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Keeping the cat free since 1949

issue 1591

The Future Looks Bright Professor Keith Barnham on the future of solar power Science, pages 14 and 15

PUBLISH

Deceased Professor sends damning email, only months after being told to secure funding or leave Imperial

> Comment: page 2 The story so far: page 4 The emails in full: page 5 The world responds: page 6

Inside

Felix Food comes close to the tea



Imperial Rugby team launches petition



It's the most wonderful time of the year



Travel

Arts: The Debate Issue



30 - 33

<u>iis week's issue...</u>

Felix Editor | Philippa Skett

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18:30 onwards in the Union

Tuesday 9th November

A busy Council meeting is

planned for next week, so if

you like watching students

repeatedly thrust yellow cards into the air, this could

Everyone is welcome to

attend, but only members

be the event for you.

can vote.

Dining Hall.

All the information as it stands

This week, we have spent a lot of time investigating the death of Stefan Grimm, a Professor at Imperial who died at the end of September. Although the cause of death has never been specified, it is chilling that his email was sent only three weeks after he passed, outlining what he considered to be mistreatment from Imperial.

Various official sources tell one side of the story, whereas only a few, yet significant sources tell the other. Although *Felix* has not seen the original email (we were able to recover the email list Grimm supposedly sent the email to, but not the email itself) there is no reason to think the email is a hoax, or not written by anyone else.

There are official statements and emails from College and the staff involved, detailing how they offered Grimm support, or how what happened is standard

THIS WEEK'S EDITORIAL

academic procedure, but not one source has formally apologised for what happened. All have offered condolences, all have carried reassurances of investigations and reviews of policies and all sorts of other buzzwords that don't seem to have a lot of depth to them, but no-one outright has provided an explanation for what has been said repeatedly as "tragic" and "saddening."

Felix was not able to speak to Human Resources or Wilkins directly, and College Communications told us that they themselves would be our only point of contact. This did restrict what questions we could ask and why,

although we were also very aware of how sensitive this story is, and how it is a very difficult time for those involved. All we could do was collate the information already released and present the story as it stands here, which we hope we have done successfully.

So read the story as it stands. Read Grimm's email in full, and the email Wilkins also sent. Read the about what the wider world is saying on Twitter and in blogs outside of Imperial, and talk to people you know too. Ask your lecturers, post docs, supervisors and other colleagues not only what they think of the story, but how they feel about it too. The concept of Publish or Perish is not a new one, but this may be the first case of Publish and Perish. Encouraging dialogue about the underlying issues this story highlights may also mean that it is the last case that phrase can be applied to.

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SURVEY TIME What's on this week: (not about sex...yet) **Union Council Meeting**

Are you a lazy medic, or a bright biologist? Do you enjoy living in the library, or do you find it easy to keep the grades high and the work hours low?

We want to know if you think your course is worth the money you pay to study it, and how hard it really is to get a 2.1 at Imperial.

Fill it in online here: felixonline.co.uk/survey

Missing: one mascot, slightly inebriated, answers to various drinking chants but responds badly to long periods of travel on the road



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SKETT'S BOX OF SHAME

We couldn't spot any errors in issue 1590, which is probably an error in itself.

Do let us know if you could find

RCSU Science Challenge 2015 launches

KUNAL WAGLE SECTION EDITOR

n Monday, 100 students gathered in the Sir Alexander Fleming Building for the launch of the Science Challenge 2015. The Science Challenge is an annual competition that is open to Imperial College London students and school students across the country, often drawing in hundreds of entries over the course of the competition.

The Science Challenge judges this year again included high profile members of Imperial staff and communicators from outside of Imperial, each of which set their own title for students to either write an essay on, or for one judge, make a video to address.

The Science Challenge is currently entering its eighth year, and judges in the past have included Pallab Ghosh, former Felix Editor and current science correspondent at the BBC

Two of the four judges were present at the event. Sue Gibson OBE, a Professor of Chemistry at Imperial, and Philip Moriarty, a Professor of Physics from the University of Nottingham attended and introduced their titles for their essay and video

Unfortunately two of the essay judges could not make it. Mun Keat Looi, a science writer and editor, had to take his partner to the hospital, while Ruth Whincup, the Imperial Hub Manager, was ill. She was represented at the launch by Fatima Iftikhar, the President of Imperial

The questions, as announced on the night, include "Tell me a story about science", contributed by Mun Keat Looi, and "What would you like to discover, and why?" which was Professor Sue Gibson's question.

Ruth Whincup contributed the last of the three essay questions: "How do we inspire the next generation to take an interest in STEM research?" A video question, submitted by Professor Philip Moriarty asks "Why should I believe a scientist?" Essay submissions should be 850 words maximum, and the video entry should be up to three minutes.

There are two different categories of prizes for the essays - the Overall Winner (as will be decided by Lord Robert Winston, Ambassador for the Science Challenge) will win £1000 and a shadowing internship in the House of Lords, while each Question Winner will win £400.

There are two different submission streams for the essay competition



Photo: Nathaniel Gallop

- one each for Imperial College and Schools submissions. The video, for which there is only one submission stream, will have a £500 prize for the Overall Winner, while the Runners-Up from Schools and Imperial will win £200.

Essays and videos can be submitted at any time until noon on the 28th February. Finalists will be contacted on the 15th March, with the Final held at the Luncheon Room in Inner Temple on 23rd March, 2015.

June Yin Gan, Science Challenge Chair, said of the launch: "It was a successful evening overall, and everyone who came told me that they enjoyed themselves immensely. I hope people have as much fun making their entries as I had organising it!"

Serena Yuen, current president of the RCSU said, "The Science Challenge Launch has once again been a fantastic occasion, and one for the RCSU to be proud of.

"I very much hope that those who attended found the talks as interesting as I did, and that everyone at Imperial is looking forward to entering this year's competition.

"I'd like to thank all of our fantastic judges for volunteering their time for the Science Challenge, and for everyone who helped out in preparing the Launch and the rest of the competition.

The final is looking to be a fantastic

Too few people turn up to Union's General Meeting

PHILIPPA SKETT FELIX EDITOR

The General Meeting took place Monday evening, but with only 45 people showing up, failed to meet quorum. The General Meeting, proposed by Imperial College Union Council member Andrew Tranter, aimed to finalise the Union's stance on education funding and formalise a Higher Education Funding Policy to reflect this.

For the meeting to make quorum, 200 people need to show up within the first half an hour of the meeting. all of whom could then vote on any proposed motions. Despite Council itself having 50 members, with only 49 people turning up, no motion could be passed and the policy will be taken back to Council and discussed in next Tuesday's meeting. Only then will the policy be finalised.

Despite not meeting quorum, discussion surrounding fees carried on for a further two hours, and the meeting came to an end at around 8.30 pm. Only one person was allegedly seen to be sleeping during

the entirety of the meeting.

Initially it was decided by Council last academic year to hold a referendum addressing four options for funding education: for education to be free, for there to be a graduate tax, to pay tuition fees or none of the above. However, this referendum was replaced by the Higher Education Funding survey set and assessed by Alex Savell, the current Deputy President (Finance and Services).

Tranter proposed in the last Council meeting that a General Meeting should be held to discuss the Higher Education Funding Policy, and come to a decision that hundreds of students could potentially all agree upon as opposed to Council deciding alone using the results of the survey. The results were presented in the General Meeting, despite not meeting quorum.

Tranter also introduced two papers to be considered at the meeting: one to install a policy supporting Free Education (regardless of the survey outcomes), and another to introduce annual General Meetings, to be held in the second term of each year. Since the Meeting failed to meet quorum,

both of these papers were not passed.

During the meeting, Savell recapped the results of the survey that closed earlier last week. 310 students filled in the survey, just under 2% of the current student population. Out of those that completed the survey. 87.7% were undergraduates.

Although Free Education garnered the most support, it wasn't by a large majority; 140 students said Free Education would be the funding model they would ultimately want, whilst around 90 students said they would prefer Tuition Fees. Just under than 40 supported Graduate Tax, and just over 20 weren't a fan of any of the models.

Savell's results were highly comprehensive and looked at the survey responses from various standpoints, showing the complexity of the student opinion concerning the debate. Savell therefore proposed a policy that instead of supporting one particular line of funding, will look at several components of funding as a whole instead.

This includes campaigning for a regulation on Postgraduate and Overseas Fees, alongside campaigning



Photo: Philippa Skett

for a reduced privatisation of the Higher Education sector as a whole. In terms of funding, Savell proposed that the Union should campaign for reduced tuition fees, as "this is what aligns best with the largest number of student views and appears to be antagonistic to the views of the fewest respondents.

Paul Beaumont, Union Council Chair, was pleased with the meeting as a whole. He told Felix that "Whilst not quorate, the students who did attend engaged fully and it was brilliant to hear their (wide ranging) views. I think that because there is

such a diversity of viewpoints on this issue it is important we listen to them all and then try and work out a stance that reflects that - this General Meeting went some way to achieving

"It looks like the new policy is going to take a middle-ground approach (as opposed to the previous one passed in 2011), which will hopefully be more inclusive of the membership's views. This can only be a good thing.

"I'd like to thank those who came and got involved, and the DPFS for his hard work on the initial proposals and ground work for the policy.'

News Editors Carol Ann Cheah and Kunal Wagle

Professor sends posthumous email on "F

Grimm passed away months after being sent "ultimatum email"

PHILIPPA SKETT

n Imperial professor who died 'suddenly and unexpectedly" in September has allegedly sent a posthumous email to his colleagues, with the subject line: "How Professors are treated at Imperial

Professor Stefan Grimm, aged 51, from the Department of Toxicology within the Faculty of Medicine, died in late September. An email from an account, named professorstefangrimm@gmail.com, was then sent on October 21st.

An Imperial spokesperson said that there was no reason to believe the email was not genuine, and we have republished the email in full on the

The email was sent to around 40 internal Imperial email addresses, including senior members of the Faculty of Medicine. It details how Grimm was told he would have to leave College after not securing enough research funding.

Grimm had previously published over 70 papers covering cell signalling and anti-cancer genes in high-impact journals during his career, alongside two books and several review articles.

Grimm describes in his email that this was a case of "publish and perish." The email was sent three weeks after colleagues were informed of his death on the 29th of September from Martin Wilkins, Head of Department of Medicine and Grimm's boss.

Grimm describes how Wilkins told him that although he had submitted the highest number of grant applications, and despite already acquiring £135,000, he had to obtain a total of £200,000 all in one go in the form of a programme grant to remain working at Imperial.

The email outlines how Wilkins told Grimm in May 2013 that he would have to leave Imperial within the year if he didn't acquire enough funding. Wilkins then sent him an "ultimatum email" in March of this year, constituting "the start of informal action" against Grimm. This email has since been published in a follow-up article on the Times Higher Education website, and we have republished it below

Wilkins stated in the email that he expected Grimm to succeed in securing a programme grant as lead Principal Investigator (PI), and would have to achieve this within 12 months "in order for [Grimm's] performance to be considered at an acceptable standard."



Photo: University of Pennsylvania

Grimm goes on to state in his email how "this is not a university anymore but a business... with very few profiteering and the rest of us being

Wilkins says in his email to Grimm that he is "committed to doing what I can to help you succeed and will meet with you monthly to discuss your progression and success in achieving the objective outlined."

He goes on to say to Grimm that "You have previously initiated discussions in our meetings regarding opportunities outside of Imperial College and I know you have been exploring opportunities elsewhere."

"Should this be the direction you wish to pursue, then I will do what I can to help you succeed."

Following the email, Nigel Buck, Operating Officer for the Faculty of Medicine, sent two similar emails to those internal and external to the College who received the email.

Buck's emails do not address the

legitimacy of the email from Grimm, nor its contents, but does say that the death is under investigation by statutory authorities, and that Stefan's death came as a "great shock."

Felix has been unable to confirm his cause of death, but has been told that the West London Coroner's District adjourned an inquest into his death on October 8th. It is unknown when they will reopen the inquest and when the exact cause of death will be made public.

Felix was told last week, prior to the publication of Grimm's email, that College is currently reviewing the relevant "policies and procedures" and present the findings in a report by a group of senior College staff. The Director of Human Resources accompanied by the Senior Consul, Professor Richard Thompson, is leading the review.

A college spokesperson said that "Contrary to assertions elsewhere, Professor Grimm was not under

formal review nor had he been given any notice of dismissal. It is standard practice in higher education institutions to conduct both informal and formal performance management."

"In this tragic case, the process was at the informal stage.'

"His line manager met with him on a number of occasions to see how the College could help him to develop more competitive grant applications, for example through internal peerreview, collaborations and letters of

This is in line with requests from funders of research to ensure applications are of sufficient quality to be considered.'

Professor James Stirling, Provost of Imperial College London, said: "Imperial seeks to give every member of its community the opportunity to excel and to create a supportive environment in which their careers may flourish. Where we become

aware that the College is falling short of this standard of support to its members, we will act.

Grimm's email initially surfaced on a blog written by David Colquhoun, a University College London emeritus professor of pharmacology, who hosts dcscience.net. He was forwarded the email from associates at Imperial. He states on his blog: "No doubt any Imperial staff member would be in great danger if they were to publish the email."

Said Colquhoun about his blog post, "This bullying has been going on for years, and it is more prevalent than it used to be. The message to Grimm was not to do more research, but that you mustn't do cheap research.'

"I think there should be a petition set up for a public inquiry into his death, and ask what the authorities are going to do about it."

"It just seems Imperial are doing their best to whitewash it. They rarely get to the heart of the matter."

Iow professors are treated at Imperial"

Stefan Grimm's email, taken from dcscience.net:

From: Stefan Grimm professorstefangrimm@gmail.

Date: 21 October 2014 23:41:03 BST

To:

Subject: How Professors are treated at Imperial College

If anyone is interested how Professors are treated at Imperial College: Here is my story. On May 30th '13 my boss, Prof Martin Wilkins, came into my office together with his PA and ask me what grants I had. After I enumerated them I was told that this was not enough and that I had to leave the College within one year – "max" as he said. He made it clear that he was acting on behalf of Prof Gavin Screaton, the then head of the Department of Medicine, and told me that I would have a meeting with him soon to be sacked. Without any further comment he left my office. It was only then that I realized that he did not even have the courtesy to close the door of my office when he delivered this message. When I turned around the corner I saw a student who seems to have

overheard the conversation looking at me in utter horror.

Prof Wilkins had nothing better to do than immediately inform my colleagues in the Section that he had just sacked me.

Why does a Professor have to be treated like that?

All my grant writing stopped afterwards, as I was waiting for the meeting to get sacked by Prof Screaton. This meeting, however, never took place.

In March '14 I then received the ultimatum email below. 200,000 pounds research income every year is required. Very interesting. I was never informed about this before and cannot remember that this is part of my contract with the College. Especially interesting is the fact that the required 200,000.- pounds could potentially also be covered by smaller grants but in my case a programme grant was expected. Our 135,000.- pounds from the University of Dammam? Doesn't count. I have to say that it was a lovely situation to submit grant applications for your own survival with such a deadline. We all know what a lottery grant applications are. There was talk that the Department had accepted to be in dept for some time and would compensate this through more teaching. So I thought

that I would survive. But the email below indicates otherwise. I got this after the student for whom I "have plans" received the official admission to the College as a PhD student. He waited so long to work in our group and I will never be able to tell him that this should now not happen. What these guys don't know is that they destroy lives. Well, they certainly destroyed mine. The reality is that these career scientists up in the hierarchy of this organization only look at figures to judge their colleagues, be it impact factors or grant income. After all, how can you convince your Department head that you are working on something exciting if he not even attends the regular Departmental seminars? The aim is only to keep up the finances of their Departments for their own career advancement.

These formidable leaders are playing an interesting game: They hire scientists from other countries to submit the work that they did abroad under completely different conditions for the Research Assessment that is supposed to gauge the performance of British universities. Afterwards they leave them alone to either perform with grants or being kicked out. Even if your work is submitted to

this Research Assessment and brings in money for the university, you are targeted if your grant income is deemed insufficient. Those submitted to the research assessment hence support those colleagues who are unproductive but have grants. Grant income is all that counts here, not scientific

output. We had four papers with original data this year so far, in Cell Death and Differentiation, Oncogene, Journal of Cell Science and, as I informed Prof Wilkins this week, one accepted with the EMBO Journal. I was also the editor of a book and wrote two reviews. Doesn't count.

This leads to a interesting spin to the old saying "publish or perish". Here it is "publish and perish". Did I regret coming to this place? I enormously enjoyed interacting with my science colleagues here, but like many of them, I fell into the trap of confusing the reputation of science here with the present reality. This is not a university anymore but a business with very few up in the hierarchy, like our formidable duo, profiteering and the rest of us are milked for money, be it professors for their grant income or students who pay 100.- pounds just to extend their write-up status.

If anyone believes that I feel what my excellent coworkers and I have accomplished here over the years is inferior to other work, is wrong. With our apoptosis genes and the concept of Anticancer Genes we have developed something that is probably much more exciting than most other projects, including those that are heavily supported by grants.

Was I perhaps too lazy? My boss smugly told me that I was actually the one professor on the whole campus who had submitted the highest number of grant applications. Well, they were probably simply not good enough. I am by far not the only one who is targeted by those formidable guys. These colleagues only keep quiet out of shame about their situation. Which is wrong. As we all know hitting the sweet spot in bioscience is simply a matter of luck, both for grant applications and publications.

Why does a Professor have to be treated like that?

One of my colleagues here at the College whom I told my story looked at me, there was a silence. and then said: "Yes, they treat us like sh*t".

Best regards Stefan Grimm

Wilkin's email to Stefan Grimm, as taken from THE

Date: 10 March 2014

Dear Stefan

I am writing following our recent meetings in which we discussed your current grant support and the prospects for the immediate future. The last was our discussion around your PRDP, which I have attached. As we discussed, any significant external funding you had has now ended. I know that you have been seeking further funding support with Charities such as CRUK and the EU commission but my concern is that despite submitting many

grants, you have been unsuccessful in persuading peer-review panels that you have a competitive application.

Your dedication to seek funding is not in doubt but as time goes by, this can risk becoming a difficult situation from which to extricate oneself. In other words, grant committees can become fatigued from seeing a series of unsuccessful applications from the same applicant.

I am of the opinion that you are struggling to fulfil the metrics of a Professorial post at Imperial College which include maintaining established funding in a programme of research with an attributable share of research spend of £200k p.a and must now start to give serious consideration as to whether you are performing at the expected level of a Professor at Imperial College.

Over the course of the next 12 months I expect you to apply and be awarded a programme grant as lead PI. This is the objective that you will need to achieve in order for your performance to be considered at an acceptable standard. I am

committed to doing what I can to help you succeed and will meet with you monthly to discuss your progression and success in achieving the objective outlined. You have previously initiated discussions in our meetings regarding opportunities outside of Imperial College and I know you have been exploring opportunities elsewhere. Should this be the direction you wish to pursue, then I will do what I can to help you succeed. Please be aware that this constitutes the start of informal action in relation to your performance,

however should you fail to meet the objective outlined, I will need to consider your performance in accordance with the formal College procedure for managing issues of poor performance (Ordinance D8) which can be found at the following link. http://www3.imperial.ac.uk/ secretariat/collegegovernance/ provisions/ordinances/d8 Should you have any questions on the above, please do get in touch.

Best wishes Martin

On page 6, read what Academic peers had to say of the emails

News Editors Carol Ann Cheah and Kunal Wagle

Grimm's story: academics react online

Within 24 hours of its publication on descience.net. Emeritus Professor David Colquhoun's blog post received a torrent of shares and critical comments online, including Twitter as well as number of personal blogs curated by academics.

Felix notes that the responses in question did not just come from academics in STEM research or in UK universities – below is a selection of these comments.

Disclaimer: All tweets have been reproduced in their original form, spelling/punctuation mistakes and all. Blog excerpts may have minor editing for clarity.

CAROL ANN CHEAH SECTION EDITOR

@ShobhaRaghuram: "Rename Imperial College as Imperial Industry and replace academic faculty with fund raisers."

@dawnbazely: "@david_ colquhoun @AMCELL Thank you. This is like something out of Terminator: the rise of the (administrator) machines."

"Grant income is usually necessary for scientific research, but ultimately it is a measure of how much we are a drain of society, not a measure of our value to society (or science). The problem here is that universities are rewarded too much for grant income, when they should be rewarded more for research output.

Research would be less wasteful; society and government would get a better deal on the research they fund; good universities would get a better deal in the long run; and universities wouldn't end up sacking good researchers who don't like gambling too much of their time on the horrendously stochastic grant application process."

Comment by Mark Thomas, **Professor of Evolutionary** Genetics at UCL, on descience.net

@MichelValstar: "Having worked at Imperial as a PostDoc, I recognise the vile atmosphere portrayed here (via @david_ colquhoun)."

"Why[...]create working conditions so severe that it creates widespread anxiety among professors, causing some to contemplate suicide? How well are we teaching students if the professors are either on welfare or simply good hustlers that know how to bring home the bacon?" "Does academic archeology have Grimm tales too?", Bill White on Succinct Research

@ekansa: "@Cesar_F1000 @ david colquhoun Not the kind of "life of the mind" that anyone would want. Can Academia ever be reformed?"

"Is it about one bad manager, at one particularly bad university? Is it about the culture of one place, all by itself, some unique sinkhole of shame into which one life has fallen? Can that one university review its procedures and its management training, and encourage the rest of us to move on to the next bit of news?" "Wider Lessons", Kate Bowles on Music for Deckchairs

"This is not, I shouldn't have to say, how academia works. Peter Higgs, of Higgs Boson fame, said that there was 'no Eureka moment' to his work, and he only has 4 papers listed on Google Scholar: but what papers! Science rarely has a Eureka moment: it's rather a series of careful, thoughtful developments of work done by one's forebears

"A management which demands a

Eureka a day is one which doesn't just not 'get' academia, it's a management which contradicts the academic method and it's one which has forgotten that it's meant to serve the needs of science, the arts, students and researchers, not the insatiable maw of attention seeking 'Leaders' (that's the word they use now) and the PR office. It's also a management that kills." "Grimm's Tale", The Plashing Vole



Postgraduate Loan System announced

PHILIPPA SKETT FELIX EDITOR

student loan system has finally been introduced for postgraduate study. The decision, announced in the Chancellor's Autumn statement, is said to "revolutionise' access to postgraduate university courses.

The government-backed loans will be introduced for the 2016 to 2017 academic year, ready for students who started university undergraduate courses after 2013. It is expected that the funding will allow an extra 10,000 students to pursue a master's degree, although the loan is only available to students under the age of 30.

The total cost for the loan over the first four years is £1.5 billion, and the loan will have an interest rate, repayable at 9% of earnings above £21,000. The loans will be available across all subject types, not just for science, technology, engineering and medicine degrees as has been previously suggested in government.

The treasury has cited an increased

demand for high-skilled labour and an increase in social mobility as reasons for the introduction of the loan, but also expect that those who take out the loan will be making enough money after completing the degree to pay it back.

"The loans are designed so that, on average, individuals will repay in full, in recognition of the high private return to individuals, but they will beat commercial rates. The government will consult on the detail and will confirm the delivery plan," the Treasury says.

Mr Osborne said in statement in the House of Commons: "A year ago, I abolished the arbitrary cap on the total number of undergraduates at our universities. Today, I am going to revolutionise the support for our postgraduate students too. Until now there has been almost no financial support available, and the upfront costs of postgraduate degrees deter bright students from poorer backgrounds.

"So today, across all disciplines, we will make government-backed student loans of up to £10,000

available, for the first time ever, to all young people undertaking postgrad master's degrees."

However, there may be a downside to the loans.

The Institute for Fiscal Studies has assessed that the loans may result people losing 50% upwards of their salary to cover total repayments when also considering income tax, national insurance costs and undergraduate repayments too.

The loans have been designed to ensure that, on average, they will be paid back in full alongside undergraduate loan repayments. compared to the undergraduate loan which only one in two students will pay back in full.

Previously, costs for postgraduate courses have had to be covered by Career Development Loans, savings or scholarships

CDLs only allow you to borrow up to £10,000 so often cannot cover both the living costs and the tuition costs for postgraduate study and have to be paid back regardless of employment status after graduation, making them a high-risk payment option.



Chancellor George Osborne made the announcment Photo: BBC

Rugby Club launches petition for club captain

500+ students have signed to oppose the Union's motion of no confidence

PHILIPPA SKETT FELIX EDITOR

CURFC have launched an online petition that has already amassed 500 signatures at the time of press. The petition, to show support for the Club Captain, Thomas Hobson, who is currently at risk of losing his position, was launched yesterday and has been signed by students, clubs and societies as a whole.

The petition follows Imperial College Union announcing that a motion of No Confidence will be held against Hobson at Union Council next Tuesday (9th December). If the vote of no confidence is passed, he will be relinquished of his role of Club Captain, and an election will take place to find his replacement.

This follows the incidents Felix reported on in November when rugby players were seen stripping on tube platforms after returning from a match on the 29th October. The disruption caused by the players resulted in a district line tube service being suspended. Passengers were told to disembark from the train at Ravenscourt Park station after being told that there was a "signal failure".

The individual players involved are now under investigation by the British Transport Police, who have footage of them drinking from bottles of wine on the tube and being completely naked on several tube station platforms.

The motion of No Confidence will be presented to the members of Union Council, and only those that hold a seat on Council will be able to vote for or against it. It is being brought against Hobson as he allegedly lied during the investigation into what exactly happened on the tube. The motion of No Confidence was one of the sanctions decided upon by the Governance Committee of the Union, which includes members of the Trustee board.

The other sanctions included a club-wide two-week suspension for ICURFC, a suspension from the club for those on the match sheet of the day of the incident until the end of the year, and for those on the match sheet to also undertake community

The Athletics Clubs Committee (ACC) held a meeting last week, where the members of committee present unanimously voted to support Hobson, despite the reasons behind calling for the vote of No Confidence. This will also be



presented to Council at the meeting.

In an email to Presidents, Club Captains and Club Chairs that are overseen by the ACC, Oliver Benton, ACC Chair, details how the members of the committee voted to "support [Hobson] through this vote of no confidence" alongside the distribution of the petition, which is garnering support from a diverse range of students including those not involved with ACC. Many other clubs have also distributed the petition to their respective mailing

"The

motion...

was one

sanctions

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of the

The email also lists how the ACC believes that "[Hobson] acted members at heart." The email also notes that the team has "already been punished by the Union as a club and as a team". It has also been suggested that

many sports teams will be showing up at the Council meeting in a show of solidarity for Hobson, although they will not be able to vote on the

with the best interests of his Club

Tom Wheeler, Imperial College Union President, said in regards to the petition: "The reason for [the motion of No Confidencel is that the Club Captain lied repeatedly to both myself (as part of the investigation

Tom Wheeler: "The reason... is that the club captain lied repeatedly"

that I was carrying out on behalf of the Governance Committee) and the College Tutors. These mistruths were only brought to light when the British Transport Police corrected us (with the backing of witness statements and CCTV footage).

"The fact that this dishonesty is not given as the reason for the motion of no confidence in the online ICURFC Petition indicates that the only reason for the petition is the belief that the Club Captain was acting in the best interests of the Club and its members, however, by acting in a dishonest manner the Club Captain achieved the opposite."

News Editors Carol Ann Cheah and Kunal Wagle

Imperial raises £54.2 million from donations

CECILE BORKHATARIA

n the 25th of November, Imperial College London hosted a Thank You Reception in celebration of the record-breaking number of donations made to the College during 2013-2014. Part of the donations, which totalled £54.2 million, went towards funding 110 undergraduate scholarships through the President's Scholarship Fund, which consists of a £3,000 reward. The fund also supported the Imperial College PhD Scholarship Scheme, which cover full tuition fees as well as additional financing for three and a half years

During the year, 5,403 donors gave money for research and scholarships. President Alice Gast hosted the

event, along with other Imperial staff and students. During a welcome speech, President Gast remarked that support for university education had never been more important than

now, placing an emphasis on the need for people to be able to problem-solve and think critically to address the dynamic problems we face today. She said: 'Today's world demands new leaders, critical thinkers, fresh ways of approaching persistent problems, and innovative ways of handling the new problems that arise. This is what we do here at Imperial – we develop thinkers and leaders, we extend knowledge and develop solutions. And we can do all this only because of your continued support - the support of our donors."

The President's Scholar, 4th year physicist Oliver Clipsham, also spoke of the benefits of the scholarship scheme at the event. He said: "On behalf of myself and all the scholars here at Imperial, I would like to offer my heartfelt thanks that you have donated to ensure that more students may go on to have a similarly wonderful experience."

The event also saw the launch of the 1907 Circle, which recognises the people and organisations who donate £5,000 or more to Imperial. Those who are members of the Circle are given a lapel pin in commemoration, a personal report giving a break down of the impact of their donation, and an invitation to every special event hosted by President Gast. Last month. more than 80 people joined the Circle.

The evening saw the Queen's Tower Rooms transformed into an exhibition hall, with interactive stands presenting information about the cutting-edge research taking place at Imperial.

Alumni from around the world descended on campus to attend the event. Dr. Michael McCann, who did a PhD in Electrical Engineering at Imperial in 1963, visited from the US. He has supported scholarships at the College for a long time, and his motivation for donating stems from the importance of education in building a successful career.

He said 'My PhD has been the key to everything I've done professionally.'



Photo: Imperial College London

Charity Week raises in excess of £80,000

PHILIPPA SKETT FELIX EDITOR

harity Week, a fundraising event ran by Imperial College Union Islamic Society (iSoc) earlier this month, managed to raise £83,401.70, breaking all previous records the club held.

The week, spanning from the 29th November, included a black tie dinner; an auction; an intersociety quiz; a girls-only pampering and fashion day; volunteers trekking up Snowdon; and an inter-uni football competition. iSoc also ran daily cupcake and doughnut stalls across campus, and door to door bucket collections.

The auction alone raised £30,000; one rainbow cake baked by fifth year Medic Junaid Masud was sold for £3,800 after a bidding war between members of the iSoc committee and the Muslim Medics Society. After driving the price so high, the two groups decided to group together and pay in total, making this cake potentially the most expensive cake ever bought (allegedly).

The finale of the week was a talk by Dr Yasir Qadhi, which was held in the Great Hall. Tickets were sold for £20 each, and the event made a profit of £15,000, which was all donated to charity.

Charity Week is not unique to Imperial; many Universities across the world run events too.

The international total for Charity Week was £732,571.47, and this will be donated to various projects that the volunteers will have a chance to vote for.

President of Islamic Society, Ibtesham Hossain, said that: "Charity Week never fails to get everyone together, the money raised is astonishing, the work put in is astonishing and the reward is astonishing.

"I genuinely believe we are only just scratching the surface in terms of what we can achieve through this campaign; the potential of each and every volunteer has no limits and, for this reason, Charity Week at Imperial will continue to prosper".

Alex Savell, Deputy President (Finance & Services), said: "We are incredibly proud of all the achievements our many clubs and societies make, but Islamic Society have really done something incredible this year.

"Sitting in our office, we've seen how diligently and enthusiastically they've been working towards this and I'm personally extremely happy for them that it's paid off in such a spectacular way.

"It's brilliant that a society here are raising and giving such a large sum to such a good cause.

"I hope student organisations at Imperial College Union and all other institutions continue to do such good deeds"



This cake was sold for more money than you probably will have in your account for another few years Photo Credit: iSoc

IMPERIAL'S STUDENT SCIENCE MAGAZINE

AUTUMN 2014 ISSUE



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Comment Editor || Tessa Davey

How Reddit made it okay to hate women

Tom Rivlin discusses the dark side of the front page of the internet



ast week I wrote in *Felix* about 'GamerGate', a loosely defined movement nominally about "ethics in video game journalism". In the article I outlined how really the movement is about harassing women

But GamerGate wasn't created when some developer was accused of sleeping around: it's the latest manifestation of a long history of online misogyny. Specifically, the kind that's become the accepted norm in certain dark corners of popular forums like Reddit and

Let me start by saying that Reddit is a very large and diverse website, with forums for every topic imaginable, and people from all walks of life. You want a forum ('subreddit') for science? Game of Thrones? Horror stories? All this and more awaits you!

4chan, on the other hand, is less welcoming. It's notorious for being a vile place, where anonymity allows people to be quite cruel. It's perhaps less surprising that 4chan has become a haven for online misogyny, but Reddit's a different case.

Reddit has a dark side, and it's a big one. For example, after nude photos of several (female) celebrities were leaked a few months ago, users set up a subreddit dedicated solely to uploading and sharing these photos. The subreddit was banned eventually, but only due to a flood of legal notices - not out of any sense of decency or empathy for those affected.

In fact, in a blog post, CEO Yishan Wong defended his principles by saying "we consider ourselves not just a company running a website where one can post links and discuss them, but the government of a new type of community." Coincidentally, these principles are the ones where he gets to keep the lucrative, coveted images available on his site.

Wong is essentially saying that people should be free to discuss anything they believe in a legal sense, but also in the sense that any viewpoint should have an opportunity to reach any audience. So, for example, if bigots want to talk to each other about bigotry, the admins of Reddit don't see it as their responsibility to step in. If Reddit is a government, it's a libertarian one.

They claim no responsibility for the subreddits' content, but still provide the 'real estate' and association with the known Reddit brand to these people. This leads, worryingly, to examples like the /r/WhiteRights subreddit, with thousands of openly racist users

The feminism subreddit, /r/



Photo: cmxhub.com

feminism, provides a more interesting example: how was the moderator selected? Simple: someone saw that there was no /r/feminism. and registered themselves with the admins as a moderator. That was the end of his involvement with the paid, official Reddit staff. After that he had carte blanche to do anything he wanted with the "/r/feminism" brand.

This particular moderator is controversial because he has made some arguably highly anti-feminist statements. So what can feminists on Reddit do to make the subreddit a safer space for them? Nothing, pretty much, which might have surprised them - it's easy to be fooled into thinking Reddit is more administrated and less user-run than it really is.

Of course, there is some 'government intervention'. Any subreddit that attracts too much bad media attention gets banned quickly. You can also get banned for exposing the identity of other Reddit users. So the admins ware happy to intervene, but only when the website traffic is jeopardised.

A bigger problem, though, is that you get subreddits that turn into echo chambers for some nasty stuff, most notably the infamous /r/TheRedPill.

It's shocking how bad /r/TheRedPill is in contrast to the profile and overall niceness of so much of Reddit. but what's more shocking is how popular it is – it claims over 85,000 users! Not the biggest subreddit by

a long shot, but not insignificant either. What exactly is it?

Named for the classic scene in The Matrix where Neo swallows the 'red pill' to discover the hidden truth about reality, /r/TheRedPill claims to present its users with the 'truth': that feminism was created by women to control and manipulate men, and that it's really men who are oppressed in our society. It's a stupid, demonstrably false idea, obviously, but these people take it dead seriously.

Just browsing through the front page, threads like "Women are not what you expect them to be", "women are children" and "the deregulation of the sexual marketplace" (in case you'd forgotten that libertarianism obsession of theirs) are the norm. This forum basically conditions men to treat women as prizes and to be wary of their 'tricks' and deceit.

Let me be clear: this subreddit isn't an outlier. There's an even bigger one called /r/MensRights, which claims to be a safe space for men to discuss issues affecting them, but seems to mostly exist to criticise feminism. (Top thread as of writing? "Can We Try To Focus on Men's Rights, not "I Hate Feminists!" jokes?")

The denizens of these forums will deny it, but it's actually pretty uncontroversial: both of these forums are hate groups, no different to /r/WhiteRights, and Reddit has approved and sanitised them. They've also given them the tools they need

to communicate, organise, advertise, associate, and persuade, and they profit from doing this. If you like, here's the Tweet-sized summary: on Reddit (and our old pal 4chan), hatred of women is accepted and in many places expected.

Again, I stress, a lot of Reddit isn't like this. If you just hang out in /r/ TwitchPlaysPokemon you won't see any of this. If you really love gardening, 95,000 other people do too! Go hang out on /r/Gardening! And, of course, people from TheRedPill and MensRights will deny accusations of misogyny.

But this is precisely Reddit's problem – these echo chambers warp the users' perspective on what constitutes 'misogyny' so much that they don't see their own hatred. And then, despite the problems they're causing, Reddit still claims to be mainstream and open to all. After all, in its slogan it claims to be "the front page of the internet."

With this safe space for misogyny (again, 4chan's role can't be understated), is it any surprise that harassing women online has become so organised? Something like GamerGate was inevitable, it just needed a nucleation site like the Zoe Quinn accusations. Viewed from this perspective, it's clear that our society still has a long way to go.

Thanks to Joseph Henderson for helping me write this by providing many details about how Reddit works.

"Reddit has a dark side, and it's a big one."

Comment Editor || Tessa Davey

Who is accountable for the death of Brown?

Nathaniel Gallop discusses at the fallout in Ferguson

NATHANIEL GALLOP COMMENT WRITER

T or the past week, the town of Ferguson, Missouri has been racked with a continuous stream of protests and riots following the Grand Jury's decision to not indict Officer Darren Wilson in the case of the shooting of Michael Brown. The outcome of the investigation has attracted widespread criticism from many individuals within the United States and elsewhere in the world.

For many however, the dubious circumstances surrounding Brown's death exonerate Wilson and undermine the credibility of the protestors. At the core of many critics' arguments is an attempt to turn any debate on its head by accusing supporters of the protest of 'playing the race card'. The argument has been articulated in hundreds of ways, but the underlying message is generally the same: the greatest barriers to a post-racial society are 'liberals', who constantly inject race into every issue. As one Fox News pundit put it: "The only people who talk about race are racists!'

The argument is as asinine as it is out of touch: race is a fundamental tenet of American politics and will remain so for a long time. The abolition of the 'Jim Crow Laws' - which mandated enforced segregation between the white and black communities - has not yet reached its fiftieth anniversary. There are still individuals alive today who remember being unable to eat in the same restaurants, ride the same buses, or even use the same toilets as other ethnicities. For numerous others, the times when white police officers would turn a blind eve to crimes committed against ethnic minorities, or when police would stop and arrest people from certain ethnic groups simply because they could, are within living memory. The expectation that ethnic minorities should simply ignore this history because it is now in the past, is utterly absurd and supremely arrogant. Understanding our history and the effect it has on our society is the first step to avoiding similar events in the

The harsh reality is that although the racist behaviours of Jim Crow America have truly died out, the brazen bigotry of previous decades now insidiously manifests itself in a mode of policing which targets ethnic minorities – particularly African- and Latin-Americans far more aggressively than other communities. In New York City, black and Hispanic people are the



It has been tense in Ferguson since the shooting of Michael Brown in August. Photo: ibtimes

targets of more than 80% of all stopand-frisks carried out by the NYPD, despite comprising less than half of the population. Other statistics are equally damning: African-Americans are typically struck off from juries by the prosecution in cases involving those of the same ethnicity, and can expect to serve longer prison sentences should they be convicted of a crime. In 2010, the United States Sentencing Commission reported that, on average, a black man will receive a prison sentence 10% longer than what a white man would receive for the same crime. In Alabama, a 2010 report by the Equal Justice Initiative found that eight out of ten African-Americans who qualified to serve on juries were struck off by the prosecution in death-penalty cases. In light of these facts: is it surprising that trust in the justice and law enforcement systems is lowest amongst ethnic minorities?

Ferguson is exemplary in this regard: a city in which two-thirds of the population are black, but 94% of the civil service and police force are white. If you are rich and white, middle-class and white, or even poor and white, then you almost certainly have had little first-hand experience of this aggressive profiling, and

therefore no real understanding of why such deep-seated animosity towards police exists among minorities; you are out of touch from the very start. We lambast our politicians for being 'out of touch' with the people they are appointed to govern, yet give our law enforcement a free pass when they are equally removed from the people they seek to protect and serve.

This vitriolic, institutionalised racism is also compounded by a culture of opacity and self-interest which ultimately jeopardises the role of police officers as impartial enforcers of the law. Officers may act with impunity, knowing full well that they will enjoy the full backing of their municipality, regardless of the nature of their actions.

The negative results of this imbalance are synergic: a law enforcement system which is out of touch with, and openly aggressive towards minorities, and a justice system which precludes meaningful investigation into the actions of their officers. The results are shocking: In 2010, police officers in Ferguson beat and hospitalised an innocent man, Henry Davis, before proceeding to fine him \$1,500 in in property damage for "bleeding on their shoes".

Davis promptly filed a suit against the police department, and lost.

Brown's shooting is an indirect result of these manifold problems. Brown most likely grew up harassed by law enforcement, under the impression that the police are not there to help him. His distrust in the police would be solidified through incidents such as those experienced by Henry Davis. When Brown was apprehended, his options were seemingly clear: to confront Wilson, or to surrender. Surrendering would give little chance at any semblance of fairness: the balance of probability states that he would be arrested and processed by white police officers, tried by a white judge (and most likely a white jury), and would be thrown into prison for far longer than was his due. To confront the police officer may have deadly consequences, but carried the slight chance of escaping. It is the epitome of a no-win situation.

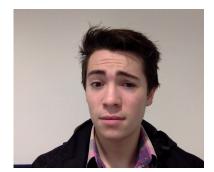
We may never know the choice he made. Ultimately it is inconsequential; Michael Brown was shot dead. No matter what his choice was, the police and government of Ferguson must be held accountable for their role in this tragedy.

"The only people who talk about race are racists."

omment

Comment Editor || Tessa Davey

What does the economy have to do with me?



SAMUEL BODANSKY COMMENT WRITER

ne question commonly asked of economists is "as a member of the public, what exactly does the economy have to do with me?" People often feel that as individuals, they are fighting personal battles against household bills or focusing on their own consumption, rather than being part of a larger group or society.

The reality is that the general wellbeing of an economy has a strong impact on every one of its members. As individuals, we often use banks and have an interest in companies, which rely on the corporate system and the financial system. In fact, when we become involved in the larger infrastructure of the corporate world, we are at the whim of the fickle nature of markets and macroeconomic swings

Macroeconomic issues such as growth and inflation, as well as the value of the local currency, can change the lives of everybody in the country. Low growth and inflation can lead to banks adjusting their interest rates, which affects homeowners, businesses or any entity with a bank account. Interest rates can be volatile and can also change as the result of monetary policy: Mark Carney could increase the base rate of interest of the Bank of England from their current record low of 0.5%. which would theoretically increase the interest rates of high street banks.

Perhaps, however, the most direct way in which people are affected by the wider economy is through their employment status. One key problem with low growth or even a recession is that it usually comes with decreasing consumer spending. Companies, therefore, tend to have lower sales revenues and thus lower profits during a recession. They often scale back production by reducing their factors of production; for many people this means redundancy. Unemployment is defined as the desire to work, without having a job.

High unemployment is a devastating thing for a developed economy. People who are unemployment often undergo a hysteresis effect, where the unemployed find it difficult to get back into work, perpetuating



Unemployment perpetuates unemployment. Photo: dailyrecord

unemployment. If people continue to be unemployed, they need training, which can be expensive. In addition, they take unemployment benefit from the government, which is the single largest expenditure by government to date.

Economists have debated the cause of unemployment; they often talk of cyclical unemployment; this is when the time of the year or another cycle prevents a market being open, like extra jobs around the Christmas period. However, the real issue is structural unemployment. This is when the skills of the people do not

make the market structure or the demand in the economy. As the horse-drawn carriage lapsed into obsolescence, many horse-carriage drivers became unemployed. It is vital to maintain a steady supply of workers in order to strengthen the economy

Immigration can be the best solution to unemployment. In theory it allows a steady flow of young, dedicated and means-tested works to rejuvenate an economy. Is immigration the answer in practice, however?

This is open for debate.



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Comment Editor | Tessa Davey

True Islamic Caliphate promotes peace, not terror Umar Nasser discusses how to tackle Islamic extremism

UMAR NASSER CHAIR, IC AHMADIYYA MUSLIM STUDENTS ASSOCIATION

This year, the true face of Islamic Caliphate has been obscured by the smoke rising from Iraq. Kindled by the horrific actions of militant extremist group ISIS, the conflict there has not only scorched the lands of Syria and Iraq, but has left in cinders the very principles on which the extremists claim to stand. True Caliphate is a spiritual leadership to promote peace, not political leadership to impose power. Understanding how and why extremists twist Islam to meet their own ends is vital in the ongoing fight against extremism.

A 'Caliph' is literally a 'successor.' When the Prophet Muhammad died, a system of Caliphate was established whereby successors were elected to act as a spiritual leaders of the Muslim community. This lasted around 30 years, after which internal divisions led to fractures within the Muslim community that still survive to this day. Regardless, everyone is agreed anyone who claims to be an Islamic Caliph today is claiming to be a successor of the Prophet Muhammad. With that title comes certain conditions: conditions which the socalled Caliphate of ISIS certainly fail

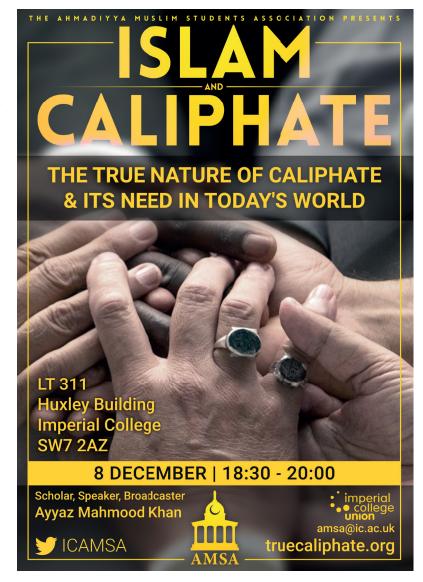
Where to begin? Their compulsion in conversion directly violates numerous teachings of the Qur'an that instruct Muslims to only convey their message, and never force it onto anyone (2:256; 18:29; 10:99). Their aggressive territorial warfare is strictly condemned in the Qur'an, which only allows defensive warfare to safeguard the human rights of the innocent (22:39; 2:193). Their butchering of the innocent is anathema to Islam, which regards

the murder of one innocent like the murder of all mankind (5:33). Their enslavement and treatment of women is the very inhumanity that Islam came to fix, declaring women to be spiritually equal to men, and codifying the rights that are naturally theirs (33:35; 39:6; 4:34; 2:228; 90:13). Much more can be said, but their list of atrocities is sadly unending, unlike this column.

To impartially study the life of the Prophet and his Successors is to know they were peaceful pioneers. The Prophet Muhammad allowed Christians to pray in his Mosque - something no-one's expecting to happen in Iraq anytime soon. His second Successor, Omar, once declined the offer of Christians to pray in their Church, only out of fear that misguided followers would one day seek to annex it. The difference between ISIS and Islam's early leaders is as stark as night and day.

As such, ISIS will no doubt die their own death, but not before causing more misery for the people of Iraq. Where to go from here then? In a recent Ahmadiyya Muslim Peace Symposium attended by dignitaries and MPs, Mirza Masroor Ahmad, the world's most widely followed Caliph, asked Western powers to reflect on ISIS's source of funding. Ahmad remarked, "it is quite obvious that they are receiving the help and support of certain powers. This could be direct support from very oil-rich states or it could be other major powers covertly providing assistance." Radical ideology may be the spark, but it needs oxygen to keep on burning.

Unfortunately for us students, we can realistically do little to change



the pertinent political dimensions. But we are by no means helpless; through educating ourselves about the reality of Islam and Caliphate we can collectively counter the pseudoreligious claims of extremists.

Rest assured: religion teaches that true spiritual leadership is that which takes us closer to our Creator. Those who spread disorder amongst His creation couldn't have gotten it more



Science

Science Editor || James Bezer & Lauren Ratcliffe

"If we could produce our own, free, solar fuel on our rooftops, we could use it in fuel cells to power cars. You'd have free mileage for life."

James Bezer talks to Professor Keith Barnham about his vision for the future of solar energy

You originally started your career in particle physics—why did you change to researching solar panels?

I loved particle physics: I worked at CERN and Berkeley and it was very exciting at both places.

When I joined Imperial, I spent much of my time at CERN. Collaborations were getting bigger and bigger and it hit me that I would have to spend more of my time in Geneva. We used to bring bubble chamber film back to Imperial for analysis, but as the beam experiments built up, you had to spend more of your time there. Did I want to keep commuting to Switzerland, instead of working and teaching at Imperial?

And how useful was particle physics-it was fascinating, but what practical use is was it in a world with a lot of problems?

Photovoltaics have historically been expensive and inefficient, but this has improved a lot in recent years. What technological advances have made this possible?

It's because of the fall in the cost of silicon, by around a factor of four. This wasn't technical, though, but political. The Germans decided to stimulate demand with a feed-in tariff. They hoped this would build the market, causing mass production and a fall in price.

That happened, but it was a big surprise that EU and US industries didn't invest as much as the Chinese. They made a political decision to put money into big systems, initiate mass production: that's where the

drop in cost really came from, to the detriment of EU production and my own company.

You group created the most efficient solar cells in the world. What was novel about your design?

It's very different technology to other photovoltaics. Ours is based on Gallium Arsenide semiconductors, which most resembles the technology in mobile phones. There's at least one such chip in everyone's mobile phone.

First you have three cells grown on top of each other by the same techniques used to make LEDs. The three cells are arranged to make best use of the solar spectrum. The first has a very wide band gap, so it only absorbs high-energy blue-green light. Red and orange go through to the second cell where they are absorbed. Low-energy infra-red passes all the way down to the bottom layer.

Each photon gets absorbed in the appropriate sub-cell. It's the goldilocks principle: each cell is just right for the photons they absorb.

The three cells are then put together in series: the voltage adds up, giving a very high efficiency of over

To make this very efficient, you want to optimize the band gap of each cell. Our technology, uniquely, uses quantum wells to adjust the band gap, by changing their depth. 50 of them in our photovoltaics enables us to adjust the band gap and optimize highly efficient cells for different spectral conditions. It's the same principle behind all lasers: that's

"How useful was particle physics in a world with a lot of problems?"



how you make them emit different colours.

Currently, solar cells are often used in deserts, where there's plenty of sunlight. The spectrum in the UK is very different from in the desert, though: we have a redder sun, more cloud and diffuse blue light. In the future we could generate electricity using smart windows by putting photovoltaics on blinds. This would have a different light spectrum again, that we could optimize our cells to.

Ultimately it could be used with lenses to concentrate light onto the system, and with high enough concentration, our technology could be even cheaper than conventional Chinese-made silicon devices.

With quantum wells, we can optimize the cell for different spectral conditions.

The whole idea is just solving the Schrodinger equation for a square well: the first, simplest quantum

mechanics problem we teach to physics students and here's a practical application of it. What I really like about it is that the simplest part of quantum mechanics has practical applications in solving global warming.

How do your cells compare to other technologies like plastic electronics?

"It's the goldilocks principle: each cell is just right for the photons it absorbs."

I would say they're complimentary. They're all great areas that should be researched. Ours offers three times the energy for the same area of cells. That doesn't matter in the desert because space is cheap. However, it could be useful in applications like replacing petrol in cars, where getting three times the energy for the same area is very useful. Technology similar to ours with high efficiency and a 25 year lifetime has proved itself in satellites, for example, where

cience

Science Editor | James Bezer & Lauren Ratcliffe

they need every bit of power they can get for the minimum area.

Plastic cells should be cheap, but they too have run into problems. Plastic efficiencies are not even comparable to silicon. Silicon has become very cheap now: well over half the price of a rooftop system is installation. The other problem that plastic has is that it doesn't last as long as conventional PV systems.

The Chinese intervention is great news for first generation silicon cells, as it has driven down the costs enormously, but bad news for my company and for plastic electronics. Although we had efficiency, our investors decided to sell us to an American conglomerate, because we just couldn't produce the technology cheaply enough to compete with the Chinese.

Do you think that using sunlight to produce fuels has a complementary role alongside other photovoltaic technologies?

We've seen already that electric cars can be powered by silicon photovoltaics: there's enough sunlight to power a car for an average domestic mileage.

But that means the car can only be used when the sun is shining.

What you really want to be able to do is store that much energy from highly efficient photovoltaics on the roof of your house that match the electricity needs of your house, plus some extra to power a car.

The obvious way to store it is as

There's enough sunlight hitting a rooftop to capture carbon dioxide and turn it into methanol. Hydrogen is easier to make, and buses run on it already, but I think for home use, methanol would be better because it's safer.

The American Physical Society thinks it can't be done, but I refute their pessimism. Firstly: nature does it pretty well. Plants do it to make sugars with about 2% efficiency, but I think it should be possible to do it better, as there are lots of physicists and engineers looking into exactly

There's a group at ETH Zurich working on nanostructure filters. They take in carbon dioxide through the filter at room temperature and heat it up to 90°; this then desorbs the CO2 letting you store it at concentrations up to 99%. In the next couple of years, we'll be able to use this technology to produce methanol with CO2 straight from the atmosphere.

Chemical engineers are working on an electrochemical cell, which uses photons to produce hydrogen. You can do it easily by shining light on catalysts to speed up the reaction.

If we could produce our own, free, solar fuel on our rooftops, we could use it to power cars. You'd have free mileage for life.



"It's the

of it."



Will solar panels like this be on all our houses in the future? Photo: Wikimedia Commons

"Offshore

wind and so-

lar cells are

rising faster

than mobile

phones did

when they

first took

off."

Is solar power really reliable enough to use as our main energy source?

The Germans did a very important experiment in 2007 called Kombikraftwerk. It took the equivalent electricity demand of a small town and met 100% of it with renewables at all times. It showed that over a year, 70% of German demand could be met by wind and photovoltaics, with 25% from biogas and only 5% from storage.

The output from nuclear power stations has to remain constant: day, night, summer, winter.

As I discuss in my book, wind power output in the UK is, on average, much higher than in Germany. If the test were run here, around 78% of demand could be supplied from wind and photovoltaics.

There's also another very important point against nuclear

Offshore wind and PV are rising faster than mobile phones did when they first took off. If you extrapolate it, we could have far more PV and offshore wind than nuclear by the time the new Hinckley Point turns

and wind, nuclear will be a complete irrelevance, but only if we invest in subsidies for renewable rather than nuclear.

on. If we do what we can do with PV

Does your house have photovoltaics?

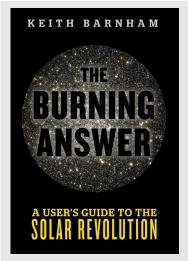
Yes! I'm extremely pleased with them. This point about what happens when the sun doesn't shine: our excess (and we often have it) is stored in our hot water tank. Between March and October, we don't use gas: all or hot water comes from excess solar. So the message that you will sometimes hear that we can't store solar energy except at great expense is completely wrong.

Another point is that we have it on an East-West side. It generates as much as if it were ideally positioned on a south facing roof. We're actually saving even more on our electricity bill, because the sun is shining more often when we're using it.

In the future, concentrated photovoltaics could track the sun throughout the day, so you always get the maximum light intensity on the solar panels. I calculated that using concentrators with high efficiency

cells, we could generate around 90% more energy over the year.

I've also signed up to Good Energy, an all-renewable electricity supplier. All our excess power goes back to the grid, which I can borrow back later. If you can't get a rooftop system, switching to Good Energy is a good thing to do.



Keith Barnham's book "The Burning Answer: A User's Guide to the Solar Revolution", is published by Orion, RRP £22.50

Music Editors Grace Rahman & Amna Askari

Historic Soho venue's license revoked for good

Grace Rahman reflects on Madame JoJo's rich past and uncertain future

usic fans were left mourning the loss of another one of London's live music venues last week, after Westminster council permanently revoked the licence of Madame JoJo's in Soho, after their appeal against the initial ruling failed. For years, this had been the home of White Heat, an indie night that's seen the likes of **The xx**. **Adele**. Lorde, and Horrors grace it's stage before they made it big, as well as being a favourite haunt of Imperial's own Alternative Music Society.

The council's decision was seen as

inevitable by many, considering the

planned revamp of the whole area by However, the council maintains it was solely made on account of an incident on the 24th of October, when the bouncers at Madame JoJo's and neighbouring Escape Bar attacked a punter with baseball bats after a verbal altercation. The punter is alleged to have responded to initial insults by throwing bottles at the door staff after which they retaliated by

The head of Westminster's licencing committee called it "an organised assault" and Escape Bar's license was also suspended. Despite the council saying that they had taken evidence from several parties including the police, fans of the club are convinced it was an inside job.

wielding bats they kept in a bin bag on

site at Madame JoJo's.

Supporters have also pointed out that this was an isolated incident and that the total revocation of its licence conveniently coincides with the planned regeneration of the area surrounding Madame JoJo's. Soho Estates, that has now repossessed the club, owns hundreds of millions of pounds worth of property across the West End and put in an application

in September of last year to demolish the buildings that currently stand in the vicinity. Permission was granted, with local business owners and affiliates of the club nights run at Madame JoJo's dismissing it as part of an unwelcome 'blandification' of the notoriously seedy, but quirky

On the 29th October various promoters and performers from the venue's vast array of nights marched from Soho Square to the headquarters of Soho Estates in protest. It didn't seem to achieve much and White Heat's Facebook page reported that no-one answered when they rang on the door of the property firm's office.

Soho Estates owns the copyright to the name 'Madame JoJo's' and a new club is expected to replace it after redevelopment. As well as being one of the few venues in the area to have kept its seven-day-a-week 3am licence, Madame JoJo's had, quite possibly, the widest variety of club nights in London.

As well as being home to White Heat every Tuesday for six years, it has a rich history of alternative cabaret, burlesque and jazz dating back from the 50s. At the news of its closure, punters and promoters alike reflected on how suited and booted burlesque fans would share the dance floor with the first arrivals for Free Your Soul, the weekly Afro House

Despite the fact that his company is ready to redevelopment the area on which the club stands, many Soho die-hards are grateful to infamous porn-baron Paul Raymond for buying up large parts of the red-light district in the 60s and essentially just leaving it alone. As well as having been one of the few unkempt sections



Dev Hynes and Alex Turner share the White Heat stage way back in 2008 for the Falling Off Lavender Bridge album launch Photo: Emir Shad

"I only

went twice

times I saw

but both

penises."

"They retaliated by wielding bats they kept in a bin bag on site"

of the West End left, the diversity of Madame JoJo's is unmatched. As well as boasting a wealth of cabaret and drag shows, indie fans have been flocking to White Heat for years. Where else could Dev Hynes of **Blood** Orange (but back then of Lightspeed **Champion**) been seen jamming out with a baby-faced Alex Turner of The Arctic Monkeys?

Since Cheap\$kates' home, Moonlighting, shut in September White Heat was probably the last place in W1 where drinks were still £2.50 each. Grotty but fabulous, much like its clientele, one anonymous student recalled, "I've only been there twice but both times I saw penises".

The owners of Banquet Records in Kingston, who run New Slang, a similar indie night showcasing new bands, showed support for White Heat promoters Marcus Harris and Matty Hall, saying "Chances are New Slang wouldn't exist without White Heat. Good people doing a good night. They'll be back."

But will they? The petition to save Madame JoJo's had nearly 8000 signatures at last count, but chances are this Soho haunt is gone for good.

For now, White Heat is being shared between The Lexington and Electrowerkz and hopefully its loyal fanbase and excellent track record will mean it will find a permanent home in the near future.

This week on IC Radio

Following its total refurb over the summer, IC Radio is back! Tune in to the following handpicked shows at icradio.com.

A Few of My Favourite Things - Friday 17:00-18:00

Conall and the gang offer tunes and chat every Friday afternoon. Expect fierce topical debate and jovial observations of the week's stories peppered with an eclectic mix of hand-picked tunes.

The Imperial Ratio - Monday 19:00-20:00

The aim for me and my guests is to have a laugh. However, if you end up having one too, well, extra brownie points! The show is mainly improv comedy interspersed with some tunes, mainly when we need to think of stuff to say. We largely like to poke fun at desperate students wanting advice on their hairy problems but we also play radio games and often

cover the week's news. If you have issues, please submit them to theimperial ratio@gmail.com and we GUARANTEE to solve them or your money back.

Letters from the Ghetto - Wednesday 14:00-15:00

Treat your ears to some sensual stimulation as two guys resolutely not from any sort of 'Ghetto' spring live-on-air improv on each other in what can best be described as a mental schism being caught on tape. Come compete in our weekly 'GSM' challenge (with actual prizes!) and lap at our eclectic taste in music as we try not to say something politically incorrect.

Quantum Musology - Wednesday 17:00-

Tune in for some amazing music from all over the world, together with fun facts and info about your favourite bands.



Photo: David Newbold

Technology.felix@imperial.ac.uk

Tech Editors Jamie Dutton & Osama Awara

Welcome to a world of ups and downs

Chrysostomos Meli looks at how you will be paying for things in the future

ilicon Valley has for some time now declared an all-out war on our non-electronic habits. changing them to fit around their technology. It has been a gradual process but thinking about it, we certainly don't read books the way we used to. Writing an essay barely involves a pen anymore, we can go grocery shopping without even leaving the house and our fitness regime is becoming a lot more informative. It now seems tech companies have got their eyes set on the way we pay.

Companies like Paypal have, for more than ten years now, been helping us buy things online. They're making financial transactions from our own bank account to someone else's that much easier. But that isn't good enough anymore. Real world transactions should and will become as easy and painless. Why should we carry those heavy wallets in one pocket when we all have sophisticated electronic devices in the other?

Paying with your phone is definitely not something we are that used to in the UK but for last few years, the USA has been inundated with different apps that can act as credit card holders. The most interesting one is Google Wallet - an app anyone can download on their Android phone. The premise is very simple - add your card credentials and then proceed to the register, paying wirelessly using your phone's NFC. But Google Wallet hasn't lived up to expectations. Debates over credit card fees seem to be the prevailing reason, but as Apple found out last month, big retailers such as Walmart have their own services, which they need to push.

Apple finally decided to join the fray with Apple Pay, and everyone is hoping that it will be the publicity the technology needs to finally go mainstream. The service is available only on the iPhone 6, 6 Plus, the new iPads and the Apple Watch when it's released. Although the service has been out for just a little over a month there haven't been any major complaints, but we won't find out about usage statistics until Apple's next financial quarter announcement.

Google and Apple are not providing these services for anyone outside the USA yet - they want to get it right before it goes global. The USA is known for its high consumerism and these companies couldn't ask for a better testing ground. What's more, introducing a new payment system in a country with a whole new currency, banking system and consumer behavior will prove more difficult.

That leaves the UK an open playing field for anyone who wants to try. A serious contender is YOYO, a product of our very own Imperial Create Lab that has raised £3.1 million in seed funding from investment groups such as Telefonica and Firestartr. It is one of Europe's largest seed funding rounds this year.

YOYO is an app which, unlike Apple Pay and Google Wallet, doesn't allow you to pay directly through your credit card. An account is set up once you download the app and you use your card credentials to add funds to your account. Once you reach the register, the funds used are in the app, not in your bank account. Although this means that you have to top-up your account every time it runs out, it is a fairly painless process. What makes YOYO attractive to users is its



YOYO is the electronic payment choice of a lot of Imperial students. Disclaimer: has nothing to do with real

voucher integration. Every time you spend money at a particular retailer YOYO remembers and, if for every 9 coffees you get one for free, YOYO will display the voucher for you to use the next time vou're at the shop.

Another fundamental difference is the use of the registered laser scanner to make the transaction; scanning a QR code instead of tapping your phone using NFC. Once the code is scanned, the funds are immediately removed from your account displaying your total and actual amount at all times. This give YOYO the advantage that it can be installed on any smartphone device running

iOS or Android even the ones without NFC, which encompasses every iOS user who hasn't upgraded to iPhone

The app also offers a platform for store owners to collect and display the data they need to run their business more efficiently- data that would otherwise be impossible to collect. A similar service is provided by Square Inc. - a Silicon Valley startup recently valued at \$6 billion. It should be noted although Square's business platform 'Square Register' has seen wide success, their payment app 'Square Wallet' has been recently pulled from both the Android and iOS app stores

due to lack of interest.

YOYO for the time being is using a page right out of Facebook's playbook and is expanding their user base; jumping from one campus to the next. It's a move they believe will eventually bring in retailers, which any payments service desperately requires in order to succeed. Payment systems are very much in their infancy, especially in the UK. However, startups like YOYO are making real headway. It is very early to call but the sky is the limit and YOYO's recent deal with Snapchat to provide a money transfer service is very much a testament to that.

Millions injured in worst Friday since Rebecca Black



Artist's impression of scene at Currys Worthington Source: youtube.com

Jamie Dutton SECTION EDITOR

orror at Currys PC World Workington branch as I millions of people flocked to the store to pick up excellent deals on the best and latest technology, ranging from 2.5 mm microphone cables to ruby-encrusted vibrators.

The opening was just like any day but the first people to arrive were literally confounded by the excellent deals such as "buy-one-for-theprice-of-two" and "80% off (500% of original value)!!!"

Smiles of joy however were transformed into pouts of indifference as the customers found they had to wait six years to be served in the queue.

Despite this, many thought it was worth the time and spread the word on social media. The whole of mainland Britain drove as fast as they could to get the best deals. It was even rumoured that some people from Northern Ireland were so desperate to cash in on such great savings that they swam across the Irish Sea. It was the biggest stampede the North had seen since the opening the first Greggs bakery in 1939 and many were injured as a consequence.

It wasn't all bad news, however. The government smiled at how well the public adapted to such Americanisation and announced plans to abolish the NHS and raise university tuition fees to £100,000 per year to complete the United Kingdom's transformation to the 51st state of the USA.

The British public, many who have been writing frantically to their local MP asking when carrying a gun will be legal and when 'Disneyworld Lincolnshire' will be built, have unanimously accepted this transformation and cannot wait to sing The Star-Spangled Banner at their child's next baseball game.

Games Editor Max Eggl & Calum Skene

MATTHEW ALLINSON GAMES WITER

From the KSP **Mission Control**

Kerbal Space Centre are happy to announce their first

successful flight of an unmanned space probe around

the planet. The probe, the RoboUglyDuck launched

mercifully without any noticeable hiccups yesterday

and was able to carry out the desired science missions

Unlike previous missions where the idiotic Kerbals

did things like "let go of the space craft whilst in space",

the robotically controlled drone was perfectly well be-

yet, and since transmitting all its scientific data back

remains of RoboUglyDuck are the first chunk of what

space junk that will no doubt soon envelop the planet.

promises to be an exciting blanket of Kessler Syndrome

to earth, the on board batteries have now died. The

haved. Unfortunately no one has invented solar panels

in Low Kerbin Orbit.

Dance Dance Revolution: Kung Fu style

Sanchit Sharma finally hooks up a XBox controller

ickbeat describes itself as "an innovative rhythm game with a kung fu theme, featuring fully 3D characters and high-energy music!" Which sounds pretty good. The reality is not quite as good as it seems at first.

In essence, Kickbeat is a classic four-button rhythm game – at the right time you press up, down, left or right. Sometimes you need to press multiple buttons at once, sometimes you need to press and hold, and pressing space at any point will activate your chi (I still haven't worked out what this does, other than changing the background colour).

The "innovative" part of the game comes from the way that the four buttons are presented – as individual enemies circling you, readying for an attack. They're even helpfully colour-coded as to what they're going to do! This is a pretty cool idea, in theory, but combined with the full 3D environments and characters it causes the fatal flaw of this game. There's just too much on the screen at any given moment. Even with the colour coding, it's difficult to see the important information because the game is just throwing too much at you to be able to sift through everything for what you need. Which leads me to believe that actually, chi doesn't do anything other than changing the background. It certainly takes away a lot of the noise, and makes the game far easier to play!

In addition to this, the powerup mechanic is nearly unusable. Occasionally, enemies will appear with powerups over their head (which is pretty cool). In order to pick them up, you need to double-tap the correct button instead of single tapping it. Again, at first this seems okay, but then you realise that in any reasonably difficult song you just don't have the time to press that button twice before the next one comes along! And in a difficult song, you're going to mess up occasionally - this causes you to lose health and the only way to regain it is these powerups. The powerup system simply hasn't been thought through properly, and really needs a complete overhaul to make it usable.

After forming my opinion on the game in general (and struggling to get through the first few missions because of the design flaws), I got a chance to try this with an Xbox 360 controller. Throughout the game, there are not-so-subtle hints that you can use a controller instead of the keyboard to play, so I figured it was worth a try.

And oh my god it is so much better. Suddenly, my scores shot up. Instead of struggling to survive each mission, I'm now working on getting that 5th star, the information just becomes so much easier to sort through and the game feels more responsive. The fact is, Kickbeat: Steam Edition is just not playable without a controller - which as I'm sure you'll agree is pretty stupid.

However, using a controller brings a few new problems into the mix. The screen no longer seems as busy, yes, but picking up powerups becomes even harder. And remember those enemies that come simultaneously? Good luck with those on a controller - you're going to need multiple fingers on a set of buttons that have

Finally, there's the cutscenes. Yes, really bad voice acting that breaks the best bit of the game. I would have preferred that they just skipped voicing it altogether, if this was the

Going back to the story, I love the ridiculousness of it. It's a game where you beat up guys using kung fu to music, a realistic storyline would have been worse. Little things are still a nuisance (why is all the music in the world stored in one place? Why is a renowned martial artist teaching a completely new technique based in America?), but overall the story so far gets a thumbs up from meespecially with the little lines here and there that mean that you just can't help but laugh ("Did they take all the songs? Even... Justin Beiber?").

best they could do.

Overall, Kickbeat is a game that had a lot of potential. Unfortunately, the execution leaves a lot to be desired. It could have been great but, sadly, it falls short.

If you think you want to give it a try anyway, Kickbeat: Steam Edition is available for £6.99 from Steam.

been designed for just your thumb. this is a rhythm game with a story. It's utterly nonsensical (which is expected and good!) but the voicing leaves a lot to be desired. This is clearly a game that needs to be voiced, but when they don't bother getting decent voice actors it's just annoying. I've sat through all of the cutscenes so far (though they are skippable), and whilst the master is reasonable all of the other characters grate a bit. It really lets the cutscenes down - whilst the art is beautiful and fits perfectly, the story is fun and stupid, but then you get this

Photo: Kerbal Space Program, Matthew Allinson

Buoyed by the success of RoboUglyDuck and panicked by the fact we were about to run out of money, the KSC decided to shoot for the moon. We loaded what we thought would be enough fuel onto UglyDuck VI and put rookie pilot Doodlorf Kerman at the helm and blasted off. The plan had been to go for a free-return sling round the moon without landing on it. We hoped this would get enough science and reputation to keep

our funding up for the time being.
UNFORTUNATELY this wasn't to be the case. The engineering team are investigating what happened as we speak, however it seems that the rocket was put together asymmetrically: causing it to wobble like hell all the way out of the atmosphere. This wasted so much fuel that we didn't have enough to make it around the moon. Doodlorf was able to carry out all the scientific experiments to great success, and even managed to do an EVA without letting go of the craft. UglyDuck VI touched down, with Doodlorf a true Kerbal Hero. Unfortunately we lost so much money on that mission

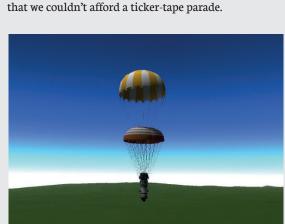


Photo: Kerbal Space Program, Matthew Allinson

"Overall. Kickbeat is a game that had a lot of potential. Sadly, the execution leaves a lot to be desired."



Dancing her way to the top, and looking incredibly sassy while doing it! Photo: Creative Commons

Games Editor Max Eggl & Calum Skene

The Observable Universe on your Desk

James Dutton doing a PSA for all you star gazers out there

ave you ever wondered if there is a program that can simulate the whole observable universe (and even beyond)? Well, step forward Space Engine. It has been in the works since 2005 and is the beautiful and complex brainchild of Russian astronomer and programmer Vladimir Romanyuk.

The concept of the software is that you can go to wherever you want in space and explore planets, moons, stars, nebulae, other galaxies and more without the need for the most expensive astronomical imaging equipment. All observed astronomical objects are implemented; even the most recently discovered distant stars and exoplanets. But it doesn't stop there. Instead of an invisible wall ultimately set by the limitations of our current technology, it randomly generates objects meaning that there are literally billions of galaxies to be explored; each containing trillions of star systems and thus even more planets and moons.

However, Space Engine isn't just about objects just whizzing about in space. You can travel at any speed through space and time. This means, for example, you can watch the sunrise (or lack thereof) at any point on any planet. Each body has its own in-game wiki telling you almost everything you need about it. Using this data it can then simulate whether the planet (or moon) is suitable for life, be it organic or some unknown exotic variety. This is the most enjoyable aspect of the software for me; you can click on any star in the sky, fly

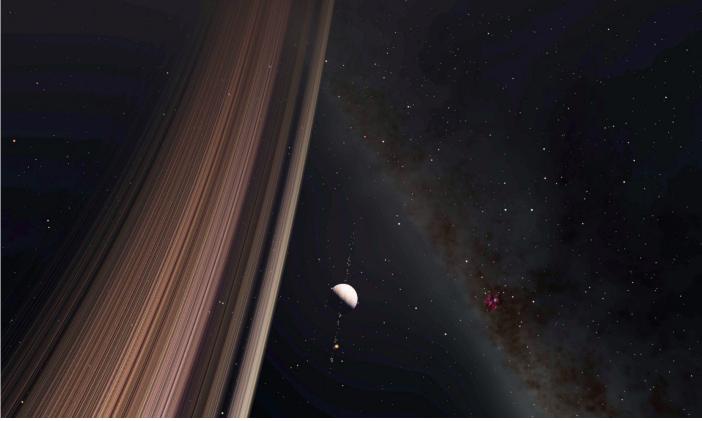


Photo: Space Engine, Jamie Dutton

over to it in seconds and explore its planets. It tells you whether these planets harbour life - from simple floaters on gas giants to complex multicellular beings on some unlikely candidate hosts. You can then go and see what the planet looks like on the surface. Some are deserts, some are ocean planets and some are rocky and very earth-like. It is just fascinating to potter around these unique environments and see what life could be like elsewhere.

On the subject of uniqueness,

"This (Space Engine) was very useful to me in my masters project this vear."

despite looking through hundreds of planets so far I have not found two that look the same. Most planets are gas giants of course, but even they come in different colours and in different sizes. I've seen Earth-like bodies with beautiful pink clouds, some with many, many moons and even a moon harbouring life with a Saturn-like ring system (see picture). Even though the absolute majority of these systems are just randomly generated simulations, there is something very satisfying about just browsing star systems and finding your own relic of a planet - something someone hasn't found before.

This is just the tip of the iceberg of the capabilities of Space Engine. Being free to move in time means one can observe the configuration of star systems at any point. This is fortuitously very useful to me in my masters project this year. Whilst observing the magnetic field around Saturn, it has proved very useful to know where its moons are relative to the Cassini probe which is doing the measuring. This software allows me to type in the desired time and it will instantly depict what the universe looked like at that point to the nearest hundredth of a second.

I would go as far to say that Space Engine is probably the best piece of software that you've probably not heard of. Although technically not a game, I still think that this would appeal to most people (especially

Imperial students!). It is in beta stage right now and is thus free to download from en.spaceengine.org. If you enjoy it and want to help it carry on there is a link to donate.

If you're computer has a semidecent graphics card (or failing that it is possible to install on university computers... I checked), download Space Engine now and lose yourself in the universe which we call home.

Steam Greenlight of the week MAXIMILIAN EGGL GAMES EDITOR

Flying is one of the things that is absolutely amazing, but is rarely successfully realized in games. However, in Air Brawl we have what looks like a good attempt. This multiplayer title has a heave focus on dogfighting on tight, mazey maps. It definitely looks interesting and currently you can vote for this game on Greenlight.





"It is just

to potter

around

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see what

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elsewhere."

be like

worlds and

these

fascinating

Yep, you can also go down to planets' surfaces and feast upon the beauty!! Photo: Space Engine, Jamie Dutton

FRIDAY 5 DECEMBER



100% Student DJs on the night house // bass // dnb // and more

Friday 5 December 20:00 - 02:00 Metric and FiveSixEight

Free before 20:00 £1.50 if you sign up to the Facebook event (must be in by 22:30) £2.50 on the door

FiveSixEight.







Union Page

Islamic Society raise a massive £83,401.70 during Charity Week!



Last month Imperial saw the return of Charity Week, an annual campaign organised by the Islamic Society with the aim of raising as much money as possible for orphans and needy children worldwide. This year's Charity Week saw the Islamic Society raise a whopping amount of over £83,000, raising more money than both UCL and Kings. Imperial has nearly half the number of students that either institution has, so this was a tremendous effort by all those who participated and donated. Charity Week is a national campaign facilitated by one of the UK's leading charities – Islamic Relief – one of 14 charities that make up the UK's Disaster Emergency Committee.

This year the week was held between the 2 and 9 November. The creativity seen in this year's fundraising efforts was unparalleled; the week was jam packed with numerous exciting events including an exhilarating inter-society quiz, (Battle Of The Societies), a huge girls only pampering and fashion day (Smoky Not Smudgy), an inter-uni football competition, sponsored treks up Mount Snowdon, black-tie dinner and many more! This was coupled with daily cupcake and donut stalls across campus and tube station, street and door-to-door bucket collections.

Alex Savell, Deputy President (Finance & Services), said: "We are incredibly proud of all the achievements our many clubs and societies make, but Islamic Society have really done something incredible this year. Sitting in our office, we've seen how diligently and enthusiastically they've been working towards this and I'm personally extremely happy for them that it's paid off in such a spectacular way. It's brilliant that a society here are raising and giving such a large sum to such a good cause and I hope student organisations at Imperial College Union and all other institutions continue to do such good deeds". The Union would like to congratulate the Islamic Society on this great achievement.

Applications now open!



The Venture Catalyst Challenge is an intensive 6 week science and technology pre-accelerator. It is designed to prove the commercial viability of a course project, idea or venture you are developing.

With over 200 mentors, more than 25 service providers and corporate partners and a network of accelerators, investors and other funders, the Venture Catalyst Challenge brings together Imperial College's manifold resources to take you a step further.

We are looking for ideas that have the potential to really have an impact on the world. We match you with top innovators and mentors with specific expertise to work one-to-one with you to move you forward as fast as possible. At the end we award a substantial cash prize and give you the chance to present your idea to a room of investors, change-makers and more.

Open to PostDoctorates, Postgraduates, Alumni and Undergraduates!

Come along to the info session on 5 December to hear from past participants and learn about what you need in order to enter.

For more information on the challenge visit: vcclaunch.splashthat.com

Free STI Clinic - Tuesday 9 December

Free STI testing at Imperial College Union, provided by the Terrence Higgins Trust and Earls Court Health & Wellbeing Centre

Gonorrhoea, chlamydia and HIV tests will be available, as well as contraception and sexual health advice.

Appointments are free but availability is limited.

Please email <u>sexualhealth@imperial.ac.uk</u> to request a slot, including your preferred time.

A Better Experience for Taught Postgraduates

We have published our Response to the 2014 Postgraduate Taught Experience Survey - making recommendations on how College and the Union can better serve our 3500 taught postgraduate members.

The PTES is a national survey that takes place every two years, measuring the satisfaction of taught postgraduates - students on MSc, MBA and MPH courses at Imperial College London. Imperial College Union, as the voice of Imperial Postgraduates, has generated our Response to the survey results, including 15 specific recommendations.

Read the full response at imperialcollegeunion.org/responses.



Television Editors Guila Gabrielli & John Park

Revision 101: a short television guide to 20 minute breaks

"The

revision

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subject."

it seems like

in the world

around your

period

intense

Giulia Gabrielli gives us a selection of the best shows for unwinding

re you troubled by revision time? Do you find yourself sweating over notes and books, asking yourself who invented pre-Christmas exams? Well, we're all in the same boat.

The revision period can be an intense time, when it seems like everything in the world revolves around your subject. Bottom line, it does. But it can be useful to allow yourself a responsible break after a couple of hours' intense studying. Television can be a useful distraction.

There are, however, a couple of dos and don'ts to bear in mind, and several rookie mistakes to avoid. The ideal TV-break is around twenty minutes long. Handily, several TV series follow this format. Specifications, however, don't end at

It is important to choose something light-hearted, which won't leave you pondering about the meaning of life. This excludes shows like Modern Family which, despite the humour, may tempt you into calling your mother for a three hour conversation about your crushed soul and dreams.

Most important of all, the show must prove entertaining, yet not

sufficiently entertaining to become addictive. This is a subtle distinction that excludes all spy shows (luckily rarely twenty minutes long anyway) and love plots like How I Met Your Mother. Friends is another no-no. We may have all watched it hundreds of times, but there is nothing stopping us from going through the whole thing once more just for the 1990s nostalgia.

These criteria may seem quite selective, but actually there are several shows that fit the bill. Evergreens like 30 Rock, Parks and Recreation and Community are happy, idle shows, basically created exactly for this purpose. New releases are good alternatives, in particular the shows *Black-ish*, starring Laurence Fishburne, and A to Z.

The first is a new family sitcom. The Johnson family, however, is not the typical American TV family. No sugary tough love, pets and candy in this show. Dre Johnson (Anthony Anderson), the father, is a self-made Afro-American man who's arrived. As a result his children, grown up in a privileged neighbourhood, are "too white" for his tastes. This is pure satire, and definitely worth a watch if



uncomfortable humour is what rocks your boat.

A to Z is a traditional romantic comedy, created thinking that we hadn't seen enough of Cristin Milioti since the end of How I Met Your Mother. Despite this being profoundly untrue (we did, after all, spend ten years of our lives hearing stories about her), this is a sweet and lovable show with one great advantage. The main characters get together at the beginning of Episode 1. The programme from then on is supposed to be a recollection of their relationship. With no will-theywon't-they chemistry, this is a series that won't keep you waiting to long for answers, but that will still make vou smile.

For idle watching, MTV always offers something. Lately the teenage comedy-drama Faking It is probably the strongest show on the channel (which admittedly is not saying much). The series follows the lives of best friends Amy and Karma who, in a school too Glee-like for words, fake being lesbians to attract attention. This premise may repulse some of you, but the way in which the homosexuality theme is touched by the show is surprisingly refreshing.

Finally, all these considerations are useless without the appropriate degree of self-control. If you find it hard to say stop, don't press play, go for a walk. In these occasions even adverts can become slightly addictive. Watching the John Lewis penguins play around for the fiftieth time may seem more stimulating than revising the Krebs cycle, but it won't be on the

"For idle watching, MTV always offers something."



The thinking woman's crumpet

Forget Brian Cox and David Attenborough. Forget science documentaries about space and animals, for a little while at least. There's a new generation of TV presenters giving us insights into big cities, old jazz clubs and sacred rivers and we are definitely digging it.

Dr James Fox, art historian and Cambridge Fellow, takes us through three of the cities that marked our popular culture. In the documentary Bright Lights, Brilliant Minds, Fox travels from 1908's Vienna to 1928's Paris and a little further to 1951's

Through a heterogeneous mix of interviews, original clips and walks through the places that inspired the greatest thinkers of the 20th century, Dr Fox illustrates some of the events that shaped the way we think. Greenwich Village and the Beat Poets' apartments, surrealist cinemas in the Quartier Latin and Sigmund Freud's office are all connected through a thread that, once explained, appears almost

Fox's commentary is entertaining and charming. In a slightly awkward, adorable manner, he paints the lives of Magritte, Klimt, Cole Porter and Kerouac. He is essentially being paid to go on the trip of a lifetime, living the life of a

French intellectual while hobnobbing in New York's best jazz clubs. And we envy him for it.

Sacred Rivers with Simon Reeve shows us another journey, one that is more adventurous and spiritual than Fox's. The show is a discovery of different parts of the world and their essential connection to sacred rivers. The Yangtze, the Ganges and the Nile are some of the longest and largest rivers in the world, and to the people who live along their path they are a source of food, water, religion and

Along with the show, Simon Reeve is a revelation. Entertaining, sharp and always ready to get his hands dirty, he is a true modern day adventurer. Unlike many of his predecessors, his attitude to local costumes is one of awe and excitement and not of patronising judgement.

Whether it's jumping the Nile or swimming across the Yangtze, Reeve is always ready for a laugh. This documentary is so good, it is impossible not to fall in love with some of these places. But more importantly, it is impossible not to fall in love with the presenter.

GIULIA GABRIELLI



Term isn't over 'til BAND Jazz & Free Bar Metric 20:00 Sat 20th December





Film Editors | Ellen Mathieson, John Park & Jack Steadman

And the Oscar goes to...



Photo: chrisreedfilm.com

t's December, which means only one thing. The Oscar Race has officially begun. The New York Film Critics Circle has announced their winners, the Gotham Awards have given out their trophies to the independent films worthy of recognition, the National Board of Review have also announced, the Los Angeles Critics will soon follow, building up the excitement surrounding some of this year's best

Even in the months ahead of such events, pundits, critics and fans alike love to speculate over who will be the big winner come Oscar night. It is still without doubt the biggest night in Hollywood, celebrated at the very end of the long awards calendar. Celebrating films of this year, the Academy Awards will be held on 22nd February 2015, hosted by Neil Patrick Harris. Already the buzz is strong on certain films and performers, and this week Felix Film looks at the hotly anticipated contenders whose names and performances you should watch out for in the coming months. And let the long, intense, competitive race begin.









































Best Leading Actor A lot of worthy names fighting out for the Oscar with no clear winner set

as of yet but the States should brace themselves for a healthy amount of British invasion, withactors Benedict Cumberbatch (The Imitation Game), Eddie Redmayne (The Theory of Everything), Cannes winner Timothy Spall (Mr Turner), and David Oyelowo (Selma) in hot contention for their performances. They all played real-life heroes, (Alan Turing, Stephen Hawking, J. M. W. Turner, and Martin Luther King Jr., respectively) which will work hugely in their favour, but the main focus at the moment is on Michael Keaton, who has put on a performance of a lifetime in Birdman. Would you also believe that **Steve Carell** (Foxcatcher) could cause a serious upset at Keaton's chances? Others who should not be overlooked but have a high chance of getting unjustly ignored are performers whose films have not been seen widely. Chadwick Boseman (Get On Up) is a revelation as James Brown, and Jake Gyllenhaal (Nightcrawler) is brilliantly mad.

Best Leading Actress

Julianne Moore (Still Alice) can most certainly expect nominations to start flooding in, given her wonderfully measured, masterful performance as a linguistic professor with early-onset Alzheimer's disease. It is about time for Moore to score some awards, given years of injustices of missing out on wins and nominations, and she may as well start polishing up on her acceptance speeches. Reese Witherspoon (Wild) for a while was the frontrunner, displaying a strong, moving performance in a film that is very well-reviewed, Amy Adams (Big Eyes) practically scores a deserving nomination in whatever serious role she plays, and there is talk of Brit newcomer Felicity Jones (The Theory of Everything) also joining the mix. Hilary Swank (The Homesman) may be a serious contender to the remaining space in her feminist Western. Critics may be divided over the quality of Gone Girl, but they are unanimous in praising Rosamund **Pike**'s frighteningly unforgettable performance. Is there space for **Essie** Davis (The Babadook)? Possibly not.

there is out there, for his ferocious turn as a ruthless jazz band conductor who will stop at nothing to achieve the absolute best from his students. Edward Norton (Birdman) is the most likely candidate running for distant second, veteran actors Robert Duvall (The Judge), Tom Wilkinson (Selma) and Christoph Waltz (Big Eyes) are all gunning for spots, (this would mark Waltz's third time in the category) and Duvall in particular seems to be likely to get in on the race, given his success with the Hollywood Film Awards earlier this year. It has been awhile since the underrated **Ethan Hawke** (Bovhood) has scored a nomination, but his strong supporting turn in what many argue as this 2014's best film, gives

him a big boost into the possibility of

a nomination. Another cast member

of *Foxcatcher* receiving attention for

this performance is **Mark Ruffalo**,

how much competition there is.

who might just get squeezed out given

Best Supporting Actor

J. K. Simmons (Whiplash) should

be in for a very clean sweep of every

single Best Supporting Actor award

Best Supporting Actress Hot off her New York Film Critics' Best Supporting Actress win, it is full steam ahead for Patricia Arquette (Boyhood) in her quest to win her first Oscar. She has had success on television, and is now displaying her talent returning to the big screen. Keira Knightley (The Imitation Game) has won rave reviews for her warm, tender performance opposite Cumberbatch. A part of what made Wild special was the presence of Laura Dern providing excellent support for Witherspoon as the character's mother, and everyone seems to have picked up on this, given the buzz surrounding her contribution to the film. It wouldn't be Oscar season without the mention of Meryl Streep's (Into the Woods) name, and her latest musical effort might help her score her $19^{\rm th}$ nomination. That's right. 19th. Emma **Stone** (Birdman) could be looking at a first-ever nomination in a film loved by pretty much everyone, and if anyone was looking for an acting nomination with Interstellar, Jessica Chastain could be the one.

"Discover how little you know"

IOHN PARK SECTION EDITOR

MEN WOMEN & CHILDREN

Director: Jason Reitman Screenplay: Jason Reitman, Erin Cressida Wilson, Chad Kultgen (novel) Cast: Adam Sandler, Rosemarie DeWitt, Jennifer Garner, Judy Greer, Dean Norris, Ansel Elgort, Emma Thompson



as technology made us more violent? More promiscuous? Is it easier to cheat with a little help from the internet? How dangerous are online games? Is it okay for a mother to essentially spy on her daughter? Is romance dead because of technology? Does social media reveal too much about us? With a boom in the use of texts, Facebook, Twitter, and all sorts of other platforms, it is everyone who has been affected in some ways, by the advancement of technology. Men, women, children, regardless your gender and age, Jason Reitman's newest feature is one that looks at how living in the modern world keeping up with the same struggles as before looks like.

So yes, we get the insecure teenage girl who has weight issues wanting to attract the attention of a boy whose mind is only on one thing. We have an adorkable ex-high school football star from a broken home who is addicted to online gaming. A young girl whose smothering ("can't spell mother without it") mother, who might as well call herself the National Security Agency, is watching her every move. A young girl who yearns to be a great big star in L.A. An unhappy married couple who look elsewhere to find some much-needed pleasure. And why not throw in their 15-yearold son, whose unhealthy obsession with pornography is starting to affect his sex life, when it comes to actually having to perform.

There is of course an element of technology thrown into all the plotstrands at one point or another. The film cleverly utilises pop-ups of texts/ tweets/posts/messages and everything else as a way of communication. What the characters in the film send off to one another, we get to see. The audience is doing a spying of our own too. And the focus is undeniably limited. For a film that wants to look at how social media is affecting/ interfering/enhancing our lives, the



Photo: variety.com

scope is too narrow, and each plot strand is a quick, simplistic view of a soapy storyline with some flashy effects thrown in. Just reading the character list above should give you a clear idea as to how the film is not offering anything new for us.

Yes, the internet makes it easier for Don (Adam Sandler) to look for an escort, giving the anatomical specifics to be his near-perfect mating partner. His wife Helen (Rosemarie DeWitt) uses a dating website that encourages married couples to cheat. There she meets "Secretluvur" (Dennis Haysbert), with whom she can try some cringe-worthy, awkward dirty talking. Their son Chris' (Travis Tope) internet search history is quite something, with certainly a hint of fetish for domination. Allison (Elena Kampouris) refuses to eat, and she has an army of fanatics trying to be as thin as possible giving her some questionable advice. Patricia (Jennifer Garner), so worried that her daughter Brandy (Kaitlyn Dever) is growing up, does a weekly sweep of everything. This includes Facebook, phone, etc

whilst her husband, who may as well not have been written into the film since his role is so miniscule, stands by and watches. Seriously. Tim (Ansel Elgort) finds out his mother, who abandoned her family to go live with her boyfriend, is now engaged. He finds this out through his Facebook newsfeed. His interest in football has hit rock bottom, despite him being a talented player, and all he cares about now is Guild of War, and his father Kent (Dean Norris), who had big dreams for him as a football star, is of course disappointed. Hannah (Olivia Crocicchia) takes risqué photos, uploading them online for her website which her "clients" thank her for. The one taking her pictures? Her mother Donna (Judy Greer). Yes. She believes these photos of her scantily-clad daughter are to help with her future ambition of becoming a star. Who is the nuttier one out of Garner and Greer? You decide.

Establishing the concept of what this film is all about is done in a very effective manner. As we see one character use some sort of technology

in his/her life, we move on to the next, and another one after that. We see their problems clearly, we see the influence of technology, but as the film begins to develop into a more dramatic one, steering away from the lighter mood, it slowly becomes something incredibly familiar. The fights and tears all happen at the exact moments you would expect them too, and there is little surprising about the outcomes and how the individual strand wraps up.

Despite the predictable setting, there is a reason this film works. It is mainly thanks to the humour that serves as the film's major saving grace. To start off with, having Emma Thompson intermittently narrate the events of the film was such a genius move that you wish there was more of it. Thompson has that very dry but witty delivery of some shocking narration, all said in a tone that does not seem to bother her one bit.

Reitman has an impeccable cast at his disposal. Despite some actions that may seem very, very unlikely, the actors in the roles play them with

so much conviction that it is easy to believe people like this can exist. Garner's is a piece of work, restricting her daughter in the interest of mostly her selfish well-being. She is the kind of mother who will make you feel better about yours. She takes the prize on delivering the most "WTF" moments in a film that she will make you want to throw things at her. And there are simply no words to describe what she gets up to towards the end of the film. Sandler and DeWitt make their sexless marriage that is devoid of any inkling of passion work, and rounding off the adult cast, Greer and Norris too have their more dramatic burst to completely own.

There are plenty of laughs to be had, although very few of them are actually due to a funny, happy event occurring. No, these are uncomfortable, nervous laughs of utter shock and disbelief, which can be the best kind of laughs, when used correctly. There are so many embarrassing things that go wrong in these people's lives, that the automatic reaction in the screening cinema was laughter.

More impressive however are the younger members of the cast. Elgort, a rising star hot off his success with the Divergent franchise and The Fault in Our Stars, is excellent, he's a very good crier too, as the depressed high school student finding his way back into the world. He has a very glib outlook on life, as anyone in his position would, but he eventually starts connecting with Brandy. Her role here is surprisingly under-written, although the actress playing the part, Dever, has great chemistry with her scene partner. The psyche behind an oppressed child, why she acts out as strangely as she does, is never fully addressed, and we are supposed to simply accept that if you have a controlling mother, it is only natural for a daughter to be as quirky as this. Crocicchia is convincing playing the exact same role Mena Suvari did in American Beauty, and, Kampouris, looking painfully thin, is at times heart-breaking to watch, with her desperation and idealistic view on love getting her into trouble.

It's ultimately a formulaic picture, but one that is not short on laughs. All the strands finish exactly the way you would expect them to, and no character is immune from having either a soapy meltdown or revelation. What the film wants to say about the influence of technology is, very limited and it fails to fully explore this frankly overcrowded ensemble. As with most things with Jason Reitman's name on it, it looks at a serious subject matter and decides to have some fun with it along the way; and fun is what Men Women & Children has an abundance of.





Photo: whatson.bfi.org.uk

Film Editors | Ellen Mathieson, John Park & Jack Steadman

When the Saints Go Marching In

JOHN PARK SECTION EDITOR

ST. VINCENT

Director: Theodore Melfi Screenplay: Theodore Melfi Cast: Bill Murray, Melissa McCarthy, Naomi Watts, Chris O'Dowd, Terrence Howard, Jaeden Lieberher



hat happens when you put together a grumpy old man and the next door neighbour's slightly, odd but intelligent child? The grumpy man who everyone hates at the beginning of the film does something remarkable for the kid, and we discover that actually, the moody old man is a real softie at heart. An episode of US sitcom *Modern Family* finds a young child bonding with the next door neighbour, a retired fireman. The mother is concerned. But he lists Gran *Torino, True Grit* and *Up* as examples of how things worked out in the end. St. Vincent essentially follows the exact same formula. We are introduced to Vincent (Bill Murray), a loner of a man who drinks too much, then drives, and spends too much and is generally the last person you would want looking after your child. Not knowing any of

this, desperate single mother Maggie (Melissa McCarthy), who is far too busy at her work making a living for herself and her son Oliver (Jaeden Lieberher), recruits Vincent's help... for an hourly babysitter's fee of

Vincent's life continues relatively normally despite having a kid to look after in his everyday routine. The two of them hit the racing tracks, his favourite bar, and Oliver even runs into Vincent's sort-of girlfriend who works as a stripper/prostitute, Daka (Naomi Watts). Daka is Russian and pregnant, which obviously means she is here merely for comedic purposes. Watts makes the most out of her limited, and ultimately pointless role, her scenes could honestly have all been edited out and no huge impact would be made, and the only thing her character contributes is some mild comic relief due to Daka's failure to grasp the civilised American culture because, you know, she is Russian in a Hollywood production after all. It. is rare to see Watts in a role like this, a comedic one, and perhaps this is something she does have a knack for, but in such a thinly written role it is easy to overlook her contribution to the overall narrative.

But then we discover things about Vincent that actually portray him in a completely different light. He regularly visits his wife suffering from Alzheimer's and insists on doing all the laundry for her. She of course does not remember him one bit, but

his undying love for his wife helps him persevere. He also bonds with Oliver. Oliver is the awkward new kid at school with bullies targeting him. Vincent gives these means boys a proper telling-off. Oliver and the main bully becomes best mates in the end. A contrived plot device that makes little sense. Vincent is also a retired army veteran, a fun fact that only comes up whenever the film needs it to. It is never used to shape Vincent's character as a whole.

The trouble with *St. Vincent* is that it is all so painfully obvious to see how everything will pan out. Making matters worse in the plot overall, is that Oliver has been assigned homework to research into the life of someone who he considers to be a Saint. Given the title of the film, guess who he is going to choose for his

In all fairness, predictability matters very little, as long as the actual content of the bonding process between the two protagonists does not feel too contrived or manipulative but the episodic, scattershot portrayal we see here is too superficial to be taken seriously. Vincent, in the end, is supposed to have had a huge impact on Oliver's life. And for that Oliver and Maggie are rightly grateful. But just how on earth Vincent manages this is never quite clearly explored. This is why the grand finale in which Vincent is honoured to being Oliver's Saint, is never quite as moving as it should be. The film tries to make it

as heart-warming as possible, and succeeds on some levels, but it never quite gets across the huge crowdpleasing affair it wants to.

The one reason the film manages to get by is thanks to the wonderful performances. Murray, back in a lead comedy role after years of being away, is perfect for the role. Grumpy enough to pass as a man with lots of issues. sadness and frustration, but with enough soft side showing through to be an ultimately likeable individual. It is a shame the script never does him justice. Given that he is at the centre of the film, it is surprising to see how little is actually looked at properly with him. Murray's scenes of interaction with the young Lieberher are the real highlight, with the two actors playing off each other's talent with excellent chemistry. There is a bond that is established between the two, which is why the final scene is not a complete and utter disaster. Another strong performance comes from Melissa McCarthy. After a string of roles that involved the actress essentially swearing and shouting as much as she could for laughs, here we have a more intelligent character played by a very accomplished actress. Here is to hoping more roles like this for McCarthy.

Ultimately it is a film let down by a sloppy script that never bothers to do anything decent with potentially interesting characters played by big names. It is pleasant enough, but could have been much more.



Photo: shockya.com



Photo: spyce.co.ke

The First Time Ever I Saw Your Face

JOHN PARK SECTION EDITOR

THE FACE OF LOVE

Director: Theodore Melfi Screenplay: Theodore Melfi Cast: Annette Bening, Ed Harris, Jess Weixler, Robin



The premise is a ridiculous one, but it could have worked. A struggling widow meets a man who looks exactly like her late husband. The husband's role and the new man's role are played by the same actor, so we understand Nikki's (Annette Bening) shock and



Photo: popmatters.com

amazement when she accidentally runs into Tom Young (Ed Harris), an arts professor, five years after the death of her husband Garret (Ed Harris again) in Mexico. She is hesitant at first, but eventually decides to pursue a relationship with him. She comes across as a complete

lunatic of course, completely breaking down and sobbing in front of the professor upon their first meeting, and yet a romantic plot strand is forced upon them, and so onto the audience too.

Bening is without doubt at her best when she is mourning for her dead

husband. As her character progresses, we get hints of how mentally unstable Nikki may be: constantly referring to Tom as Garret, and wanting to recapture the moments she once shared with her husband. These acts of desperation are sad to watch of course, especially when so movingly

captured by Bening, but what blossoms between Nikki and Tom is so preposterous and farcical that it is difficult to take any aspect of this seriously.

Tom is essentially cast aside as a redundant character, and the more the film tries to make the romance between the two work, the more unbearable it becomes. It could have been a sweet premise, but with such poorly defined characters confessing their love for one another at the most random moments, even the coupling of Bening and Harris cannot sell it.

It gets more interesting when Nikki's daughter gets involved, but even this does not last long enough. The late Robin Williams is in a thankless role as the friend-zoned neighbour of Nikki, a fellow widower. And the less that is said about the horrendous ending, that brings together Nikki and Tom's ex-wife Ann (Amy Brenneman), the better.

Arts Editor Fred Fyles & Kamil McClelland

Revealing the Reality of Campus Rape

Indira Mallik looks at Emma Sulkowicz's Carry That Weight

omething of a small revolution is taking place at Columbia University. Each day, Emma Sulkowicz, a 21 year old 3rd year student can be seen carrying her 23 kg mattress around campus. It's not that she's found a drastic solution to tiredness at lectures; but rather a powerful performance art piece. Carry That Weight is Sulkowicz's final year thesis in which she vows to carry the mattress on which she was assaulted until the man she says raped her is removed from campus.

The piece itself, even removed from her story, is powerful. It brings to mind Tracey Emin's My Bed, now being exhibited at the **Tate Modern**. The two pieces, quite aside from the obvious superficial similarities share a confessional element; Emin's piece was designed to open up dialogue about mental illness and preserved the artist's bed as she had left it after suffering from a nervous breakdown; Carry That Weight aims to throw light on rape and sexual assault across college campuses. Sulkowicz's gesture is especially powerful as so often victims of sexual violence remain silent because they are afraid of the stigma they face in talking about their experience. "In my case, I was raped in my own bed', Sulkowicz told Democracy Now host Amy Goodman. "[My rape] desecrated one of the most intimate and private places of my life and the way that I've brought my story from a place that I keep secret out into the public eye sort of mirrors carrying the mattress out into the light for everyone."

Women who have been raped often say that they feel branded as a victim or, worse, a liar out to ruin a man's life, when they speak out about their past. Sulkowicz is no exception. When she revealed her story as part of her thesis, she too faced stigma. Writing for TIME she said "I've lost friends because some people just don't understand what it means to be raped. One friend asked me if I thought that my rapist would be expelled from school. I said, "I really hope so." And he said, "Poor guy"."

She may have lost friends, but Sulkowicz has also gained a wide group of supporters. Part of her performance is following a set of 'rules of engagement' that include allowing herself to be helped in carrying the mattress if someone spontaneously takes it up with her (though she cannot ask for help) - a deeply symbolic and literal gesture. Indeed Sulkowicz says that she has garnered so much support that she hardly ever needs to carry the mattress alone, someone invariably

"She vows

mattress

until her

rapist is

removed"

to carry the



Emma Sulkowicz is carrying her mattress around Columbia University in protest Photo: Andrew Burton

helps her to carry it from class to

On 29th October, No Red Tape, Carry That Weight, and Student-Worker Solidarity organised an international day of protest. The protest saw students across 130 campuses – from Stanford University to Central European University in Budapest - carry mattresses in support of Sulkowicz; demonstrators at Columbia University dumped 28 mattresses outside the home of Columbia President Lee Bollinger, in the hope of showing that 'the ball was in his court' to take up proceedings against the student who alledgedly raped Sulkowicz and two other women. Performance art and political

movements have always been closely intertwined. The hacktivist group Anonymous wore Guy Fawkes masks to protest police brutality in the killing of the killing of Michael Brown in Ferguson, Missouri. In London in 2011, a performer lay naked on the floor of the Tate Britain's Great Hall splashed with oil, emulating a bird caught in a oil spill in protest against the Tate accepting sponsorship from BP.

It is yet to be seen whether Carry That Weight will have a political impact: almost three months after Sulkowicz started carrying her

"Performance art and political movements hace always been closely

intertwined"

mattress around, her alleged rapist still remains enrolled at Columbia. Following the October protest, students at Columbia were charged \$471 for 'clean-up'.

In America, it is estimated 1 in 5 women are assaulted in college, and the picture doesn't look much better on this side of the pond; In 2010, a study by the National Union of Students found that one in seven women experienced a serious physical or sexual assault during their time as a student. Speaking to *The Telegraph* in May of this year, Sarah Pine, Vice President for women at Oxford University Student Union, says that in the last year alone she's heard just under 50 stories of rape from female students whilst working for It Happens Here, the student led Oxford University organisation that aims to raise awareness about sexual assaults at university.

Earlier this month, The White House launched It's On Us a new campaign aiming to raise awareness of issues of sexual assault and rape. It is hoped that by bringing more attention to the unsavoury reality of these crimes, whether through government projects or the bravery and eloquence of people such as Emma Sulkowicz, that sexual assault can be eliminated from university campuses.

Editorial: The Debate Issue

FRED FYLES KAMIL MCCLELLAND SECTION EDITORS

If war is the engine-driver of history, then surely art is the same for debate. What else can promote discussion, outrage, and intrigue like art can? From the long-running controversy stirred up by the annual Turner Prize, to the innumerable think-pieces, springing up like mushrooms after a rainstorm, every time Tate purchases are particularly risible

In this issue of Felix Arts we are looking at how art and artists can stimulate debate, adding fuel to the fire of popular opinion. We start off with Emma Sulkowicz, a 21 year old artist who is carrying her mattress around Columbia campus until her rapist is expelled. Indira Mallik looks at this powerful protest, and links it back to other pieces of performance art that double as protest.

We then move on to have a look at the Tate Modern's latest exhibition, Time, Conflict, and Photography, in which the lasting legacy of war is explored through the work of photographers. They use the camera to excavate the past, and look at the effects that warfare can have today; it is seriously powerful stuff, compounded by a seriously smart curatorial twist that sees us moving away from the moment of the event.

But not all debate needs to be about misery; Guy Bourdin, the fashion photographer who revolutionised the industry, created a vast amount of debate with his bold, loud, sensuous depictions of high fashion. Elizaveta Tchebaniouk heads down to **Somerset House**, where the most extensive retrospective of his work is currently being held, to find that underneath the glamour and glitz, there is a dark, surreal heart. Finally, we take a look at Her Naked Skin, a play about the suffragettes that ran this week at Guildhall School of Music & Drama; taking this as a starting point, we take a look at the history of women writers in theatre. Despite centuries of progress, for women playwrights, the British theatre industry is still stuck in the dark age, passing over their scripts in favour of their male contemporaries. With this issue of Felix Arts, we

want to achieve what all great works of art are able to do: stir up controversy, provoke debate, and – perhaps most importantly – make you think.

Arts Editor Fred Fyles & Kamil McClelland

An Excavation of the Bloody Horrors of Warfare

Fred Fyles explores brutal photographs of wars gone by at the Tate Modern

"There is an aggression implicit in every use of the camera" - Susan Sontag

ince the dawn of the camera, the photographer has returned to a number of themes: the beauty of nature, the danger of the streets, the glamour of the rich and famous. And yet, there is one subject that has captured the photographer's attention like none other: Conflict. From corpses piled high at Bergen-Belsen, to the tattered remnants of Palestinian homes, it seems that the spectacle of war has always struck humanity as one worth observing. Just as light, filtered through a Leica's aperture, permeates a strip of film, so to do these photographs strike our senses and imprint themselves on our

But what of the aftermath? Does time, that most potent of medicines, surely has the power to heal all wounds? The answers can be found in the **Tate Modern**'s latest exhibition; entitled Conflict, Time, Photography, it aims to explore the lasting legacy of war. In an example of curatorial brilliance, the Tate has arranged the photos, not in terms of subject, or date, but by length of time postconflict. It does not resemble an art gallery so much as an archeological dig; with each room we permeate deeper and deeper into our collective memories, tunnelling through the strata and unearthing bone-chilling

In the photos taken immediately after conflict, what is most startling is not the horror of war, but rather the stillness with which each photo is imbued. Luc Delahaye's photo of an ICD explosion in central Iraq is blanketed in a grey, muted silence; we see the time before the dust has settled, before the screams begin. Similarly, Don McCullin's Shellshocked US Marine, Vietnam, has an unsettling calm about it; the soldier stares out, his eyes bulging out of his head, through which no doubt the conflict that had been raging seconds before is now replaying. He does not notice McCullin. He does not notice the camera. He is blind to the world, receptive only to his internal

In terms of scope, the Tate has photographs pulled out all the stops, exploring of Nagasaki wars long gone and conflicts still form the raging. The message is clear; all war is horrific, and it is all worth exploring. focus of the In a year of overzealous politicians exhibition, focussing on the centenary of WWI, physically and an increasingly jingoistic attitude and being taken towards how one should commemorate those who died, it emotionally' is refreshing to be reminded that

"Tomatsu's

conflict did not begin in 1914, and certainly did not end with the Treaty of Versailles, despite the hopes of a continent in a post-war daze.

Some of the works focuses on the most obvious aspect of conflict: the lasting legacy of ruination and destruction it leaves behind. In the months that followed WWI a number of guides to northern France were published, allowing a crowd of horror-tourists to satisfy their bloodlust; continuing in such a vein, we are presented with a series of photos surveying the destruction wrought upon Riems, whose cathedral became a symbol of French hope. Its nave is blasted, its statues crumbling, and yet the edifice still stands tall, not yet willing to become a victim of war. In comparison, the damage left by the bombing of Dresden, levelled in a mere two days with a cost of 25,000 lives, is harrowingly captured in Richard Peter's damning book Dresden: A Camera Accuses, published

Such images are not conceived as a call to arms; they are not histrionic. They do not scream their message from the rooftops, but instead softly deliver an inescapable message: that war is an inconceivable horror, and humanity has an endless capacity for evil. Nowhere is this more apparent that in the work of Shomei Tomatsu, whose stunning black and white photographs of Nagasaki twenty years after the atomic blast form the focus of the exhibition, both physically and emotionally.

'Nakasaki', Tomatsu explains, 'Has two times; there is 11:02, August 9th, 1945; and there is all the time since then. And we must not forget either of them'. This precise time is taken from a broken watch, whose hands fused to the lens the moment of the blast; it looms out at us from the print, its strap gone, its dial chipped, like a vast, unblinking eye. Its function is no longer to tell us the time, but instead to allow us to remember and reflect on the horrors of the bomb. But Tomatsu documents another time: the present. He looks at those who have grown up in the shadow of the bomb, taking dramatic, close-cropped, unforgiving photos of those who were injured, their keloid scars spreading like vast spider-webs down their necks.

Elsewhere, the focus is on what is missing, such as Emeric Lhuisset's tribute to murdered Iraqi journalist Sardasht Osman, I Heard the First Ring of my Death, or Taryn Simon's genealogical studies performed in the wake of the Srebrenica Massacre, in which family trees are reconstructed, with images of bones and teeth



Steel Helmet with Skull Bone Fused by Atomic Bomb, Nagasaki 1963 Photo: Shomei Tomatsu

exhumed from mass graves replacing pictures of those who were killed. In such work it is the space that remains unfilled that is examined; the empty chair, the shoes left behind.

Diana Matar takes this theme and applies it to the Libyan Civil War, in her breathtaking series Evidence, in which she photographs sites of former human rights abuses. In each case the photograph is accompanied by a short text describing that particular crime; we learn that these humble homes were fired upon by invading forces, that this billboard was put up in the wake of a public double-hanging. The most powerful photo of hers is also the smallest: a square photograph of a calm sea, measuring about 15cm across, into which the remains of 1270 political prisoners were dumped after their bones had been ground into a fine powder. Matar uses her camera as a tool for truth, uncovering what many people have tried hard to leave behind.

A strange dichotomy exists within the exhibition between the work that is conceptual and that which is – essentially – photojournalism. In some works the line blurs, such as in the multiple series looking at the brutalist defences left behind by the Germans on the French coastline in WWII, but they never come across as more than a poor man's version of Bernd and Hilla Becher. Ultimately,

nothing can compare to the work of McCullin and Tomatsu, whose photos need no explanation; their impact is immediately apparent. With their grainy, black and white, seemingly off-the-cuff style, these works come the closest to true photojournalism indeed, McCullin is the only journalist included in the show – and perhaps it would have been nice if the Tate had focussed more on such

Near the end of the exhibition we are shown work from Istory, a project from Syrian photographer Hrair Sarkissian, in which he explored the semi-public and private archives that exist in Istanbul. With their minimal lighting, the photos have an oppressive quality that reflects the confidential nature of the files contained within these vast collections. The stories have been shut away, consigned to the filing cabinet of history, but Sarkissian exposes them, even momentarily, to the light of day. And this is what the Tate Modern achieves with Conflict. *Time, Photography*: a shockingly brutal awakening of the horrors of war, and the debilitating effect of time going by.

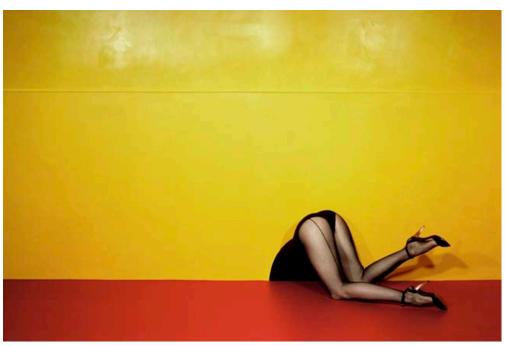
Conflict, Time, Photography is on at the Tate Modern until 15th March 2015. Tickets are £13.10 adults; £11.30 Students

"A brutal awakening of the horrors of war, and the debilitating effect of time gone by"

Arts Editor || Fred Fyles & Kamil McClelland

Guy Bourdin's Glamour: Sinister, Surreal & Sexual

Elizaveta Tchebaniouk is enchanted by the photographer's dark inner visions



Charles Jourdan, Spring 1979 - an example of Bourdin's surreal and sexually sinister style Photo: Guy Bourdin

"Guy

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Bourdin's

omerset House unveiled the UK's largest ever exhibition of Guy Bourdin's work, which spans the 40 year career of the French photographer, and features not only his most iconic photographs, but also never before seen material including Polaroid test shots, double-page spread layouts, contact sheets, as well as Bourdin's paintings, poetry, Super-8 films, and sketches. In content and title – *Guy Bourdin*: *Imagine-Maker* – the exhibition shows Bourdin as not simply a fashion photographer, but also an artist, and portrays his unique craftsmanship and perfectionist approach.

The exhibition begins with ${\it Walking}$ *Legs* – a series of photographs Bourdin took in August 1979 for a Charles Jourdan advertising campaign. His approach was most unconventional; the campaign was shot in locations on a road trip from London to Brighton which Bourdin had taken in his Cadillac, and featured no model apart from a pair of mannequin legs cut off just below the knee. Despite being simplistic due to the absence of the model, the photographs nonetheless convey a most elaborate type of dramatic narrative which is characteristic of Bourdin's photographs.

The main upstairs gallery features a collection of large iconic Bourdin photographs from Vogue Paris, among unpublished ones, all hung in quadruplets. Bourdin had a large collection of film books where a single movie could be "viewed" still by still, and such an arrangement pays homage to that. Each quadruplet is much like a collection of movie stills from a film noir, which tells a

loosely related narrative. A girl lies face down on the floor, naked, while scarlet paint leaks from her mouth. Another girl makes a phone call from a booth, all the while in front of two pairs of legs which appear to be lying limply on a sand-pile, with the torsos leaning out of view. Two models lie in a bed, a pile of sauerkraut and sausages before them; one girl eats a sausage with one hand, while giving the other girl a sausage with the other. All these appear to be unlikely ad campaigns, and yet they were commissioned by high-end clients such as Vogue Paris, Pentax calendar, Versace, and Charles Jourdan. Bourdin's sought after photographs were revolutionary in that they gave glamour a surreal and sexually sinister hue, and that is why the fantasy they depicted captivated and mesmerized their audience.

In another room are four screens which play segments of Bourdin's unique Super-8 short films, accompanied by music. Suddenly, one is transported to an atmosphere of Wes Anderson-like dreamy melancholy the very opposite of the sinister and surreal one sensed in the previous gallery. Watching a French maid dance with a trouser-less man in a blazer and dress-shirt is a most refreshing and charming experience.

Bourdin was revolutionary not only in his content, but also his approach. There was a precise science to his art - nothing was accidental, but the product of a meticulous process. Unlike his contemporaries, Bourdin would submit a ready layout indicating the precise placement of his photographs to the magazine publishers. Examples of Bourdin's

"Bourdin created the perfect dream-like atmosphere, captivating the viewer with its strangeness"

layouts and contact sheets are showcased in the exhibition, as well as polaroids of landscapes which Bourdin took and marked with black tape to focus in on a particular area that interested him as a possible background. Similarly, it is worth noticing that the photographs exhibited in quadruplets in the main gallery are all slightly different sizes - Bourdin purposefully adjusted the widths and length when editing to achieve the focus which was most perfect for the subject and content of each specific photograph.

Bourdin would also surprise his contemporaries by eagerly accepting assignments of shoe and accessory advertising campaigns, normally given to more inexperienced photographers due to their constraints. Bourdin, on the contrary, felt the tight boundaries of such narrow focus did the opposite - they provided him with the space for creative freedom, and the ability to experiment within the boundaries. An example of such campaign is shown in the exhibition in a room solely dedicated to Bourdin's photographs for a shoe advertisement campaign, which were taken of two models in a hotel room, and clearly shows Bourdin's mastery in creating such novel diversity out of a simple setting.

Another room of the exhibition displays something most surprising and unexpected of a conventional fashion photographer - his paintings, and thus Bourdin continues to prove

to be an artist beyond his being established as a fashion photographer. The subjects and motifs which are present in the paintings are paralleled in some of Bourdin's photographs, and these are displayed alongside. Unlike the photographs, most of the painting which are exhibited are unfinished, showing traces of reworks and alterations. Even the finished paintings are neither dated nor signed.

Bourdin created the perfect dreamlike atmosphere which captivates the viewer with its strangeness. A sense of the unexpected and the artificial are central in Bourdin's photographs – in them, he engineered a surreal and dark world. The staged world is personal to the viewer - the mind of each fills in the story of the fantasy, and that is perhaps how Bourdin's photographs subconsciously and indirectly create desire, and sold the product. But there is a deeper significance behind the advertisements; much like Bourdin's beloved *film noirs*, his photographs offer an unexpected escape from the familiarity of reality - one catches a glimpse, for a brief moment, of the rich and strange world as Bourdin

Guy Bourdin: Image Maker is on at Somerset House until 15th March 2015. Tickets are £9 adults; £7 concessions. A talk with curator Alistair O'Neill, examining the lasting influence of Bourdin, will be held on 11th December. Tickets available online.



A rarely seen work from the artist's archive, 1979 Photo: Guy Bourdin

Arts Editor || Fred Fyles & Kamil McClelland

Her Naked Skin & the Legacy of Women Writers

Fred Fyles asks the theatre industry where the women playwrights are

n 1613, Elizabeth Tanfield Cary published The Tragedy of Mariam, the Fair Queen of Jewry. Taking its cue from Roman drama, it is a classic example of a Jacobean revenge drama, a tale of love, betrayal and murder. The play centres around Mariam, second wife of Herod the Great; at the beginning of the piece, Mariam believes her husband is dead, killed at the hand of Octavian. However, Herod returns, and his sister, Salome, manages to convince him that Mariam has been unfaithful in his absence. As punishment, Mariam is executed. What makes The Tragedy of Mariam special, unique even, is that it was the first play written by a woman.

This week, more than 400 years after Mariam was published, sees the opening of a new production of Rebecca Lenkiewicz's play Her Naked Skin at Guildhall School of Music & **Drama**. The play, which was written in 2008, is set in the years preceding WWI, and describes the campaign for equal voting rights by the WSPU – more commonly known as the Suffragettes. Both of the plays use the past as a way of questioning the societal values of today, particularly those relating to women: Cary uses

the idea of the Greek chorus to represent the patriarchal values of the day, allowing her to question their value; Lenkiewicz presents the lessons learned from the Suffragettes in a dramatic manner, thereby highlighting how things have changed since then. But how have times changed? Surely today, more than four centuries after Cary first set out to defy convention, things have improved for women in the theatre?

Sadly, they appear to have not. Lenkiewicz' play, although very well received on its original run in 2008, it achieved more publicity for being the first original play written by a woman to be staged on the main stage at The National Theatre. That's right. 2008. The National Theatre, held by many to be the finest tribute to theatre in Britain, if not the world, did not put on an original production written by a woman until a little over 5 years ago. This fact in itself is, for me, shocking, but if we expand our gaze, looking out further afield and back in time, the picture we paint for women in the theatre is grim indeed.

Let's start with the National Theatre, which recently celebrated its 50th anniversary, and is perhaps the



Charlie Bate, Rebecca Lee, Amber James, Alice Winslow, Lily Sacofsky, Elaine Fellos, and Emily-Celine Thomson in Her Naked Skin Photo: Clive Barda



Rebecca Lee and Oscar Batterham in Her Naked Skin Photo: Clive Barda

Surely, if British women playwrights are to have a place to call home, it would be here? Unfortunately not: in the first ten years of director Nicholas Hytner's tenure - from April 2003 to April 2013 - the NT put on 206 full scale productions, of which a paltry 20 were written by women, less than 10%. Other theatres fare much better, with the Almeida, Hampstead, Soho, and Bush Theatres averaging 30% of their output being written by women, but this is far from ideal. In fact, the only theatre that comes close to reaching a balance is The Royal Court, whose output is 41% written by women, although perhaps this is to be expected, since the company champion new and eclectic writing. Recent estimates suggest that on the whole, only around 17% of produced plays have been written by women.

best-known theatre in the country.

So why is there this disparity? Some blame the Western Canon, the collection of works regarded as 'The Best', from whose vaulted halls many women throughout history have been denied entry. While there is an argument – a strong one – to be made that the Canon marginalises any writers who aren't white men, the world of theatre's reliance on such work would almost certainly distort the types of plays being put on. With a rich history of Ibsen, Strindberg, and Chekhov to choose from, there is little incentive for theatres to attempt to take a chance on newer works. But recent productions

have shown that introducing more women onto the boards can have wide reaching benefits for the whole cultural landscape: Phyllida Lloyd's all-women production of *Henry IV* recently finished its run at the **Donmar Warehouse** to rave reviews, while the Royal Shakespeare Company – which would have perhaps the most legitimate excuse for ignoring women out of all theatre companies - is making active steps to bring a more balanced view to their output, adapting two of Booker Prize winner Hilary Mantel's works for the stage. In this respect, the National Theatre in particular is dragging its feet: only 18% of their new plays were written by women.

But perhaps those plays written by women are just not as good as those by men? Such an argument, which seems to revel in the idea of the solitary male genius, simply does not hold water. One only has to look at the current state of theatreland to realise that a majority of the best plays in the last few years have been written by women: Lucy Prebble's Enron, which fused music and high drama to tell the tale of the corrupt US energy giant, ran for nearly a year in the West End, picking up gushing critical reviews with ease; Laura Wade's Posh, which premiered at The Royal Court, has recently been made into a film, *The Riot Club*, for which Wade wrote the screenplay; and Chimerica, written by Lucy Kirkwood, was perhaps judges as the

play of 2013, garnering multiple award nominations during its West

And it's not just in the UK: Harvard economist Emily Glassberg Sands researched gender disparity on Broadway, and found that works written by women were on average 18% more profitable, and yet ran for the same amount of time as those written by men, adding weight to the idea that women simply have to be better in order to achieve the same as men. Sands also sent out identical scripts to multiple theatre companies, giving half a women author and half a male author; she found that the work written by 'women' was judged to be of lesser quality, and likely to make less money.

Times certainly may have changed since the days of Mariam, but the British world of theatre remains hostile to women: they can tread their boards, they can even direct their plays, but they cannot write their scripts. The UK in particular has a rich tradition of women writers, from Jane Lumley, who in the 16th Century became the first person to translate Euripides, to modern writers such as Abi Morgan and Caryl Churchill, and it therefore is so tragic for their work to remain unrecognised. History is, as they say, written by the victors, but for most of our history women have been banished from the paper, they have been robbed of the pen-

Her Naked Skin ran at Guildhall School of Music & Drama last week.

Editors Carol Ann Cheah and Michael Chung

Let's just get oolong now, shall we?

Michelle Tan looks at some teas from further, er, afield



Photos: Lulla, Etsy

t's no secret that Brits are known for being HUGE tea lovers. Songs are written about it, many jokes (sometimes with vicars) are made on the subject – it's a national institution. But do you know about the many benefits of tea? Thankfully they're not all hard-to-stomach bitter brews; there are so many different types out there that there is bound to be one that you'll come to really enjoy the flavours of.

Everyone has heard of the traditional English Breakfast, Chamomile and Green Tea, but here are some of the less well-known teas. Give them a try the next time you are on the hunt for a new drink to keep you warm this winter!

Need to stay awake?

Translated from Mandarin, its name actually means "black dragon". You would normally drink Oolong tea during a meal of Dim Sum, but don't let that stop you from having it at home! It is one of the more caffeinated teas out there, helping you revitalize your memory especially if you are bogged down

It also helps boost your metabolism – maybe an added bonus after snacking on some of those chocolate chip cookies in between revision sessions! Oolong tea can help aid digestion, helping to reduce the onset of acid reflux or indigestion.

Getting stressed and need something to help you relax?

Rooibos tea is a red tea from a South African Red Bush. Due to its lack of caffeine, it can be a good choice just before bed – especially with winter right round the corner. It contains a wide range of antioxidants in the

form of polyphenols, which can help the body fight free radicals. It has also been found to relieve stomach ailments such as cramps and indigestion. Try this as an alternative to green tea if you prefer teas with a more robust flavour.

Blurred eyesight and persistent skin breakouts?

For that "take me to the spa RIGHT NOW" vibe, try some lemongrass tea – I can assure you that it works! The aroma of lemongrass just brings me back home to Thailand, where it is commonly used to scent rooms.

Plenty of spicy south-east Asian dishes (namely curries) also make use of lemongrass, so it's everywhere! Lemongrass contains Vitamin A, which is beneficial for eyesight and the skin. It also contains citral, an antioxidant to protect your body against free radicals.

Down with the flu?

Second only to chamomile as our Food Editor's herbal tea of choice! Peppermint tea can help relieve your sinuses and soothe the sore throats that we tend to get around this time of the year.

The menthol in the tea can help act as a muscle relaxant especially after an intense workout or sports training session. Also, you can have a cup if you need to de-stress after a busy day at uni. It's traditionally seen as an energizing brew.

Want to start getting into the Christmas mood?

I know I do – I mean, it's December already! Just brewing a cup of masala chai can make your house smell incredibly festive, what with all the spices. Originating from India, it is

known for being good for health and increasing peace of mind.

Chai is actually the word for tea in many parts of the world; masala chai refers to the specific spiced drink, but we tend to refer to it as "chai" as "masala chai" seems to be a mouthful. (Every time you say "chai tea", a tea-picker somewhere in the world weeps.) It's based on a rich black tea infused with all sorts of herbs and spices – such as ginger to help improve circulation and fight bloating; cardamom to detoxify the body; cinnamon and clove with anti-inflammatory and antibacterial properties; and finally, black pepper to give the tea an extra kick of spiciness which is found to improve our metabolism.

Recipes have varied wildly since traditional times, so of course there's nothing stopping you from experimenting with the spices you use, and how much of each you put in your brew. It is my favourite tea of all, especially with the usual addition of milk and sugar! Traditionally in India some form of heavy milk is used – try evaporated milk in yours.

A final note...

Of course, no herbal infusion is a miracle worker or a substitute for healthy eating habits! These ones we've listed however are only the tip of the iceberg in that huge wonderful world of teas out there, specialty or otherwise. It's a mazing how some of $% \left\{ 1,2,...,n\right\}$ them have been used for centuries as traditional remedies, and that they aren't necessarily just a luxury for the upper classes.

So the next time you're out for tea with a friend or loved one, spice it up a bit – try something new, expand your palate's horizons a bit!

Felix Food recommends...

Found these suggestions interesting? We made a few tea-related pickings for you to check out! Disclaimer: We receive no compensation – these are just personal recommendations, tried and tested.

FORTNUM AND MASON

Call us posh all you want, but besides Whittards and Harrods, this is also a good place to start looking for some off-the-beaten-track teas. Michelle's a fan of their Elderflower Green Tea, which gives a nice floral twist to the much-loved beverage.

Robust rooibos is best paired with another robust flavor, and warming cinnamon is just that. Bloom offers a lovely Heartwarming Tea that combines the two. It comes in fuso bags – the posh pyramidal ones that enable you to enjoy the goodness of loose-leaf sans strainer, and the convenience of a bag without having to put up with "sneeze dust" tea.

There's peppermint, and then there's PEPPERMINT with Joe's tea being exactly it! We don't know how they do it, but Carol got the chance to try their peppermint tea after doing that Christmas hamper shoot for Brompton Food Market and was truly bowled over. Bit more expensive compared to supermarket Twinings, but cheap as an indulgence.

A lovely little independent nook in Camden that stocks a variety of amazing loose-leaf teas. Translated from Cantonese, the name actually means "drink tea"! Michelle rates their Chai Black; Yumchaa's blend is made with an Assam tea base. There's also a tea school for you to check out!

Australian by heritage, they opened their first store outside Australasia on King's Road not too long ago. They may have been acquired by Unilever in 2013, but that doesn't change the fact their premium teas are well-loved in Australia. Well those guys know their coffee, so maybe this is one to watch...

"Brewing a cup of masala chai can make your house smell incredibly festive"

Editors Carol Ann Cheah and Michael Chung

Livin' La Vida Mocha

Carol Ann Cheah talks java... the sippable kind, duh



Artist's impression of the moment I was picking out my first piece of "proper coffee" kit. Photos: Gamesided, Pact Coffee

omehow coffee appears to be a lot more divisive than tea, probably because its (buzzy) effects are a lot more potent, and its flavors a lot more punchy. Most kids would detest the taste and texture of coffee; I remember in my case, it was either some "weird insipid swamp water" or "rocket fuel gloop" depending on what brew method was used (or if heaven forbid, it was instant.) Just as well, as tots aren't meant to consume the stuff.

Call it my palate growing up, but after discovering as a tween how nice coffee was with the addition of dairy and sugar (not drunk, but in tiramisu) and appreciating the aroma, I was slowly introduced to better coffee bit by bit. Our generation's lucky to have seen the evolution of coffee culture through two different waves: secondwave coffee chains like Starbucks. and third wave coffee which is the specialty stuff out of microroasteries, sold in independent corner cafes.

I do appreciate though that for most of us, that cup of joe is a means to an end: staying awake for those pesky deadlines. Other than instant, or filter and espresso-based drinks from the Imperial cafés, there's a lot more to the world of coffee. In this hopefully multi-part series, I'll start by looking at different brew methods – I've picked three to look at. Process geeks, right this way!

Cafetiere/French Press

After Turkish coffee ("sludge" in my opinion) and espresso shots, coffee made this way is next on the "fullbodied" spectrum; it also usually tends to leave behind some fine sediment that's okay with some and "ick" to others (hence the "rocket fuel" moniker some people give).

Compared to most other home brew methods, the cafetiere is actually relatively easy to master and get consistent brews from (we STEM people love our reproducible results,

ya know). You just mix ground coffee, add boiling water, steep, plunge and

The one downside to it is that it's a massive pain in the posterior to thoroughly clean; old coffee oils love clinging to the fine filter mesh and the many other nooks and crannies in a cafetiere. However, the small footprint, relative cheapness and really small learning curve mean that it's a popular choice for people graduating from instant coffee for the first time.

Stovetop/Moka Pot

A favourite in Europe and Latin America, with an extremely iconic design. These are traditionally made of aluminium, with a bottom chamber filled with water and a ground coffee gasket screwed on top. This is then heated to boiling point, where steam builds up and is then forced through holes in the coffee gasket, creating the brew.

They're not the easiest to clean, much like French presses. The resulting coffee though does have extremely rich body (hence being dubbed stovetop "espresso" makers), and the brewing process is definitely more engaging. You've definitely got to keep your ears out for the changes in sound to tell you when the coffee's just right.

AeroPress

"Our

has

generation

seen the

evolution

of coffee

culture

through

different

waves"

two

The brainchild of Alan Adler, a Stanford lecturer who invented the Aerobie flying ring that won a plethora of awards - Felix Food suspects he got bored and wanted to try his hand at something radically different. The AeroPress (AP), invented in 2005, consists of two polypropylene chambers: one with a rubber seal that acts as a "plunger" to brew the coffee with the help of pressure (nowhere near that of an actual espresso machine, of course).

It has all the advantages of a French

press and is rather cheap, but also with the added plusses of super-easy cleanup, higher durability (being glass-free to begin with) and a much shorter brew time.

Coffee brewed this way can take on many qualities, depending on whether the user makes espressostyle or Americano/long-black-style drinks. Regardless, they tend to have the flavour clarity of a filter coffee but with a stronger body that's just under french press coffee. I use it lots for my "pseudopresso" drinks; another Felix colleague actually loves it so much that he owns two (one for uni, the other for home).

To sign off...

This was just a brief introductory primer to some of the more common/popular brew kit. Next time I'll be looking at the different coffee-producing regions and what characteristics their coffees have, along with the general brewing steps for these methods. And of course, some troubleshooting for the discerning home brewer.

I'll also be looking at more novel brew methods as well. If you've got a specific coffee query you'd like me to look at, email in to Food and I'll see what I can do!

I'd like to thank Pact Coffee in Bermondsey for the super-fresh java that powers this section. I don't work for them or get any kickbacks; I just really love their wares, convenience and the people behind the company! Interested peeps can sign up at pactcoffee.com using 'FELIXFOOD' to get the first 250g bag for £1, or use 'pactstudents' and sign up with your Imperial email to get a studentexclusive kit for just £6.95.

This includes a bag of coffee, a Hario V60 filter cone and papers, and a nice large KeepCup to transport your brew. They also have other coffee gift bundles at pactcoffee.com/ gift - perfect for Christmas!

Pick your (liquid) poison...

CAROL ANN CHEAH SECTION EDITOR



There's something to be said for coffee and tea, whichever beverage you prefer and whatever way you choose to have it (black, builders', just the mildest dash of milk, etc). Not just because they've powered many an Imperial assignment; I'll admit wholeheartedly that this issue has been brought to you by copious amounts of both, alongside Lemsip – thank you so dang much, laryngitis. Not. No, it's more because they're both universal

catalysts for meetings between all sorts. The butterfly-inducing first/blind date, the reunion between old friends, the moment when hipster artist/writer finally meets that stroke of inspiration

they've been looking for...
The nice thing is that the bonding would probably still happen, regardless of the beverage quality. I don't think the fact I was drinking "sneeze-dust Tetley" instead of posh lapsang souchong made any of the conversations I used to have with the sisters at my boarding school's sick bay any less meaningful. Neither has the advice given by my dad over breakfast suddenly become useless, just because he was drinking Nescafé instead of stuff made from single-origin beans that came out from a microroastery a week ago. I'll always attest though that just upping the freshness and quality of your ingredients is a relatively simple and inexpensive way to give yourself a little bit of luxury, especially for one of those tougher weeks. If you don't know where to start, give the lovely folks at TeaSoc a whirl. They meet every Tuesday for sippable goodness.
Ironically, while I now absolutely adore my

fortnightly deliveries from my coffee wingmen at Pact, kid Carol was so adamant that dad should only drink decaf because it was better for his health. Oh, I was crazy stubborn about that one! Little did I know at the time that the processes used to decaffeinate coffee were actually worse – Swiss water process decaf wasn't really sold back in Malaysia. Ah, to be

I guess for me, the appeal of these lovely drinks isn't just because they bring peeps together or encourage productivity. Neither is it because of the world of flavours out there. Nah, it's the fact that so many little things influence (some greatly so) the final outcome of the brewed beverage. Every new cup brewed is an experiment waiting to happen. What are these little things? Water-to-infusion-material (tea/coffee) ratio, temperature, time, grind/ particle size, origin (for coffee), brew method (filter/ cafetiere)... I could go on for yonks.

Either way, I also love how both the brewing and the drinking processes can be highly meditative one minute, and a habit-on-autopilot the next. I find crafting latte art for my "pseudopresso"/fauxespresso beverages incredibly relaxing and fun. That mug obviously has a different taste and vibe to the one I grind at 11am in the Felix office, just because my body is threatening to make me doze off somehow. What chameleons these beverages are - what possibilities, too!

Incidentally, I've somehow managed to overwork myself this week. Investigating the death of Professor Grimm with News has been really engaging, but as a result of the phone calls I've made chasing up for info (and a delayed wave of freshers' flu), I now have half my voice – ergo, Lemsip and Joe's Tea Co Peppermint over the last few days. Look after yourselves, guys... the term's nearly over, so hang in there!

Travel Editor | Yung Nam Cheah

It's the most, wonderful time, of the year...

Yung Nam Cheah shares her top pick of upcoming festive activities in the UK

very Christmas holiday, people are often tempted to go abroad, whether to visit famous Christmas markets or enjoy the festive vibes of the country.

However, there is just as much to do on this island, especially in the capital where we are. I have scoured through the internet for the most interesting event and here are my top 3 picks in

Fairytales After Dark

Descending to bestow Londoners a magical weekend, the Skewbald Theatre will be bringing fairy tales to life at the greens of thhe Olympic Stadium. Through an enchanting mix of singing, dancing and puppetry, stories familiar and strange, of bewitched frog prince to old Fisherman will come to life in this outdoor theatre.

Running three times a day with free tickets, there really is no excuse not to escape into the classical 'Once Upon a Time' world and immerse oneself back into your childhood memories.

Tickets can be booked through the Olympic park website and are going fast - so don't hesitate.

Stratford Olympic Stadium 13th-14th Dec 16:00, 17:30, 19:00 queenelizabetholympicpark.co.uk/ whats-on/events/2014/11/skewbaldtheatre-presents-fairytales-at-night

Winterville, Victorian Park

A new winter destination in London rivalling Winter Wonderland in Hyde Park, Winterville seems to have everything and more. Ice rink, checked; Fairground, check; Market place, check; Ferris wheel, check. It even has a Kids quarter, Pantomine of Robin Hood, Spiegeltent and roller

Admission is free, and tickets for various events can be brought online (many comedies and shows in Spiegeltent are free though!).

For those seeking refreshment, street food stalls are scattered all over the site, and to warm you up for the season there is a dedicated Craft Beer area as well.

For the party crowds there are Roller Disco and Kicking Club nights for you to celebrate away the festive

The only downside is that Victoria Park is infinitely harder to get to for us imperialites, but for those who are a little sick of the Winter Wonderland, it might be worth checking out.



The picture perfect Winterville, Victorian Park Photo: flickr/Dominic Alves

Crown Gate, Victoria Park, Grove Road, Bow, E3 5TB 2nd Dec - 1st Jan, 2015 excluding 25th, 26th 10:00 - 20:30 Free Winterville.co.uk Nearest stations: Mile End, Bethnal

Burning the clocks, Brighton With thousands of flickering lights

illuminating the streets every Winter Solstices for over two decades, Burning the clock parade has now become a trademark event in Brighton, With a parade of handmade paper and willow lanterns, the festivities gather over 20,000 people for a 45 minutes parade down to the sea front of Brighton.

Ending in a bonfire where the lanterns are burned and the firework display starts, this event strives to celebrate the darkest hours on

the shortest day of the year. To commemorate its 21st birthday, hidden lanterns designed with this year's theme 'Urbano - the City' are scattered across the city until New Year (map can be found on the website). For safety reasons, only the lanterns made by the kit they sell can be burnt.To join the parade with your own handiwork, stay tuned on the website for direction of sales (which are yet to be released for now).

Parade on 21st Dec 18:30 price tbc

Men decked out in Roman army costumes parading down the cobble streets of Chester . Photo: Donald Judge

Living advent Calendar

An idea that originated from Stockholm, the living advent calendar see a festive performance popping out of a window or door at 18:30 from 1st to 24th December, delighting the gathered crowd for 30 minutes. From carol singing to dancing to tales of folklore, each performance is matched with a venue scattered across the rustic town.

Whilst Henley-on-Thames is celebrating Christmas in style for the third year, Windsor has also joined the bandwagon.

For those who wants to immerse in this unique event but are discouraged by the distance, this makes a good alternative, although the performance only lasts 15 minutes.

Henley-on-Thames, Oxfordshire 1st-24th Dec 18:15 Free Windsor 1st-24th Dec 18:15 www.windsor.gov.uk/whats-on/ windsor-and-eton-living-adventcalendar-p1000851

Ancient Roman festival of Saturnalia parade, Chester

Before there was Christmas, the people of Rome threw a festival in honour of their deity Saturn on the 17th December. To remember the glory of the old days, a torch light parade is held in Chester with Roman legions stomping through its cobbled streets. If merely watching the parade isn't good enough for you, you can make your own lantern at Grosvenor Museum from 17:45 till 18:30 beforehand.

18th Dec, 18:30 www.visitchester.com/whats-on/ saturnalia-parade-p77071



Travel Editor || Yung Nam Cheah

Oh Christmas lights, so Christmas-y

Discover the local spotlights of London's Christmas suit with Yung Nam Cheah



From top left going clockwise: Selfridges Destination Christmas sign beaming out the festive vibes; Selfridges window display consisting of luxury products, gleaming in front of the mystical moon; another window display at Selfridges depicting a golden web with a spinner - no doubt representing the Sleeping Beauty; glimpse of Somerset House completed with Christmas tree through its archway entrance; The large baubles hanging on the ceiling of Covent Garden; decorated Oxford Street looking ever so Christmassy with the complimentary red buses going up and down it all night. Photo: Yung Nam Cheah

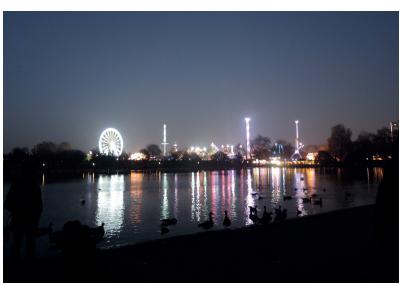
t is getting to everyone's favourite time of the year again, and the capital has already decked out for the season.

From white fairy lights to giant reindeer, there's no end to what London can dream up with.

Here's some of my favourite.

Oxford Street

There's nothing like the glittering Christmas light on the shopping streets to put you in the mood for holiday shopping, especially in the



Winterwonderland viewed from the Serpentine, an illusion of peace and serenity Photo: Yung Nam Cheah

long, dark winter nights. Chains of circle bulbs have lined themselves up and down this major retail runway, with fairy lights wrapped around the

Selfridges Christmas display

With the theme this year being Destination Christmas, the Selfridges have really outdone themselves with the otherworldly window display that literally stop people on their feet and draw their phones out for a dozen photos. Each window seems to beckons you closer, displaying a fairy tale world like no other littered with golden mannequins, beautiful dresses and unique props glowing under the coloured lighting. These gorgeous scenes have become something more like art then mere window display, and it's definitely worth going to have a look before Oxford Street is swamped with Christmas shoppers.

Covent Garden

Despite reusing the same display every year, the enormous dangling baubles hanging off the ceiling at

Covert Garden never cease to give me a sense of wonder. The red and silver bring a sense of festivities into the warmly lit space, and there is a delightful reindeer statue outside. The rearing metal statue is adorned with lights and riding on a Christmas skate, with a scattered of presents at its foot; if this doesn't bring your Christmas spirits out, I don't know what will.

Natural History Museum

Despite the fact that almost every Imperial students who commute walk past everyday, the scenic view of the Natural History Museum is one that I must mention. With the fairy lights wrapped around the trees, the merry-go-round and the ice-skating rink with magnetic blue and purple lighting cast over it all, it's almost like you are glimpsing a fairy world where Christmas occur everyday.

Winter Wonderland

Whilst this popular attraction hasn't made it to my top 3 things to do in London, there's no denying

that this Christmas wonderland offers plenty of photo opportunity. When I say that, I just mean when you are inside the park. The best view of the place is from the south bank of Serpentine, where you can see the neon lights reflected on the water.



The metal statue of Reindeer sparkling in the long nights of Christmas. Rearing on a carte ready to go. Photo: Yung Nam

Welfare Editor || Diba Esbati & Chanon Wongsatayanont

A personal look at psychological abuse

An anonymous writer's personal experience with emotional abuse and the warning signs

t a friend's house party last week I met a couple that brought back a few memories I had hoped to keep locked up, and now, huddled next to the radiator in my otherwise arctic flat, I try to write this for what seems like the hundredth time. I want to write about emotional abuse, its warning signs, and illustrate this all with my own experiences because looking back now, I feel like had I known what it was that was happening to me, I would have got out of there much, much earlier.

You don't often hear people talk about emotional abuse, and in part, I think this is because sometimes neither the victim nor the abuser know it's happening. Emotional abuse is a series of harmful, repetitive behaviours that slowly chip away at the victim's sense of self worth and independence, making them dislike themselves. I, unfortunately, have experienced first hand what it's like to be in a relationship with a manipulative and emotionally abusive person, and am living proof of how it can mess you up and leave you a mere shadow of what you once were. This is my story.

When I first started dating my then partner, I was a fairly confident person but he soon found a way to find my every insecurity and dig at it until I felt so horrible about myself that I no longer wanted to be alive. He was the first boyfriend I'd ever had – having come from a strict religious family, I wasn't allowed to date. This meant that from the get-go, I had to hide my relationship from my parents because I was convinced they wouldn't understand, and that was the first thing I did wrong. Initially, he insisted he wanted to keep our relationship a secret from our friends, because he wanted it to just be between us, because that would make it 'more special'. The thing about manipulators is that they isolate you from others, and do it so subtly that you don't often notice it happening until it's too late. We'd been dating for almost a month until he decided to tell our close friends in halls, and that was after another friend of mine had expressed a desire to go out with me, an offer that I had denied. My boyfriend decided that it was time for people to know, because he didn't want anyone else to think I 'wasn't his'. That should have been the first red flag. What emotionally manipulative and abusive people do is try and make you so dependent on them by isolating you from your friends and family that you start to believe they have some sort of claim on you, and worse, that you want them to have a claim on you.

"Emotional

abuse is a

series of

repetitive

behaviour

chip away

that slowly

at a person's

self eteem"

Photo: marcgosselin Next came the ruining of my make sure that I knew he was a great boyfriend by buying me presents, and constantly bring this up in arguments

"He would

twist my

words to

make it

seem like I

was being

needy or

that I was

childish and

overreacting"

self esteem - it started subtly at first, as these things do, with small comments here and there. He would mock me in front of our mutual friends under the guise of 'flirty banter', try and counter my every point in group conversations and often cut me off when I would try and speak. When I would tell him, in private, that his actions were making me uncomfortable or upset, he mock me for being over sensitive, tell me to toughen up and learn to take a joke and that he didn't mean to offend me. When we would go out with a group of people that I didn't know, he never made any effort to introduce me as anything but his girlfriend, and by that point, he had whittled down my self confidence enough that I did not want to participate in conversations anymore in fear of being mocked or cut off. As time went by, it started to get less subtle. Whenever I would tell a joke, he would tell me that it wasn't witty and would dismiss it, and then repeat later in a different group taking credit for it. A couple of times, I called him out on it, but he would claim that I was just misremembering it and he had come up with it on his own. He made me doubt myself so much that I couldn't trust even my own memory after a while. Now, these are all clear signs of emotional abuse, when someone makes you doubt yourself so much that you no longer trust your own memory, there should be warning signs going off in your head.

Whenever I would mention that I had a problem with how he treated me, he would twist my words to make it seem like I was being needy, or childish, and make me feel like I was overreacting. He would

to make sure I never forgot that he obviously loved me and that I shouldn't put him under so much stress when I know he's so busy with work. He would refuse to speak to me until I apologised for overreacting. If you're with someone who makes you think that the emotions you're feeling due to something they've done are in some way unjustified, then that person is not worth being with. I cannot stress this enough, it doesn't matter what the other person meant by their comments or actions, if you feel unsafe and bring this up, and they then constantly try and make you feel bad for feeling offended and refuse to apologise, then they're not a very nice person. Now, he was never physically

abusive towards me and honestly it might have made it much easier to get out of that relationship if he had been. We've somehow been conditioned to think of physical and sexual abuse as being the only 'legitimate' types of abuse, which means it cost me three years and my mental health before I realised that something was amiss and that it wasn't just me overreacting. Now, half a year later, after months of therapy I've slowly come to notice the signs and just wish someone had told me about them sooner. So I guess that's what I'm doing now. If any of these situations seem familiar to you, then it might be worth thinking long and hard about your relationship (be it with a partner, parent, or friend).

Thank you so much for sharing your experiences with us. Please remember that if you're feeling under pressure, talk to someone. Don't suffer in silence. -Section Editor

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.

Samaritans (24 hr helpline) Phone: 08457 90 90 90 Website: www. samaritans.org.uk

Anxiety UK Phone: 08444 775 774 (Mon-Fri 9:30 - 17:30) Website: www.anxietyuk. org.uk

No Panic Phone: 0808 800 2222 (daily, 10am - 10pm) Website: www.nopanic. org.uk

Beat Phone: 0845 634 1414 (Mon - Thurs, 1.30pm -4:30pm)

Alcoholics Anonymous Phone: 0845 769 7555 (24 hour helpline) Website: www.alcoholicsanonymous.org.uk

Narcotics Anonymous Phone: 0300 999 1212 Website: www.ukna.org

Student Counselling Service Phone: 020 7594 9637 e-mail: counselling@ic.ac.

Imperial College Health Centre Telephone: 020 7584 6301 e-mail: 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.

STRUGGLING FINANCIALLY?

Experiencing an unexpected cash shortfall and struggling to make ends meet?

Yes?

If so, we may be able to help.
Visit the Student Finance website:

www.imperial.ac.uk/studentfinance/currentstudents/ supportfund



HANGMAN .









hangman@imperial.ac.uk

An unprecedented 15,000 students turn up to General Meeting

General Meeting was held this week to discuss the state of commercial services at Imperial, and approximately 15,000 students turned up. The Meeting was called to discuss, in no particular order, the lack of air conditioning in the library, the mice that are often spotted running around the cafes on campus, having to pay to get into the Union and, a point apparently thrown in for good measure "The Imperial Ratio.'

The number of students that turned up was unprecedented, and, as such, the Union had to set up a number of live streams of the discussion across campus, with students willingly piling into lecture theatres across campus on a Monday evening to have their say about the issues that truly mattered to them.

With a General Meeting only requiring 200 students to meet quorum, the number of attendees in this case meant quorum was met a record breaking 45 times over.

The discussion started at half seven on Monday evening, and continued well into the night as reasoned debate turned into impassioned deliberation. At 1am, armed services

turned up to provide blankets, liquids and other supplies for the students who showed no sign of tiring in complaining about the heat on Level 4, the hygiene of the library café, and how one in five students still leave Imperial as virgins.

Said one mathematics student sat in Blackett lecture theatre 1: "I just don't understand why the President of College spends so much money on getting us stuff like flying robot labs or whatever but won't even pay for more desk fans or anything.

"I literally have to take shower breaks during revision in the summer if I can only find a seat on the 5th floor." Several hundred people nodded in agreement, and tens of people were heard to cheer.

A Biologist sat in the Great Hall, which had the discussion streamed through to a giant screen on stage, said: "What I don't get is how every year I vote in that guy who promises no more entry fees on a Friday, and yet every year I find myself paying £2.50 to enter Metric and listen to some guy play a shitty itunes playlist to an empty stage." Applause then followed for a deafening ten



The crowds also extended down Exhibition Road, as thousands showed up to the GM to make their voice heard

Many were also congregated on Queen's Lawn, with another last minute projector displaying the debate on the side of the Queen's

During a particularly robust debate on point 222.1.6b, "All the decent looking girls do Biology," one EIE student said "I wish I had been told that you actually have to develop interpersonal skills whilst at boarding school before coming to

"Apparently demanding girls to make me sandwiches and calling it banter doesn't really make girls find you attractive, but it took me nearly all of first year to come that conclusion." A rare moment of silence followed this statement, one of the few of the Meeting, as people seemed to quietly consider what he

The meeting finally came to the

end Wednesday evening, as people slowly left lecture theatres, seminar rooms, cafes and meeting rooms and moved towards Beit Quad to queue up for ACC Sports night. As they were leaving, many spoke to Hangman and said it was good to get the stuff that bothered them out into the air like the whole entry fees thing, but one student did say "It is £9.50 to get in, which is annoying, but I guess we do get four pints."

Hundreds of students legitimately sign unsecured online petition

angman is pleased to report this week that, for once, Imperial students have seemingly rallied together and displayed a sense of political prowess. Over 600 students, clubs and societies and even some sabbatical officers and senior members of staff have signed the ACC Rugby petition.

The petition was posted online earlier this week in a bid to record support for their Club Captain that is facing potential expulsion from his

The petition, in its sheer brilliance and simplicity, allows anyone with any Imperial login to sign up, and students from every edge of campus and beyond have been apparently queuing up to show their support. No password or email confirmation is necessary; you can enter almost random combinations of letters and numbers and they will manifest themselves into a codified Imperial login and add another signatory to the petition that is growing on the

Hangman spoke to Iraqi Soc, who despite having seemingly no recollection of signing up, did say they enjoyed rugby as a sport. Said the President: "Yes, I have watched this sport once or twice on TV. Did I sign up? I guess if it says I did, then yes, I must have done. Why would a petition feature names if they didn't legitimately support what the petition was about?"

Hangman also spoke to the natural allies of ACC Rugby, ICU Feminist Society, who had also signed the petition with their club email. Said the President, "I have seen these boys drink in the Union once or twice, and, to be honest. I think their lad culture is actually damaging in encouraging sexism at Imperial. But, if it says someone entered my login, then I guess we do in fact support the

Alice Gast, Robert Winston and also the CGCU Spanner have also penned their support of the team,



with all their email logins appearing on the petition. It also seems the ICT service desk, the library complaints team, those behind hiring the Union minibuses and even Robert J. Carpenter have been moved by the plea to protect the rugby player, with their email logins present on the list.

When Hangman contacted Tom Wheeler, Imperial College Union president, we asked him why he had both signed the petition and also was one on the panel that called for the motion of no confidence in the first place. He seemed perplexed, again unable to recall signing the petition with both his personal login and the presidential account, but did say that "You can't really argue with an automated list like that, can you?

"I am not a fan of the petition as I think the individual needs to accept the consequences of his actions, but then my name is on it twice so it must mean I doubly support ACC Rugby too.

"It is confusing, as it now seems I simultaneously disapprove and also highly approve of the petition, but why would my name appear on it twice if that wasn't the case? No-one would dare troll such a sophisticated sign up system, would they?



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hangman@imperial.ac.uk

Diary of A Fresher aged 18 3/4

Friday 28th

After lectures I caught a train back home, the first time I have been home home since the start of term. It was weird being back in a room without a roommate or screaming students parading the corridors, but it was nice too. Mum made me lasagne, god I love

I feel so much better having a meal that hasn't been sitting under fluorescent lights in the library café for eight hours.

Saturday 29th

We went on a massive night out tonight into town, as everyone had come back for Neil's birthday. I know we all go to different unis and stuff but like I reckon we will still be friends for ages yet, it was like none of us had ever even left and it was basically like sixth form all over again.

Stuart wouldn't shut up about Leeds though. We get it, you go to a uni in Leeds, living in London is so much cooler so I dunno what he is on about. Whatever Stuart, everyone knows you cheated on Steph in Oxford anyway so we all still think you are a tosser still. Steph didn't come out as she comes home next weekend, and apparently hasn't seen the outside of the library in seven days according to facebook.

I forgot how cheap alcohol is back home

Sunday 30th

Spent all day on the slowest train ever because it was the cheapest. I decided to avoid Dorothy as she started whatsapping me this morning about how I had ignored her all weekend. I didn't want to spend all weekend at home with my head in my phone, you know?

Writing this in the library on the fourth floor, my second home. It is Dorothy free and I have an essay due in next week. It's really hard and I literally have spent the last two hours surfing imgur and done no work.

Monday 1st

I have calculated that I have to revise for 300 hours over Christmas to cover each lecture in time for the exams. I have made a schedule and given myself Christmas day and New Years Eve off for a period of six hours each. I should be able to get through all the material by then and hopefully get

Kris Kraye is home tomorrow though, we are going to get him from Heathrow in the afternoon.

Tuesday 2nd

Took Dorothy to the airport and Kris Kraye met us at the gate, wearing a really tattered HR Lads on Tour t-shirt, although someone had drawn a penis on the Queen's face. Kris said someone did it in jail when he was sleeping but refused to tell us more. He was really happy when we gave him some wine and said we could go to the casino later.

It was really odd though, as Dorothy was really clingy to Kris all day and I dunno, she seemed to be giving me the cold shoulder. Maybe she is pissed at me because I changed my phone background from a photo of us a photo of my friends from Saturday's night out (best night out ever, I miss home, cannot wait for Christmas and my 12 hours of freedom)

Wednesday 3rd

Tonight was the ACC night, so I put on my 3D glasses and took Dorothy who was already sporting her usual flushed face by the time we walked over to Beit after predrinking. Kris Kraye joined us too, and he got really excited when Japan Soc came to the Union dressed as different coloured crayons.

I lost both of them before coming home but that was fine, I got a Burger King on the way back and it was good to have a whole single bed to myself even for the first time in a while, even if my roommate was snoring.

Thursday 4th

So, apparently, Kris Kraye went home with Dorothy. I heard he asked her if she wanted the DPW and said he'd give some horizontal welfare. Does that mean they had sex?



This week you find yourself on Imperial's University Challenge team, despite not having done well enough in the qualification round. You declare your undying love for Jeremy Paxman. The Union try to remove you from the team, but your friends start a petition so you'll be fine.



This week one of the Felix grandees wrote a headline for one of your articles saying that bankers are wankers. All of the banking companies that you applied for jobs at find out about this, and you realise that your job prospects are ruined. Never mind, you can always run for a Sabbatical position next year.



This week you are Deputy President (Welfare). You decide to spice up your sex life by pouring chilli pepper powder on your genitals. You learn to be careful what you wish for, and to stop taking relationship advice from the Union President.



This week your corridor in halls decides to celebrate Thanksgiving. Since you decided to publicly give thanks for the reflection in the window that lets you watch your neighbour and her boyfriend, no one will talk to you again this year.



This week you enter the RCSU's Science Challenge. You lose to an exceptionally gifted group of schoolchildren. You are a fourth year physics student who should have known better than to compete against children. You will carry the shame of this forever.



This week you write decide to write for Felix. Unfortunately you leave this until the last minute, when you are drunk and all they have left is the horoscopes. You try to inject them with some serious journalism, but you quickly resort to tasteless jokes and self



This week you do this year's Christmas decoration for your hall in the night as a surprise for your friends. In the morning you wake up to concerned chatter asking why anyone would want to break in and rub human shit across the walls of a hall of residence. You realise that Christmas at your house may have not been normal.



This week you decide to come crawling back to the Felix Editor and finally apologise for being a dick. You ask her how you can make it up to her, and she decides that you can deliver the paper on a Friday, whilst wearing nothing but a thong and a furry tailed butt-plug. I know you would secretly love it.

Be at Beit Quad for 9am please.

This week you bake a cake that is valued at £3800. Unfortunately it only makes £50 at auction, despite being a truly exquisite cake. You realise that your money laundering scheme has fallen flat on its face, and that it's time that you joined Finance Society to learn how these things are really done.



SAGITTARIUS

This week you copy edit Fleix. Sleplling mistakes kepe creepnig into articels, as wlel as grammaric errors. You hope taht no one noticed, and yuo know that none cares. Fuck it, this is still better spelling and grammar than the editorial.

OH I AM COMING TO GET YOU FOR THIS ONE - Ed.



CAPRICORN

This week you make your professional porn debut. Unfortunately, you learn that strangulation, fisting, female ejaculation, and spanking are now banned. You cannot legally release your film and your co-stars, your sister and mother, are bitterly disappointed.



This week you are a prominent Lord at Imperial. You realise that your moustache is actually a live animal and BUAV start a campaign against you. They smear red paint all over your beautiful vintage Bentley. Serves you right for making our Felix Editor cry when she interviewed you last year.





Puzzles Editor | Michael Faggetter

Word Search

Paul G.

N	Α	Α	K	ı	R	F	Α	R	S	I	0	U	X	ı	Z	О	L	N
Ε	Ε	G	Α	S	0	Ε	Ε	K	0	R	Ε	Н	С	N	D	R	Α	0
J	Α	V	Α	R	М	Ε	Ν	I	Α	N	0	I	Α	I	Α	N	Т	R
Ε	S	Ε	Т	L	Α	М	Н	Т	G	S	N	T	T	R	Α	М	I	U
Υ	W	R	I	Н	N	В	Α	L	Α	Α	М	Α	Α	Α	В	U	Ν	Н
Ε	Α	Α	С	Α	S	Т	I	L	I	Α	N	L	L	D	U	Т	С	Н
Ν	Н	G	0	С	С	S	S	С	0	Т	S	I	Α	N	R	0	Α	N
Т	I	Α	R	K	Н	S	I	D	Ε	W	S	Α	N	Α	0	М	Α	S
Т	L	Ε	N	Ε	0	N	С	Z	Ε	С	Н	N	F	M	Υ	С	L	Ε
U	I	L	I	I	Ε	R	0	N	Α	С	С	Н	Α	U	S	Α	В	R
Ε	W	1	S	0	M	K	Ε	В	U	N	R	U	Ε	U	Q	S	Α	В
L	Т	С	Н	Α	M	Т	Ν	Α	G	Α	0	Ε	R	I	Ε	С	Ν	0
Α	Ε	Р	0	R	U	Ε	0	D	Ν	I	0	Т	0	R	Р	Н	I	С
D	L	R	Ε	M	Н	K	С	Н	1	N	Ε	S	Ε	L	Υ	Ε	Α	R
1	I	1	N	0	Χ	Α	S	0	L	G	N	Α	S	R	Ε	Υ	Ν	0
Ν	Α	G	M	U	S	0	R	Ε	R	Ε	Н	W	Ε	R	В	Ε	Н	Α
Z	U	L	U	Α	D	Н	С	N	Ε	R	F	K	M	R	L	N	Α	Т
S	Ε	U	G	U	Т	R	0	Р	Т	М	Т	I	R	K	S	N	Α	S
0	В	0	С	0	D	Ε	U	G	Ν	Α	L	F	U	N	Р	Ε	R	L
0	N	I	Р	I	L	I	F	W	I	N	N	Е	В	Α	G	0	S	U

Find 90 languages hidden in the grid horizontally, vertically or diagonally. All the languages to be found that are of five letters or less are listed below, but it's up to you to discover the longer ones.

When all the languages have been found, the 12 unused letters, when read left to right from the top row downwards, will spell a type of language.

ALEUT	FARSI	KHMER	SCOTS
ALGOL	GEEZ	LADIN	SIOUX
AVAR	GOSU	LAO	TAMIL
CHAM	GREEK	LATIN	TATAR
COBOL	HACK	LOZI	THAI
CURRY	HAUSA	LUO	TWI
CZECH	HINDI	MANX	URDU
DUTCH	HURON	MAORI	UTE
EFIK	IDO	MOTU	XHOSA
ERIE	IGBO	NAGA	ZULU
ERSE	INCA	OSAGE	
EWE	JAVA	PERL	



FUCWIT

Send in a scanned copy of your completed puzzles to fsudoku@imperial.ac.uk.

Points are awarded for each correct solution. Bonus points (in brackets) are awarded to the first correct answer!

Points available this week:

Quick Crossword 3 points (+2) 2 points (+1)

Leaderboard

Individuals:

5. Gabriel Quek

1. Adam Stewart 73 2. Catmelon 39 3. Kebab King 2.1 Jem Ong 21

Word Search

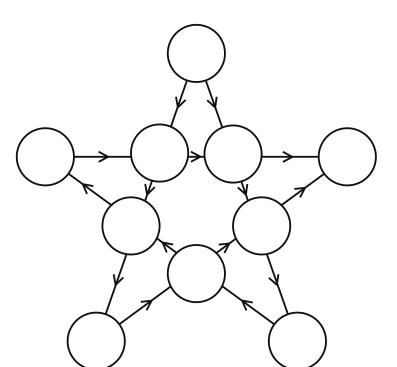
4 points (+2)

1. Mindsuckers 2. L3Gendary 27 3. Fully Erect 24 4. AnyonebutKofi 5. Aerodoku 6. Guang <3 Le

Word Star

3 points (+1)

Word Star



Find 5, four-letter words using the clues written below.

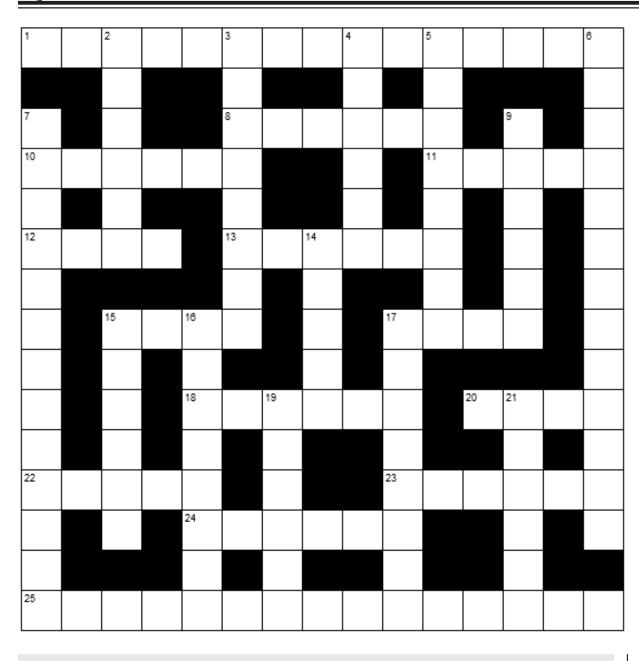
Fit them all into the star (the arrows indicate the direction in which the word is read).

- 1. Swedish car manufacturer
- 2. Meat from a heifer
- 3. To catch a fish and pull it out of the water
- 4. An item often used to make necklaces
- 5. A company commonly assosiated with shoes for skaterboarders.

Puzzles Editor | Michael Faggetter

Quick Crossword

James Dutton & Kofi Mundy-Castle



- 1. Well-known reggae Song (1,4,3,7)
- 8. Slice of meat (6)
- 10. Mischievous (6)
- 11. Irene _____ Sherlock Holmes character (5)
- 12. Balls worth one point in snooker (4)
- 13. Applying grease (6)
- 15. Swiss Chemist founder of law of constant heat summation (4)
- 17. National emblem of Wales (4)
- 18. Arrival (of money) (6)
- 20. Manlike monster (4)
- 22. Circumvent (5)
- 23. Battered prawn (6)
- 24. Overwhelm (6)
- 25. Film featuring The Beatles (6,9)

Down

- 3. Particles that travel faster than light (8)
- 4. Cured sausage (6)
- 5. Intertwine (8)
- 6. Quality of (e.g.) iron pertaining to the Curie point (13)
- 7. James Bond Actor (6,7)
- 9. German Nobel Prize winning physicist (6)
- 14. Ivan _____ Eight-time Grand Slam winning tennis player (5)
- 15. Tobacco pipe (6)
- 16. Short dagger (8)
- 17. South-east London borough (8)
- 19. Narrow inlets created by glacial erosion (6)
- 21. Star sign (6)

Last week's solutions

Quick Crossword

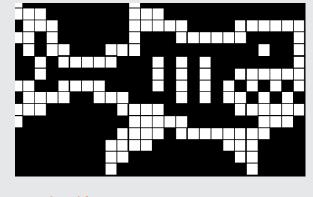


Triple Word

The theme that linked the three words was CHEESE and each was missing the letter 'E'.

The three words were: American Caerphilly Gloucester

Nonogram



Acrostic Grid

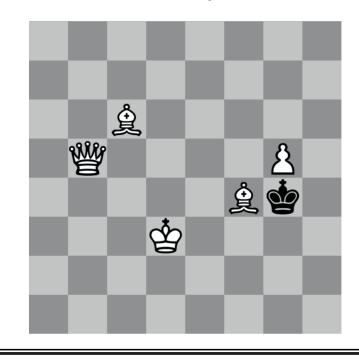
Disney Character: SHERE KHAN

- 1: SHUT (THUS)
- 2: HINGE (NEIGH)
- 3: ESCORT (SECTOR)
- 4: ROWDIER (WORRIED)
- 5: EMITTERS
- (TERMITES)
- 6: KIPPERS (SKIPPER)
- 7: HEISTS (THESIS)
 - 8: ADEPT (TAPED)
 - 9: NEAR (EARN)

Chess!

Max Eggl

The return of *Chess!*. Once again the instructions are: White to mate. In this puzzle, the white pawn is moving down.



Clubs and Societies

C & S Editor | Ben Howitt

Building a Cleaner Future

Prashant Mahendran reports on the third London Climate Forum

The forum's third year sees its growth to an even bigger event, keeping up with the pressure of climate change itself.

Movements for equal rights over the years have been pushed forward by the vibrant culture of university, be they for women's rights, gay rights or the battle against racism. In each case there have been huge steps towards change, so it seems only logical to approach students once again with the problem of climate

This was a point made by Michael Mathres, one of the many esteemed guest speakers who made their way down to the London Climate Forum at Imperial College London for an incredibly informative day that served to enlighten us on what exactly we could do to make a difference in what sometimes seems like a hopeless

The day began with a keynote speech by Professor Sir Brian Hoskins, Chair of the Grantham Institute, followed by talks emphasising the importance of design $\,$ in innovation for sustainability. After a networking opportunity at lunch, the forum split off into two branches.

The UK Youth Climate Coalition held a workshop that boiled down to 'telling your story', a fundamental concept at the heart of every environmentalist, or aspiring one. People from all over the world shared their stories. A lake in a small community, their dependence on this lake, the lake's part to play being washed away by climate change: all summed up in a moving speech from one voice in the room whose story of her own home left all in silence.

A bridge from the bustling discussion of climate change to the story of one person's home was powerful enough to make a crowd listen intently and incite a



Imperial Hub have hosted the London Climate forum for three years now. Photo: Ziyaun Mao

meaningful discussion about change.

And that's what is so special about the forum now. We are at a university which reaches out to every corner of the world for its students, so it is imperative to acknowledge this for such a worldwide issue.

Reaching across the world to Borneo, the concurrent event was a film screening of Sunset over Selungo. The film highlighted the issues faced by the Penan tribe and their struggles against the logging of their jungle home. With home swiftly becoming a recurring theme, I spoke to fellow Earth Science student Sarhan Abdul-Samat, from Borneo himself, who told me "I think that it is a very real reflection of how minority groups in Malaysia are usually treated and

fuel the wealth gap between those in power and those who are victims of

The afternoon talks in the Great hall commenced with Michael Mathres of World Climate Ltd who launched the hall into an active discussion via his global campaign to get students involved with Road to Paris 2015, an effort which he hopes will result in a global deal with businesses from the private and public sectors contributing positively to UN climate negotiations.

The series of talks to follow involved linking environmental law to the water rights of people in India, or working on improving the outlook of a very specific community such as Maputo, Mozambique using

sustainable self development to make a difference, rather than from the perspective of 'changing' the entire world. Alex Kirby, a former BBC environmental correspondent who has now set up the Climate News Network, explored the media's involvement which he believes is fading, and could possibly be reignited by a "benign catastrophe" to unite our generation, which is the last that can make a difference.

Talks such as these are essential at a science university like Imperial, and having the opportunity to hear these speakers give a very deep and specific insight into climate change puts our lives into perspective and provides us with the potential and attitude to actively make a change in the future.

"...using sustainable self development to make a difference,"

'...one voice

in the room

... left all in

silence."

The next society to hit Imperial? Let us know! Photo: Jeff Kubina

NAC, Hacks, and Blacksmiths

BEN HOWITT SECTION EDITOR

Another week, another issue! Following the excitement of last week's 'Mascotry Issue', we have an article on the London Climate Forum. In other news:

The New Activities Committee (NAC) met on Tuesday this week to discuss various new clubs. societies and projects. Look out for events from Airsoft, Nepali and Lib Dem Soc (among others), which have been put into the New Club Incubator. Iranian Society have also been re-established as a society with a new committee.

Anthony Crowther, the Student Activites Manager, is leaving Imperial College Union this week to start a new job with the Careers Service at Goldsmiths. For the interim weeks without a Student Activities Manager (the Union would quickly fall apart!), Yas Edwards, last

year's DPCS, will be returning to assist with the transition.

Finally, I received an email from Owen Leech this week, who hopes to establish a Blacksmithing society at Imperial – if this sounds interesting, drop him an email at owen.leech14@imperial.ac.uk.

We are always on the look out for new stories and ideas - if you think you have something to contribute, get in touch at felix. clubsandsocieties@ic.ac.uk.

Sport Editor: Kunal Wagle

Snooker and Pool win first medal in Shield

Aaron Brown and Robert Hughes report as Snooker and Pool win their first medal at the Southern England Championships

ecords tumbled at the first inter-university pool tournament of the year as a new-look Imperial team pulled off some stunning wins and overcame bad luck (and hangovers) to earn their first ever medal in the Southern England Univesities Pool Council Team Shield event. The team set off early Saturday morning from Paddington, and spirits were high as we made the arduous journey towards sunny Weston-Super-Mare. With three new members to the team, team captain Rob had some head scratching to do in the run up to the tournament as to how to field his eager players, using the journey to make sure all were up to speed on tournament rules and regulations.

We arrived at the venue with time to spare, and as Rob went off to the captains meeting, the team looked at the schedule to discover the identities of their opponents in the first round of individuals tournament. After some waiting

around, the matches began and the three new members, Aaron, Charles and Linus all managed to see off their first-round opponents with ease (with Aaron defeating a University College London (UCL) 1st s team member, point 1 to Imperial), while Captain Rob proved his own worth to the team by crashing out in spectacular fashion, along with the President of the society, Cheng "so good they named him twice" Cheng. In the last sixty-four, the standard of play was much better and both Linus and Aaron were defeated in extremely tight matches, with Aaron playing a sloppy frame to hand his opponent victory. However, Charles was making a great first impression on his debut university pool tournament and steamed through to the next round with some unbelievable play and a touch of alcohol induced luck. A winner's medal was not to be though. as in the next round he faced a very handy player from Southampton who had previously dispatched the



Photo: IC Snooker and Pool

Sponsored Editorial

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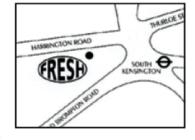
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Check out our website: www.freshhairdressers.co.uk $3^{\mbox{\tiny rd}}$ seed for the tournament. With his opponent blatantly stealing Charlie's patented "drink between the shots" method, the dve was cast and Chaz was sent packing. However, he can hold his head high with an excellent debut performance.

Next up was the team event, with our group made up of UCL 1sts, Oxford 2nds and University of East Anglia 3rds. First up was Oxford, and after racing into a 4-0 lead with some fine play from Aaron playing at number 1 and Charles at number 3, we were pegged back to 5-4 to set up a tense finalé. Captain Rob finally (in his second outing) showed some mettle and took the winning frame to give us a 6-4 win and a great start to the tournament. Next up were UEA 3rds, and a much less dramatic match ended with us as runaway 6-1 winners, with Aaron the only player in the team winning every frame so far, something he frequently mentioned to his teammates to help their spirits. With play over for the day, the team played some friendly

frames with other universities and made excellent use of the cider and Guinness stocked bar to let off some steam.

Sunday arrived, and the team made its way to the tables for a London showdown of epic proportions. With the last UCL – Imperial match ending at 6-1 to us, UCL were out for revenge. Charles and Aaron were up first, and after Charles lost a very tight game (against a player who finished 4th in the overall singles tournament), Aaron brought it back. 1-1. Linus followed, and another tight frame went UCLs way. 2-1. Each team continued to trade frames until UCL took the advantage when they managed to inflict a first loss on the "mighty" (to use his own words) Aaron, a "massive" (again his words) blow. 5-3 was the score with both Rob and Cheng needing to win their frames to avoid defeat.

It was not to be, and UCL managed to convert their lead to a 6-3 win, meaning that after starting the day as top of the group, Imperial dropped

to 3rd place based on frames conceded and head-to-head. This meant that we qualified for the Team shield event, and our next match was against Southampton 2nds, a very worthy opponent. Another no nonsense performance from the team and we finished 6-3 winners, with Rob tying up the match with a simple (although he strongly claims it wasn't) black.

The semi-final was upon us, and with it came a very winnable match against Essex 2nds. A shocking start to the match, which saw both the dependable Aaron and Linus throw away their frames and Essex race into a 2-0 lead. Rob and Charles then brought it back with some tidy play and we were right back in it at 2-2. Unfortunately the team then fell apart, with easy frames slipping through our fingers and we eventually lost 6-3. While disappointed not to reach the final, the entire team can hold their heads up as they bring home the first Imperial pool team medals of the season (and ever).

SPORT

Sport Editor: Kunal Wagle

Autumn Internationals: How far off are England from lifting the World Cup?

HENRY LAMBLEYSPORTS WRITER

Ingland ended their autumn international campaign with a 26-17 win against an Australian team struggling for form in recent weeks. An estimated 82,000 supporters at Twickenham watched England exert their dominance in the scrum leading to a brace of tries split either side of half time for number eight Ben Morgan. Australia did sparkle at times and retaliated with two tries of their own through Fly Half Bernard Foley, who was substituted immediately after, and replacement lock Will Skelton, although they conceded far more penalties during the 80 minutes.

After exchanging penalties at the beginning, England pushed ahead with another three points from the tee as well as Morgan's first converted try – the result of an Australian handling error deep in their own 22. Another Foley penalty meant that at the break the visitors trailed 13-6. Australia emerged the brighter at the beginning of the second half and made light work of the home defence to score an emphatic try 5 minutes in. Having closed to within three points, the game intensified although it was more errors in deep in their own territory that cost the Wallabies a second try at the hands of Morgan. They pushed hard for another try which duly came but were held off with two more penalties from the boot of George Ford.

England can take plenty of positives away from the match with good performances put in across the pitch. The forwards controlled the game at set pieces and breakdowns as well as utilising the rolling maul with devastating effect. George Ford's open play kicking was much improved. Having lacked purpose in previous matches, all of his kicks put pressure on the Australian defence and were the initiating step of both tries. The stand-out performers were Morgan for his two tries and control of the scrum and Courtney Lawes, who produced try-saving tackles in both halves before going off injured.

There is cause for concern as well. Whilst Australia would always prove a greater challenge than last week's opponents, Samoa, the team they fielded looked wearied by a series of defeats and were certainly not on a par with the other big southern hemisphere teams. The English defence was unable to cope with the speed and strength of the Australian



Ben Morgan scores a try for England in their 26-17 victory over Australia. They won two out of four Autumn Internationals Photo: Getty Images

backs and would have conceded more tries were it not for several handling errors at crucial moments. In contrast, England's back three played with little variety and were completely neutralised in attack and provided little to no resistance when defending. Jonny May, who scored three tries this series, was reduced to a cameo appearance with a single carry in the first half while other winger Anthony Watson made only a few short bursts in the second half.

What have we learnt from the series as a whole? The England pack is not only effective but consistently so. They dissected Samoa and Australia with ease and formed the basis of most of the teams attacks. With the likes of Alex Corbisiero and Dan Cole returning from injury they will only be stronger. George Ford is an emerging talent. This time last year

Owen Farrell was making his mark at 10 but has since fallen out of favour and with good reason. Ford has grown with confidence over the Autumn and played well against the Wallabies although his place kicking will need to improve to make him top choice for the Six Nations in February.

The backs need to improve their attacking game which lacked sufficient variation to fool the better teams. Jonny May shone with an individual try against the All Blacks and added another two against Samoa but was made to look as ordinary as the rest of them in the other tests. Mike Brown was especially disappointing given his performance in recent tournaments. The whole team lacks the intensity over 80 minutes to secure the win. It was a series long theme that showed that, whether it was the second half against

New Zealand, the first half against South Africa or after scoring tries against Australia, they cannot afford to rest on their laurels against the best teams in the world because they will be punished.

Looking ahead to the World Cup next September, England's prospects look fairly good. While they only won two games in the Autumn series it was not a complete disaster and the issues highlighted can be ironed out through the Six Nations and over the summer when the coaches will have more time to work with the players. It is not fanciful to believe that they could win the competition and should certainly progress from their group judging by the current form of Australia. Players returning from injury will undoubtedly inject some energy into the team as the competition for places intensifies and the potential of Sam Burgess' move from League to Union could give the backs that dynamism they have been sorely lacking.

The series was an opportunity for Stuart Lancaster to bed in a relatively inexperienced team with a view to the World Cup and we will have to wait until then to find out if this tactic has been successful.

England have undoubtedly stalled since the Six Nations in the spring but there is a clear path ahead to prosperity if the coaching staff are prepared to acknowledge the shortfalls of this current crop of players.

Lifting the Webb Ellis Cup in ten months' time may seem more a hope than a likely outcome with the form of the favourites New Zealand but with home advantage, all is still to play for.

SPORT

Sport Editor: Kunal Wagle

ICUAFC go on tour to Brighton's beachside clubs... And play some football as well Taha Butt on the action from the coast

fter weeks of deliberation and minutes of research, tour secretary Naven Ghulam came to the decision that Imperial College Union Association Football Club (ICUAFC) and its hordes of Rangers were to return to the tour destination from two years ago: the lovely sea side town of Brighton. The day began as Philipp Gerstenberg arrived for his first pint at the union a good eight hours before the scheduled departure time. The Tour Sec was bombarded with questions on a range of topics using the hashtag #AskNav. Despite his ability to keep calm in answering these questions, it soon became apparent that he was in fact from the Matt Cann school of tour secs and that the tradition of incompetency was to be carried on. Refusing to let this setback hold them down, the army of Rangers powered on as more and more joined the cause.

The touring party arrived in Brighton full of high spirits and optimism. The squad was split into rooms of 20 and 18 with careful consideration to spread the deadwood and the fun people equally. After the session at the union and an eventful train journey, only a brief stop at the local 'spoons was required to get everyone sufficiently loose and warmed up. The importance of a good warm up was highlighted when a certain Kings' 1sts player became the first casualty of the tour and in the process made for an uncomfortable bus journey for an unsuspecting french woman. Our first fixture was being played at a beach-side club called Coalition. To the surprise of many, the majority of the group managed to get into the club with

the exception of a few. Julian NoFuncaponi was deemed ineligible to play by British Universities & Colleges Sport (BUCS) as he had conveniently forgotten his ID for the entire weekend. Vice-Captain, Robert Maizonnier, continuing his ongoing struggle with bouncers all over the country was also forced to watch from the stands. The game started with a high tempo and the pace was too much for Cricket Social Sec and self-proclaimed BNOC MattWho? Knights as he suffered from a case of 'Couldn't hack it with the big boys'. The opposition, University College London (UCL) Netball, arrived late but were quick to get involved with the play. A cagey period of play ensued as resident Scouser, Ant Wilson, peppered the UCL netball goal with some shots but she was having none of it. With about an hour on the clock, Dom Wood broke free next to the bar and slotted in a neat finish to open the scoring. Vicious rumours circulated that he also agreed on a return leg in London with the opposition. Club wonder kid, Sam West Brom, was having a torrid time in Brighton and there was no respite from the opposition. Having heard of his academy past, he was double man marked out of the game all the way back to the hostels. Despite the best efforts of the rest of the squad he couldn't break past the double man marking and the opposition managed to register two goals. IC looked to be heading to defeat until Edin Dzeko snuck in with an equaliser late on as the points were shared. Other notable incidents in the game were Naven Ghulam receiving Red for a two footed challenge to the head as well



Photo: ICUAFC

Seb Gosden collecting his first ever sending off for giving chat-back to the referee. Bazzledon insisted he had scored a winner in the disable toilets but his claims were denied to due to the use of a 4-1-4-1 formation and a scandalous self pleasuring technique.

Second day of tour began slowly with the prospect of actual football to be played. Nav still serving his ban on the touchlines meant the group was without their tour sec yet again. We arrived at the pitch to see what can only be described as a poor man's Hyde Park football pitch with the added feature of actual human faeces. Expert storyteller, Charlie Powell, had warned the troops of the potentially deadly effects of getting shit in the wound and players on both teams started the game with caution. IC skins were captained by tour enigma, Alcoholic Frank while IC shirts were captained by 3 out of 4 Patel brothers. Kieran, Beeran and Peeran. (Come to the union to meet all three on any given Wednesday or Saturday). Both teams produced a display worthy of the pitch. A scorpion kick goal from Dickon Dent Duffield was a highlight whilst Charlie bagged a hat-trick only to be disallowed due to lack of goal conversion via Klinsmann. After the game, both teams were treated to an exhibition of textbook Klinsmanns by Shagger Harris, which everyone appreciated. Final score was a 1-0 win

to Brighton football pitches and Man

of The Match was Peeran Patel for being peer pressured into learning how to kick.

With football out of the way there was just enough time for a visit to another dubiously named night club. This time it was the beach side establishment of Shoosh that would play host. IC had a lengthy warm up at 'spoons where we got told off for having too much fun and being "too intoxed". Not affected by this early setback IC arrived at the venue with high hopes. Unfortunately the opposition set out for a draw and the

points were shared. Highlight of the game was another late challenge, this time on Bronia's brother Callum, even though he wasn't even playing. Callum was subbed off bringing an end to his Brighton adventure.

Next morning, the only thing on the agenda was to make a quick getaway and get back to London as soon as possible. Despite a quality weekend, it was agreed that Brighton would never be revisited. Thank you Naven Ghulam for organising another fantastic ICUAFC tour.



Photo: ICUAFC



Photo: ICUAFC

SPORT

sport.felix@imperial.ac.uk

Sport Editor: Kunal Wagle

Imperial Basketball make strong start to the season

CEDRIC COLLE

IC BASKETBALL

alf-way through the season, and everything is extremely bright for Imperial College Basketball so far! The teams which entered the British Universities & Colleges Sport (BUCS) leagues have been performing outstandingly. The Men's 1st team tops its league, and is still undefeated (just like the Philadelphia 76ers, only the other way round). The Women's 1st and Men's 2nd teams are respectively 4th and 2nd in their league.

We've also enjoyed a great turnout to our weekly Saturday development

sessions, where students get to work on their individual skills and learn fundamental offensive and defensive moves. Michael Wells, Development Sessions Secretary, reflects on this: "Here in development sessions, we have two primary goals: to improve our basketball skills, and to have fun! Our sessions are usually split into two sections: the first forty-five minutes consist of warm-ups and different drills that serve to improve a different area each week. For the rest of the session, we run games of either 4v4 or 5v5, full court, where we try to incorporate the various things we have learned each week". In addition, with ICU Basketball's fast expansion, we may potentially

start a third Men's team next season. So everyone is welcome to join the sessions, whether or not you would like to join the teams!

Finally, may I take this opportunity to invite everyone that may be interested to our Winter Basketball Tournament (you do not have to be a member to come and play). This will take place at Ethos on Saturday 13th December from 14:00 to 17:00, and it will be good fun. There is no requirement regarding how skilful you are basketball-wise, just make sure you bring some enthusiasm! For more information, shoot us an email at basketball@imperial.ac.uk or like us on Facebook (Imperial College London Basketball).

Taekwondo emerge victorious for second year running

NATHANIEL GALLOP

IC TAEKWONDO

he 10th anniversary of the Imperial College Taekwondo society got off to an explosive start over this past weekend, with the hosting of the third annual Imperial College Open Taekwondo Competition.

The competition has grown at an incredible rate since its inception in 2012, this year attracting upwards of 230 competitors from 31 universities across the United Kingdom.

This represents the most substantial increase in competition turnout so far, and solidifies the Imperial College Open as the second largest student Taekwondo competition in the country, and the largest such competition planned and run by university students.

The massive increase in turnout and scale has provided a significant challenge for members of the Imperial College Taekwondo team, many of whom acted as volunteers and helpers, in addition to taking part in the competition itself.

Despite these considerable challenges, Imperial College Taekwondo once again emerged from the competition victorious, winning a total of 23 medals (8 Gold, 4 Silver, 11 Bronze) from a pool of 29 fighters, narrowly defeating the substantially larger 37 strong University College London Taekwondo team and ensuring that the 'Imperial Award'

for highest cumulative medal score remains at Imperial College for the second year running.

For the past three years, the Imperial College Open has grown at an increasing rate, and is likely to continue to grow in the future.

The organisational challenges of such a competition are immense and could not be possible without the incredible degree of support received from the Taekwondo community. Imperial College Taekwondo would therefore like to thank Master Ali Abdoli in addition to Stephen Butlin, Danut Varzani, Tameem Al-Kubati and Maniesha Kaur for their assistance in officiating the fights.

We would also like to thank Master Reza Saberi, Estefania Palacios, and Christopher Dancel for their instruction and coaching, both on the day and during the lead-up to the competition itself.

Finally we would like to thank the BSTF for their support in the organisation of the Imperial College Open; the ESSA for their sponsorship; and Image Scotland for their provision of materials and clothing for the competition.

Imperial College Taekwondo hopes to build on the success of the past three years, with a bigger and better competitions in future.

Imperial College Taekwondo trains on Mondays, Thursdays and Saturdays from 20:00 to 22:00. Sessions are held in the Union Gym, 3rd floor, Beit Quad.



Photo: IC Taekwond

#PutOutYourBats, Chelsea and Jules Bianchi – the World Sport Column



Photo: Getty Images

KUNAL WAGLE SPORT EDITOR

ricketer Phillip Hughes was laid to rest at his funeral in his hometown in Macksville, New South Wales, on Wednesday. Australian captain Michael Clarke gave an emotional eulogy after acting as a pall bearer. Hughes, who would have turned 26 on Sunday, was struck by a bouncer last Tuesday, and died on Thursday afternoon, after an artery burst in his neck. The Test Series between Australia and India has been subsequently rearranged. Adelaide, Hughes adopted home ground, will now host the first test, with Brisbane hosting the second. A twitter hashtag, #putoutyourbats, has become a global phenomenon, with many leaving their bats outside with a cap on the handle in tribute.

Last week Brendon McCullum, wearing a PH (Phil Hughes) on his shirt, became only the second player in history after Don Bradman to score two double centuries and a triple century in a calendar year. England

beat Sri Lanka in the third One-Day-International in Hambantota on Duckworth-Lewis to keep themselves in the series.

Chelsea dominated against
Tottenham in the Premier League
to secure a 3-0 win. Manchester
City and Manchester United won,
whilst Southampton fell to a second
consecutive defeat, this time at the
hands of Arsenal

England overcame Australia to win their final Autumn International 26-17. Wales beat South Africa to register only their second victory against a Rugby Championship side under Warren Gatland.

Sam Burgess, who has recently switched codes from Rugby League to Rugby Union, made his debut last Friday, coming on off the bench in a win for Bath against Harlequins.

An accident report has found that Jules Bianchi "did not slow sufficiently" in the lead up to the accident that left him in a coma in the Japanese Grand Prix. In other news, double points has now been abandoned for next season's Formula One season.



Photo: Reuters / Andrew Winning