



FELIX

The paper of Imperial College London

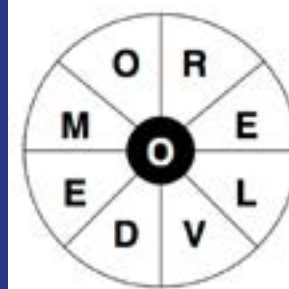


What's the deal with
study drugs?

PAGE 10 **FEATURES**

Mega-super-puzzles
special

PAGE 26 **PUZZLES**



Imperial President sends mass email on EU stance

Email said "it is not our role to tell people how to vote" but mentioned pro-EU position

On Monday, Imperial President, Alice Gast, and Provost, James Stirling, sent an email to all staff and students, encouraging us to vote and reminding us of their stance on the EU.

After encouraging recipients to register to vote in the June referendum, Professor Gast described how Imperial had "contributed to collective efforts in the higher education community to understand and communicate the impact of EU membership on research and education" and mentioned the pro-EU open letter she had signed back in February,

that was published in the *Sunday Times*.

She added, "While it was important for the College to articulate its point of view, it is not our role to tell people how to vote", despite having just described Imperial's part in producing pro-EU evidence for the House of Lords.

Professor Gast then hung back, saying, "The issues associated with the referendum are complex and affect different individuals, companies and institutions in different ways". So, vote how you want, we guess.

The email's subject line was "Message to the Community on the

EU Referendum".

The Education Act of 1986 only enforces a "balanced presentation of political views" within a school environment. There is no such rule at universities. Imperial's own communications and Freedom of Speech policies also allow this – Professor Gast seems to be well within her rights to have emailed students and staff encouraging them to vote a certain way.

Imperial's own students for Brexit campaign team told FELIX: "While we applaud Professor Gast for encouraging staff and students to vote, we disagree..."

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Aero students invited to will.i.am gig because director liked their boiler suits

They were taking their class picture outside the Royal Albert Hall when they were 'discovered'

Twenty first year aeronautics students were given free tickets to a will.i.am gig at the Royal Albert Hall gig last week, after being spotted in their boiler suits taking an end of year picture outside the venue earlier that day.

Apparently impressed by the group's aesthetic, the concert's

director approached and offered the students 20 free tickets to the sold out gig if they turned up that night in their boiler suits. He attempted to lure the young aeronautics students by describing will.i.am's investment in NASA robotics projects.

When the students returned that evening, in their boiler suits, they were allowed to walk up the

red carpet (which was black), were directed to the VIP room and were greeted with canapes and Prosecco.

They were interviewed by the director before the gig, which was filmed by will.i.am's team.

They then saw the show from the arena, right next to the stage. A couple of them...

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FELIX EDITORIAL



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Oh hey! Didn't see you there. Welcome to this your fifth-to-last issue of FELIX for this academic year. No, I'm not counting them down. I just want to put a suitable amount of pressure on you to get involved.

Never written for us? That doesn't matter. All you need to do is send an email to one of the section editors, either pitching an idea for an article or if you've written something already, the piece itself. It's that easy! We accept procrastini-pitches and feelings-heavy comment pieces that you will regret having written in your thirties.

I am biased, but getting involved in the paper is great. Nothing beats the feeling of seeing your name in print, correctly spelled. Even if it is spelled wrong, you still feel pretty nice. We're a friendly bunch, with a nice big office in the basement of Beit, with Macs and hot-takes galore. So write a couple of pieces, see if you like it, and then think about joining our team of editors next year.

The first time I wrote for the paper was in the TV section. Like many media-leaning millennials, my instant reaction to particularly visceral content (Beyoncé's Lemonade, Katie Hopkins) is a think piece. So I sent something into FELIX, and then accidentally became the music editor. That was a laugh, so I thought I'd give being the full-time editor a try. You guys agreed, so I did this for year. This was slightly more serious, but still mainly a laugh. Regardless of your ambitions in a career sense, I urge you to use the fact that Imperial has a student newspaper to improve your writing skills. We have editors here to help and guide you. Every job has an application form, and the only way to improve your written communication is to practise. I sound like your mum, I know. She says hi, by the way.

This week, it's exam season, so we're focussing on the things that are probably concerning you right now: focus-enhancing study drugs and the desperately high temperatures in the library.



Many newspapers have had their own causes they've passionately campaigned for. The *Daily Mail* can count the plastic bag ban as one of its successes. The *Guardian* has Snowdon. And I hope that one day, the Editor of FELIX can say "We helped the library get air conditioning".

I urge you to sign our petition to get air con installed, and if you insist on taking non-prescribed Modafinil, to be careful when crossing roads.

- Editor-in-Chief**
Grace Rahman
- News Editor**
Matt Johnston
- Comment Editors**
Tessa Davey and Vivien Hadlow
- Science Editors**
Jane Courtneil and Lef Apostolakis
- Arts Editors**
Indira Mallik, Jingjie Cheng and
Max Falkenberg
- Music and Games Editor**
Cale Tilford
- Film Editor**
Fred Fyles
- Puzzles Editors**
Hamish Beck and Roxana Radu
- Food Editor**
Sanjay Bhattacharya
- Clubs & Societies Editor**
Abi de Bruin
- TV Editor**
Saad Ahmed
- Technical Babe**
Luke Granger-Brown
- Copy Editors**
Mattin Mir-Tahmasebi and Henry
Lloyd-Laney

An apology to Dr Bernard Lamb

In Issue 1622, dated the 15th January 2016, the editorial discussed a story concerning former Imperial academic, Dr Bernard Lamb. In this editorial, Dr Lamb was described as a bigot, which FELIX accepts was an offensive and unnecessary word to use, and also suggested that Dr Lamb disapproved of people of mixed ethnic heritage, which is incorrect. Therefore, FELIX would like to offer an apology to Dr Lamb for the accusation of bigotry. In fact, Dr Lamb has supervised and worked alongside international students throughout his career, and has enjoyed decades of friendship with students of many nationalities and ethnicities.

As Editor of FELIX, I retract these comments and apologise to Dr Lamb for the offense we have caused him.



Petition started to get air conditioning in library

The *change.org* petition needs your signature

Grace Rahman
Editor-in-Chief

The college got planning permission for air conditioning units on the library's roof two years ago, but little has happened since then. The library told FELIX earlier this week that sorting out the temperature of the worst affected top floors would cost in the region of £13.5 million and that so far, college had only allocated them half of that figure.

They're still waiting on the other half, and that's where you come in.

Only you guys can make this happen. If you want to be an agent of real change, sign our *change.org* petition, requesting that Imperial put air conditioning in the library. Then spread the word, because without those numbers, college simply won't listen.

We know £6.75 million is a lot of money, but we also know college has that kind of cash. We, as Imperial, don't ask for much. We don't occupy lecture theatres or go on rent strikes.

So let's politely request that the library, where many of us have spent so many uncomfortable, sweaty hours, gets some air con.

The library is not to blame – the librarians want air conditioning as much as we do. So let's help them out by demanding that college stump up the money and finally get this sorted.

A consultation in 2014 found that the most common library gripe amongst students was the fact that it was too hot. They've done their market research, and now the work just needs to be funded.

So, sign it today at felixonline.co.uk/go/library. Time is running out – planning permission doesn't last forever. The quicker we persuade college, the more likely you are to benefit from the change. This week's white paper makes it clear that students are now customers. Universities will have to start paying attention to satisfaction ratings, as it will affect how much they can charge in fees. Imperial, like any other university, has to care what its students want. And now, we have to tell them what we need.



Real talk, though. Photo Credit: FELIX

Aero students get free tickets to will.i.am gig after director spots them in their boiler suits outside the Royal Albert Hall



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...even managed to bag a selfie with the man himself.

One student told FELIX that it was an “unforgettable experience”, with another adding: “I arrived late and it was so easy to find my mates: I just asked ‘have you seen blue people like me?’ and everybody was able to indicate the direction with a big smile.”

The free gig was to promote will's new wearable tech venture, ‘dial’, a smartwatch with an AI, about which he cracked wise throughout the night in breaks between songs.

The night included cameos from old members of the Black Eyed Peas, Ricky Wilson of the Kaiser Chiefs and Tinie Tempah.



Thai princess visits Imperial

Princess Chulabhorn has a Chemistry PhD

Grace Rahman
Editor-in-Chief

Last week, HRH Princess Chulabhorn of Thailand visited Imperial to discuss science and collaboration with students and professors. The princess, who is the youngest child of King Bhumibol Adulyadej, met Thai students as well as experts in her field of interest: medical research.

Princess Chulabhorn is well known for her keen interest in science and medicine. She has a PhD in Chemistry from Mahidol University, Bangkok.

She spoke about future collaborations between Imperial and Thailand, her own research and the importance of research in general, calling it “the key to everything”.

The princess met professors from the medical faculty’s surgery and cancer department, the School of Public Health and Electrical Engineering.

Some of the professors spoke to the



The princess talked science with the students, as you might expect. Photo Credit: Imperial College London

princess about Imperial’s research around cholangiocarcinoma, a bile duct cancer that occurs at a high rate

in Thailand in particular. Khon Kaen University Hospital is currently working with a team at Imperial on

advanced imaging techniques in a bid to fight the disease.

James Stirling, the Provost, said:

“Imperial College London is very proud of our links with Thailand both through students and the research that we do together. Today is a chance to celebrate that and to discuss ways we can work more closely together”.

Imperial has connections with several Thai institutions, including Mahidol, Chulalongkorn and Khon Kaen universities.

The princess is well known for her keen interest in science and medicine

The President and Provost send mass email to all Imperial students and staff encouraging them to vote and reminding them of the college’s EU stance

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“...with the implication that a Brexit would be detrimental to UK science”.

The heavy reminder comes after weeks of to-and-fro between the ‘Leave’ and ‘Remain’ camps, headed up by Boris Johnson and David Cameron respectively. In the last week, Boris has been criticised for saying the EU has the same aims that Hitler did, and Cameron has been accused of using the threat of war to frighten voters into remaining.

Remain posters have been spotted around college in recent weeks, and a the Big EU debate is scheduled for June the 2nd in lecture theatre 164 in the Skempton Building. Speakers will include Tariq Ali, the staunch

The referendum is on Thursday the 23rd of June

socialist and writer, and deputy leader of the Green party, Amelia Womack.

The referendum is on Thursday the 23rd of June, and the penultimate day of term. You can register to vote, or request a postal ballot, until the 7th.

GRACE RAHMAN



He probs won’t be getting an invite back. Photo Credit: Imperial College London



Tuition fees will rise with inflation

The government's white paper on higher education is out and it's official, fees won't stay at nine grand

Matt Johnston
News Editor

The government has released a white paper this week outlining its future plans for higher education, most notably allowing universities to charge more than £9000 per year in tuition fees.

These plans come just four years after the trebling of tuition fees by the coalition government (and the ensuing protests) and would mean that the top performing universities could increase their fees year on year in line with inflation. This is a category that Imperial would likely fall into, with the changes coming into effect by autumn of 2017.

The proposals mean, at the current rate of 1.6% inflation (RPI), that students would pay an extra £144 a year on top of your £9000. Granted, this is not massive in the grand scheme of things, but just as recently as 2011, inflation in the UK was 5%, equating to £450 a year, sizable when you're on a 3/4/5+ year course.



Jo Johnson – who's raising fees, renaming Boaty McBoatface and being Boris' brother. Photo Credit: Wikipedia

Imperial College President, Alice Gast, spoke out against the green paper that proposed this idea and several other initiatives, saying that it is important to "voice our concerns when we think that a

proposed framework will inhibit or discourage excellence rather than support and reward it". The NUS have also come out as staunch critics of the paper.

It's been argued by some that

the policy itself, the Teaching Excellence Framework, is the first step on a slippery slope in which tuition fees for the top universities could rise and rise at will. This could eventually lead to an economic class

system between universities.

The green and subsequent white papers are the brainchild of Jo Johnson, Boris's younger brother and the current Minister of State for Universities and Science. Jo, who attended Oxford University and studied Modern History, came under fire earlier this month too, after he oversaw the renaming of the new Boaty McBoatface polar research ship to RSS Sir David Attenborough.

These plans come just four years after the trebling of tuition fees

Fraudsters target students in scam outside halls

Conmen drove the student to a cash point after meeting him outside Fisher

Grace Rahman
Editor-in-Chief

On Wednesday, a student was conned into handing over cash to fraudsters outside Fisher Hall in Evelyn Gardens.

Two men in a car, thought to be Italian, stopped the student outside the halls of residence and asked him for directions to the airport.

They got chatting, and persuaded the student that they were fashion designers with leather jackets to give away. The fraudsters told the student that they "didn't want to pay

tax" on the garments, and that he could have them for free.

The men then somehow persuaded the student that they were in need of cash to buy their children souvenirs. The student got into their car, a white Audi, and they drove him to a cash machine.

An attempt at the same con occurred outside Beit yesterday too, leading police to believe the fraudsters are particularly targeting Imperial students. It's thought that these con artists may be specifically targeting international students.

The warning from college is to immediately report to college security or wardening staff if you're

approached by anyone in this way. Students are advised not to attempt to challenge or speak to them, however tempting, and instead walk away. Obviously don't get in their car, which may not still be an Audi.

An attempt at the same con occurred outside Beit



Beware Evelyn Gardens at dusk. Photo Credit: Simon Kreitem



Centrefold complaints and halls drama

In response to Issue 1633 Centrefold (netball)

Dear FELIX

I attended the Imperial College Festival last weekend. I was inspired and captivated by the enormous range of research and innovation that I was able to discuss in detail with students, researchers and professors who were all passionate about what they were doing and keen to share their thinking. What a privilege!

Whilst there I picked up FELIX (Issue 1633); the centre-fold made me gasp in horror and then brought me close to tears. I was a student in Electrical Engineering from 1977-80. At that time there were 5% women across Imperial College, with fewer in engineering. As Hon Sec and then President of C&G Union, I worked in every way possible to help retain current female students and attract new

female students. In this context, C&GU actively challenged all sexist representation of women and activities and “traditions” that degraded women. IC Union also made its voice heard on many issues of national policy and practice that discriminated against women.

I presume the IC netball team chose to attract teams for their tournament in this way but I ask them why they would want to present their bodies rather than their netballing skills. And why would FELIX want to encourage them in this? I ask you all to think about the message you are giving to female peers who doubtless rebuff unwanted sexual comment and harassment daily; the message you are giving to male peers who are again being invited to look at women as objects for their gratification; the

contribution you are making to the pressures on young women to compete through their looks rather than their achievements.

It was noticeable that, amongst all the wonderful IC people I spoke to, women were extremely under-represented. It was also noticeable that visitors were predominantly men and boys. Imagine a young girl, wondering about a future in science or engineering, opening your newspaper at the centre spread. Will it invite her into the exciting world you have chosen? You can - and should - do better than this.

*Jo Armitage
EEE, 1977-80
(via email)*

I understand where you're coming from. However, I do not believe these pictures are sexual. I have never published a sexual centrefold. I'm sure you've seen the film *Calendar Girls* – the nudity in our centrefolds is always along those lines: fun, non-sexual and silly. There is no obligation to be fully naked, and no one in the club is forced to take part.

Also, male students are often in the centrefold, both in sports teams and mixed groups.

The idea that we as women can't be naked in centrefolds and also be free to rebuff unwanted sexual advances is terribly worrying and frankly, sad. If men see women in the centrefold and think they're easy 'objects' available for harassment, then the fault lies with those men. This attitude of

policing women's bodies, deciding what is liberating or appropriate for them to show or hide for their own 'good' is bullshit. FemSoc's centrefold (Issue 1631) is particularly hard-hitting, and raises the issues of sexism, rape and gender. There are plenty of ways for clubs to promote themselves in FELIX – the Clubs & Societies pages, sport – and the centrefold is just one of those. Many clubs, with both male, female and non-binary members, would release naked calendars anyway, even if FELIX didn't have a centrefold. These are usually fun, and always for charity.

Our newspaper does not exist to engage young girls wandering round the Imperial festival. It is made by students, for students, and forever may it remain.

-Ed.

In response to Issue 1633 Centrefold (netball)

Dear FELIX

I attended the IC Festival last weekend it was a fantastic event. The inspiration it provided in all fields was exciting.

But I was completely horrified when I picked up a copy of FELIX 1633 in the cafe. What on earth was the thinking behind that centrefold

of the netball team? And this in the same issue as an article about sexual harassment. I thought we only got those sorts of mixed messages in *The Sun*!

There are few enough women working and studying in the sciences – what sort of message does that kind of imagery send out

to young women and girls who may be thinking of studying at Imperial?

I truly would like to know what the intentions and thinking behind that photo were and why FELIX thought it a suitable advertisement for women at Imperial.

*Julie Peel
(via email)*

The netball team were behind what I thought was a cute, fun, and again, non-sexual photo, promoting their tournament. FELIX isn't meant to be an advert to study at Imperial. The centrefold is one way for students to advertise events to other students.

The fact that you've brought up

the cat-calling article is deeply worrying to me. Should its writer expect sexual harassment if she had appeared in the centrefold? Should she expect it if she was a fully fledged page three model? Do either of these things means she's asking for it? No.

-Ed.

In response to, well, nothing

Hey hallmates! Like you, I'm so happy that the year's nearly over. It's time to relax, unwind and exorcise those pent-up impulses. Nevertheless, the last few end-of-terms have gotten a bit out of hand, and I've been left verklempt by some baffling behaviour. I'm writing here to tell you what's hot and what's not so that we can all still be super-besties!

I love parties as much as anyone.

They last to 3am, the volume's on full-blast and the drinking games involve Stolichnaya and gummy bears!

Who doesn't love that? At the end of the night (or start of the day, depending on how wild you are), you'll get back to your room and return to humdrum civilian life.

For some low-energy people, this might involve a collapse in the general direction of the bed.

For the champions among us, you will return to your room at 4:30am with your new best friend, then after forgetting protection, run up to my neighbour's door and yell "[insert neighbour's name here] GIMME A CONDOM". You will outdo yourself every time with your dog-yelping and epic fornications until dawn. Please do NOT stop; your efforts help me to wake up for morning lectures!

Now when it comes time for breakfast, I will stumble blearily into the kitchen and find myself on the set of Willy Wonka's office.

Half of the table will have disappeared, having floated down five flights of stairs to the common room. It's a pretty cool party trick, but it's actually really sad that no-one else can witness the magic done on their floors. My fine magician, you have to consider their needs as

well!

*Anonymous
(via email)*

Um, this is not what the letter pages are for, but we hope your public service announcement works. You should probably find a studio for next year, because newflash – this is what people are like.

-Ed.



Scientists need to start caring about politics

Forget ISIS or Trump, apathy is the greatest threat to democracy



Jordan Abdi
Writer

The recent election season has got me in the political spirit, and I have been reminded of the shameful situation that continues to both bemuse and inflame me: the Science and Technology Select Committee. This grand, administrative behemoth, whose expansive remit covers everything from big data to genetics, with its cross-party composition and its inquiry-laden legislature, sets the national agenda on science policy. In a world where science policy is of growing importance, occupying all the top spots on international issues, be they climate change or viral pandemics, the UK Government needs to take leadership and forge the path to a sustainable future.

But fear not, for who should chair the Commons Select Committee for Science and Technology? None other than Nicola Blackwood, an esteemed parliamentarian with a doctorate in – wait for it – musicology. It sounds like something out of a *Mitchell and Webb* sketch, only the reality is far less funny. Indeed, of the eleven MPs that comprise this essential facet of Government, only seven have graduated from a university and a whopping four have a science degree.

This probably doesn't surprise you; the British Government's lack of scientists is not news. The last time I recall a scientist being involved with politics, it was 2009, when Professor

David Nutt was sacked after publishing a scientific paper into the social harms of illicit drugs. This not only demonstrates the anaemic quantities of scientific rationale in government, but that no major scientist has taken the political stage for seven years.

For once, perhaps, this second point is not down to faults of the government or an incompetent politician, but is a sad reflection of a global scientific consensus: political apathy.

No major scientist has taken the political stage for seven years

Maybe it is the lack of objectivity that comes with policymaking, or the narrow-focused research mindset that is instilled in students from the start, but the trend is clear: scientists don't care.

Even here at Imperial College London, an institution with some of the sharpest young minds on the planet, we have a student Labour

Party Society that was almost shut down last year due to a lack of members (and committee), and our own student think tank that no one has heard of. There are plenty of reasons why Imperial students might be less politically active than our university counterparts, but explaining away our predicament does not solve anything.

With the possible exception of the aspiring bankers, Imperial students are entering careers whose funding and regulations are governed by people who couldn't tell you the difference between a proton and a protein.

So why haven't our science and technology industries collapsed into pandemonium? Well, fortunately, some of our MPs became painfully aware of this gaping qualification gap, and so set up the Parliamentary Office for Science and Technology (POST) back in 1989, to research and brief MPs on scientific issues of the day. Initially staffed by one researcher, the humble institution represented how small the realm of science policy was but a mere 30 years ago.

But much has since changed, and today POST has a larger executive board than the entire Commons Select Committee for Science and Technology, its own Fellowship programme and briefs both Houses of Parliament.

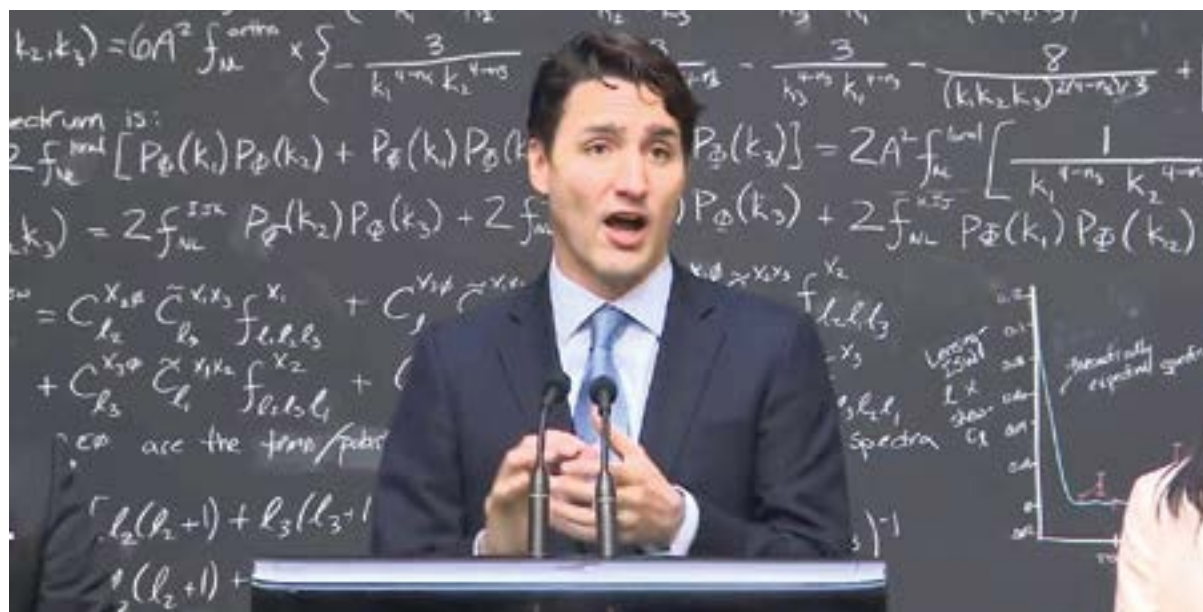
Many do not have a problem with this set up, but the fact that we have to introduce an undemocratic

institution to compensate for the shortage of scientists in parliament speaks volumes. Few in this country have the scientific know-how to understand the implications of the UK's science policy, and those who do, don't vote. This is not just a British problem; global science policy increasingly relies on a few voices of undemocratic research organisations for guidance. These views do not represent broad national perspectives and instead hide behind the veil of objectivity at the cost of our democracy.

As our species makes strides in science and technology like never before, we need now, more than ever, a democratic machine to fairly govern this new world. We need a parliament properly armed with scientists, a population ready to criticise them and a national voice prepared to debate them. Instead, we are sleepwalking into technocracy, bestowing control of the fastest growing and increasingly important policy area on unelected, faceless institutions.

We need a parliament properly armed with scientists

Apathy has consequences. Scientists and students alike have long been silent voices on the political stage, and as a result, governments have turned elsewhere for guidance. Whilst it may be easier to try and opt out of the system, become disenfranchised and complain that it's all rigged, it is vital that you find the courage to engage head-on with democracy whilst we still have it. Citizenship is not a part-time job; if you're unhappy with policy, at any level, write to your local councillor, visit your MP, or best of all, reflect your dissatisfaction at the ballot box. If you don't engage, politicians won't try and win you over.



Justin Trudeau's basic explanation of quantum computers shouldn't be an exception to the norm. Photo Credit: Youtube

FELIX COMMENT



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Why you should care about the higher education white paper

It's not good news



Jennie Watson
Deputy President (Welfare)

Things got pretty busy this week in the Union offices with the release of the higher education white paper Success as a knowledge economy: teaching excellence, social mobility and student choice on Monday morning; this is the Government's response to consultation on the preceding higher education green paper, of which there was much criticism. It was essentially 100 pages of half baked, often misconceived ideas. The white paper may be a significant improvement and we are entirely right to celebrate the massive wins that came in response to the green paper consultation. That said, there is still a lot wrong with the white paper – the battle may be won, but the war is far from over.

One of the central principles of the proposed changes to higher education is the Teaching Excellence Framework, TEF. The idea is to have a tiered system whereby universities have to prove their 'excellence' in order to move up the levels of TEF, which then gives them the right to charge higher fees. The metrics against which 'teaching excellence' was to be measured were shoddy at best – I doubt many will agree that NSS scores stack up to the quality of teaching you receive during your degree.

The white paper also sets out proposals to make it easier for new, private universities to enter the sector and to give the government

more power to shut down existing institutions. Ominously, it also seems that the government will seek to have more control over the material which is taught to students.

Another overarching theme in the white paper is that of social mobility. The argument that the government's proposals will achieve their supposed goal of getting students from disadvantaged backgrounds into high quality universities, to result in higher academic attainment within these groups are wafer-thin. The general theory within the sector is that a tiered system of fees will only result in a ghettoisation of higher education. By this I mean that students from

truly removed, only delayed.

In the green paper there was a brief but ominous section about student unions, which is an area which worries me and the rest of the sector greatly. The insinuation was that unions lack accountability, transparency and regulation. There was a proposal to bring student unions into the trade union bill. The push-back in responses on this from unions was strong and several proposals from the green paper have been dropped for the white paper, however there are still elements that hint that the government will come after unions again.

The white paper states that "responses to the green paper

The wealthy will continue to gain access to high fee high quality institutions



Customers, customers everywhere. Photo Credit: radioactivecookies.com

disadvantaged backgrounds will go to low-quality institutions to study degrees with poor graduate outcomes. The wealthy will continue to gain access to high-fee, high-quality institutions, and as a result will get into better paid jobs. As a result, inequality and the wealth gap will increase, entirely contrary to the government's alleged aim of increasing social mobility.

It's clear that the white paper represents some major wins. There are areas government has listened to the criticism of its paper. That said, these wins are piecemeal, and mostly represent the finer details of the proposal. For example, the concept of uncapping fees was not

highlighted the role played by students' unions and guilds in higher education institutions", however it does not truly recognise that unions play a huge role in helping to shape and enhance student experience through student activities, volunteering opportunities and lobbying within universities for improved teaching and student support. There is also, so far not much in the way of concrete commitments to give students a meaningful voice, or even a seat at the table in the proposed Office for Students, the new body which will regulate universities. For me this feels like a sidelining of students and students' unions.

As I highlighted strongly in the ICU response to the Green Paper, we work very much in partnership with the College. Our relationship is characterised by a mutual respect for pretty much all areas of the College and we are always consulted and listened to, on issues big and small, which will affect students. I can't see a lot in the white paper which truly recognises and commits to supporting this style of working as an integral part of the proposed future of higher education.

The government coming after student unions is no new thing; every time unions come out fighting, and often win. Clearly it is entirely possible for student unions to mobilise effectively in a coordinated way, and win big battles like these proposed reforms. These changes will have an enormous impact on students in years to come; we would be failing in our jobs if we did not fight for meaningful student influence in these changes.

ICU will be responding to the white paper, and I want to hear as much student opinion as possible. Although this is a difficult time for everyone with academic pressures at peak levels, if you have any opinions about the white paper which you would like to be incorporated into our stance, you know where to find me.

It was essentially 100 pages of half baked ideas

FELIX COMMENT



comment.felix@imperial.ac.uk

I don't often sign petitions...

...but when I do, they're about food – specifically the destruction of the BBC's recipe archive



Sanjay Battacharya
Food Editor

I don't often sign petitions. Most people wouldn't consider me particularly politically active – while I exercise my right to vote, I am far too often happy to read the news, bitch about the state of governance in this country (or the US – it's really fucked up over there), and then leave it, whilst inwardly contemplating moving to Scotland. To be frank, I already have an excess of friends of Facebook who share pseudo-libertarian/communist/new labour/mildly xenophobic small-c conservative updates, be they attacking/defending the vicious malingerer/second messiah that is David Cameron/Jeremy Corbyn (delete as appropriate). I don't want to become another person to unfollow.

The BBC is being forced to remove 11,000 recipes

So it might have surprised some when I shared my first petition this week – and no, it wasn't about the farce that is Donald Trump, or even the latest cuts to our beloved NHS. Whilst those anger me, they are too blatantly wrong to be worth sharing a petition over. It was about preventing something so perversely cruel, misguided and deliberately deconstructive that I just had to speak out. As part of the government's latest white paper on the corporation, the BBC is being forced to remove 11,000 recipes freely available without advertisements, pop-ups or having to link your Facebook account. I was disgusted. The more I read, the more disgusted I was. Our darling chancellor, George "Cokehead" Osborne had decided, in a fit of

rage against Nigella (despite their shared moniker) and her lot, that, and I quote:

"If you've got a website that's got features and cooking recipes – effectively the BBC website becomes the national newspaper as well as the national broadcaster. There are those sorts of issues we need to look at very carefully."

Heaven forbid people be able to get what they paid for! Those recipes – be they the ones that started Jamie Oliver's career, dripped out of Mary Berry's amazing repertoire of variations on cake, or were simply written up by one of the unpaid interns at the Beeb – were all funded by us, the licence fee-paying proles.

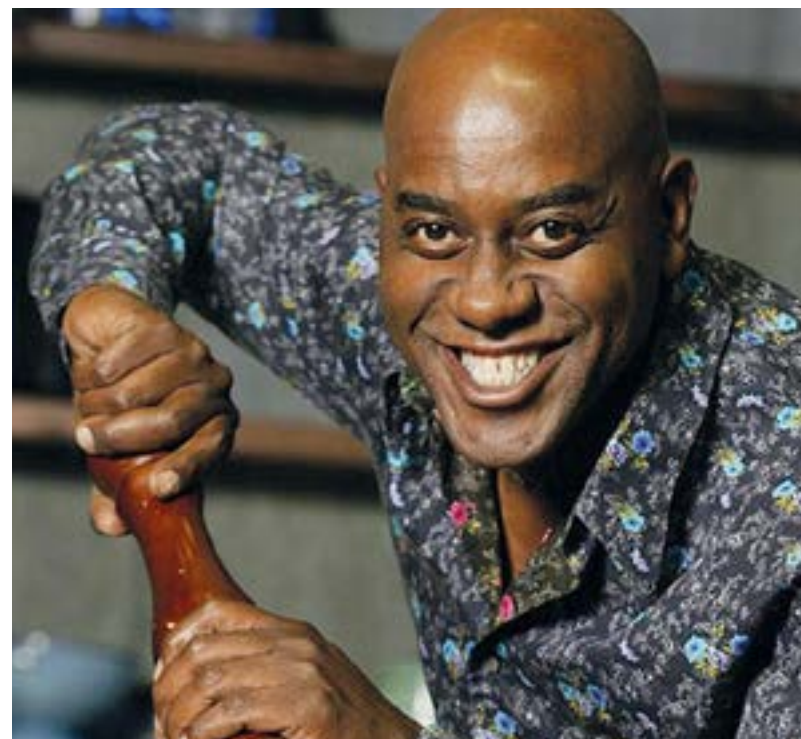
The way in which they must stop maintaining the database will also make it unsearchable, meaning that a crawler engine (like Google) won't be able to find the recipes if you searched for them. You'd have to know the exact URL, and they're not even sure they'll keep hosting the content at all. So, they'll be destroying 11,000 recipes from the internet archives – because it's an issue of national importance? Bullshit.

More than that, I object to the second part of his reasoning – that these features and recipes are "issues" we need to all look at. Ah yes, one of the main issues blocking our road to economic recovery after the mess the labour government left us in, is the excess of brownies in this country – and no, that's not a euphemism.

Why should we be letting petty government oversight of a publicly funded media group, whose sole role is to provide varied resources for knowledge and entertainment of the public, prevent us from discovering Paul Hollywood's secret to a good crust on your loaf? The true answer is at the heart of this messy fight with the BBC – cronyism.

"You wouldn't want the BBC to completely crowd out national newspapers. If you look at the BBC website it is a good product but it is becoming a bit more imperial in its ambitions."

Osborne says the BBC is becoming too imperial in its ambitions –



Protect Ainsley Harriot content at all costs. Photo Credit: reddit.com

better cut back on the number of pavlova recipes asap! Why on earth he thinks that cutting back on the BBC's publicly available recipes is going to save the failing institutions that are this country's newspapers, I will never know. It is through their own resistance to adaption that they will fail – they refuse to move into the digital world at the same speed as the rest of us, and it will cost them. Already, broadsheet sales are dropping year on year, as people turn to one of the many free online news providers that don't have paywalls.

What our dear chancellor fails to spot is that no matter how much funding Rupert Murdoch gives his party to bend it to his will, no one in their right mind would ever think "Victoria Sponge recipe – the Sun is probably a good place to look". No, they'll go to one of the myriad other

free content-hosting websites, with hundreds of user-reviewed recipes.

Osborne's bizarre disconnect from reality is pervasive in so many of his policies, but it really ticks me off in this one. It's not all bad news – some enterprising fellows have come to the rescue with some clever coding, pulling the text currently available on the BBC Food section and making it into a freely torrentable (which I do not advocate yada yada) package. Why this has to happen for those recipes to be preserved, I do not know – but sadly, the pictures of Ainsley Harriott in all his oily goodness will be lost.

In even better news, the good old British Library and the National Library of Iceland have both confirmed that they too have made a full copy of all the pages that were on the BBC's Food section. So all is not lost – though how accessible their archives will be I do not know, and I suspect that all the comment functionality of the pages (hurling abuse at bakers who don't put currants in their scones – I'm looking at you, Mary Berry) might be lost.

Still, I signed the petition. Who knows? We might be able to reverse the misguided policy, we might not. Incidentally, I managed to get 20 of my friends to sign too – so maybe I'll have to reconsider the impact of those shared statuses on Facebook. Perhaps Donald Trump is the messiah I needed after all.

Heaven
forbid
people be
able to get
what they
paid for

FELIX FEATURES



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FELIX investigates study drugs

Let's be realistic. Should you take them and are they legal?

Grace Rahman
Editor-in-Chief

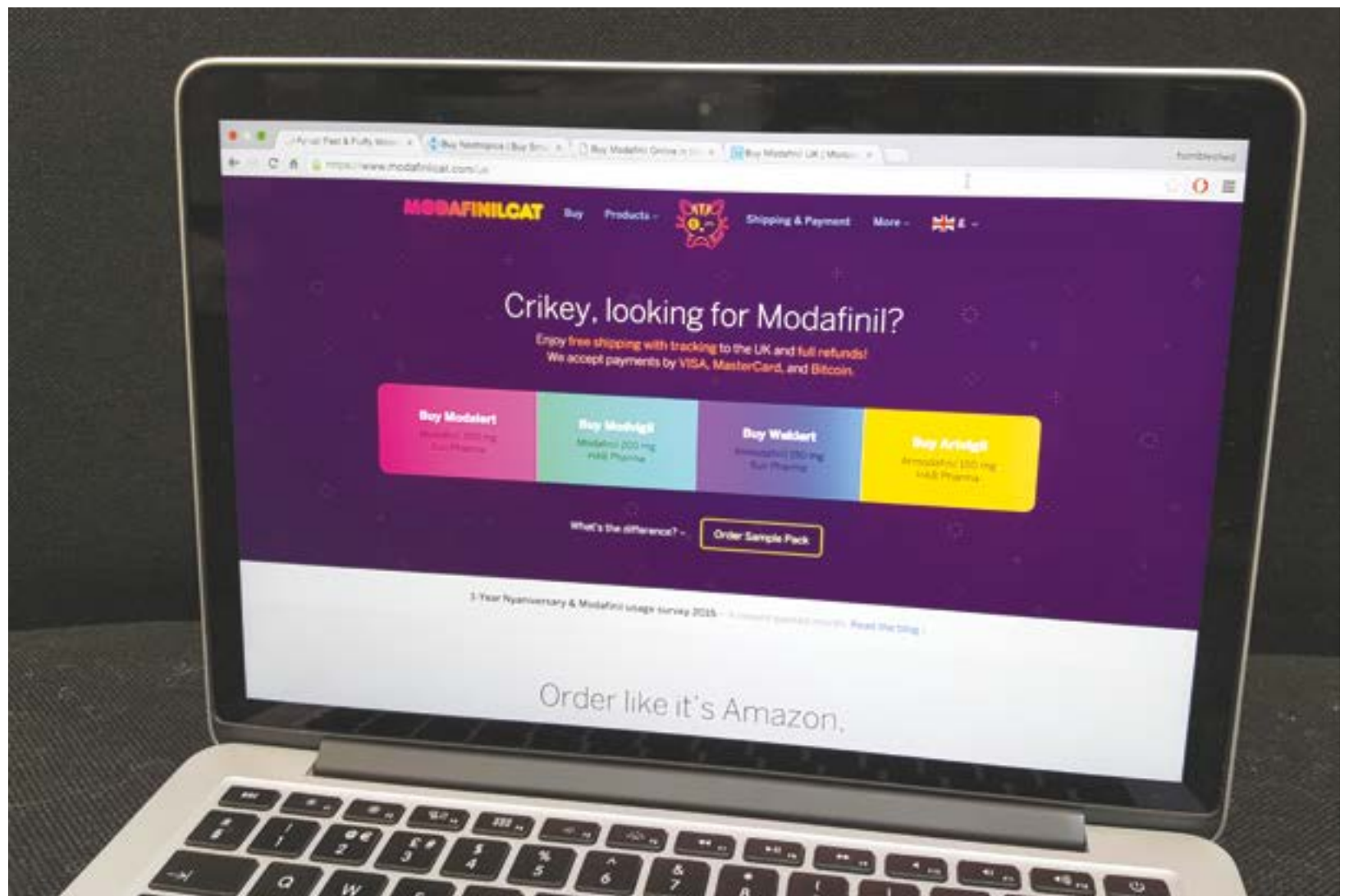
Like all good things in life, this article starts with a disclaimer: FELIX is by no means advocating the use of these so-called study drugs. I don't know about you, but shitting every hour doesn't scream productive work mode to me, – each to their own. We're just giving you some facts and student experiences so you can make up your own mind. FELIX is not your mum, but it does love you.

Are they legal to buy?

In an attempt to restrict the usage of legal highs, which enjoyed brief legality before the government could change the law to include each new one, the new Psychoactive Substances Act was passed. Due to come into law on May the 26th, it is a blanket ban on all 'mind-altering' substances, bar the ones we know and love: alcohol, tobacco, nicotine, caffeine and some foods. The vague terminology of the act is a problem – testing everything for 'psychoactive' properties is going to be difficult. Imperial's grandfather of drug reform and all round great guy Professor David Nutt told Motherboard he doesn't think it will stem consumption. It will, however, affect the legality of study drugs, which means they're about to become much harder to buy online.

Currently, lots of people buy their

Possession
of things
like Ritalin
without a
prescription
is illegal



Their website looks legit, but this is all about to become really illegal. Photo Credit: FELIX

nootropics online, as you'd expect. Their status is a grey-area; they are a semi-legal substance, meaning customers don't have to go via the dark web yet, and instead can buy Russian, Eastern European or Indian-made pills from British companies. These snazzy websites offer free delivery, loyalty points, have sharp videos advertising their 'brain-hacking' wares and boast of the benefits observed by Bradley Cooper's character in the movie Limitless. Unlike buying from your mate who has a prescription to treat their ADHD or narcolepsy however, these substances are unregulated. Buying the off-brand drugs you see on these sites isn't illegal right now, but will be when the psychoactive substances blanket ban comes into force. Some sites have seen a jump in sales, as people stock up before the 26th of May.

"I took it a few times. It's helpful if you want to concentrate on one thing in particular."

Do they work?

Modafinil, a prescription drug used to treat narcolepsy (which causes excessive daytime sleeping), is the only study drug we know that is confirmed by the literature to enhance performance during long tasks. This 2015 study of studies also found that mood-related and physically unpleasant side effects were found to be limited in most studies, and were usually also found in the control group. However, most studies on smart drugs' performance-enhancing abilities have been on very small sample sizes. It's generally a very unregulated area, so it's hard to say whether your generic 'Modalert 200' will actually make you perform better.

Many report vaguely positive effects when taken occasionally, but some are unsure as to whether

their success on the drug is just the placebo effect doing its thing.

There are other things to bear in mind when you take them though,



Yum. Photo Credit: nootropics.co.uk

FELIX FEATURES



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We've heard stories of students accidentally working intensely on the wrong thing

such as contraception. Modafinil can harm an unborn foetus, and can also stop the contraceptive pill from working. If you can break away from revising for long enough to have sex, best use a condom.

One student told us: "I'm not sure if it's placebo or actually works but almost all of my house took it. I took it a few times, it's helpful if you want to concentrate on one thing in particular."

What might happen?

Unsurprisingly, these drugs are not conducive to getting a good seven hours the night before the exam. If you're taking something like Adderall, you need to factor in the fact that you won't be sleeping for at least seven hours after you take it. Fine if you want all-nighter, but be careful because you might be forced to stay up all night, and wander into the exam room looking like, well, someone who's stayed up all night in the library after miscalculating their Adderall dose.

FELIX has also heard horror stories involving students accidentally working intensely on the wrong thing. You'll want to make sure you have all the work you need to do right in front of you when you start, or you might find yourself spending seven hours rearranging your bedroom or cleaning every

utensil in the kitchen. That increased focus can also mean you're less able to do basic things because you're so distracted by the task at hand. Be careful crossing roads, and definitely don't start playing games on your phone – you won't be able to stop.

However, legal drugs aren't the only option – don't feel bad if the person next to you has been typing solidly for six hours while you've spent half of your time on Facebook – they may well be taking some good old-fashioned speed.

Unlike the other drugs we've discussed here, which are mainly available on prescription for disorders relating to lack of concentration, you are likely to experience a raging comedown on speed. Don't expect that post-exam last week of term to be all rainbows and butterflies, because it'll likely be more along the lines of existential crises and crying.

This is a Class B illegal drug, pure and simple, so do bear that in mind.



If you take Ritalin the night before your big test, you're going to have to be very careful in those post-exam celebrations. Like all drugs, mixing with alcohol can sometimes have unexpected effects. The alertness you gain when taking drugs like

Ritalin may well stop you noticing how drunk you're getting, which could result in alcohol poisoning. Ritalin combined with other stimulants, like coffee or Red Bull, will put a lot of pressure on your heart, so at the very least, avoid Jagerbombs.

Will I get in trouble?

Technically, possession of drugs like Ritalin without a prescription is illegal. If you don't have ADHD and you're found with Ritalin, it's treated as a Class B drug, which could get you five years in prison. In reality, this kind of sentence is pretty rare and you're likely to get a slap on the wrist or a caution. As with all Class Bs, if you have so much that it

looks like you're selling it, you could be looking at an unlimited fine and some prison time.

Imperial's own Student Alcohol and Substance Misuse policy makes no explicit reference to study drugs. It says students' performance must not be affected by substance misuse, which it defines as taking a something that "adversely interferes with an individual's health, work or study performance or conduct". As study drugs enhance your performance, arguably they shouldn't come under this banner. The College does include prescription medicines not prescribed to the user in the definition of 'drugs', and insists that they should not be brought onto the premises. The college's rules also state that students must ensure their behaviour "is not affected by excessive alcohol consumption or substance misuse". That's a no from Imperial then.

Jennie Watson, the DPW, told FELIX: "No Imperial student should feel they have to take drugs to cope with their academic workload. We have been highlighting the issue of student stress and its impact on mental health to College for a long time, and we're pleased to see positive changes such as more counsellors and reductions in

Imperial's own Student Alcohol and Substance Misuse policy makes no explicit reference to study drugs

coursework – but there's still a long way to go."

"I'd urge students using drugs to enhance academic performance to consider the fact there is very little evidence of benefit and that the long term effects are broadly unknown."

Make up your own mind, but if you've really not revised, it's unlikely a Ritalin dose will save you.

At the very least, avoid Jagerbombs



Look familiar? Photo Credit: Wikipedia



Science, what's good?

Lef Apotolakis
Science Editor

A break for wind power

There's been a lot of attention recently on the improvement of solar power yield, however it seems that we hadn't quite heard the last of wind power research. A team of scientists recently came to the conclusion that a particular form of carbon coating dramatically improves wind turbine efficiency, by prolonging their life expectancy. The scientists, while developing lubricants, had a 'YOLO' moment and decided to test the coating on wind turbine drivetrains, having low expectations. Alas, the coating was destined for wind turbines, going through more than 100 million testing cycles without showing any surface cracks (known as micropitting). The only problem is that they are unable to understand how this coating works, so the scientists can't improve on it quite yet. Could be worse.

Singh et al. 2016, Tribology International

Love spoiled by choice

It might come as a shock but when it comes down to maintaining a happy relationship, it might be about those on the outside of your circle of trust, rather than those on the inside. New research shows that when Frankie Valli was writing his hit song, 'Can't take my eyes off you', he forgot to add, "... unless there's lots of hotter people around, or you're completely out of my league". Okay, maybe the study didn't quite find that, but it might as well have. The study found that participants who were with partners less desirable than themselves were only happy in their relationship if their partner was a closer match to their 'ideal' mate than most other available mates. The only people that didn't quite seem to care about other potential mates were those whose partners were more desirable than themselves. Similarly, participants put in a lot more work in maintaining their relationship if their partner was "just too good to be true". That's love for ya.

Conroy-Beam et al. 2016, Evolution and Human Behavior

Twitter is a stalker's world

A new study creepily titled 'I know where you live' showed that it's not only possible, but in fact relatively easy to discover someone's home and work addresses, simply by looking at the location stamps of their posts. The MIT researcher behind the study followed the activity of Twitter users in the Boston area, and asked 45 participants who had no particularly relevant expertise to try and deduce what they could about the users. The wannabe private eyes, managed to correctly pinpoint users' home addresses 65 percent of the time and work addresses as often as 75 percent of the time. When provided with additional data (a whopping five days worth of tweets) accuracy of workplace geolocation climbed up to 85 percent. Participants 'shockingly' performed better when provided with mapped data. Results were controlled with users from Oxford to eliminate the possibility of participants simply being familiar with the 'hip and happening' areas of Boston.

Licardi et al. 2016, CHI (in press)

Money helps with learning!

In more 'breaking news', a recent study showed that financial support really helps students with learning disabilities to complete assignments and get extra support from faculty, outside of teaching hours. The study looked at university students in the US with learning disabilities: comparing those receiving special accommodation, with those less fortunate. However, the study also suggested that affluence of students played a key role in their likelihood of receiving additional support. Wealthier students struggling with learning disabilities tended to receive support more often than low-income students. The pattern was also reflected in comparison without-of-state students, who generally pay higher tuition fees than in-state students and are more likely to be better off, financially. A possible explanation is that receiving support is subject to providing adequate proof, which requires tests that cost money to take. Long story short: money makes life easier.

McGregor et al. 2016, Learning Disabilities Research & Practice

Earth-like sea on Europa

Exciting research from NASA's Jet Propulsion Laboratory, in California, suggests Europa, one of Jupiter's 67 moons may hide an ocean that is chemically similar to Earth's. If you're unfamiliar with the alien moon, know that it is slightly smaller than our moon, and is considered one of the smoothest solid objects in our solar system, which has led scientists to believe it hides an ocean beneath its surface. It is this element that suggests that despite its lack of volcanic activity, Europa could be host to life. Europa's rocky interior reacts with the seawater producing new minerals and releasing hydrogen. This hydrogen reacts with molecules released from the pounding of the icy surface by Jupiter's radiation, releasing oxidants. If the moon is dead inside (has no volcanic core) it might allow for just the right chemical balance to support life. Plans for future missions are being made that will hopefully shed more light.

Vance et al. 2016, Geophysical Research Letters

Seven minutes of hell

Alexandra Lim
Writer

With exams drawing near, many think setting aside time for a dedicated workout is simply not worth it. The mere idea of walking to Ethos makes you die a little inside. Long-drawn lectures and revision means the treadmill is off the agenda on weekdays, so you settle for that walk to the library, the occasional sprint to the toilet. 30-minute run? Forget it – that would mean a shower, makeup (hear hear, females), and that would be your weekday or weekend evening gone. Friends, there is a small saving grace.

You may have heard of the Scientific Seven-minute Workout, and if you haven't, you've probably

heard of HIIT, otherwise known as high intensity interval training. But what exactly is this seven-minute specialty?

It is, essentially, a workout that encompasses the benefits of HIIT in one lovely manageable burst, with the most scientific data to back it up. I'm one of the late ones on this having just recently discovered it in the dusty corners of the Internet (circa 2014, would you believe it?). HIIT is a common method used to spike the metabolism, by alternating between intense bursts of exercise, and then less intense exercise or complete rest. By tapping quickly into anaerobic reserves, it has been proven to increase endurance by at least 11% after its incorporation three times weekly, improve overall cardiovascular health, and believe it or not, increase production of the human growth hormone by up to

450% during the 24 hours after your workout.

Its label, being what it is, prompted me to research the science behind this phenomenon. All you need is a chair and a wall. The exercises themselves are very simple, all of which everyone has tried before. Cue pushups, jumping jacks, and chair step-ups. The sequence of exercises, that should be done with maximum intensity and in rapid succession, are designed to increase fat oxidation capacity and boost your metabolism like nothing else by the end of it. I do believe the label has been a little misinterpreted because there hasn't been a proper experimental trial, though the benefits of short, intense HIIT workouts are sound, drastically improving cardio-metabolic health and insulin sensitivity.

Having tried this myself recently,

I can say I definitely felt its effects almost immediately. If anything, seven minutes of HIIT gets your blood pumping, heart rate up, and metabolism going. So if you're one

of those who think a short run in Hyde Park is the equivalent of drawing blood from a stone on your hungover Saturday morning, I beg you to rethink your fitness agenda.



Here at Felix we believe in positive reinforcement, so have a cookie (or ten) for reading an article about exercise. Photo Credit: Tracy Hunter



Funky fungal psychedelic ain't all bad, depression study finds

Lef Apostolakis
Science Editor



Man of the hour, Dr Carhart-Harris.

Photo Credit: Studentsamfunnet

Boomers, silly cybin, caps, little smoke, cubes, musk, silly putty, sherm, simple simon, god's flesh, shrooms. Psilocybin fungi go by many names, but they're more commonly known as magic mushrooms. These humble fungi are predominantly used recreationally as entheogens (what a word), substances that induce psychological or physiological changes, often used in a religious, or spiritual context. Users claim they can induce euphoria, synesthesia, alter the way we think and perceive time, and generally aid at the journey towards transcendence. In other words they're a hallucinogen that will send you on a pretty psychedelic trip. All in all, there is general consensus that shrooms are pretty strong stuff, which explains why they're illegal in most countries around the world.

Despite many governments' (including our own) strong no-no stance on shrooms, research is occasionally green lit – some of it in our own back yard. Indeed, some of it takes place here at Imperial and it recently yielded results suggesting shrooms might be beneficial for those struggling with depression.

The study, published in *The Lancet*

Psychiatry, aimed at investigating whether patients with depression, could tolerate doses of psilocybin without exhibiting adverse side effects, such as anxiety and paranoia, which the UK government considered serious enough to warrant a ban. The ban took effect with the 2005 Drugs Act, which reclassified mushrooms as a class A drug, making possession a crime that could induce a seven year prison sentence.

This is not the first time a psilocybin study has been conducted at Imperial. In 2014, research illuminated what areas of the brain are activated by shrooms and showed that brains of users exhibit similar patterns to brains of people who are dreaming. Patients with moderate and severe depression who are resistant to treatment volunteered to receive Home Office-approved psilocybin capsules twice over seven days, as well as close monitoring, not only during the drug administration but also at regular intervals over the following five weeks.

Results showed a complete lack of adverse reactions (with the exception of anxiety right before the drug administration, and at the very start of the psychedelic experience, which is probably just a result of the bad rep shrooms have) and also a decrease of depression symptoms which, for a few patients, lasted to

some extent for over three months.

Despite the positive results, the lead author of the study, Dr Robin Carhart-Harris, from

This is not the first time a psilocybin study is conducted at Imperial

the Department of Medicine at Imperial College London, made reserved comments regarding the research. "Psychedelic drugs have potent psychological effects and are only given in our research when appropriate safeguards are in place, such as careful screening and professional therapeutic support. I wouldn't want members of the public thinking they can treat their own depressions by picking their

own magic mushrooms. That kind of approach could be risky."

Although anticlimactic, his under-enthused comments were probably strategic rather than an honest reflection of his excitement, considering Prof David Nutt's fate in 2009, which was sealed when he claimed that tobacco and alcohol are in fact much more harmful than many illegal drugs and suggested what some (Jacqui Smith) considered a radical reclassification.

While Prof Nutt's outspokenness cost him his position as the government's chief drug adviser, to the public's dismay, Dr Carhart-Harris has managed to stay on the government's right side becoming, in 2014, the first scientist in over 40 years to have been granted permission for testing LSD on humans. The LSD study, which again enlisted a number of volunteers, used brain scanning to look at how the brain works under the psychedelic substance. The study showed that under the influence, volunteers used more areas of the brain for visual processing than they would normally and that the compartmentalization of their brain, which usually allows different parts of the brain to perform separate tasks, broke down possibly causing the phenomenon some people call 'ego-dissolution'.

If you're wondering where this research is taking place and how to get involved, don't worry. So are we.

Science & the City

Questions on ethics arise in all fields of science, from vaccinations to military weapons. But given the mutability of morality and ethical stances across cultures, individuals, and time, it's difficult to pinpoint where the lines of what is moral should be drawn. What of the devastating effects of the Manhattan Project, the morals of which physicist Richard Feynman had always been fairly tight-lipped about? Was it wrong to pursue the development of our capability to split atomic nuclei even though the scientists knew it would be used for application on humans? Or what of the endless case of the anti-vaxxer, in which the scientific community has decided that individual consent is irrelevant in light of the greater social good? These are complex issues with no easy answer, but are dearly worth considering in our own endeavours.

Scientists often take a class in ethics at some point in their education, and there are many ethical forms one can fill out and clear in the pursuit of their research. But ultimately, it's an odd mix of what the individual scientist and institutions are willing to research and practice, paired with what the larger scientific community agrees is acceptable, and is in periodic response to some social pressures.

Interestingly enough, some have even argued that science – aiming at objectivity, knowledge, and truth – could actually act as a beacon to determine what our human morals should be, and help us figure out what is right or wrong. This flies in the face of those who value neutrality as a core tenet of scientific endeavours.

Regardless, like a carefully planned game of chess, scientists should look ahead to the possible implications of their research and decide if the outcomes are worth the pursuit. I, for one, certainly don't believe any knowledge is inherently bad in and of itself, but that its application can nonetheless be used to hinder or help humanity. As we transition from our studies into research, development, and application, we should all aim to use science as a tool of progress and development, though inevitably, what that means is constantly and vaguely in flux.

NAOMI STEWART



Yes, we chose a psychedelic cat for this piece. You're welcome. Photo Credit: John Lecster

FELIX SCIENCE



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Sh!t Science

Angry old man vindicated: Food was better back in the day

MARIANNE GUENOT



The study suggests that our ancestors might have had a better diet than us, but maybe they just never stopped eating. Photo Credit: Mike Mozart

At Sh!t Science we like to defend the lil' science, the science that gets bullied, the science that gets wedgies from the bigger sciences when it tries to speak up, because we believe that every science, no matter how puny, has value and should be respected. This week: archaeology. Need I say more?

Yes, archaeology, or the discovery of things that happened literally thousands of years ago. Going to an archaeology conference is like watching an episode of Sherlock, "This fragment of a piece of bone was positioned two centimetres East of the remains of a fire pit which is evidenced by these three flecks of carbon matter. Therefore, Australopithecus tried to kill Homo erectus!" Elementary, until another archaeologist finds another tiny fragment of bone on the other side of the planet, and the entire field is shaken to its core. It is a strenuous, arduous, ridiculous nerd of a science;

but it is not useless, because looking into the past gives us a better grasp of what is coming in our future.

That is the case of a new study published in Clinical Anatomy this week. Sometimes all that is left of a time period is human remains, so archaeologists have learned to read anatomical clues to the conditions in which people were living. One such clue is a condition called cribra orbitalia (CO), where the bone inside the eye socket becomes porous. This condition is generally accepted to be a tell-tale sign of anaemia due to iron deficiency, periods of malnutrition or infection. If archaeologists find a high prevalence of CO in the population, they take it as a sign that these poor people had a rather rough time of it. "But there's been a lot of debate about the prevalence of CO in modern populations, with some saying it had effectively disappeared," says Ann Ross, co-author of the study. The scientists

compared 245 prehistoric, 381 historic (pre-20th century) and 218 modern skeletons. Surprisingly, the researchers found that not only was CO not extinct, it was relatively common, with 12.35 percent of modern North Americans and 16.8 percent of modern South Africans displaying it. Even more surprisingly, this is a higher prevalence than in their historic counterparts. "We think the increased prevalence of CO in the modern skulls may be due to intestinal parasites in some populations and iron-poor diet", Ross says.

Therefore, like many a time before, knowledge of prehistory sheds light on modern culture. These findings, Ross says, show that "disadvantaged socioeconomic groups, and parts of the developing world, are still struggling with access to adequate nutrition."

Natasha Khaleeq
Writer

This week's science picture

Large shoals of fish attract a range of predators including multiple species of whale. A recent study though, found that although many species might be feasting on herring at the same time, whales tend to stick with their own kind when preying. By mapping different whale calls, research found evidence of clear whale groupings within dense herring shoals: humpback whales clustered at either end of the spawning grounds, while minke, fin and blue whales set up feeding territories between them. Passive ocean acoustic wave guide remote sensing showed that calls increase dramatically at night time, when extremely dense shoals form and dissipated during the day when herring scattered throughout the seafloor. However, further research must be carried out to discover whether there is territorialism occurring or if they are selecting these locations based on their different foraging mechanisms.



This shot was taken by Miquel, a Science Communication student here at Imperial. Are you a budding photographer? Get in touch. Photo Credit: Miquel Sureda



Future of the Left crowdfund peace

Rob Garside
Writer

From their formation of the ashes of the wonderful **Mclusky** in 2005, Welsh noisy alt-rock savants **Future of the Left** have generated a reputation for absurd lyrics, excellent musicianship and live

Future
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lyrics

shows that Pitchfork would label as incendiary. A reputation justified by their fifth album *The Peace & Truce of Future of the Left*.

Their latest release is their second successfully crowdfunded album after 2013's *How to Stop Your Brain in an Accident*. On *How to...* it was

clear that FotL were relishing from the freedom to create the songs and music they wanted to rather than catering to the demands of a third party. The fact that artistic freedom led to the creation of one of FotL's most tense and restrained albums was really surprising as there was a clear move towards minimal songs punctuated with staccato riffing, removing some of the more 'fun' elements of their sound.

It's welcome then that *The Peace...* showcases a more multi-faceted approach. Whilst the jarring staccato riffing songs are still present, they are used as occasional spiteful moments rather than the main body of this album. This has allowed room for some really bass heavy songs and reintroduction of the some more playful elements that FotL used so well in their earlier efforts. This variation in approaches makes *The Peace...* a significantly easier listen than *How to...* and adds impact to both. The bass heavy songs feel heavier, the stuttering dead-stop guitar led songs, such as 'Miners Gruel', more visceral, and the catchy moments more hooky.

The increased amount of really bassy songs has to be attributed to bassist Julia Ruzicka. Her inventive, thick bass lines have been increasingly become a part of FotL's sound. Songs such as the nasty 'If AT&T Drank Tea What Would BP Do?' to the groovy 'The Limits of Battleships' are led by her

wonderfully dirty overdriven bass lines and mark a real development from the more passive role the bass has served in previous albums. This adds an extra dimension to FotL's sound giving them a much thicker sound, taking the lead away from

Artistic
freedom
led to the
creation
of one of
FotL's most
tense and
restrained
albums

the sporadic guitar lines that have been the focal point in the past.

It's reassuring that it is not all change for this album with a predictably excellent vocal



This is a sad picture *sad emoji*. Photo Credit: Future of the Left

performance from Andrew "Falco" Falkous. This varied performance sets FotL apart from their followers and imitators. With so many other bands taking a one track approach on their vocal lines, the depth and breadth of Falco's weird singing voices which are essentially used as a second melodic instrument are always suprising. From the whimsical singing on 'Miner's Gruel', to the desperate nasally screams at the end of the furious 'Reference Point Zero' to the soft

clean singing on 'No Son Will Ease their Solitude', Falco's vocals provide wonderful hooks – hooks that are especially welcome on the more alienating tracks on the album.

Altogether *The Peace and Truce of Future of the Left* is probably one of FotL's most accessible and varied releases, combining the elements that make them so interesting and rewarding to listen to from their previous albums with new twists and quirks creating a really deep rewarding album.

In the music streaming wars we all lose

Cale Tilford
Music and Games Editor

Another week and yet another timed exclusive on a streaming service. This time it's **Chance the Rapper's** *Coloring Book*, exclusive to Apple Music for two weeks.

I'm growing fucking tired of this shit. It's not like streaming services are actually distinguishable in functionality in any meaningful way. The overlap in content between the main services (Google Play Music, Apple Music, Spotify and TIDAL) is so massive that the only incentive

these companies can come up for consumers to switch to their services is to provide exclusive albums and in most cases this exclusivity is only for a limited time.

Compare this to video streaming services, where each provider offers drastically different content, or video game consoles, where systems vary in power and there are frequent console-exclusive titles, and it's obvious that we're being played.

It's hard to blame the musicians who have stakes in TIDAL – they're trying to make money in a precarious music industry. But in many cases when they make things exclusive, rather than getting new

customers to join their service they're forcing consumers back to illegally download albums again (which streaming services were created to prevent). No one is going to subscribe to every music service just to listen to every album that's released; they're going to complement their music streaming with pirating.

If you by into all that capitalism bullshit then I guess competition can sometimes be great.

Maybe this model of exclusivity is working for companies, but it's certainly not working for consumers. Welcome to the world of virtually identical streaming



So much choice (thanks capitalism). Photo Credit: Spotify, TIDA, Apple.

platforms, where the crossover of content is probably higher than 90%, and where as a result we all lose out. Some musicians are now

more businessperson than artist. Art should be for everyone, not for the few who are silly enough to pay for three streaming subscriptions.

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Documentary corner: *A Riot of our Own*

Diogo Miguel Gerales
Film Writer

No Nazis. No dark metal. Live acts 7 days a week. These simple admission criteria meant that gigs could be booked in the same day, regardless of band size or experience, to play in front of the music-loving crowd who religiously converged on the 12 Bar Club, hidden in Denmark Street.

What made the place unique was the openness of the punters who, for one reason or another, ended up side by side at the narrow bar counter: from the regulars who had been popping in for the last 20 years, to randomers who happened to stumble there on the way home from Soho, you could not help but feel a sense of community every time you stopped by.

Everyone belonged in there as long as they were not too keen on National Socialism or the Holocaust. Not many places managed to bring together city suits and spiky leather jackets in an eclectic mosh-pit hug. Where else could you be smoking a



12 Bar Club – the last of a dying breed of the London gig scene. Photo Credit: YouTube

cigarette and drinking Jack whilst simultaneously watching some gimp-mask-wearing guy play pool? You could literally buy a guitar, start a band, rehearse in a studio, play your first gig, get a tattoo, and fall in love, all in the same night at this Tin

Pan Alley watering hole.

For years, the 12 Bar Club stood proud as the most (only?) genuine, trip-worthy, night-rescuing, reliable venue of central London. It launched plenty of famous musical careers and saw the last breath of

many more. It's an institution to which London owes its status of musical capital of Europe.

And now it's all gone. Poof. Vanished. Just like that.

The film *A Riot of our Own*, from director Tali Clarke, takes

us through the big side-effects of the current Disneyland-ification of London. Under the excuse of redevelopment and better transport connections, developers are building empty fairy-tale castles in the sky, house-of-card-shaped tax-havens, and ubiquitous gift shops with as much genuine feeling as a Hard Rock Cafe or a Starbucks. This bittersweet documentary takes us through the last days of London's best live music institution and – whether you had been a regular, a one-timer, or a 12 Bar virgin – it will definitely leave you with both a sense of nostalgia for what it meant and regret for the inevitable march of the speculative housing market.

But there is hope: the 12 Bar Club lives on, now somewhere in zone 2, showing you can destroy the venue, you can push people away, but you will never be able to put out the ever-burning fire of uniqueness and authenticity because, to put it simply, not everyone wants to be bought. As Pablo Neruda put it: 'They may mow down all the flowers, but they can't stop spring'.

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That's so Ratchet

A game based on a movie based on a game

Cale Tilford
Music and Games Editor

In the 14 years since Ratchet & Clank's original release on the PS2, the platforming genre has seen a dramatic decline. Nintendo has been the sole torchbearer in a genre which was once the industry's most successful; it continues to produce quality and innovative platformers while others have almost abandoned the genre completely. Despite the critical (and commercial flops) of recent releases in franchises like Ratchet & Clank, Crash Bandicoot, and Spyro, many still remember these series fondly – even when they are undeserving. Society is so obsessed with nostalgia that we often misremember and ignore flaws. However, in a rare few cases the first games in these franchises are deserving of praise. In these cases we must ask the question: are these games only great when considered within the context of when they were released?

Video game companies have begun in the last decade to exploit nostalgia by reimagining and rebooting series, in the hope that gamers will forget about previous missteps. Ratchet & Clank is interesting in that it is not only a reboot of the series (after more than a dozen sequels), but a remaking of the original game. Without changing much, Insomniac's

reimagining of the original game feels fresh. It is still as exciting as it was all those years ago, a testament to the original release.

While Nintendo platformers might have revolutionised the environments players inhabit (Super Mario Galaxy) and multiplayer functionality (New Super Mario Bros.), the combat in their games has changed very little. Many rightfully regard Ratchet & Clank as an action-platformer; it brilliantly

It brilliantly combines melee and third-person shooting mechanics

combines melee and third-person shooting mechanics. Traversing the environment and its obstacles is similar to any other 3D platformer, but if you hold down the left trigger you are able to enter a strafing movement mode which is better suited to combat (borrowing more from third-person shooters like Gears of War). Switching between



Ratchet & Clank is a furry's paradise. Photo Credit: Insomniac Games, Inc

these two types of gameplay can be exhilarating and it creates the sense of being an action-hero far better than other mature franchises do today.

After only a few minutes with the game, it is obvious that is more than a HD remake; many elements of the game have been changed. The most obvious is the massive visual overhaul. Other than Uncharted 4, no other game on PS4 is more visually impressive. From the lush landscapes, with glistening vistas on the horizon, to gloomy acidic underworlds, every texture and model is polished and refined.

Ratchet's fur and other similar graphical details add up to create the best looking platformer ever. This is proof a game doesn't have to be realistic (or gritty) to be technically impressive.

Trying to explain this installment in the franchise to someone else can get quite confusing. It's based (loosely) on a movie which is based

characters are weird throwbacks to early noughties tropes (e.g. the skater dude) and the script is often gratingly cheesy especially when it breaks the fourth wall. The story it tells is not particularly interesting, but is told well.

While a lot of original level designs have been reused, the developers have added new worlds and gameplay sections to ensure it doesn't feel too familiar to players of the original. Clank's puzzle sections, where you control a number of different Gadgebots (each performing a different purpose), provide a refreshing change of pace from the action packed shooting of Ratchet, even if these levels are too easy. One notable new weapon turns enemies into pixels and the weapon system as a whole has been overhauled adding more customisation to things like weapon accuracy, ammo capacity, and damage.

For a game where very little has changed, it feels incredibly modern. Insomniac have perfectly balanced the new with the old. Rather than relying solely on nostalgia, they have made changes where appropriate and where the game would have truly shown its age. Many were worried that Ratchet and Clank might not hold up after 14 years of innovation, but it does. A franchise that was almost lost, has now returned from the brink.

Ratchet & Clank is out now on PS4



OMG, it's so pretty. Photo Credit: Insomniac Games, Inc

For a game where very little has changed, it feels incredibly modern

on the original game (from 2002), and it includes some footage from this film in between gameplay segments. Insomniac are aware that this is all a bit ridiculous, so have framed the game as a retelling of the original by Captain Qwark. His often unreliable narration is amusing and is an attempt by the developers to fit this game into canon. Some



Back to Basics: Scones and Tea

FELIX visits The Muffin Man Tea Shop for afternoon tea.

Christy Lam
Writer

If you had to pick one dish that represents Britain, what would it be? Mine would definitely be the traditional English afternoon tea. Probably the same as any typical Chinese girl.

Do not let the idea of afternoon tea scare you – this is going to be a casual affair, no extravagance, no posh British accents, no jaw-dropping bills. I promise.

The Muffin Man Tea Shop is situated down the quiet Wrights Lane, just around the corner from High Street Kensington underground station. Small, old-fashioned, dimly lit, with black and white photos on the walls, a counter with a Victoria sponge, shortbread and many other sweet delights. Imagine visiting your grandmother.

I always come here for the Devon Cream Tea. Two scones served with

clotted cream, strawberry jam and a pot of tea of your choice. And yes, a delicate, white china teacup on a saucer. How much more British can one get?

Don't expect the tea to be any different from your usual Tetley, or the jam to be superior to that 75p jar from Tesco. It is not about the tea, or the jam. It's all about the scones.

Yes, the scones. You are about to taste the best scones in the whole of London.

At this stage I wouldn't argue about whether the jam goes first, or the cream. It doesn't matter. We can argue about etiquette or viscosity or aesthetics later. Just shut up, smother it with any ratio of cream to jam, and eat.

The scones are hot and toasted, with a slightly dry crunch on the edges yet retaining this wonderful moisture and softness inside. The hint of buttery flavours merges perfectly with the smooth clotted cream and jam.

In case you are still feeling a bit peckish, have a look at their equally British menu – Coronation chicken salad or a rarebit?

Scones and tea. The perfect occasion on a sunny afternoon to sit, relax, and of course, to feel perfectly British.

On a final note: clotted cream goes first.



The challenge used to be how much jam you could fit on. Clearly, times have changed. Photo Credit: Christy Lam

Sanjay Bhattacharya
Food Editor

Scones with fresh butter, and quick "jam"

As Christy says – what could be more classically English than scones (tea, the queen and institutionalised pig-fucking didn't make the cut)? Personally, I always associate scones with my slightly frazzled mother hurriedly making a batch of them – either for her stitch 'n' bitch (the so called "wimmins group"), book group or the unexpected arrival of a guest! Still, they were always delicious – and in our house, it was always real butter (a treat from the usual margarine) with jam, though clotted cream was occasionally proffered.

All three components – the hot, crisp scones, rich butter and sweet jam – are actually quite simple to make, and keep well. So, if you fancy making some on for a Sunday picnic in the park, don't worry – they can all be made on the Saturday before, and kept. Take some rose cava, a comfy blanket, and a condom.

The scone recipe is my mother's – and it's a pretty traditional one, though some plebs insist that currants (or "raisins" – never sultanas) do not belong in scones.

They are wrong.

If you haven't had fresh butter before, this really is a huge treat – it's so different from the highly processed cheap Lurpak that many of you might be familiar with. Make sure to buy real cream, and not Elmlea – it's a cream substitute and will not work!

For the "jam", don't be as picky with fruit, as it will work well with anything from strawberries, raspberries and redcurrants, with the first two starting to come into season now. The appropriate term for it would really be a compote, as it won't fully set.

Scones:

250g self-raising flour
1 rounded tsp baking powder
30g caster sugar
40g softened butter
75g currants
1 egg
100ml milk

Preheat the oven to 190°C fan.

Mix all the dry ingredients apart from the currants together, and chop in the butter. Crumble together with your hands – a food processor does this very quickly but is also a bugger to clean.

Add the currants, and mix in evenly. Whisk the egg with the milk, and incorporate into the mixture – you may need a touch more milk. The mixture should be quite dry.

Roll out the mixture to ~2cm

thick, and use a water glass (or fluted ring cutter) to cut out scones. I do mine about 6cm across. Re-roll the scraps, and repeat – there's always one dodgy looking one at the end.

Place on a floured baking tray, and place in the oven for 8-10 minutes until risen and golden brown.

Butter

300ml double cream
Flake salt

Pour the cream into a jar, and screw the lid on tight. Shake like crazy! It's very good forearm exercise, though most of you should have no problem with that. After 5-10 minutes, you'll see golden flakes appear that will eventually accumulate into a nice clump of butter.

Put into a sieve to drain briefly (the liquid is buttermilk, which can be used for baking) and then in the fridge to set. Once slightly firmer, sprinkle with the salt

Compote

250g soft fruit – whatever is in season, see above – with stems removed, sliced.

Squeeze of lemon juice

Sugar, to taste

Simply add the fruit and lemon juice to a pot and simmer gently on the stove until they break down. This shouldn't take too long. Add sugar to taste, stirring to dissolve, and leave on the heat, stirring regularly, until it thickens a touch. Pour into a small, clean jar, and refrigerate.

Do not let
afternoon
tea scare
you



This is almost good enough for mother. Photo Credit: Wikicommons



Go-nuts for doughnuts

FELIX presents your guide to the best doughnuts in London

Throwback to the seven years spent in an all-girls boarding school in the countryside. A weekend trip to the nearest town with an actual supermarket was a sacred privilege only to those of Year 9 and above, while you have to be at least in Year 12 to be allowed to step on the train on the opposite platform to London.

Strict rules applied: we had to fill in a so-called “exeat form” days prior to departure, then get it signed on time by the Housemistress. We checked out, left school on Saturday noon, came back no later than 17:00 on the dot to check back in and our bags search for alcohol or cigarettes. Trips on Sundays were considered as “special cases” requiring a legitimate reason for the need to do so. By Year 13, this procedure felt rather like inmates applying for furlough.

Another precious memory of those innocent days is an unbelievable infatuation with Krispy Kremes. Back then, they were a rare commodity, highly sought after especially by the younger years, and only available during the occasional charity fundraising. Long queues formed outside the English classroom with crowd control. 20 dozen Original Glaze sold out faster than the blink of an eye.

I too, lived in the craze, jotting

down its planned trade date as soon as it was made known to the public after prayers on Monday mornings. Even made up the most ridiculous excuses to nip out from class five minutes early to beat the queue.

And now, in 2016, after two odd years in civilisation will I still be that obsessed with them as my 13-year-old self? Of course not.

One look at that poor girl fundraising for charity holding that familiar green-dotted-on-white box approaching me from 30 metres away would have me turning immediately on my heels and dashing off in the exact opposite direction. An unexpected approach would be dealt with with a good ten second hesitation, with my mind entirely blanked out and extreme tension building up inside similar to answering the winning question in Who Wants to be a Millionaire: a) accept the doughnut, b) decline the doughnut, c) pretend you are deaf and blind, d) run.

Most of the time I'd kindly decline the sugared ring while offering to donate the exact price. Plonk as the coin hits the bottom of the plastic bucket. The reason behind the disappearance of love for Krispy Kremes? Because there are far, far better doughnuts in this world.

1. The Classic

The joy of biting into a doughnut

completely and symmetrically filled to the top with perfectly smooth vanilla custard cream. The days of disappointment from stingy fillings are forever gone with St John's Bakery and Bread Ahead Bakery. Both are excellent local bakeries producing all sorts of top-notch baked goods everyday including a wide variety of pastries and sourdough. Doughnuts are their popular specialty with some basic flavours in common: vanilla custard, honeycomb, raspberry jam, chocolate.

Bread Ahead explores slightly further with flavours depending on the season, such as blackberry custard ripple, salted caramel with honeycomb and my favourite – earl grey with soaked prune (all £2.50). The doughnut itself is like a brioche and is dusted with white sugar. St John's Bakery is available from their bakeries in Druid Street Market, Maltby Street Market, Spitalfields and the Food Hall at Selfridges. Bread Ahead opens their store at Borough Market and Old Spitalfields Market on select days.

2. The Sourdough

Probably should have called this category “Gourmet” – Crosstown Doughnuts boasts of their hand made, hybrid sourdough base claiming to reduce the sweetness and to not absorb as much fat when deep fried. Their layers of icing on top definitely helped a great deal too. In reality, they have a slightly firmer and chewier texture compared to the conventional doughnut. Their range of unique and unimaginable flavours is the selling point: granola and strawberry jam, PB&J, sea salt caramel banana (£3 - £3.50). Find them in their flagship store in Soho, their little black van at Old Spitalfields Market, WholeFoods, Selfridges and various independent cafes across London.

3. The Cronut

All hail Dominique Ansel – the creator of the Cronut™. The chef and owner of Dominique Ansel Bakery in New York – the patisserie whose creations took the world by storm. Expect to join the queue at 6am, two hours before the shop opens. Lucky for us, three bakeries have come up with something along the same lines as the real deal. Dum Dum Donutterie in Box



CW from top left: PB&J, pistachio cronut, chocolate, raspberry cronut, . Photo Credit: Christy Lam

Park Shoreditch and Brick Lane presents their iconic Cro in Zebra (chocolate), strawberry & cream and Cronutella. Distinct layers of pastry filled with buttercream, toppings and dunked in sugar (£3). The range is also available at Harrods (£4.50).

Meanwhile Rinkoff Bakery, the 105-year-old family run business in Whitechapel, has their popular Crodough with a lot less buttercream and sugar compared to the former in a wider variety of flavours. Think Oreo Cheesecake, PB&J and S'mores, and a special Crème Egg Crodough during Easter (all £2.50). If Whitechapel is too far a journey, find them at Selfridges and Timbervard.

Last but not least – Cocomaya in Marble Arch presents their elegant take in their CocoDough available in salted caramel, Red Velvet, strawberry, chocolate and vanilla (all £3.25).

4. The Duffin

If a doughnut and a muffin had a child, what would it be called? A Duffin. No joke. This doughnut-muffin hybrid was invented by Beas of Bloomsbury in 2013 and created a huge fuss back then, including controversy with Starbucks over who actually created this Frankenstein in the first place.

Enough of law suits. Beas still have their Duffin game going strong selling in their cafes at Bloomsbury, St Paul's and Farringdon. It is essentially a dense buttermilk cake the size of your palm, flavoured with nutmeg, dipped in butter, rolled in sugar then piped with jam or Nutella (£2.50).

5. The Cruffin

On the subject of portmanteau pastries, allow me to introduce you to the Cruffin. Originating from Mr Holms Bakehouse in San Francisco, the croissant pastry is baked in a muffin mould instead of its usual lunar shape, then filled with custard to the brim, dusted with sugar and there you have it – the Cruffin. Cocomaya in Marble Arch does a breath-taking version in chocolate, strawberry, caramel cheesecake and blueberry. The custard cream is smooth and light yet rich in flavour. The delicate layers of pastry maintained a perfect balance of crispiness and moisture – imagine the freshly heated up pastries at the Library Café in the morning. Their café has a limited supply of them everyday, but Selfridges always has a not-so-secret stash in the Food Hall.

CHRISTYLAM



CW from top left: nutella duffin, earl grey with soaked prune, apple crumble, salted caramel cheesecake cruffin. Photo Credit: Christy Lam

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Venue	Regular Events	Time	Day
Metric & FiveSixEight	iPOP	20:00 - 02:00	Friday 20 May
FiveSixEight	Super Quiz	20:00 - 22:00	Every Tuesday
Metric	Cocktail Night	18:00 - 23:00	Every Tuesday
Metric & FiveSixEight	CSP Wednesday	19:00 - 01:00	Every Wednesday
Metric & FiveSixEight	Club Night	20:00 - 02:00	Every Friday
h-bar	Pub Quiz	19:00 - 21:00	2nd & 4th Thursday
h-bar	PGI Friday	16:00 onwards	Every Friday
Reynolds	Quiz Night	19:00 - 23:00	Every Monday
Reynolds	Board Games & Film Night	18:00 - 23:00	Every Tuesday
Reynolds	Pool Club	18:00 - 23:00	Every Wednesday
Reynolds	Pizza Club	18:00 - 23:00	Every Thursday
Reynolds	Cocktail Club	17:30 - 01:00	Every Friday
The Foundry	Quiz Night	19:30 - 22:00	1st & 3rd Thursday



This week on *Game of Thrones*



“Finally! A Lord that won't try to use me!” Photo Credit: HBO

Harry Wilkinson
Writer

A third of the way through the season and it's really starting to get going. We pick up at the Wall where Jon apparently had to pop back into Castle Black after storming off last episode (“Jon you'll need a coat! You of all people should know winter is coming!”). We then get the first of the episode's many reunions when Sansa and Jon meet for the first time since back at the start of Season one. They have a really heart-warming scene reminiscing about Winterfell and Sansa attempts to convince Jon to take it back from Ramsay. (“Hey brother I used to be a dick to! Wanna go murder my ex?”). Brienne also walks over to Davos and Mel just to let them know that she murdered Stannis, the man they gave their lives to. She's not the best at making friends, is she?

We then head back to the Vale (get your maps out, folks) where Irish Batman (or Littlefinger, as he prefers to be called) drops in to threaten an old man then manipulate a teenager. Standard Littlefinger stuff really, not sure that even he knows exactly what the plan is there.

Tyrion's scene was a great return to the diplomacy from season two, just in Meereen. Turns out, no matter where you are, you can get

ahead in negotiations by employing prostitutes. Take notes business students. There were hints of the former slaves being unhappy about the terms that were reached but we'll just have to wait and see how this turns out for the dwarf and eunuch (isn't that the name of a pub?).

Tyrion's scene was a great return to the diplomacy from season two

Super Daario and Jorah the Explorah have an argument about who's going to bang Dany before finding Vaes Dothrak and sneaking in unarmed. Except Daario stashed a knife. It's just who he is. We get another quick scene of Dany in the bingo club before she storms out, finding the boys and hatching a

plan.

We then return to King's Landing and it's Margaery's turn to appear on the High Sparrow's talk show. They have a bit of bible study before he begins reminiscing about some orgy he went to a while ago after he made some bitching shoes and sends Margaery to speak with Loras. He's completely broken at this point; apparently there's torture worse than getting read to by a nun.

Cersei asks Tommen what the old man has been telling him and Tommen says he promised not to

tell his parents. Nothing odd there. Cersei and Jaime storm into the small council chambers to plot with the Tyrells to overthrow the Faith Militant and save Margaery before she has to repeat Cersei's walk of shame. I'm not entirely sure that Incest Team Rocket can be trusted on this one; Cersei doesn't seem too worried about the upcoming Trial

is appreciated anyway.

Darth Ramsay has a quick scene where a woman tries to have sex with him and then he stabs her in the throat. I can't imagine Osha's actress was thrilled getting her script for this season

Afterwards, we head back to Castle Black to a meal fraught with sexual tension between Brienne and Tormund with Edd looking on with an expression of horror. A Bolton man arrives with a letter for Jon. To paraphrase; “Come at me bro, I'm proper mental. P.S. Gimme my wife back”. Ramsay was never one for subtlety. Tormund then pledges the Wildling army to help Jon.

For the episode's finale, we head back to Vaes Dothrak where Dany is under judgment. The Dothraki continue to, surprisingly, be the comic relief, having a couple of great lines. For the trial, however, Dany's not the most diplomatic sort so her idea of a defence argument is calling the judges a bunch of pussies and setting the courthouse on fire. She then strolls out and welcomes the gathered horde bowing to her. I guess she's a big believer in ‘If it ain't broke don't fix it’.

Certainly the best of the season so far, this episode had a big theme of reunions and brother sister team ups. It also really got things moving in many of the storylines that had been treading water a bit, it really is starting to feel like we're building up to the finale now.

Game of Thrones is available on HBO Go

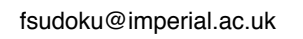
This episode had a big theme of reunions and brother sister team ups

by Combat so there's not much gain for her in this deal as far as I can see.

Another return to the Iron Isles with Theon. Yara makes a couple of dick jokes at his expense before he makes her feel bad by crying and pledging to help her become Queen at the Kingsmoot. I'm not too sure what a tortured, cockless guy with missing fingers can do to help exactly but I'm sure the gesture



Dany gets her groove back! Photo Credit: HBO



Nonogram Fever



fsudoku@imperial.ac.uk

FELIX PUZZLES

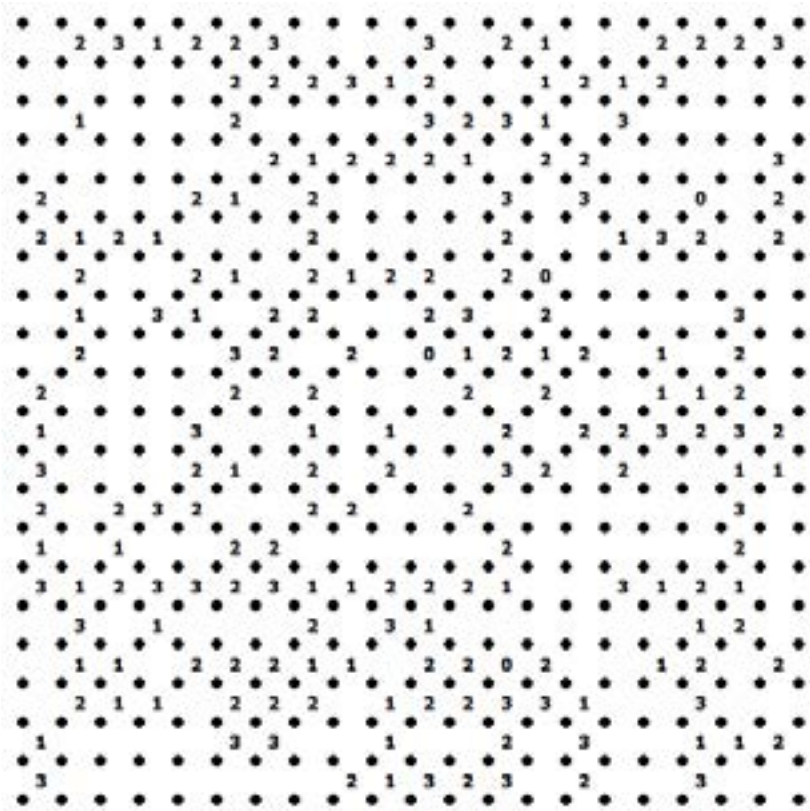
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FELIX PUZZLES



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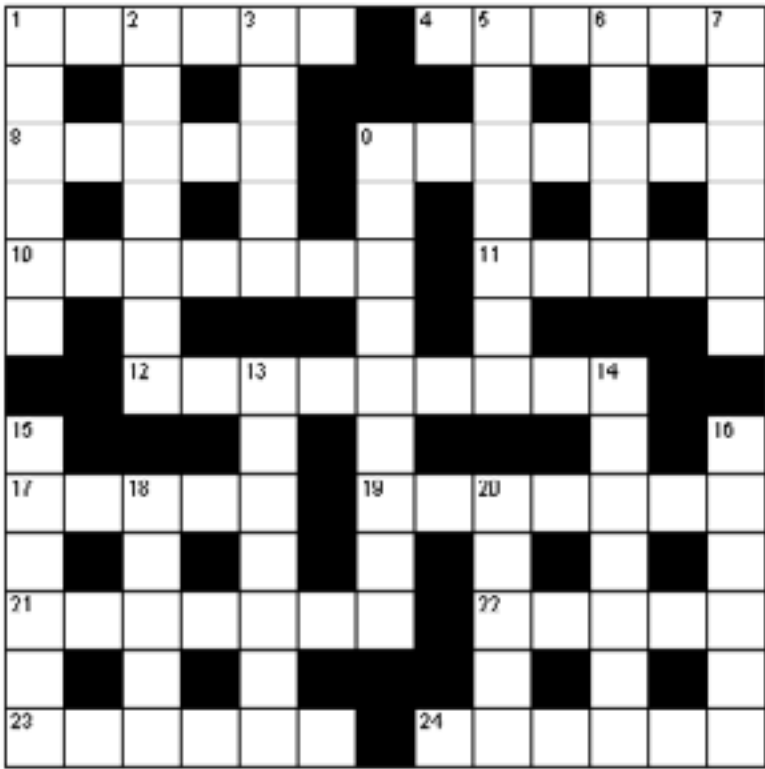
Slitherlink



Across

- 1 Deliverance (6)
- 4 Small fowl (6)
- 8 Sudden uncontrollable fear (5)
- 9 Formal speech (7)
- 10 Chains, shackles (7)
- 11 Gentle poke (5)
- 12 True to life (9)
- 17 Relieved (5)
- 19 One who settles disputes (7)
- 21 Pleasant and friendly in manner (7)
- 22 Coins (anag) (5)
- 23 Foliage (6)
- 24 Pictures (6)

Crossword



Down

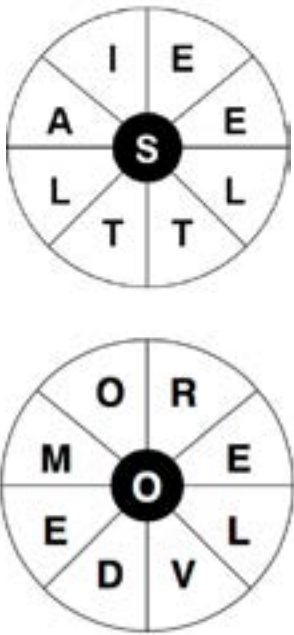
- 1 Swindle (3,3)
- 2 US upper house member (7)
- 3 Male relative (5)
- 5 Opposed (7)
- 6 Made an effort (5)
- 7 Repaired (6)
- 9 Stubborn (9)
- 13 Capable of being heard (7)
- 14 Sarcastic (7)
- 15 Remember (6)
- 16 One of the planets (6)
- 18 Capital of Bulgaria (5)
- 20 Breast (5)

Word search

Find 17 characters/terms from the *Scrubs* series.



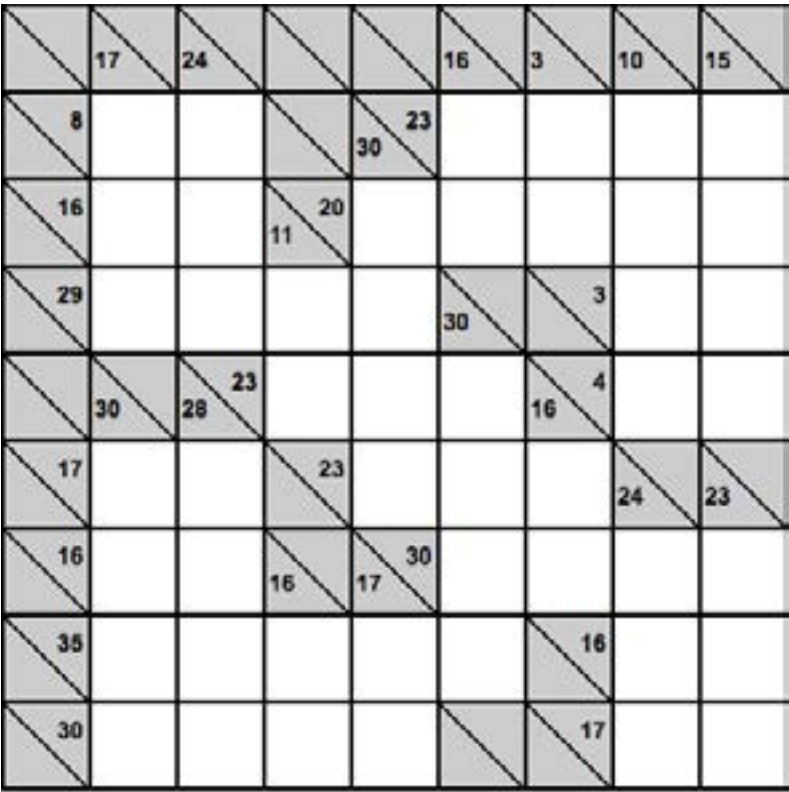
Word Wheel



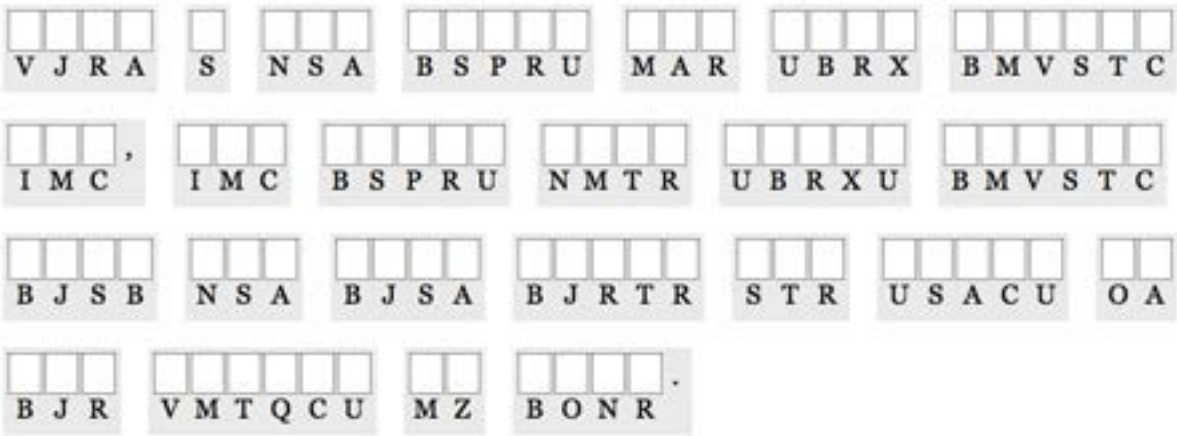
Riddles

1. Many have heard me, but no one has seen me and I will not speak back until spoken to. What am I?
2. Alone I am 24th, with a friend I am 20. Another friend and I am mischievous. What am I?

Kakuro



Cryptogram



FELIX PUZZLES



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Sudoku Fever

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

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

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

13	10		10		11		14	
	15	3		10		10		
15		33	20		10	7	41	
							24	
15								
15				21	8	9		
	3							
11		9		9		14		16
	13		11		5			

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12		13		11	10		11	11
6		10			10			
				13				

FUCWIT

Solo Efforts

1 st	Cherry Kwok	345
2 nd	Nicholas Sim	316
3 rd	Ayojedi	117
4 th	Greg Poyser	87
5 th	King Lam Kwan	31
6 th	Sunny Amrat	30
7 th	Jan Xu	17
8 th	David Fengchu Zhang	14
9 th	Grace Chin	13.5
10 th	Sach Patel	13
11 th	Harry Secrett	10
12 th	Joshua Wan	8
13 th	QiaoqiaoFu	6
14 th	Jeremy Ong	3
15 th	Megha Agrawal	2

Groups

1 st	CP Fanclub	145
2 nd	Pufuletz	118
3 rd	Gap Yahhhh	58.5
4 th	The Gravitons	15
5 th	Parmesan	9.5

Points Available 38

Sudoku	2
Killer Sudoku	3
Greater than Sudoku	3
Greater than Killer Sudoku	4
Crossword	2
Word Search	2
Slitherlink	2
Kakuro	2
Cryptogram	2
Riddle	1
Nonogram	5

Solutions

B	E	S	E	E	C	H		W	A	S	P	S
A		E	L			A		I	U		P	
B	E	R	Y	L		S	I	D	E	C	A	R
Y		G		I		T		T		C		E
S	T	E	E	P	L	E		H	O	U	S	E
I				S		N				M		
T	A	R	G	E	T		S	E	R	B	I	A
	E					A		N				N
C	I	V	I	L		R	A	M	A	D	A	N
A		E		O		O		A		A		O
C	A	R	I	B	O		S	P	R	A	Y	
H		I	B		N		S	T	E			
E	L	E	G	Y		D	R	E	S	S	E	D

Send in your solutions to
fsudoku@imperial.ac.uk
before midday on
Wednesday!

Take part in Mental Health Awareness Week



In support of Mental Health Awareness Week, the Student Counselling Service and partners are asking you to start a conversation about mental wellbeing.

This initiative was created by the Mental Health Foundation and is celebrated every year in May. The aim is to get people to talk more openly about the issues that surround mental health and to raise awareness of the issues people face.

To help you do this, the Staff Health and Wellbeing Team have put together a range of talks, lectures, and events including fitness classes and swimming sessions at Ethos and meditation with the Chaplaincy. Further support is also provided by The Advice Centre in the Union, which can be especially during exam time - it is time to get people thinking about their own mental wellbeing. There will be hosting a number of stalls and events around several Imperial College campuses and the Health and Wellbeing team at Imperial offer support year round.

To find out what's on offer and how to book go to: www.imperial.ac.uk/health-and-wellbeing/mental-health-awareness-week/

Imperial Plus Volunteer Qualification

Are you volunteering in a leadership position next year? Will you be responsible for managing other volunteers?

We have the opportunity for twenty volunteers to undertake the Institute of Leadership & Management Level 5 Award in the Management of Volunteers, an externally-accredited, highly respected qualification. Holders of the award will be able to demonstrate to future employers a rare skill set – the ability to lead, organise and motivate volunteers, which can actually be harder than managing staff! It looks great on your CV too!



You can read more about the various modules offered in this qualification which focuses on promoting opportunities; motivating those around you, building up strong relationships with colleagues and friendly organisations, and being a leader in your area of responsibility. Applications are open now and close on Tuesday 24 May. Don't miss out on this fantastic development opportunity, apply today.

Find out more by visiting imperialcollegeunion.org/ipvq

Have you registered for the EU referendum yet?



The EU referendum is fast approaching. Register to vote at www.gov.uk/register-to-vote by Tuesday 7 June if you haven't done so already and get out to vote on 23 June. You can also vote by post or proxy if you won't be around on the day but you need to make sure you apply for these separately. If you are living in halls you will need to make sure you are registered because changes to voter registration mean you are not automatically on the electoral register.

Who is eligible to vote in the EU Referendum?

- British or Irish citizens living in the UK
- Commonwealth citizens living in the UK who has (or does not require) leave to remain in the UK

Haven't decided which way to vote yet?

We'll have campaign teams around College for the next few weeks to give you all the facts you need to make an informed choice. We'll also be hosting a debate on Thursday 2 June at 18:30 in Skempton with speakers arguing both sides if you still need persuading either way.



NEWS WITHOUT THE NEWS



WHEN YOU GET GIVEN SOMETHING YOU HATE
BUT YOU'VE GOT TO WEAR IT ANYWAY



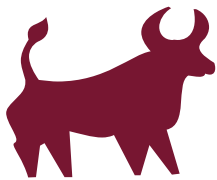
10 MINUTES INTO BREXIT AND CHILL AND
HE GIVES YOU THIS LOOK

HOROSCOPES



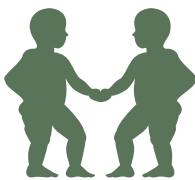
ARIES

This week you decide to smuggle yourself out of the country so you don't have to do any more exams, by hiding yourself in a large rucksack; however, you are left in the middle of Heathrow airport and they destroy you in a controlled explosion.



TAURUS

This week you finally sign a contract to the perfect place that's near college and not too pricy; however, after signing it you realise that you now have to look after the sex dungeon in the basement which involves a lot of mopping up fluid.



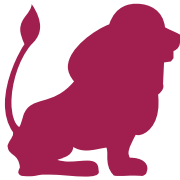
GEMINI

This week you are pretty sick of your spanish girlfriend at the moment so as revenge you decide you are going to vote for Brexit so it's harder for her to come back after summer. Love you really.



CANCER

This week you decide to go on holiday after your exams with people from halls but leave it up to your Korean friend to decide where you go. Turns out he's from the North and you end up in a slave labour camp where you can't even access Panopto.



LEO

This week you read that eating potatoes four times a week increases your risk of death but you don't care. If you have die to due from potatoes so be it. It will be a glorious death.



VIRGO

This week you seem to be disappointed about DJ Fresh headlining summer ball but that's because you're a fresher that doesn't understand that the summer ball headliner is always shit. I heard Professor Green hit a guy.



LIBRA

This week in a bid to become chair at your club's AGM you try to assassinate your competition by slashing his bike cables; however, they also do the same to you and you're both RON'ed whilst in hospital.



SCORPIO

This week David Cameron calls you "divisive, stupid and wrong". Bit harsh, I mean all you did was fail a few exams here and there. Plus there was that one geophysics paper where you got the model answers and almost scraped a 2:1.



SAGITTARIUS

This week you get invited to a will.i.am gig because you happened to be outside the Royal Albert Hall in a boiler suit. However, once you get inside you realise you're trapped forever in will.i.am's freak army of backing dancers, people who actually own wearable tech and runners up from *The Voice*.



CAPRICORN

This week you're the Imperial President and you accidentally send an email to the entire student and staff bodies, saying: "please unsubscribe me from this list". Unfortunately, everyone interprets this as a pro-Brexit move and you are hastily ousted from the college's inner circle.



AQUARIUS

This week, you're a keen fraudster looking to con some students. So you set up a higher education system that treats young people as customers, puts off the poorest and actively encourages the best universities to only accept those who can pay the most.



PISCES

This week, you're the child of a minor royal, walking the halls of Imperial doing your degree, whilst the rest of the student body studies on in ignorance. But we know who you're there. Send us an email – it's at the top of the page.



How to survive exams

Dealing with stress and getting help are easier than you might have thought

Simran Kukran
Writer

There is a lot to be stressed out about at exam time. Whether it is your first year or your last, it is difficult to balance the intense workload with other commitments, such as arranging accommodation for next year. First and foremost, if you feel you are struggling to cope, whether you have pre-existing health conditions or not, the most important thing to do is consult a medical professional. If feelings of anxiety are disrupting your life, speak to your GP – a quarter of all GP appointments are regarding mental health, so a good GP should not have problems with leading the conversation.

The next step is to speak to somebody at the university. If you do not feel comfortable speaking to your hall warden or personal tutor, the counselling service is great to

A quarter of all GP appointments are regarding mental health



Feeling stressed? There are people you can talk to. Photo Credit: FELIX

contact, and won't share anything with your department without your consent. If you do choose to disclose any information, they are a good go-to for negotiating deadline extensions and exam arrangements, and will be able to point you towards a designated staff member in your department. For example, with evidence of medical issues you may be able to arrange separate accommodation for exams, or rest breaks if you need them. However, it is important to note these

arrangements may have deadlines.

There are also things you can do to help yourself cope. If you're struggling socially, remember that you are not obligated to attend anything if you don't feel like you have enough time, but it is important to strike a balance so that you don't end up isolating yourself.

If you are feeling like a lack of social interaction is affecting you in a bad way, make an effort to integrate some group work into your revision plan. It may be refreshing to mix it up if you've been staring at your problem sheets alone in the library. If stress is affecting your day-to-day functions, try to pinpoint specific struggles you may have. For example, if you struggle with preparing meals try cooking in batches when you feel more up to it, or arranging joint mealtimes with flatmates.

Self-care should always be a priority. Get a bit of exercise. If you can't afford an hours' gym session, consider getting off the tube a few stops early and walking for ten minutes. Celebrate the little achievements, and do not judge yourself if a nap in the middle of the day or an overpriced hot chocolate

If stress is affecting your day-to-day functioning, try to pinpoint specific struggles you may have

is what gets you through your notes. If you are falling behind, remember that any work done is less work to do, and it is important that you make time for yourself. Nothing is more important than your health and wellbeing.

Mental health helplines and resources

If you are concerned about your own mental health or that of a loved one, there are people out there you can talk to who can give you advice, or will be there to listen.

Helplines and Online Resources

If you are distressed and need someone to talk to:

Samaritans

Phone: 08457 90 90 90
(24 hour helpline)
www.samaritans.org.uk

For issues with anxiety:

Anxiety UK

Phone: 08444 775 774
(Mon-Fri 09:30-17:30)
www.anxietyuk.org.uk

No Panic

Phone: 0808 800 2222
(Daily 10:00-22:00)
www.nopanic.org.uk

For eating disorders:

Beat

Phone: 0845 634 1414
(Mon-Thurs 13:30-16:30)
www.b-eat.co.uk

For addiction:

Alcoholics Anonymous

Phone: 0845 769 7555
(24 hour helpline)

Narcotics Anonymous

Phone: 0300 999 1212
(Daily 10:00-midnight)
www.ukna.org

College Resources

Student Counselling Service
Phone: 020 7594 9637
Email: counselling@ic.ac.uk

Imperial College Health Centre

Phone: 020 7584 6301
Email: healthcentre@ic.ac.uk

You can also go to your academic or personal tutor regarding pastoral issues, especially if you think your mental health might be affecting your academic performance.



If an overpriced hot chocolate is your thing, go for it. Photo Credit: pixabay