and how to deliver it. And so! My promise to you:



**Fifi Henry**

- Bars: Lobby against changes to food and drink policies, including evening food service at h-bar and improving staff benefits. Improve sustainability by reducing food and plastic waste. Introduce new club nights with a range of drinks deals.
- Sustainability: Run a 'Go Green' campaign, including lobbying the college to increase dependency on renewable sources, reduce unethical investments, and reduce plastic waste across college.
- Clubs and Societies: better training for club finances to access a variety of payment options, and supply transport for training, fixtures and national competitions, and accommodation for national competitions.
- Food and Drink: Loyalty schemes for purchases at all bars/catering outlets. Introduce a better variety of options across all food outlets, with regards to healthy food as well as various dietary requirements.
- Opportunities and Training: Improve first aid and mental first aid training across college. More student consultation and involvement in decisions that affect YOU. Create a representative student board that enables better transparency and involvement in said decisions.

Vote Fifi for DPFS!

**H**ey, I'm Steph! I'm a 4<sup>th</sup> year mathematician, who isn't done with Imperial yet. I have really enjoyed my time here and now I want to dedicate myself to a greener, happier and more efficient Imperial for us and future students. I have been an active member of the Dance Club, where in my years on and off of committee, I have really enjoyed being responsible for the club, its members, and contributing to its success. As DPFS, I would like to give back to the university that has been my home for the last 4 years. Here's what I plan to do while serving as your Deputy President of Finance and Services:



**Stephanie Rathmann**

- \*\*COMMUNICATION\*\*
  - Build a centralised platform to share events and polls and get more students involved in campus decision making
  - Be more transparent with Union spending and make sure it reflects our values
  - Continue building relations with the College so student concerns are taken seriously
- \*\*CSPs\*\*
  - Update the eActivities website and Union search engine
  - Introduce drop-in sessions, video tutorials and better training for committee members and devote time to streamlining approval processes
- \*\*STUDENT LIFE\*\*
  - Improve quality and accessibility of food services at Imperial
  - Introduce options for quick meals at the Union, to reduce waiting times for food
  - Expand the healthy and vegetarian food selection
- \*\*GREENING IMPERIAL\*\*
  - Improve infrastructure for cyclists
  - More robust and reusable cutlery

Vote #DPFSteph this election, to ensure your voice is heard! For more info, see [www.dpfsteph.info](http://www.dpfsteph.info), or send me an email: [imperialdpfsteph@gmail.com](mailto:imperialdpfsteph@gmail.com).

**Alessandro Bonardi** *No image or manifesto*

**H**aving been Chair of Sailing, Yachting and Sports Sector Treasurer, I've been immersed in the Union financial system and budgeted for over 50 clubs. However, I've encountered issues that I feel strongly about and want to change.



**Krystal Law**

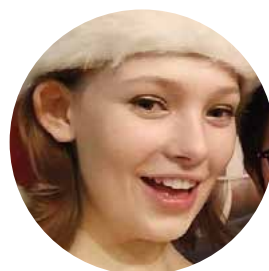
- AIMS:
- SERVICES
- Transparency: Increase communication with the student body to improve awareness of changes to campus services.
  - Bars & Outlets: Develop a plan working WITH College to retain and improve student oriented services: keep Reynolds open, reinstate dinner service at h-bar and improve white city outlets, providing key improvements for graduate and ICSM community spaces.
  - Night-time Food: Lobby college for increased availability of late night, hot provisions.
  - Consultation: Find your food/drink preferences and deliver those options while working to keep prices student friendly.
  - Queuing: Implement a more efficient queuing system into the Union and Metric.
  - Welfare: Look into the introduction of short interval sleep facilities on campus.

- SUSTAINABILITY
- Reducing Waste: Work with Greening Imperial to introduce incentives such as discounts for bringing your own containers to take food away and repurpose leftover food from campus services.
  - Recycling: Set up a crisp packaging collection point at Imperial and find an alternative to mixed material packaging to reduce plastic waste.
  - CSPs/Streamline: Aid the implementation of the Sports Hub, with infographics to understand the monetary breakdown and improve eActivities functionality.
  - Training: Set up interactive flow charts to expedite your queries on finances (especially VAT!) and ensuring availability of drop-in sessions at convenient times.

Full Manifesto: <https://krystal4dpfs.wixsite.com/votekrystal>

#VoteKrystal #KrystalforDPFS

**H**aving worked at 568 for almost two years and been social sec for a society, I am in a unique position to know how to maximise the profitability of the bar and make sure more funds are available for student services. I've also sat on a society committee for three years so really understand the challenges involved with society budget allocation and how the union handles sponsorship. These experiences, plus so many more throughout my four years here, have made it clear to me exactly what needs to be done to make life better for the students of Imperial. If I am elected as your DPFS I promise to:



**Rebecca Elkington**

- Change the claims and budget approval processes to make it quicker and easier
- Resist the proposed funding cuts to library cafe food and the proposed reduction in opening hours of Reynolds.
- Improve the treatment of bar staff, including making sure they are paid the London living wage.
- Push the college to prioritise environmental policy, including withdrawing investments in fossil fuel companies
- Review and streamline costly services like Imperial Plus

In the past few years the revenue from Beit bar, h-bar and Reynolds has dropped substantially. I will cover the cost of the improvements mentioned above (and more!) by changing the ACC ticketing system so more tickets can be sold on the door, providing more drinks promotions, making it easier and cheaper for student societies to book out the bar and investing in outdoor heaters to increase seating space in the winter.

# MANIFESTOS

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## Deputy President (Welfare)

**H**i, Jamie here! I'm a final-year Physics student and I firmly believe my policies would improve your experience at Imperial. Vote for me to help make Imperial a better place for students like you. Why? Because I took two interruptions of studies in 2016 for mental health reasons. Despite the College spending £680,659 on mental health, the Times Higher Education 2018 Student experience survey placed Imperial 64<sup>th</sup>. I think the system is broken. With your vote, I'd like to make it better.



**Jamie Coombs**

- Hire an ICU Counsellor. By hiring a full-time union counsellor we can offer same day appointments with a trained personal support officer.
- Organise Full-Body MOT days - By holding Full-Body MOT days we can ensure students can address physical health issues before they become full breakdowns.
- Finish the Online Petition System - By finishing the system we started years ago we can build a more democratic union.
- Deliver the College Student Support Consultation. By holding College accountable for past promises we can see big changes to your Welfare.
- Create Union Training and Online Quizzes for Personal Tutors. By providing Union accreditation tutors will be better equipped to handle welfare issues.
- Consider more university-run postgraduate accommodation. We need an affordable solution for the long term, not a GradPad stopgap.
- Align with NUS campaign to reform Gender Recognition Act 2004.
- Puppy Therapy Sessions\* - Vote for me to reduce exam stress with hekking good doggos.

So please, vote for me on Monday 11<sup>th</sup> - Thursday 14<sup>th</sup> March. Cheers, Jamie

[www.jamiecoombs.com](http://www.jamiecoombs.com)

\*Puppies may be kittens.

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**Yinlin Wang**

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**Glucia Da Conceicao Pereira**

*No image or manifesto provided*



**Prafulla Timila**

**D**eputy President Welfare plays an integral role in helping you get the best of your Imperial experience. I will endeavour to listen to the issues you are facing and act upon that to develop the college's wellbeing practices. My objectives are:

- \*Improving mental health\*
- develop our counselling system further and accessible support for other campuses
- bolstering departments' abilities to support students and encouraging more welfare events for students
- continue the progress made by the wellbeing representation network

- \*Organising quiet spaces around campus\*
- working with college to create environments where you can step away from work, to read, sleep or just relax in a quiet environment
- look into sleeping areas around campus during the summer when we have exams
- \*Representing the underrepresented\*
- setting up a wellbeing network for postgraduate students,
- review the structure of the network of Liberation Officers
- campaign for more gender neutral bathrooms around campus
- \*Working to help people feel more welcome in sports and societies\*
- allocate budgets to provide more inclusive socials and help break down the stigma surrounding sports
- \*Why would I be good for this?\*
- Currently the chair of RAG, where I have been planning RAG's role in the future while hosting a large variety of events
- Imperial College Amnesty International society vice president (and secretary), supporting student activism and raising awareness of human rights violations around the world
- Part of a campaign group working to improve the process for sexual assault victims (PAARRY)

I will represent you and am Prafulla great ideas! #VoteforaProfitableyear

**H**i, I'm Shervin! I've been the RCSU Welfare Officer for two years, working hard to improve the lives of 3,000+ students. As well as giving out masses of condoms at Freshers Fairs, I led the student involvement in the faculty personal tutoring review - resulting in compulsory training for tutors - and organised a successful Welfare Week. I also spent a year as a London Nightline Volunteer, dedicating evenings to supporting students and gaining a unique insight into student wellbeing issues. Now I'm running to be your next DPW to realise change across Imperial. I will consistently champion the needs of the students to College by:



**Shervin Sabeghi**

- Lobbying to remove the £95 Disabilities Advisory Service diagnosis cost
- Fighting for subsidies to private therapy while counselling service waiting times reduce
- Consulting you on and reviewing the provision of menstrual products around College
- Expanding LGBT+ Ally Networks to all departments

To ensure the Union maximises its support for students, I will:

- Reform wellbeing rep and liberation officer training to better equip volunteers
- Work with the *Felix* editor to re-establish the *Felix* Welfare section, to give students an outlet and raise awareness about welfare topics
- Investigate new pastoral systems for postgraduates, and ensure postgraduate representation at all levels

Having worked closely with previous DPWs, I've seen how the introduction of the Wellbeing Representation Network has transformed the role - the next DPW needs to better work with this network to enact change. I'm the candidate with the experience necessary to do this, so #VoteShervIn as your DPW!

*No image or manifesto* **Immanuel Adewumi**



# MANIFESTOS

news.felix@imperial.ac.uk

## Felix Editor

**H**ello! I'm Jess. I am masters student in the Faculty of Natural Sciences and currently a sustainability writer for the *Felix!*



**Jessica-Lee Cole**

**EXPERIENCE:**

- Running a successful blog for over a year.
- Working collaboratively with large organisations like TopUniversities.com and Eleven:Eleven (a social enterprise) to produce media content. So, understand what it takes to manage something of this scale.
- I am currently also a welfare rep for my campus and heavily involved with the union - this insight will help me be successful in this role.

What I want to see for the *Felix's* future

**SUSTAINABILITY:**

- A "greening of the *Felix!*" both in the day-day running and in the content. There is always room for improvement!
- A week of "green" topics explored through the lens of each of the sections of the paper to help try to spark interest in these (often dry and depressing) topics for a wider audience.

**SOCIAL MEDIA:**

- Increase the *Felix's* social media presence to improve accessibility and encourage more students to engage.- Social media takeovers to increase engagement from a wider audience.
- Opportunities to write exclusively for the social media format.

**ENGINE FOR SOCIAL CHANGE:**

- As a platform, be an engine for social change in the Imperial Community.
- Highlight issues that are important for students, and hopefully drive change.
- Continue championing the voice the *Felix!* gives to those who need it!

VOTE FOR JESS! #greenfelix



**Joshua Rodgers**

**I**'ve never deviated in saying exactly what I think. My filter is minimal, yet it does exist. Consistently defending my enemies against their critics, and depriving myself of blind belief in my own opinions, has made playing devil's advocate core to who I am. Holding union to account will be second

nature. But critically, I can bring a fresh perspective to *Felix!* In my opinion, *Felix!* could be more relevant to students - so my key changes would be:

- Weekly published interviews with students, about ANY topics of their choice!
- Weekly two-page MEME highlights. Submissions pool from students. Selected by an expert meme panel.
- Pairs can apply to argue against each other, in a section hosted every fortnight
- .Times Magazine/Economist style front cover pages, with relevant custom artwork
- Half-page ICEXposed highlights "excluding posts about individuals."
- Original comic strip section!
- Guest comment articles about Imperial, by students from other London universities.
- Legitimate and meaningful feedback opportunities for readers, writers, as well as editors.
- Giving writers more control and opportunity for freedom of expression, by asking for revisions, rather than edit for a consistent tone throughout the paper/sections. All depend on headhunting skilled/motivated individuals! Help me in my quest! I would NEVER change something that isn't broken;

Main section categories.

- Puzzles, Hangman and naked society centerfold (yesss!)
- Horoscopes.

I won't be attending the live debate or waste ANY union money campaigning. However, please come ask me your questions! Vote JKR!



**Joanna Wormald**

**H**ello! I'm Joanna Wormald, I've been the Deputy Editor and News Editor at *Felix!* since 2017. I'm proud to have helped *Felix!* grow by introducing new sections to the paper, as well as recruiting and training incoming editors and writers. As a student ambassador, I've established connections with *The Times* and *The Sunday Times*, and I also have links with the Women in Media group and the Press Association (where I completed a Postgraduate Diploma in Multimedia Magazine Journalism). I stand for an accessible, inclusive *Felix!* that gets to the heart of what's important. I promise to increase opportunities to get involved by establishing a clear pitching process and holding regular workshops to support students in pursuing the stories that matter to them. I promise to diversify our output by creating extra video and online content that goes beyond what you see in the paper. I promise to hold the College, the Union, and myself to account and I will never shy away from asking and answering important questions, no matter how uncomfortable. Vote for an independent *Felix!* that gives everyone a voice. Vote Joanna for *Felix!* Editor!

**H**ello! I'm Henry, current Science Editor for *Felix!* and Student Ambassador for *The Times*. I'm here to ensure the cat stays student-focused; I have big ideas for *Felix!* As well as maintaining the excellent standards already in place (particularly for



**Henry Alman**

inclusiveness and student engagement), I want to:

Rehaul the editorial process so we can include more longform articles, either including a fortnightly 'Features' section or possibly by moving to a two-week editorial cycle. This:

- Encourages writers and editors to experience a full collaborative process.
- Allows students who cannot guarantee availability every week the chance to get involved!
- Prioritises high-impact, high-quality articles.

Secure funding to help students take trips to events far and wide for on-the-scene reporting and investigative journalism. This:

- Diversifies our content; everyone from everywhere should be represented in our stories.
- Enables students to chase stories wherever they may be, rather than being financially limited to London. ICL is an international university; our student paper should have the same mentality.

Demystify the Union. There is a contingent of students not being catered for - those who just don't speak Union-ese! We need to bridge that gap and explain the inner workings more thoroughly whenever we run Union-based content.

Increase focus on students and people. Includes introducing more interview-based content. We want to write about you, not at you!

Continue to partner with *The Times* to run workshops for writers and editors.

- Improves article quality.
- Provides unique opportunities/training for journalism-minded students.

Vote Henners to keep the cat student-focused!



**Pietro Salvi**

**V**ote for Adrian. If you do not vote for Adrian, but instead vote for me, I will have to inform you that this will end in nothing but bloodshed (or, much more accurately, a little bit of non-violent tear shedding). A vote for me is a promise to see the *Felix!* newspaper seized as the means of production of mostly trivial news stories, converted into a potential tool of slander (in the limits of legality) against those who would stand against the student Union -- nay, the Peoples' Student Union that will arise thanks to the glorious revolution inspired by the vanguard party that controls this powerful student newspaper. The cat will have its true meaning reestablished as the all-inspiring Anarchist symbol of resistance against the capitalist classes of Imperial college. I vow to run a never-ending campaign against the bigoted, racist, \*imperialist\* name of our college, to seize it back for the workers. Or, maybe, if you're suitably angry at me for that pun, even though there's a nicely debatable serious message behind it, then I'd recommend voting for Adrian, who will probably be taking this a lot more seriously than me. P.S. I hope Adrian is actually running in this election. Otherwise, this might be very confusing. Demand to be allowed to vote for Adrian anyway, I say.

# MANIFESTOS

news.felix@imperial.ac.uk

## Council Chair

**U**nion Council meetings are there to decide on actions and policies that follow your best interests, the students, not to suggest all the ideas. Yet very few who aren't on Council go, and even fewer bring their ideas for discussion. Having taken up committee positions previously I learned there are often better suggestions you should listen to, and more steps to carry them into tangible outcomes. I will work to provide:

- A welcoming environment - Anyone may attend Council
- A more enlightened view of Council proceedings - Ensuring all members act in the best interests of the students they represent
- A starting platform - To help anyone with an idea
- A more time efficient council.

I'm not saying I have solutions to all problems; however, I am dedicated to listening to you to change your Union for the better, one step at a time. I want to be here for everyone, for those who need assistance to get their voices heard. The Union is great, we have so much choice in activities, so much help, but you know that it can be so much more. And while I may not have all the suggestions, I know that you do. I will be there to help you craft these into something that can be presented, discussed and voted on so that you can change your Union. So, if you've ever had an idea, a fantastic plan or even an inkling of a scheme, then vote Christopher for Council Chair

I am quite comfy to sit on, therefore I'd be a very good chair.



**Christopher Turner**



**Maurice Yap**

**Davide Vaccaro**

No image or manifesto provided

**U**nion Council has the potential to be a fierce voice for students' interests in challenging the university, and a crucial tool for holding all the other folks you'll elect this week to account to their constituents. However in the four years I've attended Council meetings, I've seen it consistently fail to live up to this potential. Instead, it gets bogged down in technical discussions about constitutions and standing orders, and rubber stamping of sabbatical officers' reports on what they've been doing. The training for Council members could go much further, and often important policy decisions inappropriately bypass Council altogether. I'm deeply frustrated by these failings. So I propose to:

- Require sabbatical reports to describe planned future activities for Council to scrutinise.
- Provide comprehensive training documentation for new members explaining key Council procedures.
- Mandate existing Council subcommittees (for Education, Welfare and Clubs) to formulate policy proposals to provide Council with more business of substance.
- Develop clear procedures to take complex/bureaucratic matters outside of meetings.
- Ensure that all policies due for renewal are examined and revised in plenty of time for scrutiny before expiring.

My experience:

- Involved with Council since 2015.
- Previous roles: RCSU President, PhySoc President, both Physics UG and PG Dep Rep.

Lobbied for:

- Ending the zero-tolerance policy on late work submission.
- Improved representation for Postgraduate students
- Union role representing economically disadvantaged students.

So vote Lloyd for a Union Council that is a vehicle for real, positive change for students.



**Lloyd James**

**Abdirahman Ismail**

**T**he Union Council is our student decision-making body within the Union, but only a handful of students are aware of what goes on and how the Union improves student life. Your voice matters and I believe we can ensure that Imperial College London always listens to and acts on student feedback in order to make it number 1 globally. As a currently Elected Imperial Horizon Representative, I am working hard to improve the language courses taught at Imperial. My aspiration is for every student to leave Imperial with an additional language as well as having strong analytical skills. If elected, I will work for:

- An online ideas platform. I will work with the college to create a platform whereby societies can collaborate on how the Union can help societies.
- Strong communication. I will provide a strong student voice on the Trustee Board to ensure that students are always getting the best opportunities here at Imperial and will work alongside the treasurer to increase funding for societies.
- Increased International Opportunities. I will work with international universities to facilitate for more summer research opportunities for undergraduates and increased funding for summer schools in Europe, Asia and the Middle East

The past two years have been a challenging yet rewarding part of my life and I want to make sure you, whether you are a fresher or a final year, have the support to thrive and enjoy your time at Imperial College London.



# MANIFESTOS

news.felix@imperial.ac.uk

## Student Trustee

**H**ey there! I want to serve as your next Student Trustee because I want to achieve the full potential of what Imperial College Union can offer. As your student union, ICU must be held accountable for how we implement our financial and physical resources, and I believe there are many ways we can positively improve your experience at Imperial. Some of my key goals for ICU include:

- Running more events that are accessible to the entire student population, including pushing for a variety of musicians to come perform at Imperial!
- Increasing the freedom and flexibility of room bookings and union personal resources (financial, advisory and project services)
- Implementing easy and relatively hassle-free ways of collecting your feedback and acting on it in a timely fashion
- Making the reimbursement and financial e-activities system of individual societies more efficient and straightforward

Personally, my past experience has amply prepared me for this role. I have worked within the Union before as Biochemistry first year Wellbeing Rep and have been trained in effective leadership and representation. I have also worked with the Union while I was organizing two major events for Finance Society, and I personally understand how frustrating the union's financial claims system can be. In addition, my experience as Marketing Director in the Social Innovation Academy has refined my communication skills, so I can use effective methods to improve transparency and to better implement your feedback. As your Student Trustee I will work to make our university experience better!



**Lei Shen**

**A**fter two years on Union Council, I know how difficult it is for students to get involved and make a difference. It's time for a change. Hi, I'm Ansh. I'm a third year physicist running to sit on Trustee Board because we need to ensure that the Union's resources are being allocated to enact the decisions we make, so we can truly become a member-led Union. This year we are heading for a £365,000 deficit, primarily due to hiring expensive agency staff after the poor treatment of student bar staff - and cuts may be made that affect us all. That's simply unacceptable. As Student Trustee, I will:

- Be YOUR voice on Trustee Board, and keep you in the loop
- Ensure the Union is being financially responsible
- Fight against cuts to Union services - we shouldn't suffer because of poor decisions at the top!
- Allocate resources to implement the democratic decisions of students

As Council Rep, I have:

- Mandated the Union to implement a petitions system, so you can make your voice heard
- Been leading the process for Union reform
- Made the case for transparency and student consultation

I know the Union's processes all too well; in the past three years I have:

- Been on seven committees
- Managed a £10k budget to run the most successful RCSU Science Challenge in six years
- Led a society and doubled its membership

I'm the candidate with the proven track record and the drive to push through change at the Union. Vote Ansh for Student Trustee!



**Ansh Bhatnagar**

**T**he inner workings of the Union are something I have become accustomed to throughout my year as a Constituent Union President & Sabbatical Officer. I've seen the good, the bad, & the ugly, and want to ensure we are making the Union as democratic, transparent, & student-led as possible. With my experience, and having attended Board of Trustees meetings as an observer previously, I will be able to jump in as soon as I'm elected with a clear vision of how to use the role to achieve what you & your fellow students want & need. I've worked with Faculties, Constituent Unions, the Union, & College on issues ranging from the running of your Clubs & Societies, to welfare provision through disciplinary procedures, & emergency planning mitigation for student led events, so I know what change is possible & how to go about making change happen.

I WILL:

- PROTECT the identity and history of our Constituent Unions
- ENSURE that all areas and all those who work for the Union, as volunteers or otherwise, are held accountable to its members
- LOBBY for consultation on all large matters affecting the student experience to maintain our core democratic values
- COMMUNICATE what both Board, and the Union on a whole are deciding and taking action on, with its members

Consultation, representation, and communication have been a hallmark of my terms in a multitude of student volunteering positions. I want to continue that as your Student Trustee. A vote for me is a vote for experience, efficacy, and democracy. Vote Dan for Student Trustee.



**Daniel Faehndrich**



**Alexandre de Saint Germain**

**I**'ve been at Imperial for 6 years now and it's time to start giving back and hopefully contribute some of the experience I have accumulated over my time here. As a trustee, I would help ensure that the Union doesn't deviate from its mission and takes the best interest of its students at heart whilst also balancing the budget. This is not something I will take lightly and you can be sure I will work hard to make sure these are met. This will not be my first time representing students, managing a budget or overseeing a project. My past experience in these areas should prove invaluable.

**H**i everyone, I'm Michaela and I think I'd like to be your Student Trustee. I'll keep this manifesto entirely honest, because that's what you expect from someone whom you're supposed to trust (a Student Trustee). I think I'm better than most of the other candidates, although at the time of writing I'm not exactly sure who those are. I have some experience in the Union which isn't 100% relevant, but it should be enough. I don't actually know what the role is exactly about (but I'm guessing neither do you). I assume I'd represent the students on the Trustee Board (duh). Anyway, that's what training is for, so you should not worry - I'll be ready for the role by August! I decided I should run after a discussion with one of the current Student Trustees, which made me realise that I might be good for the role. My mum also said I should run, or at least she definitely would if I asked her. I hope. I don't want to promise you anything because I don't know if I could achieve it, but I do have some ideas that I think would be good for the Union and for the students, and I generally consider myself to be a person with reasonable views and opinions who can usually tell good from bad. Most of my friends trust me when it comes to important things, so I think you can also trust me and give me your vote for Student Trustee.



**Michaela Flegrova**



FiveSixEight.



The  
**Leadership  
Elections**  
2019

# Results Party

Friday, 15 March | 19:00 - 02:00  
Metric, South Kensington Campus

[imperialcollegeunion.org](http://imperialcollegeunion.org)





#icuElections



The  
**Leadership  
Elections**  
2019

[imperialcollegeunion.org/vote](http://imperialcollegeunion.org/vote)





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# Annual Showcase

# otize

METRIC • 20.00



# FOOD

food.felix@imperial.ac.uk

## Mumbai Mix: a comprehensive review of the best Indian food on campus

*Come and join us as we indulge in our favourite Dosas – brought to you from the streets of Mumbai to our very own Farmers Market...*

### FOOD

**Eva Tadros**

*Food Editor*

You've had Indian food, sure, but we guarantee you haven't had anything that tastes close to what Mumbai Mix has to offer. If you spend a lot of time on campus, chances are you've probably heard of Mumbai Mix – the only authentic Indian food stall at the Farmers Market on Tuesdays. If you haven't, you must've at least seen it with the long queues of hungry students there every week, or got a whiff of their homemade custom masala (mix of spices), or probably had a chat with the lovely team operating the family-run business.

Mumbai Mix serves a minimalist menu, making choosing what to have for lunch so much less stressful for the indecisive ones among us (seriously, what's up with those 20-page menus everywhere?). With their most

**“It really felt like I had just been handed a slice of Mumbai, with the authenticity of the flavours oozing from the masalas second-to-none”**

popular option being the Dosa Wrap with Biryani Rice, you could also opt for something lighter like the Dosa Wrap by itself, or a crunchy, deliciously golden vegetable samosa, and some delicious homemade masala chai on the side – a delectable

substitute to your afternoon skinny latte. Alternatively, you could also go for a vegetable biryani and potato curry if you've got a bigger appetite.

I've heard everyone raving about their food constantly, and after reading the fantastic piece on the authenticity of the food and how it started off in Felix last week, I knew I had to give it a try myself and see what the hype was all about and boy, the whole experience was amazing!

Queuing for their food was an experience within itself – the fragrant aromas wafting from the food got me excited and made for a mouth-watering wait. At the front, the service was immaculate – the team (Mohini, Dshna, and Dimple) greets you with smiles and are pleasantly cheerful and chatty, offering that perfect break from revision after a long morning at the library.

The Dosa Wrap was in its own league, with a combination of flavours and aromas I'd only ever tasted in local markets whilst travelling abroad. It really felt like I had just been handed a slice of Mumbai, with the authenticity of the flavours oozing from the masalas second-to-none. The pancake, made solely using lentils and rice, was delicately thin yet incredibly satisfying, and the ladies at Mumbai Mix even spice each individual wrap to your liking - even serving extra hot pancakes that would satisfy that heat craving for all those “Nando's Extra Hot isn't even that spicy” people.



A delicious Dosa Wrap // Eva Tadros

A potato and onion filling complemented the pancakes beautifully – the potatoes were slow-roasted to perfection, and spiced enough so that they were indulgent but not overpowered. The dish was then topped with freshly-made chutneys – including a fiery roasted red pepper, a delicate tamarind and date, and my personal favourite, a soothing coconut-coriander.

To complement the wrap, I opted for a vegetable samosa - how could I not with the beautiful crispy golden coating (literally felt like it was calling my name!). The contrast between the crunchiness of the pastry combined with the hot and hearty filling made for the perfect side dish for my wrap, and left my home-cooked food craving 100% satisfied (and was such a yummy change to your usual library café food or a cold BLT).

Whether you're watching your wallet or your waist, Mumbai

**“freshly-made chutneys - including a fiery roasted red pepper, a delicate tamarind and date, and my favourite, a soothing coconut-coriander”**

Mix is the perfect venue for both. At only £6 for a Dosa Wrap and £1.50 for a Samosa, this stall is definitely a hit if you're bargain hunting at the Farmers Market, or if you're on a student budget (RIP student finance). If you're trying to stay lean, you'll definitely want to swap your salad for a

yummy wrap, which is surprisingly quite low in calories (who would've guessed you could have that much potato with so little damage done, eh?), and rich in nutrients with all the locally sourced ingredients used. Being gluten-free, you also don't get that belly bloat with Mumbai Mix that you do with other food, and you're satisfyingly full without feeling like you've just consumed a truck of food. With a full vegetarian menu, you'll also be doing your bit for the environment (a great way to add No-Meat Tuesdays to your week without even missing the meat!)

With all that said, what are you waiting for? Head down to the food market next Tuesday and get a taste of this amazing goodness for yourself – we're sure you won't regret it!



Mumbai Mix's Mohini // Eva Tadros



# SUSTAINABILITY

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## Don't call your country "developed"

*Implicitly labelling wealthy countries as the role model for development countries is a bad idea for humanity*

### SUSTAINABILITY

**Artur Donaldson**  
Sustainability Editor

**I**s the UK developed or developing? What about Vietnam - developed or developing?

The World Bank no longer uses the terms "developed" or "developing" and I couldn't agree more. The distinction of "developed" and "developing" countries date to the period just after the Second World War, when institutions such as the United Nations (UN) and World Bank were founded, which defined the terms. One of the key objectives of these institutions was to drive development and reduce poverty with the hope that this will avert future catastrophic conflict. This was the time of the baby boom and when US, where these organizations are based, did not question its position as the world superpower. It was the time before Silent Spring and the realization that natural resources are bounded. This drive for globalization has had a huge impact on the world since and undoubtedly has had an immense success in improving the quality of human life in the past half century.

According to Gap-Minder, life expectancy at birth in Vietnam was consistently 30 years old between 1875 and 1939. Today it is 75, higher than that of any country before the Second World War and barely differs from that of the longest living countries today. The UK, for all its investment in healthcare, has a life-expectancy of just six years longer than that of Vietnam today. This is not to say that healthcare

is not far better in the UK than Vietnam, but it highlights that development has been such a success that the gap between wealthy and poor nations in terms of fundamental human needs as a whole is diminishing.

One of the reasons behind the movement to globalization by organizations such as the UN was that trade makes countries inter-dependent and acts as a counterbalance to war, a concern which was very much on the minds of leaders at the time. In theory, if one country goes to war with another, they hurt themselves in losing trade with their opponent and any of their allies which decide to enforce trade barriers.

This is just a sketch of a complex and nuanced political and economic theory, and not one which is the topic of this discussion - the question is not whether global trade between "developing" and "developed" countries does or does not ensure global peace.

The question is thus whether dividing the world into "developing" and "developed" countries is meaningful and secondly whether the development is sustainable.

### What is the difference between "developed" and "developing"?

The UN argues that "the designations 'developed' and 'developing' are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process". However it admits that "there is no established convention for the designation of 'developed' and 'developing' countries or areas in the United

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**"Life expectancy in Vietnam was 30 years between 1875 and 1939. Today it is 75 and barely differs from that of the longest living countries today"**

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Nations system".

Why is it that the terms "poor" and "wealthy" do not suffice? Why do we talk of "developed" versus "developing" - which only replaced the similarly loaded terms "first world" and "third world"? It is because those in the "first world" elected the terms. In case you are wondering, the "second world" disappeared with the fall of the USSR and the communist states which it was used to denote. The term "developing" implies that such countries will eventually become like the "developed" ones with sufficient fortune and good leadership. However, are societies of "developed" consumerist societies really so first-rate as the language we use implies?

Inevitably through historical or geographical circumstances some countries have fewer resources, less power or less developed industry than others, and it is along this distinction that the divide of "developed" and "developing" are drawn.

The IMF, another organization heavily involved in development, defines developing countries on the criteria of "(1) per capita income level, (2) export diversification ... and (3) degree of integration into the global financial system". In other words, the grade of development is based on material wealth and power of individuals (in the first criteria) and of the amount of global trade a country engages in (the second and third criteria).

### Is development sustainable?

We all sense that more material wealth, once above a certain threshold, is weakly correlated with happiness. What it does give is power to decide what is produced within society. For instance individuals can use their economic power to choose electricity from a renewable energy supplier and thus increase the proportion of electricity generation from renewable sources.

But economic power also gives the ability to do things which are not sustainable. Even I have been tempted to invest in the next generation phone or a flight abroad even though it is not a fundamental human need and I am well aware of the carbon footprint.

Even if we try to avoid the temptation, the ability to do something has the subversive effect of reducing choice. For instance, because smartphones are so cheap and readily available it is expected that everyone has one. Even if we set aside the isolation from social contact by this simple luddism even the most basic of services such as banking, healthcare or accessing government will not work

without. This unarguably makes government more efficient and allows easier access, but also relies on devices made from resources with finite supply and huge social and environmental impacts in their production which presently are treated as pretty disposable.

Though levels of consumption of natural resources by "developed" nations per person aren't rising, they don't look set to fall to sustainable levels. They are far higher than that of the "developing" nations where most of manufacturing and primary production has been relocated. Alongside providing for the wealthy countries, developing countries are showing a rapid rise in consumption.

If the entire world's population were to live as an average person in a "developed" country we would need vastly more resources than can be foreseeably produced. If development means becoming like "developed" countries, development is a rather short-sighted pursuit. Rather than defining development on wealth,

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**"Rather than defining development on wealth, which there is a finite supply of, there must be something deeper to define the distinction on"**

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which there is a finite supply of, there must be something deeper to define the distinction on. What should this something be?

I don't have the answer, but my belief is that one criterion is meaning. When something is expensive we find meaning in buying it - it is precious because we had to sacrifice having that thing over having something else. Equally we find meaning in work, in friendship, in understanding a scientific theory, in solving a crossword puzzle, reading an article in the newspaper. I don't think it would be easy to quantify such a thing as meaning as we do with money and life expectancy. Indeed I don't know if it is quantifiable, but if it is then it is possibly the most limitless resource. The current metric by which economies are measured are rather more correlated with material wealth, a finite resource, than is sensible.

We all want people to live meaningful lives, and we are aware that not everyone has the opportunities that people in "developed" countries. However, what if having the wealth which those in "developed" nations have is not healthy? What if we actually need to sacrifice something from our own lives so that we can live more equally with others on our planet?

I don't have the answers. I have only more questions. I hope you'd agree that we should question whether, from an environmental perspective, "developed" nations are really so developed.







# LIBERATION

felix@imperial.ac.uk

## “Use Your Voice”

### LIBERATION

**Tasneem Mahmud**  
*Mental Health Officer*

It is a well-known truth that life at university can be extremely stressful and can consequently have a negative impact on our mental health. It has been shown that most mental health problems develop by the age of 24, and in 2015-16 alone, 15,000 first-year students at UK universities reported having a mental health problem.

Apart from the obvious academic pressures of studying, students are simultaneously battling the atrocious financial

struggles of paying for rent, commuting and weekly groceries to get by (I dare not mention our huge student loan debt!). For those eager enough to join Clubs & Societies, attending regular meetings, events and training can become an overwhelming responsibility. And to top things off, many of us also

**“It has been shown that most mental health problems develop by the age of 24”**

struggle with the emotional challenges of dealing with relationship and family problems. Whilst these are all pertinent issues to us as students, there are still many people who are oblivious to the complex challenges that we face.

Thursday 7<sup>th</sup> March 2019 marked ‘University Mental Health Day’: a national day to recognise student mental health and raise awareness. This year’s theme was the power of ‘**using your voice**’ as a means of addressing the existing gaps in knowledge, mental health literacy and the support available to students. Essentially the idea is for students and supporters to use their voices to shape the future.

As Mental Health Officer, one of the main

**“Thursday 7th March 2019 marked ‘University Mental Health Day’”**

tasks I have been working on behind the scenes this year has been to create a ‘Health and Wellbeing Survey’ for all students at Imperial. The purpose of the survey is to create a channel of communication for students to *use their voices* and tell me what changes they would like to see in the College. It also allows me to pinpoint which areas of university life need to be enriched, whilst also identifying un-

der-represented groups in the College. By using the feedback from the survey, I aim to devise effective strategies to improve overall student mental health and wellbeing. It therefore seemed fitting to launch the survey on University Mental Health Day 2019 and give YOU the opportunity to use your voice to enact change. The link to the survey can be found on all Imperial College Union social media channels and will be sent through via newsletter to all student emails. So what are you waiting for? Let’s use our voices to start changing the student mental health narrative, one by one.

*If you have any mental health related concerns or issues you would like to discuss, please feel free to contact the Mental Health*

**“As Mental Health Officer, one of the main tasks I have been working on behind the scenes this year has been to create a ‘Health and Wellbeing Survey’”**

*Officer at: [icu-mental-health@imperial.ac.uk](mailto:icu-mental-health@imperial.ac.uk) or [tm4115@ic.ac.uk](mailto:tm4115@ic.ac.uk).*

## Want to be on the *Felix* team this year?



***Felix* is recruiting new section editors and copy editors for this year!**

**If you’ve enjoyed reading the paper, and want to help create it each week, apply to join the team! All training is provided, as well as weekly cake, so come and join us!**

**If you’re interested, please email [felix@ic.ac.uk](mailto:felix@ic.ac.uk)**



# CLUBS & SOCIETIES

felix.clubsandsocieties@imperial.ac.uk

## The Dance Imperial Show is back and its bigger than ever!

### CLUBS & SOCIETIES

#### Dora Bonini

Show Coordinator

Back from 14<sup>th</sup> to 16<sup>th</sup> March and with an unprecedented cast of more than 150 dancers, Dance Imperial Show is bound to be one of the most exciting college events of the whole year. Now running the show for the fifth year in a row, Dance Imperial offers three consecutive nights of entertainment with choreographies from

the six dance societies in Imperial: Belly Dance, Dance Club, Dance Company, Funkology, ICSM Dance, Pole & Aerial.

Whether you are a dancer or not, we are confident that you will enjoy the show. All societies showcase choreographies that they have performed at national competitions, often meriting several trophies, or that they have been rehearsing in class for weeks. You will be able to be amazed by a range of dance styles, from belly dancing to hip hop, from jazz to pole dancing, as well as salsa,

contemporary, aerial, ballet, bachata and tap.

**“Whether you are a dancer or not, we are confident that you will enjoy the show”**

But that’s not it. What we are most proud of, and makes the show especially unique, are the collaborations. These are new dances choreo-



Last year's show // Dance Imperial

## Mike McGill for Union President

#voteicu

#icuElections



For a President who will:

- Save our Services & Back our Bars
- Support Constituent Unions
- Create Campus Coordination
- Champion CSP Volunteers
- Develop Direct Democracy
- Fix the NSS Mess
- Increase Counselling Support

Check out my Website:

Count on Experience,  
Count on Leadership,  
Count on Mike



graphed exclusively for the show, mixing styles from different societies. This year we will keep you on the edge of your seat with a bachata and hip hop couple dance, a sassy jazz and tap choreo, a tap and ballroom fusion, and a jazz and hip hop piece. To end the show, Dance Company and Funkology will be featuring in the finale. Imperial is not all about science and engineering, and collaborations give dancers the chance to get creative and experiment with new styles.

DI Show has been a highlight of the student experience for many dancers, and everyone on stage has the best time performing. Our passion for dancing is really conveyed to the audience, and we hope you will want to enjoy the Dance Imperial community by the end of the show (membership is free!).

**“This year we will keep you on the edge of your seat with a bachata and hip-hop couple dance, a sassy jazz and tap choreo, a tap and ballroom fusion, and a jazz and hip-hop piece”**

The show has been a sellout in previous years so buy your tickets as soon as possible (on the Dance Imperial page on the Union website)! The show will be on Thursday

14th, Friday 15th and Saturday 16th March in UCH. Doors will open at 7pm and the show will start at 7.30pm. Tickets are just £6 online and £8 on the door for students (from any uni, bring your ID), and £8 online and £10 on the door for non-students! If you want further information, drop us an email at [danceimp@ic.ac.uk](mailto:danceimp@ic.ac.uk) or you can find us on Facebook and Instagram. Hope to see you all at the show, you will not regret it!

**“Imperial is not all about science and engineering”**



# CLUBS & SOCIETIES

felix.clubsandsocieties@imperial.ac.uk

## Imperial College Indian Society proudly presents the Meets West.

### CLUBS & SOCIETIES

**Advait Sastry & Keerthi Muthukumar**  
Imperial College Indian Society

Veterinary College. From the introduction of a choir act, to the fusion of more dance styles than we've ever featured before, we continue to strive to deliver that which has never been done before.

Currently celebrating its 27<sup>th</sup> year, East Meets West is an eclectic fusion of dance, drama, fashion and music. It incorporates artistic elements and styles from cultures and traditions across the world to create a vibrant and unforgettable evening of entertainment.

In 1992, East Meets West was established as a simple platform to showcase the diverse talent at Imperial. Twenty-seven years later, it has grown to be one of the most highly anticipated university shows in the country, gracing venues such as Eventim Apollo, London Palladium and the Novello Theatre.

EMW has reached amazing new heights this year. We've had the blessing of hosting a record-breaking 230 auditions, including performers from other London universities such as Kings and the Royal

**"It incorporates artistic elements and styles from cultures and traditions across the world to create a vibrant and unforgettable evening of entertainment"**

*What can you expect from EMW19?*

### Drama

This year, the cast of EMW 2019 present 21



East Meets West is an eclectic fusion of dance, drama, fashion and music // Imperial College Indian Society

**KNIGHTSBRIDGE:** the story of Jay and Sam, two clueless cops who are sent undercover to Imperial College London to investigate the mysterious emergence of a rogue circle in South Kensington, dealing a new brand of Imperial's most addictive substance: Curly Fries... a strain so popular it's driving the Union out of business. Their mission is simple: "Infiltrate the dealers, find the supplier."

In a story of thrilling adventure, captivating romance and shocking twists and turns, our favourite detectives will soon find there is more going on than meets the eye. Thrown back into university life, they must navigate through the tricky world of lectures, social cliques, societies and girls as they continue their mission. Will they succeed? Or will their efforts result in paying the ultimate price?

This year's drama leads, Ali Khalid and Sameed Shariq, playing Sam and Jay respectively, have been described as "sensational" by the Artistic Director for Drama, 2nd year Chemistry student Iman Ilyas, who also notes that "Bollywood will be

copping them soon."

When speaking to us, Ali also shared: "I know EMW has been going on for a long time and from what I've been seeing unfolding so far, I think this year, in fact, is going to top things. The drama cast I've met so far has been

unbelievable. The script I thought was amazing, everyone's been working really hard and we're going to continue to work hard so we can put on a good show!"



Drama // Imperial College Indian Society



Lifelong friendships being formed as a result of the overwhelming feeling of unity brought about by the EMW spirit // Imperial College Indian Society

# CLUBS & SOCIETIES

felix.clubsandsocieties@imperial.ac.uk

## longest running student show in the country - East

### Dance

Every year EMW dance acts have been highly anticipated and this year is no different. Taking dancers of all levels and turning them into the next Madhuri Dixit, our dance performances are not to be missed.

With a fusion of gaana, contemporary, Bollywood, Hip-Hop, Street, Bhangra and more, finding a more varied set than RAABTA is no mean feat. Choreographers Kanav Agarwal, Maya Satheskar, and Ajitha Sundaram shared that their "mixture of students from first year to third year shows how universal EMW really is."

**MASTANI** is a stunning mix of Bollywood, hip-hop, classical and Latin, with an equally diverse music mix. Following the breathtaking story of Mastani as they travel through the ages, the group, choreographed by Devyani Saini, Shivani Kalair and Mohona Sengupta, will be astounding the audience with their tale of three women over three eras.

**DRISHTI** amazed hundreds all the way back in January at Hindu society's Winter Mela. Their dance, choreographed by Rajas Barve, Manu Pillai, Arunima Basu and Paridhi Poddhar, is made up of 19 performers, the

majority of whom are trained in Bharatanatyam or Kathak dance. Drishti will be bringing you all a beautiful combination of traditional dance styles, partnered with a mix containing the most unbelievable range of songs, bringing to life an incredible performance which will redefine 'classical' for future generations.

**"Taking dancers of all levels and turning them into the next Madhuri Dixit, our dance performances are not to be missed"**

### Music

Directed by Sreya Coomer, Music is bringing you anything and everything you could ever imagine hearing in just five acts: from RAPPING and BEATBOXING mixed with some tuneful melodies, to a CHOIR singing a medley of showstopping Hindi and English songs which are sure to leave you with a



Dance // Imperial College Indian Society



Fashion // Imperial College Indian Society

smile on your face. The two band acts will leave you with an irresistible urge to tap your feet along to the music, whilst their DUET will leave you feeling all kinds of moods - emotional, romantic, happy, and "just can't help but dance and sing along!"

### Fashion

The catwalk highlights some of the most outstanding outfits, designed and supplied by our fantastic sponsors. All the featured outfits in this year's shows are courtesy of NV Collections, VR Sarees, Fabilicious Fashion, Prachy Creations and Pagh Vala. Our student models will be displaying five key themes on stage:

The first two themes of the fashion show are 'Boys' and 'Girls'. Celebrating what the whole show is about, the models will be integrating western and Indian culture, showcasing traditional formal wear from all corners of the globe.

Third, our models will be exploring the theme of 'Wedding'. Exhibiting jaw dropping bridal wear, these grand outfits will leave the audience enthralled. Next 'Fusion' uses the medium of clothing to celebrate all cultures and their differences. Finally, bringing it home, 'All Around India'

in the back row. Come watch a truly spectacular showcase of Malaysian unity and "keluarga"!

### EMWxACS

Since Afrograla: Hazina in February, we've been desperate to see more. We're delighted to welcome back ACS to the EMW stage and can't wait to see what they'll bring this time. You're promised a fiery performance, filled with spirit and zeal.



EMWxACS // Imperial College Indian Society

### EMWxMSoc

Just in case you missed them last weekend at MNight, our friends at Imperial College Union Malaysian Society are giving you a second chance to catch the traditional Dikir Barat dance on the EMW stage! Fresh out of Heartstrings, their coordination, sharp moves and loud "HA's" will have you blown away - even

### The EMW community

EMW continues to be an integral part of the university experience for the vast majority of students in our community and beyond.

Our talented performers have been approaching rehearsals with determination and passion right from the beginning

of term, with some rehearsing up to six hours a day, six days a week, as we approach the big day. As we reflect upon EMW season, the final countdown to show-day, we are touched by the magical lifelong friendships being formed as a result of the overwhelming feeling of unity brought about by the EMW spirit.

**"We have constantly pushed the boundaries"**

East Meets West turns students who have never performed in their life into dancers, actors, models and musicians who continue to astonish audiences year upon year. We have constantly pushed the boundaries of what it means to be a 'student show' - and this year will be no exception.

We look forward to seeing you there.

Tickets available from: [bit.ly/EMW19Tix](http://bit.ly/EMW19Tix)



The EMW community // Imperial College Indian Society



# Union Page



# VOTE

#icuelections

[imperialcollegeunion.org/vote](http://imperialcollegeunion.org/vote)

Voting opens noon, Monday 11 March

## Ready, set, vote

You can now view all the candidates running in this year's Leadership Elections and read their manifestos at [imperialcollegeunion.org/manifestos](http://imperialcollegeunion.org/manifestos). Get to know the candidates and their ideas so you can choose who you want to lead the Union and help shape life at Imperial next year.

By voting in these elections, you are using your voice to determine who will represent you in all aspects of Imperial student life. Elected reps will have the ability to lobby College and some even sit on significant decision making

bodies which can effect great change. The Union is here for you so make sure you have your say over who leads it, and vote for the candidates you believe can make a difference.

**Vote:** noon, Monday 11 March to 14:00, Thursday 14 March  
[imperialcollegeunion.org/vote](http://imperialcollegeunion.org/vote)



## Celebrate the results

Join the candidates and your fellow voters as we find out who will lead the change at Imperial next academic year. Major positions, including Council Chair, Student Trustees, Felix Editor, Liberation & Community Officers, Constituent Union Presidents, and the Officer Trustees (President and four Deputy Presidents), will be announced live at the party.

The results for Departmental Reps, Constituent Unions and DepSoc Committees will be shown on screen at the the party, while CSP results will be released online. Entry is free and there will be a live DJ.

**Results Party: 19:00 onwards, Friday 15 March**  
**Metric (South Kensington Campus)**

[imperialcollegeunion.org](http://imperialcollegeunion.org)



# Your Union Events

Friday 8 March

Use your voice



**8** March, Friday

**BPM**  
Beit Bars | 20:00 - 02:00

**Wolf Rocks**  
h-bar | 19:00 - 23:00

**12** March, Tuesday

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

**Cocktail & Jazz**  
Metric | 19:00 - 23:00

**13** March, Wednesday

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

**14** March, Thursday

**Pub Quiz**  
h-bar | 19:30 - 22:00

**Battle of the Bands: Final**  
Metric | 19:00 - 23:00

**15** March, Friday

**Elections Results Party**  
Metric & FiveSixEight | 19:00 - 02:00

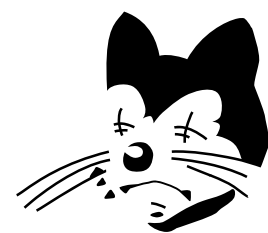
**PGI Friday**  
h-bar | 19:00 - 23:00

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

[imperialcollegeunion.org](http://imperialcollegeunion.org)







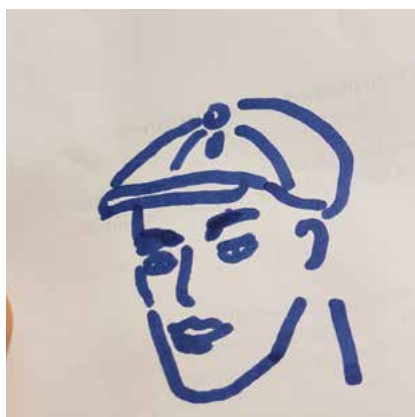
# Hangman



## Manifes-OH NO!



### Marcus Buchanan



I, Marcus Buchanan to the people, For too long now have we the student body been denied a voice, a seat at the table, a foot in the door and as a leg to stand on. As a result we as a body have been crippled.

There is but one solution for this - our students must have access to 'Directest Democracy™'. My new system would hold Council to account by giving a seat on a Sub-committee to all new

students. Nothing will be beyond our power; from deciding whether to sell beer in SI unit glasses, to ensuring the shrubs outside the Union are fairly representative of colour and species.

I propose that any students with more than 1% of their year group's support will be given veto power on any and every decision made at Imperial.

Finally, I will force through a restructuring of Union Council, making it the

decision-making body it was meant to be, rather than just a place for loud pedants to shout at each other.

On top of this we will hold compulsory referendums each week to ensure that the student community is adequately heard.

When we the students band together, the mighty quake and the mildly racist tremble.

### Sarah Billsflower



Blessings!

My name is Sarah Billsflower, a second year Geologist and amateur Wicca practitioner. I believe it is my destiny to lead the NegaFelix team into a glorious dawn.

As NegaFelix editor I will change the paper to be handwritten on leaves in order to avoid toxic computers. As the

most important subject, the Sustainability section will occupy the first ten pages of the paper (leaf) every week.

Centerfolds will Wbe printed as cave paintings on the side of Beit Quad. We *will*, however, keep the investment section, in order to help my career in management consultancy - firing people is green, right? I won't write anything else, it's a waste of ink.

### Jonathan Risbit



Dear men AND WOMEN (you can't be too careful these days), my name is Jonathan Risbit, and I am the only candidate in this field of pansies and lip wristed nobodies that you can rely on bringing you a Union that you can be proud of. I don't want to be President of a Union that I have to lie about at family barbeques. I want to be able to hold my head up high and show my Union to everyone.

I see my role as a simple one. To go into the sulphurous pit of the Union offices and to purge the daemon from it so that you don't have to. My credentials for this sort of exercise are unparalleled. I managed to get myself elected Social Secretary for the Model Trains Society and only 3 months later it was raided by the fascist Communist Union staff and closed for financial misconduct. Just imagine what this level of being able to screw something

up for other people could do when leveraged properly...

So I want you to look to either side of you. Would you trust any of the people standing next to you to stand up to the leftist nonsense being forced down our throats, or would you rather I put your faith in me - Jonathan Thomas Risbit.

*P.S. I would also erect a statue to Churchill - a true British hero*

# HANGMAN

negafelix@imperial.ac.uk



### Fran Strated

Speaking to the women in the crowd here - any of you ever get fed up with the poor quality of men here?

It's like I am dying of thirst and people keep handing me glasses of piss, know what I mean?

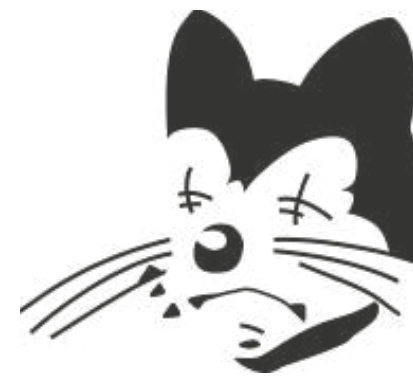
So here is my plan. We need to put temporary bans in place to screen out the undesirable populations. Below is my proposed list of banned groups:

- Northerners for not being able to speak English properly (that includes the Scottish)
- South Westerners for all being racist
- Londoners for being members of the liberal metropolitan elite
- Southerners who are too far up their own arse.
- Anyone from the East, see South West.
- I'd make a joke about the Welsh but it would be just the pits.

Further consultation has led to the addition of those who do not own trousers that cover the shin and anyone that uses a j when laughing in a text message.

When I get elected I will have an open door policy and we will operate a process of constant review to see who else should be added to the undesirable lists.

### Yang Jie Hao 杨杰豪



昨晚深夜，当我们在Felix办公室写这篇文章时，想不出更多讽刺内容，我们想出了这个我们认为很幽默的注意。

我们当时都呵呵大笑。说真的，我们当时觉得这实在是太幽默，我们甚至邀请了我们的一个记者来编辑这一段话。

然后我们又狂笑了一趟。

两个小时后，还剩半页要填写，打印截止临近，我们把这一篇塞进了，并希望明天会有人读到这儿而看出我们当时一个绝望到荒唐可笑的感觉。任何投诉应该直接向Union办公室提出。

### Gavin Golden-Ballsacks



Dear All,

My name is Gavin Golden-Ballsacks and I am a final year Mechanical Engineering student at Imperial College London. I am writing to you today to apply for the position of Union President as advertised on your website.

I see the major flaw in the Union being its monopoly on student activities. In order to drive improvement in student services and reduce cost, through the application of

free market economics. I plan to privatise the Union and open it up to tender.

Additionally, I will open sponsorship opportunities for key Union services. For example, 568 to be renamed the Emirates bar; the Union Counselling brought to you by BAE Systems; and the Union Concert Hall - presented by Huawei.

I propose a hostile takeover of DramSoc, in order to seize the means of production. I will continue the authoritarian rule of CSPB and streamline the process by

sacking the other members of the board. I will also dissolve Union Council; it's a waste of time anyway.

I have had experience in a secured experience for the role during my spring week at my Father's consultancy firm.

Please find attached my curriculum vitae for further reference.  
Yours sincerely,

Gavin Golden-Ballsacks  
[www.linkedin.com/in/GavGolden](http://www.linkedin.com/in/GavGolden)

### RON

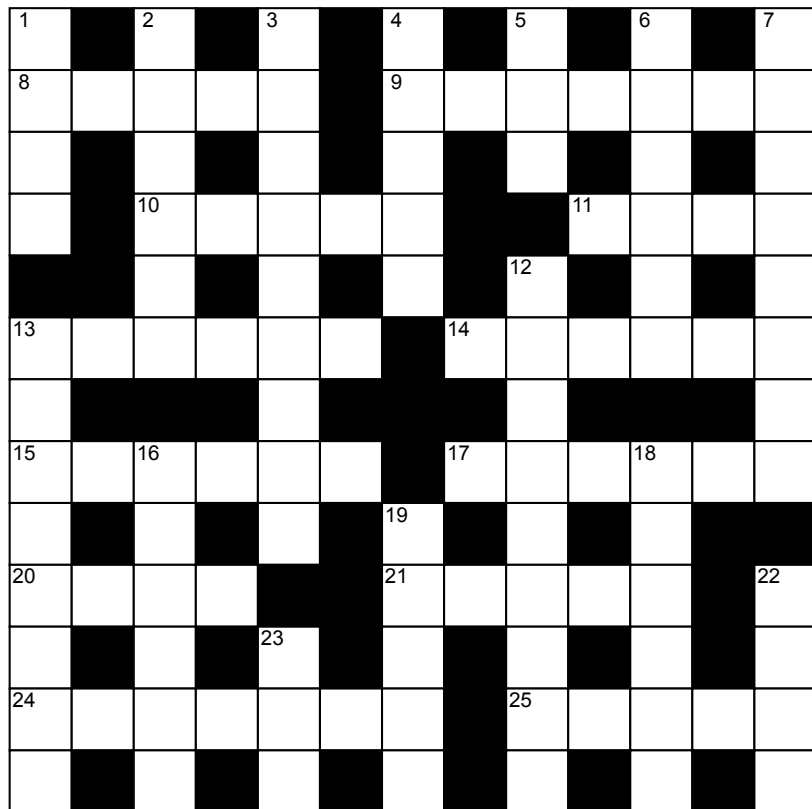


You know I'm always an option, right?



# PUZZLES

fsudoku@imperial.ac.uk



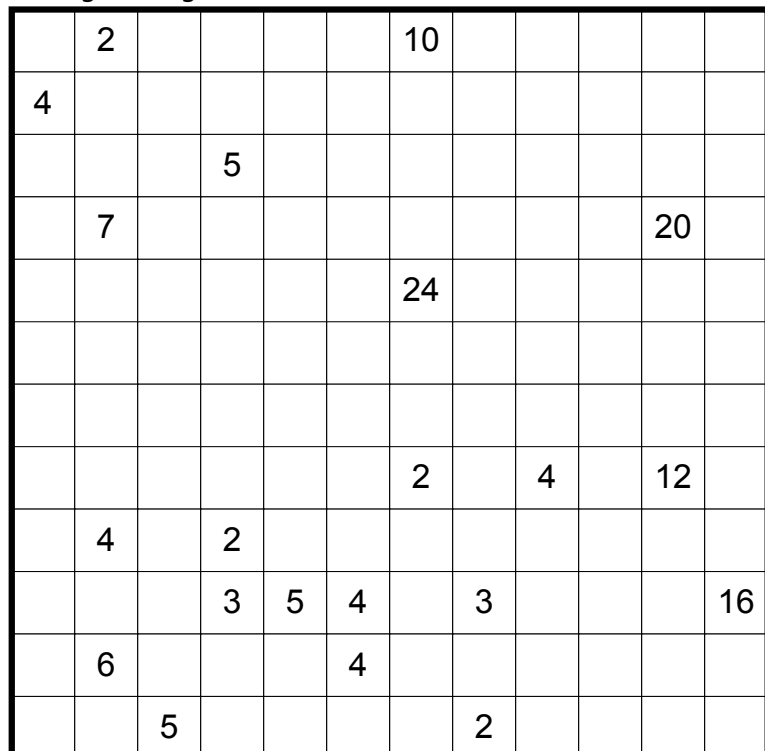
This week's theme is... Taylor Swift. Name the song titles based on those *iconic* lyrics.

**Across**

- 8. Moving picture (5)
- 9. Large West African country (7)
- 10. Interruption (5)
- 11. The Captain in Moby Dick (4)
- 13. Spanish party (6)
- 14. A Tae martial art (6)
- 15. Aim to (6)
- 17. Left over (6)
- 20. Misrepresents the truth (4)
- 21. "You got that James Dean daydream look in your eye" (5)
- 24. Absence of chatter (7)
- 25. Roy Orbison sings about a Pretty one (5)

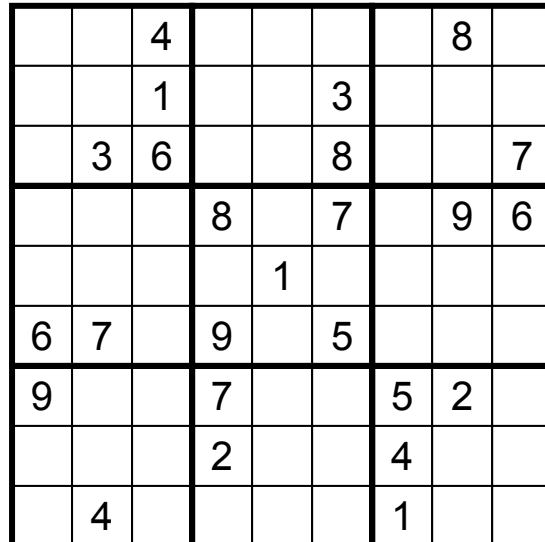
**SHIKAKU**

Divide the square into rectangles, such that each rectangle contains exactly one number. The numbers given represent the area of the containing rectangle.



**SUDOKU**

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



**Down**

- 1. Immoral (4)
- 2. Safe for consumption (6)
- 3. "You'll be the prince and I'll be the princess" (9)
- 4. Slippery reptile (5)
- 5. Taylor Swift's is 29 (3)
- 6. Parent-less (6)
- 7. "You know it used to be mad love" (3,5)
- 12. "I don't know about you" (6-3)
- 13. "You take my hand and drag me head first" (8)
- 16. Oyster by-products (6)
- 18. Hot and misty (6)
- 19. Home county North of Kent (5)
- 22. "You were in college, working part-time, waiting tables" (4)
- 23. You won't win unless you shout it (3)

**FUCWIT**

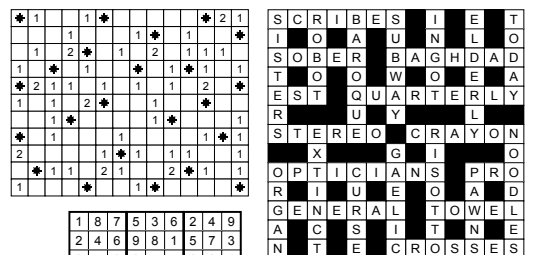
1	Maxiane	121
1	Trollheim	121
1	Wooloomooloo	121
4	DQ	118
5	Yeet Infection	115
6	Big H's Boys	112
7	O1G	101
8	Rock, Flag & Eagle	94
9	KBLB	82
9	S. B. S.	82
11	Fleesh and the tooters	80
12	Shark	74
13	Quizlamic extremists	73

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

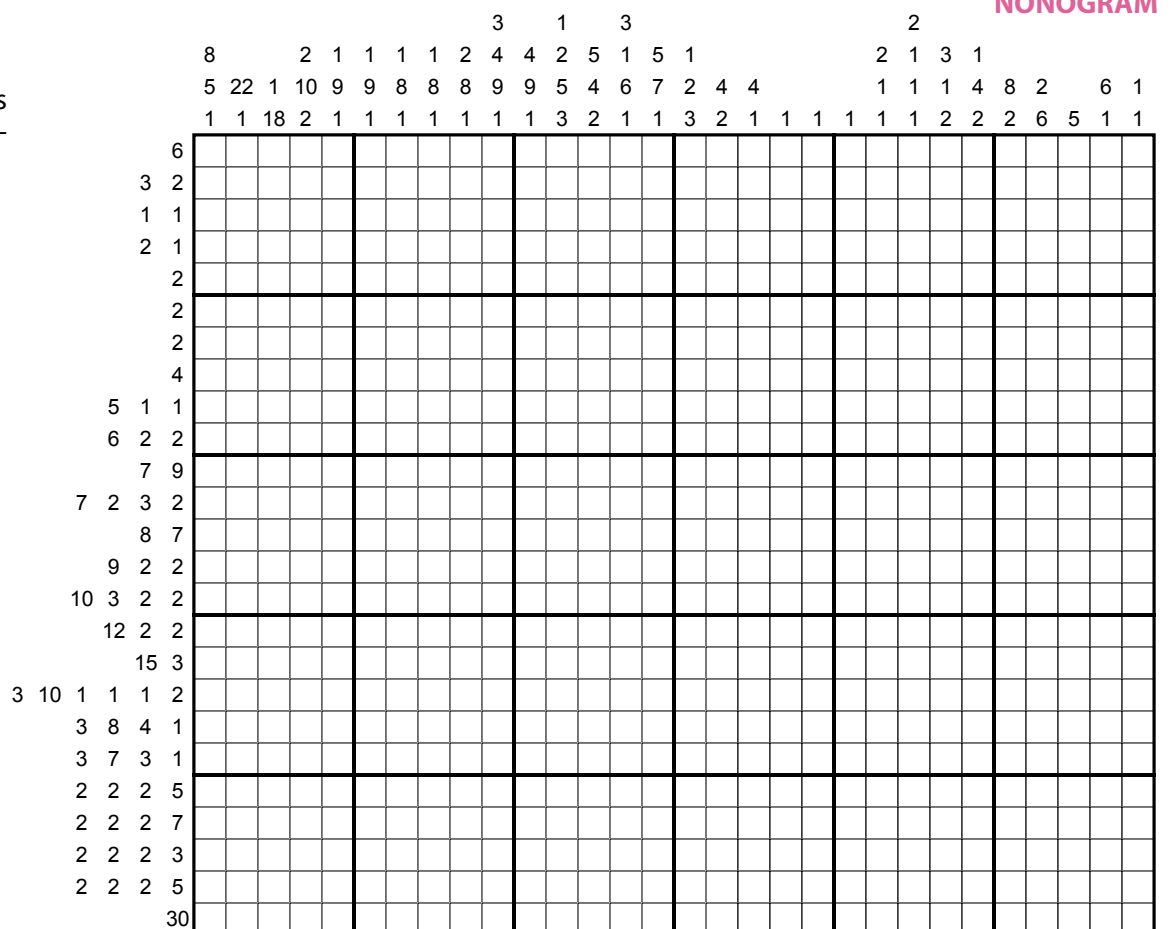
**Points available**

Crossword	5
Sudoku	3
Nonogram	4
Shikaku	2
<b>Total</b>	<b>14</b>

**Last week's solutions**



**NONOGRAM**





# SPORTS

sport.felix@imperial.ac.uk

## Imperial College Conquers Closely Contested Championship

### SPORTS

**Mark Pollock**

*IC Triathlon Treasurer*

Imperial returns to the Velopark in Stratford, London for the inaugural London Universities Duathlon Championships.

Pre-race prep included: gawking at the competition's incredibly expensive bikes; going to the toilet and putting on a trisuit in the wrong order; debating over the optimum bike racking position in the transition area and some compulsory pre-race gossip. Oh,

and a warm-up too.

The race itself consisted of a 2 mile run, followed by a 10 mile bike and then another 1 mile run. So in total 13 laps of the circuit (1 lap = 1 mile) and two transitions. The race was non-drafting, meaning that one can't use another cyclist as a wind break.

The race started with the running leg where Mark Pollock and Matt Ryan took an early lead, both looking like strong podium contenders. Matt looked like a pro on the bike (especially when compared to people riding folding bikes), and he had the power to match. When coming in for his 10<sup>th</sup> lap, clearly all his blood had

gone from his brain to his legs, as it was at this point that he decided that he had only done 9 laps and went for his 10<sup>th</sup> (actually 11<sup>th</sup>). While it was all very funny that Matt couldn't count (many, many DesEng jokes were made) it did have the very unfortunate consequence of losing him a likely podium finish. Angus "no pain face" Phillips was a very strong all-rounder and made it through in a rapid time. Meanwhile Esme was dragging herself through new limits of pain never before experienced, even on an erg. Alex was dreaming of coffee shops, and Jacob would rather have been in ICCS kit.

Due to excellent efforts all round from Matt Ryan, Mark Pollock, Angus



Triathlon's submission to the HEAD-strong nomination // IC Triathlon

Phillips, Alex Luisi, Esme Hotson-Moore and Jacob Kay, Imperial won the inaugural London Universities Individual Duathlon Championships. Rumour has it that we won by default. These claims have yet to be verified.

Well-earned post-race cake was shared around and we proceeded to spectate the rest of the

field coming in. We all concluded that greatest respect was to be had for the man who finished last, as he was likely twice the age of the next oldest competitor. Definite elderly goals.

The day had turned out to be truly delightful so cycling home was deemed the most pleasant option. Despite going

right through the middle of London, the group enjoyed the ride home and the strava captions in particular indicated that the group thought [the author] was a particularly good tour guide. The author has refuted this claim.

## IC Dance Club: Best Victory in 2 Decades

### SPORTS

**Alistair McMurray**

*IC Dance Club Art Director*

I was ~3 months old when Imperial last won Best A Team at Blackpool. Now I am 237 months old and Imperial has at last done it again, vanquishing the titans of Cambridge.

It all started on a sunny Friday afternoon when 62 dancers embarked on a long, slow coach ride to the home of Ballroom. With sprayed hair and fake tans, we arrived at midnight having tested our knowledge of halide tests and reverse Disney songs.

But before we knew it, it was time to get up, as bright-eyed and bushy-

tailed as we could possibly be. The Winter Gardens were opening at 8am and we wanted as much practice time as possible. The Winter Gardens is where the oldest Ballroom dance competition takes place and is probably the world's most famous ballroom.



**The creme de la creme of Ballroom dancing... At least there wasn't any scaffolding in it this years**  
// IC Dance Club

The day kicked off with the suave and elegant Ballroom dances (Waltz, Tango, Viennese Waltz,

Foxtrot and Quickstep). To succeed here you need a strong frame, floor craft skills and the ability to make everything appear effortless. In the intermediate 3-dance Henry Heston & Sarah McMullan came 4<sup>th</sup> and Ben Biggs & Katie Moorcroft came 6<sup>th</sup> out of 56 couples. In the ex-student novice 2-dance Matthew Abdul-Rahim & Yue Shi came 4<sup>th</sup>, Carsten Beck & Priyanka Shah came 5<sup>th</sup> and Alex Beddall & Slavina Georgieva came 7<sup>th</sup>. Finally, in the advanced 4-dance Victor Solecki & Iris Roatis came 6<sup>th</sup>.

Post lunch came Latin American along with a shift in gears. The five Latin dances (Cha Cha, Samba, Rumba, Paso Doble and Jive) are where you shake your hips and flick your feet... as well

as the occasional body roll. In the beginners Jive, Sony Saint-Auret & Yingyi Wang came 6<sup>th</sup> out of over 160 couples. In the ex-student 2-dance Alex Beddall & Lily Keeling came 2<sup>nd</sup> and Aizar Enciso Dominguez & Izumi Kurokawa came 5<sup>th</sup>. In the ex-student 5-dance, Tianci Ma & Kerys Borg came 3<sup>rd</sup> and Philip Kaloyanov & Daria Dicu came 5<sup>th</sup>. Last but by no means least was the advanced 4-dance, where Matthew Cavuto & Mariya Pozdeyeva won and Teodor Rusu & Maya Thomas came 7<sup>th</sup>.

Acrobatic Rock 'n' Roll sees dare-devil lifts and tricks being performed and Imperial's very own Henry Heston & Sarah McMullan won. The Salsa followed by Aizar Enciso Dominguez & Izumi Kurokawa placing 5<sup>th</sup> in

the intermediate category.



**Dance Team after a highly successful day at Blackpool**  
// IC Dance Club

As the night drew in, the team match began. Waltz, Cha Cha, Quickstep and Jive would be performed by 4 different couples as a single team. It was as a team that we really started coming into our own. The beginners Waltz and Jive teams both came 3<sup>rd</sup> in their respective dances. The B team were crowned the best B team of the day too. But the icing on the cake was when our A team were victorious, the first

time since 1999. Here's hoping they replicate their success in 2020!

Overall everybody in the Dance Club should be incredibly proud of their collective achievements. It'll certainly be a weekend to remember... and the after party wasn't bad either.



**A Team finally defeating Cambridge after 20 years**  
// IC Dance Club



# SPORTS

sport.felix@imperial.ac.uk



Dani Chatterton on her way to an historic double podium at BUCS Indoors // BUCS

## Imperial make their mark at BUCS Indoors Athletics

**SPORTS**

**Jack Mitchell**  
*ICXCAC Athletics Captain*

Between the 15th and 17th of February, a team of Imperial's finest athletes set off for BUCS Indoors in Sheffield.

This is the first big event of the athletics calendar and is attended by the best university athletes from across the country. It provides a great chance for athletes to gain experience of competition at the highest level and is always a great event.

The competition began on the Friday, with Mahmoud Barrie leading the way for ICXCAC in the 60 metre sprints – he delivered an excellent run in the heats and qualified for the semi-finals in a time of 7.09 seconds! The margins are so small over such a short distance and it was incredible watching the sprinters pushing themselves to the limit in the finals later on that day.

Also representing ICXCAC on Friday was Kate Olding, who ran really well in the 800m heats and narrowly missed out (by half a second!) on qualification for the semi-finals the following day.

The rest of the team was in action on Saturday, with James Millett starting the weekend strongly with a great performance in the 1500m heats, finishing in a time of 4:04.

What followed was an action-packed day, with an excellent set of results for the team in both the men's and women's 3000m heats – both Dani Chatterton and Dan Mulryan qualified for the finals, while Stephanie Hewitt smashed her PB by a whole 11 seconds, finishing in a time of 10:42.

Dani also qualified for the 1500m final, while Alex Mundell ran excellently in her 1500m heat, leaving herself with plenty to build on as the season progresses.

Idan Gal-Shohet also performed well in the high jump, finishing with a best jump of 6.21m.

After a successful day on the track (and long jump pit!), we piled into Dani's car and headed back to our accommodation, where we spent the evening cooking together and catching up on the highlights of the British Indoor Champs in Birmingham #onbrand.

For our finalists, it was an early night and a nervous wait, while the rest of the team had the chance to sample Sheffield's renowned nightlife. Sunday: finals day. Always guaranteed to be a day packed with drama and it didn't disappoint!

The first big race of the day for Imperial was the 3000m women's final, which Dani Chatterton entered as a strong favourite – she handled the pressure like a pro, outlasting the rest of the field to take gold in a time of 9:37!

An amazing achievement in itself, but could she add to her medal haul later that day in the 1500m final?

We would soon find out, but first we had Dan Mulryan in the men's

3000m final. It was a tough ask given his recent 5k PB in Armagh only a few days beforehand, but Dan delivered an excellent run, finishing in a time of 8:31.

Following on from Dan's final, we all waited in anticipation to see whether Dani could pull off the double – the 1500m final was up next! What followed was an exciting final, where she put in a very strong run to finish in second place and bag her second medal of the day!

It can't be understated what an achievement it is to win two middle distance medals in one day, so huge congratulations to Dani.

As expected, finals day did not disappoint – on top of the amazing performances for ICXCAC, we had athletes literally throwing themselves over the line in their quest for a medal and actual Olympians competing in the women's high jump.

Being able to watch Morgan Lake winning gold at BUCS knowing she represented our country in Rio 2016 was pretty spectacular and I'm

sure was quite inspiring for the women competing against her.

Overall, it was an amazing weekend for the team. So much to build on for the rest of the season and plenty of inspirational performances to drive us on.

This is only the beginning of the athletics season so there are sure to be more exciting times to come – up next is LUCA outdoors at Parliament Hill on 23rd March. This competition is between London universities and provides a relaxed environment for both beginner and experienced athletes



Beaming smiles after athletics success // ICXCAC

# SPORTS

sport.felix@imperial.ac.uk

## Immortals emerge victorious from trip to Canterbury and dodge relegation

Daniel Grumberg details how Imperial's American Football team fared in their all-or-nothing end of season tie against the Canterbury Chargers

14	18
Canterbury Chargers	Imperial Immortals

**SPORTS**

**Daniel Grumberg**  
*Immortals Publicity Officer*

The Immortals just played their last match of the season, and what a thriller it was! We travelled to the Chargers' home grounds in Canterbury to battle it out. The maths was simple: win and stay on in Div 1 or lose and potentially face relegation. This meant that Canterbury was now backed up against a wall and we were expecting a tough game, unlike last week.

The Chargers won the coin toss and decided to defer, so they kicked off the ball to set up our offence to start the game. We got a few first downs but ultimately had to punt the ball away to Canterbury. As in our last game our defence, led by

Thomas "Cheerleader" Smith, completely stifled their offence and forced a three-and-out that saw them net negative yards. The punt was quite short as well, leaving us at their 45 yard line.

Unfortunately we couldn't muster anything, but the special teams excelled on the punt, pinning them on their 1 yard line.

All the defensive players were licking their chops at this point and sure enough the QB got sacked for safety on an outside lead. The score was now 0-2 in favour of the Immortals and the Chargers had to punt us the ball. We immediately capitalised with a touchdown of our own with Killian "Omelette" Gmyrek catching the two-point conversion, leaving us with a sizeable lead at 0-10.

However, a broken play on defence lead to a

Chargers touchdown with a pass netting 65 yards on 3rd and 10, due to a couple of missed tackles. Yet Canterbury failed to get the ensuing two-point conversion, putting them 6-10 back.

The score remained unchanged at the half, despite the Chargers' admirable red zone defence culminating in an interception in the end zone, just as the clock was winding down on the last play of the half.

The story was quite different in the second half. Initially, both teams traded punts, until Ben "Bootleg God" O'Brien threw an unfortunate pick six, that gave the Chargers their first lead of the afternoon at 14-10.

Twice after that the Immortals managed to reach the foot of the end zone, but failed to capitalise against a unyielding Canterbury defensive unit.

However, the second

of those attempts left the Chargers at their 2 yard line and of course, our rookie Marcin "Sad Boie" Olesinski managed to tackle the running back in the end zone to get us a safety with only three-

**"In fitting fashion we returned to our famous QB sneak, and Ben redeemed himself by bringing it to the house."**

and-a-half minutes left on the clock.

The score was now 14-12 in favour of the Chargers.

We now had one last

shot at getting a touchdown and winning the game. Slowly but surely we gained ground on the Chargers thanks to powerful running by Jonas "He Won't Go Down" Eschenfelder, earning us a first down inside the Chargers 10 yard line.

Unfortunately we couldn't get anything going on the first two downs. Then a quick out route left us just inside the 3 yard line with one final attempt to reach the end zone.

In fitting fashion we returned to our famous QB sneak, which we had not used all game, and Ben redeemed himself by bringing it to the house.

With the score now 14-18 in our favour we had just under a minute left to play.

This left the Chargers with only four attempts to complete a deep ball for a touchdown to win the game. Thankfully our

coverage was on point and the game ended on that score line.

The last match of the season also means additional traditions for the Immortals, such as the leavers tunnel where we celebrate our soon-to-be graduates who are now becoming Mortals with a final ovation.

The season might be over, but we need to keep building for next season.

If you are interested in playing American Football, we will be having various flag football events throughout the rest of the year. This is a perfect opportunity to ease into the sport ahead of next year, so if you would like to join please get in touch on Facebook. #BecomeImmortal



Imperial Immortals Class of 2019 // Immortals



# SPORTS

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## It's in the Baggs! Imperial lift silverware after final race in the London Universities Cross Country League

*Cross Country end the season with 7 podiums and lift the inaugural Mike Baggs Trophy at the conclusive race at Wormwood Scrubs*

### SPORTS

#### Fergus Johnson

ICXCAC Club Captain

It was a glorious Wednesday afternoon in the middle of February - the hottest winter day on record - which was no surprise to many of Imperial's cross country runners who knew this competition had been hotting up for some time.

The final fixture in the London Universities and Colleges Cross Country League was to take place just a (7km) stone's throw from Beit Quad - in the fields behind the infamous HMP Wormwood Scrubs.

Prior to the race, Imperial were leading the women's league, with the B team also clinging to the podium in third.

The men's team were looking fairly comfortable in third place in the men's league, but there was still everything to play for going into this final event.

Most importantly of all, Imperial were sitting atop the mixed league - a new competition for this year

that combines the scores of the women's and men's team placings in races to crown the ultimate overall cross country squad.

Starting the day just 2 points clear of UCL meant that everyone had to put in a big race to ensure the first name engraved on the flashy new silverware would be the ancient runes of I-M-P-E-R-I-A-L.

After sunbathing as a

**"Before they knew it they were off, flying down the back straight of the Scrubs like escaped prisoners."**

warm-up and a rousing team talk, the squad took their place on the start line alongside other student runners from across London and beyond.

Before they knew it they were off, flying down the back straight of the Scrubs

like escaped prisoners, before the faux-convicts took a sharp turn to take them up towards some thick foliage.

Amongst the navy and red vests were a number of candidates for overall individual medals.

In the men's race Niki Faulkner was hoping to jump up to the podium, having raced three of four previous races and with everyone's top four races to score he was a strong favourite for the silver medal overall. Dubious pre-race calculations suggested a simple eleventh place finish would guarantee the silver.

In the simultaneous yet shorter women's race, Imperial star athletes Kate Olding and Georgia Curry were tied for gold going into the race. With third place in the league well out of the running, this final race was a straight shootout for the gold. Both athletes went into the race carrying minor injuries but were determined to do everything to bring home the fabled gold.

With four scoring members for each team it was also important that



The racestarter provides amusement to the runners on the start-line //LUCA

the women's squad had sufficient depth to allow the B team to outscore Reading's A team and secure an unprecedented double podium for the women.

In the men's race Niki stormed home in third with the A team packing strongly: Oliver Newton came 12th, Joe Pomfret finished 16th, Henry Hart 17th, and Mihaly Ormay 22nd.

In the women's race, Georgia Curry was pipped to the line by a St Mary's athlete, with the rest of the

top five filled by Imperial's Alex Mundell in third, Chloe Baker in fourth, and Alix Vermeulen in fifth. The entire B team also finished in the top 20!

All that was left of the day was the prize-giving. First were the individual awards for the top-scoring six athletes across their best four races in the league. Fresher Alix Vermeulen was pleasantly surprised to place fourth, and was just three points behind third. Kate Olding was loudly cheered as she collected her silver medal after succumbing to an unfortunate injury in the final race, but that left the gold medal which went to Georgia Curry who just pipped Kate to the title by 2 points, scoring a ludicrous 597 out of 600 points overall.

Over in the men's, Niki Faulkner received the silver medal, finishing just 2 points behind the winning athlete from St Mary's with a total of 791 out of 800 points.

In the overall standings, the women's A teams and

B teams scored first and third respectively, with the A team receiving an unnecessarily large shield.

The Men's took home the bronze medals before the entire squad roared when it was confirmed they had won the inaugural Mike Baggs Trophy for best mixed squad.

**"The gleaming trophy was paraded around the Union later that night at ACC."**

The gleaming trophy was embraced by all team members and paraded around the Union later that night at ACC.

Amazingly, it survived the night and only time will tell if ICXCAC will be able to retain the trophy in 2020.



Posing with the girthy shield and shiny cup //ICXCAC