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"Keep the Cat Free"

17/01/14 Issue 1564 felixonline.co.uk



Lords Science Select Committee opens inquiry on International STEM Students

Nida Mahmud News Editor

> mperial College Union has helped secure an inquiry by the House of Lords for the Science and Technology Committee.

The Union has been campaigning against the Immigration Bill since last November after a paper was passed at Council opposing the proposed changes that will negatively impact our international students. Furthermore, the Union has been working alongside the NUS and their campaign for International students.

Imperial Union has been lobbying Lords linked to Imperial. Our sabbatical officers spoke to Robert Winston regarding the concerns the Union had about the impact the proposed Immigration Bill will have on International students if passed. On Tuesday, Robert Winston raised these issues with The House of Lord's Science and Technology Select committee; this resulted in an inquiry that has now been launched.

Marissa Lewis, Deputy President (Welfare) commented: "This has been a fantastic outcome of a lot of work which all started with a student working group putting a paper through our Union Council - I hope everyone who has been involved in this campaign feels heartened by this news"

The inquiry will look at the effect new immigration rules could potentially have on international students, as well as examining the development in the collection and analysis of data relating to student migration. Our Union will be putting forward a response that will be evidence for this inquiry.

NUS Daniel Stevens, the International Officer commented: "Thanks to lobbying by Imperial Union, the inquiry will provide an important avenue to show how detrimental the Immigration Bill is for international students. It is an excellent development in the continued fight against the Immigration Bill."



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College Announces Residential Experience Review

Joe Letts Editor-in-Chief

ollege has set up a consultation process to review the "residential experience" at Imperial. The review process will be conducted by a panel chaired by Professor Myra McClure, College Consul from the Faculty of Medicine (non-clinical) and includes the Union's President and Deputy President (Welfare), David Goldsmith and Marissa Lewis. The panel also includes Ian Spencer, Director of Residential Services at LSE, who has extensive knowledge about university accommodation best practices after a similar review carried out at LSE in the last year.

The purpose of the review will be to shape the residential experience for students in College accommodation and will set out a plan of action for the recommended changes. This report will be submitted to the Vice Provost for Education Debra Humphris' Advisory Group who will bring the recommendations to the Provost's Board.

According to the Terms of Reference, while reviewing the residential experience the panel will: consider evidence and make recommendations on areas where current practices can be enhanced, make recommendations about the role of residential staffing in accommodation, review various parts of the administration of the residential experience, ensuring accountability for service delivery, and review the communication of the residential experience to current and prospective students.

The panel will cover a wide range of issues, including the operational activities supporting the residential residential experience, staff accommodation, residential resources, College's responsibilities to students in terms of the accommodation licence and a service level agreement. The review will be presented to the Provost's board on the 28th of March, in time to be implemented for next year's academic cycle (if approved). This however means that there is a limited time for some stakeholders (especially students) to provide feedback before the panel reviews the evidence. Student feedback will be collected by the Union by the 6th of February, who will report their findings to the panel on the second day of evidence. Some students have welcomed the review, however several have been concerned about the relatively short duration of the review and would welcome a longer future consultation period which would be able to cover a wider range of issues.

If you would like to submit feedback to the panel, fill out the Union's online form by Feb 6th: http://tinyurl.com/icRER

EDITOR'S PICKS

TECHNOLOGY CES 2014

Read all about the latest innovations in tech



MUSIC Warpaint

AMS reviews the new album by Warpaint.



Film Editor John Park reviews the Oscar nominated American Hustle.

American Hustle



I WAS GOING TO CHAIN YOU TO A TABLE AND LET A LASER SLOWLY KILL YOU MR. BOND



LOLCAT OF TEH WEEK: More from teh Lolcat editor



Alan Turing Pardoned at Christmas

FILM



ecember 24th: World War Two Codebreaker Alan Turing finally receives Posthomous royal pardon 61 years after being convicted for "homosexuality".

Alan Turing, a mathematician known for helping GCHQ (Government Communications Headquarters) break the Nazi Enigma machine encryption during World War II, was charged with "homosexuality" at the age of 39. Turing, colloquilally named "the Father of Modern Computing" was a Cambridgeeducated mathematician who played a very significant part in the war effort at Bletchley Park, the centre of WWII wartime codebreakng.

Turing was charged with "Homosexuality" when admitting to having a relationship with another man while reporting a theft at his house. The court case Regina v. Turing and Murray that took place on 31st March, 1952 led to Turing being sentenced, after which he chose to receive chemical treament to reduce his libido rather than face imprisonment. Two years later Turing was found dead from cyanide poisoning in his appartment, with the general consensus being that he committed suicide.

Turing's pardon was requested by Justice Secretary Chris Grayling MP, who later stated, "Dr Turing deserves to be remembered and recognised for his fantastic contribution to the war effort and his legacy to science. A pardon from the Queen is a fitting tribute to an exceptional man." The Queen, who had been on the throne for less than two months when Turing has sentenced, granted a to Turing pardon under the Royal Prerogative of Mercy on Christmas Eve, 2013.

THISFELIX BROUGHT BY WEEKFELIX BROUGHT BY

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Minister announces new research opportunities

David Willetts uses visit to Imperial to announce the creation of new Doctoral Training Centres

Maciej Matuszewski News Editor

New funding for UK research institutions has been announced by the Minister of State for Universities and Science, David Willetts. During a visit to Imperial College last Friday, Willetts announced the formation of nineteen new Centres for Doctoral Training (CDT) which will be funded through the Engineering and Physical Sciences Research Council (EPSRC) with the money ultimately sourced primarily from industry partners. CDTs are an increasingly common means of providing PhD studentships - with each centre offering a four year course in a particular area of science and engineering, focusing on research but also including taught elements.

Willetts was keen to stress that: "the Government will be investing in a further 900 students through an additional 19 Centres for Doctoral Training (CDTs), bringing our total investment in CDTs to £390 million". Professor David Delpy, Chief Executive of the EPSRC, added that: "these new CDTs will provide training and advances in research in many areas of science and engineering including quantum technologies, manufacturing, robotics, energy and sustainability and bring the total number of Centres funded in this round to ninety one."

Three of the centres – focusing on Plastic Electronic Materials, Sustainable Civil Engineering and Nuclear Engineering – will be based at Imperial. In a statement Professor James Stirling, College Provost, said: "Securing a further three CDTs to add to the seven already awarded cements Imperial's position as a leader in postgraduate education and research, helping to produce the next generation of scientists, engineers and industrialists who will drive the UK's economic recovery."

While touring the Department of Aeronautics, Willetts also announced the formation of a new National Wind Tunnel Facility, which will bring together Imperial, Oxford, Cambridge and four other universities. The College has a long tradition of wind tunnel research with Bluebird-Proteus CN7, the car which broke the land speed record in 1964, having been tested here. Imperial will receive £4million of the £13.3million dedicated to this new project, which will be used to improve the its five existing wind tunnels.

Professor Jonathan Morrison, Chair of Experimental Fluid Mechanics in the Department of Aeronautics,

"The Government's much said: needed investment in the nation's leading wind tunnel facilities will have a transformative effect and drive innovation across a broad range of sectors in a variety of fields. At Imperial, this will help us, for instance, to design bridges that can better withstand wind induced vibrations and more efficient wind turbines, and to develop better aircraft wings that improve fuel efficiency." Stirling added: "Imperial's wind tunnels have historically played a pivotal role in the development of Formula One car design, with many of our graduates going on to important careers in the industry. New funding will help secure our global advantage in this field, fostering greater capacity and driving forward much needed research in a range of areas, from green energy to more fuel efficient aircraft."

Willetts emphasised the economic importance of the new funding, saying: "This new investment will support research that is vital to the UK economy, including developing the next generation of fuel efficient heavy goods vehicles. This will create huge energy savings to businesses, as well as bringing environmental benefits. It is pioneering work that will help the UK get ahead in the global race."

Imperial hosts new cybersecurity institute

urity rootkil phishing malware worm trojan rootkit phishing malware worm trojan viru t phishing malware worm trojan virus spa ishing malware worm trojan virus spam hack malware worm trojan virus spam hackers sp re worm trojan virus spam hackers sp in trojan virus spam hackers spyware jan virus spam hackers spyware security ro com hackers spyware security ro

Rory Fenton Reporter

mperial is to host a new centre focussed on preventing cyber attacks against UK industry and infrastructure. The new centre will be artfully named the Research Institute into Trustworthy Industrial Control Systems and will focus on preventing cyber attacks on large infrastructure such as nuclear power and the national rail.

Professor Chris Hankin, director of the new institute, said: "Our industrial control systems are vital for running most of the industrial processes that underpin modern society. From electricity generation to making sure trains run on time, these systems are vital to our everyday lives, but more work needs to be done to determine

Sponsored Editorial

how vulnerable they are to threats from cyber-attack."

As engineers have sought more realtime information from infrastructure, such as railways, systems are become increasingly interconnected, leaving them with more vulnerabilities. As well as attacks on infrastructure, the institute will investigate the impact that a cyber attack on a single firm can have in triggering a domino effect on other businesses further downstream.

The threat and destructive potential of a cyber attack is very real. As Prof. Hankin pointed out, commenting on the new centre: "In 2007, parts of Estonia ground to a halt when it experienced a 'denial of service' cyberattack, overloading servers, which lead to a temporary government shutdown. While this is an extreme example, it highlights how vulnerable countries are to these types of threats."

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NEWS

NEWS

Cops Off Campus – The Saga Continues

Aamna Mohdin News Editor

Students vow to "keep the momentum going" as the Cops off Campus

going as the cops on Campus campaign call another demonstration on 22 January. Three years on from the increase in tuition fees and the student protests that followed, university campuses are faced with fresh opposition as the recent protests against police presence on campus culminated in thousands of students marching through Bloomsbury.

Cops off Campus demonstrations which began after the breakup of the Senate House occupations, at UCL on December 4 2013, where students demanded pensions for outsourced cleaning staff and to save the University of London Union from being abolished. Chris Cobb, the university's Chief Operating Officer, said the occupation: "was a disgraceful and aggressive act, which placed the safety of [our] staff at risk". The University of London has taken out an injunction preventing "violent and intimidating" protests on its campuses.

University of London Union (ULU) immediately condemned the Police and security staffs for the eviction, claiming many students were assaulted. Two particularly controversial videos shows a police officer punching a protester in the face and a woman slammed onto the pavement, the videos ended up featuring across national media including The Guardian, and The BBC. The Met Police said they had not received any complaints about the actions of officers at the protests.

ULU sabbatical officers released a statement stating: "Anyone who thinks that what happened tonight was reasonable is not fit to run a university." The next 48 hours saw further protests at Bloomsbury, which resulted in 40 students arrested including a student from Imperial College London.

On December 10, Imperial Student Union Council passed the motion "Criminalisation of Student Protest" with an addendum which condemnes: "violent policing", "disabling bail conditions" and a declared of their "refusal to be intimidated by these recent events". Although, the request to provide £100 of travel expenses to students to attend campaign meetings was rejected.

Deputy President (Finance & Services) Kieron Creagh questioned the relevance of this campaign to Imperial students, as he believes the majority of Imperial students are politically apathetic. The Senate House occupation demand to keep ULU open may not relate to many students on campus since Imperial College withdrew from University of London on 8 July 2007.

However, a non-voting member

argued: "If the situation were reversed and we were being shut down I would hope that we would have students up and down the country come and support us"

The proposer, Andrew Tranter, said to Felix: "In the past few months we've seen police throwing punches at peaceful protestors, arresting journalists and using bail conditions to stop students from studying. Imperial students are affected by this because everyone is affected – what we're witnessing is nothing short of a violent suppression of our fundamental right to protest."

December 11 was the Cops off Campus national day of action that had 4000 students in attendance, according to Channel 4. The protest had minimal police presence, with most keeping a safe distance. While the demonstration was mostly peaceful, one bin was set on fire and a small group of demonstrators attempted to break the injunction and enter Senate House.

Students marched through the Royal Courts of Justice, where they held a rally in support for Mark Duggan during the inquest. The protest came to an end outside ULU at 6pm, with no arrests. With mass meetings and protests planned in the New Year, student protestors want to "take the fight to University management."

Funding for poorest students threatened

Government refuses to rule out cuts to the Student Opportunity Allocation fund

Maciej Matuszewski News Editor

n influential higher education thinktank has accused the government betraying of its commitment to social mobility by planning to cut funds given to universities as an incentive to attract students from financially disadvantaged backgrounds. Million+, a group of 22 British universities, claims that recent spending reviews indicate that the government plans to reduce the Student Opportunity Allocation fund, which is paid to universities in proportion to how many students from poorer households that they accept, by almost £200 million slashing the fund by more than half. The fund - together with other schemes such as the National Scholarship Programme, which has also faced recent cuts - is used by universities to run both outreach events and schemes to help those students who are most at risk of dropping out of university.

Giving evidence to the Business, Innovation and Skills Committee this Tuesday, David Willetts. Minister of State for Universities and Science, stressed that while "it's very important that we spend on access" he could not rule out any cuts. This is despite a recent joint report by million+ and the National Education Opportunities Network (NEON), concluding that: "Student Opportunity funding serves as an investment in the nation's talent and future workforce, arguably the most important part of the country's infrastructure, and that cutting the Student Opportunity allocation would, therefore, be an entirely false economy".

Rumours of the cuts have lead to widespread criticism. In a statement, Dr Graeme Atherton, Director of NEON, said: "Student Opportunity funding is an efficient source of finance that follows the student in an ecosystem that gets results, improves the UK's economic competitiveness and offers a long term return on investment to the Treasury. Any move to reduce or replace Student Opportunity funding would result in a less effective system and leave both individuals and taxpayers worse off over the long term." Pam Tatlow, Chief Executive of Million+, added: "To lose this funding would be a real disaster, especially since the withdrawal of £100 million from the National Scholarship Programme a year early. It appears that the universities who are doing most of the heavy lifting in social mobility are the ones paying the price for the expansion of student numbers."

This was a view shared by Professor Michael Gunn, Chair of Million+ and Vice Chancellor of Staffordshire University, who added: "Any move to reduce this successful area of funding would cast doubt on the sincerity of politicians who, while supporting social mobility in speeches, would in practice be cutting funds that make a difference."

In a letter to the Business Secretary, Vince Cable - whose department is responsible for higher education - the National Union of Students expressed "strong opposition to any such cut in public funding". The letter says that: "in the wake of cuts to the National Scholarship Programme any such cut to the Student Opportunity fund would be read as a backtracking of the government's commitments to supporting social mobility in favour of backfilling the budgetary hole caused by a blank cheque written to private providers". It goes on to ask for official "assurance that [the Government] will think again before decimating the capability of the sector to support students from poorer backgrounds."

The final funding allocation will be announced later this month in Cable's annual grant letter to the Higher Education Funding Council for England.



A report by Million+ and NEON has criticised plans to cut the Student Opportunity Allocation fund

Council cancelled - will the DPFS role be renamed?

fter a low turnout at Tuesday's Council meeting, the session was abandoned since they lacked the quorum level of attendance required for binding votes.

While the missing students may have been excused by the pull of examinations or projects, the Council body missed the chance to pass several papers, including the Safe Space Policy – a policy aiming to create an environment in Union venues that all members, staff and visitors can feel safe in, a paper discussing the support provided by the Union for halls of residence located further from South Kensington, and a paper about changing the name of the Union's Deputy President (Finance & Services, DPFS) role, prompted by changes to the Sabbatical Officer roles last year.

The current DPFS, Kieron Creagh submitted a paper to Tuesday's Council session about the topic in which he seemingly dismissed the recommendations of last year's Council and Sabbs and proposed that this year's Sabbatical Officers carry out a(nother) review of the sabbatical roles with a look to make their own recommendations for next year's sabbatical team.

As well as not providing a thorough and balanced discussion about the role's name change in the proposed paper, or providing much reference to any of the data collected by last years Sabbs, the DPFS also submitted the paper 4 working days after the deadline, just one day before the Council session.

While the paper was not discussed in Council, due to the committee being three members short of quorum, giving the fact that the next Council session takes place on 11th February there will not be enough time to discuss the paper before the election cycle begins, effectively achieving the aims of the paper.

The idea to change the name of the DPFS stemmed from a paper discussed at Union Council last year, in which the Sabbatical Officers' remits were expanded. At the time the previous DPFS stated that he believed the role was able to expand into it's additional responsibilities, which included student development, accreditation and the postgraduate experience, however, it was felt that this might need to be accompanied by a change in the name of the role to include the wider remit.

While several names for the DPFS were suggested, including DP Community & Development and DP Services and Development, DP Finance, Services and Develpoment. There were several reservations with changing the name of the role, including: discouraging candidates to apply, misrepresenting the position to potential future employers and changing the title of somebody who had already been elected into the position. The decision was instead deferred to the January Council session this year, before the Big Elections nominations.

In response to the article, the DPFS said: "...Pending the role review now included in our wider Democracy Review, I'm confident this role next year will be accurately described as 'Finance & Services'..."



FelixImperial

NEWS

Imperial's First Student Think Tank to Launch this year

Joseph Gafton Reporter

hristened the London for Forum Science and Policy (LFSP) and launching this year, Imperial's first student think tank carefully sidesteps the university's trap of a neocolonialsounding name. At a time when policymakers are increasingly criticised for their poor use of evidence, LFSP will infuse Imperial's first love, science, with a new, political edge. In turn LFSP plans to inject the political sphere with some of the university's world-famous scientific rigour.



A familiar phrase among budding policy wonks (as they're known in the trade), for many students the words 'think tank' might instead conjure up images of schools of brain-fish floating and pondering blissfully in a basin. Far from this watery utopia, think tanks lie in the intellectual no-man's-land somewhere between an academic policy unit and a full-blown lobbying group. Along with undertaking research into government policies, they then go about making practical recommendations for how policy could be improved in future.

Crucially, unlike many other think tanks, LFSP is non-partisan and encourages perspectives from across the political spectrum. It provides students with an arena to combine their scientific knowledge and political judgements into well-developed policy recommendations culminating in a written paper, pitched to experts in the field at monthly talks.

With King's College London already leading the way in terms of London student think tanks, it's about time that Imperial students stepped into the fray to put some hard facts behind the policies of today.

To find out more visit www.lfsp.org.uk for details of the launch and how to get involved.

Imperial announces new **President**

Joe Letts Editor-in-Chief

fter a search by College Council through an international list of candidates, Professor Alice P. Gast, President of Lehigh University and former Vice President for Research and Associate Provost at MIT is set to step into the role of President of Imperial College. Professor Gast will be College's first female President/Rector in it's 106 year history.

Professor Gast, having spent sevenand-a-half years as President of Lehigh, a private research university based in Bethelhem, Pensylvannia, said: "With its unique focus on science, engineering, medicine and business, and its integrated mission to teach, research and translate its work for the benefit of society, Imperial has a great leadership role in the world..."

However, one question that plagues the minds of some in the Education industry is the potential value of her renumeration. In recent years there has been a trend toward British universities paying relatively high wages to incoming American senior management staff.

In comparison to incumbent President & Rector Sir Keith O'Nions'

total compensation of £323,000 in the 2011-12 financial year, Professor Gast received a total compensation package that year worth £711,721 (at current exchange rates), which lead to the Times Higher Education asking a tight-lipped College spokesperson for more information.

President-designate Professor Gast's appointment comes after recent structural changes to the leadership roles at College which saw the role of Rector being split into two separate roles: President and Provost, as announced by College Council in April 2012. These roles split the responsibility of the Rector into the public-facing President position, which is ultimately responsible for all College activities and cultivates relationships with the business and political worlds, and the academiafocused Provost, who reports to the President and manages College's academic mission.

The new President-designate and the current Provost Professor James Stirling, former Head of Physics at the University of Cambridge are replacing the current President & Rector, Professor Sir Keith O'Nions FRS, who is retiring from the position after four-and-a-half years at Imperial's top position. Professor Sir O'Nions will be stepping down in September 2014.

News Bites - The news in short

DISABILITIES

Nida Mahmud News Editor

FINANCE

ast week, Huffington Post published an article ranking the most expensive universities to live and study at in the UK. The universities were ranked in terms of their total cost of living over three years.

The cost for Imperial came to £53,822. UCL was the second most expensive university and LSE was the most expensive at £59,152.

University	Cost		
LSE	£59,152		
UCL	£53,954		
Imperial	£53,822		
Oxford	£50,540		
Cambridge	£47,997		

WIKIMEDIA COMMONS

Assistive technology he suite in the Disabilities centre closed down last Friday, a new room will open in the library this year. There will be a Assistive Technology room in the library that will be open till the new centre opens.

Imperial has also made Mindview (a mind-mapping program) and Claroread available to every student at Imperial for campus use.

SCIENCE

esearchers at Imperial are working on a designer protein to treat prostrate cancer when other therapies are unsuccessful. In the lab, this protein has obstructed the growth of cancer cells even when other therapeutic methods have failed. These results were published in the journal Oncotarget this week.

About 37,000 men are diagnosed with prostate cancer every year, and 11,000 men die from it on a yearly basis.



WIKIMEDIA COMMONS



LegoSoc to host **LEGO** star Warren **Elsmore**

Daniel Hertz LegoSoc President

f you ever wondered how giant LEGO models are made, Warren Elsmore's book Brick City shows you how! The book travels the world in different LEGO models, starting in San Francisco and ending in Japan, showing recognisable landmarks built from LEGO along the way. One of the biggest models is Westminster Abbey, built from 180.000 bricks and filled with hundreds of minifigures. Created in 2011 for the Royal Wedding, it includes working clocks and stained glass windows. Other models include a 120,000 piece St. Pancras station with an ovster bar and working Eurostar trains.

The author, Warren Elsmore, will be giving a guest lecture in Huxley 311 on Tuesday at 6:30pm for LEGOSoc. He will be explaining how to translate these existing building into giant LEGO models. Warren is a professional LEGO builder with years of experience. He's built a huge number of impressive models and displayed them all over the world. He's also the president and conference organiser of Brickish, the UK's official LEGO user group.

NEWS

Editors: Aemun Reza, Nida Mahmud, Maciej Matuszewski, Aamna Mohdin news.felix@imperial.ac.uk

Brown Report Published

Aamna Mohdin News Editor

n 14th April 2013 the British Union for the Abolition of Vivisection (BUAV) presented Imperial College London with a report that accumulated a list of various allegations of misconduct concerning animal experimentation. The report contained a video produced by the undercover investigator, which BUAV released to the public, which purported to demonstrate a number of instances of poor animal welfare practices. As a result Imperial College came under national scrutiny, which can be seen on the comments on College's social media pages. The public outcry, included Morrissey and Brian May, called for an immediate independent inquiry.

The BUAV believed the report provided evidence for a violation of the Animal (Scientific Procedures) Act 1986 (as amended to incorporate the changes brought in the by the European Directive, 2010/63/EU). The act insists that institutions acquire a personal license, provided by the Home Office, in order to practise animal research. The license sets out the limitation of each research project according to its categorised severity. The report is thought to have highlighted a number of instances of poor animal handling that includes: exceeding severity limits; poor monitoring and staff cover; poor surgical practice and anaesthesia; administration of analgesics; approaches to the killing of animals.

In response, the Home Office began an enquiry in the allegations. Imperial College announced "immediate actions" and invited Professor Steve Brown, Medical Research Council's Mammalian Genetics Unit, and Harwell to chair an independent committee to investigate and assess the approach to animal care and welfare across the College. Though the college insisted the committee was independent, the Chief Executive of the BUAV Michelle Thew accused this investigation as a "white-wash." The organisation claimed that Professor Steve Brown was "a well-known and strong supporter of animal research, heading the Medical Research Council (MRC) unit which manipulates mice to predispose them to develop all manner of diseases, but the MRC actually funds animal research at the



Imperial College." The organisation and their supporters (including Brian May) petitioned for a different, independent inquiry.

The committee convened 6 June, 2013 and set out to provide a report that described College's best practises regarding animal research, including those that had room for enhancement; delivered detailed recommendations for improvement, and attempted to provide potential solutions, where possible. The committee was clear that it would not investigate the specific allegations made by BUAV. The role of the committee was to examine all aspects of animal experimentation at the College facilities including areas such as ethical review, operations, compliance, training and management. The committee took a mixture of

approaches which included interviews of Imperial personnel, the examination of relevant documents requested and a visit to the animal facility described in the BUAV allegations. The committee found that husbandry and maintenance of facilities was carried out to a high standard. Moreover, the animal house staffs were supportive, committed, engaged, and willing to do more in terms of developing new approaches to animal welfare.

The committee however concluded that Imperial's Animal Welfare and Ethical Review Body (AWERB) was not fit for purpose due to a lack focus on the 3Rs of animal research (the replacement, reduction and refinement of animals in research) and lack of involvement of scientists. The committee recommended a more rigorous process that takes these shortcomings into consideration. AWERB are required by all research institutions in the UK. The body has a wide set of responsibilities including: ensuring animal welfare, reviewing the use of animals in experimentation, and discussing the 3Rs. The implementation of these recommendations will be critical for Imperial to reach the standards in the 3Rs

It was found that the local AWERB process, which was conducted electronically, failed to provide a forum for discussions and to deliver improvements in the 3Rs. The local AWERB also failed to engage scientists on a broad basis across Imperial, and thus there was very little opportunity to discuss and take a substantive and active role in reviewing approaches to animal experimentation. The committee recommend that the local AWERB process be reformed with the creation of two standing WIKIMEDIA COMMONS

committees, one at South Kensington/ St. Mary's, the other at Hammersmith. This reformed committee should be compromised of key staff from animal facilities along with scientists, and should meet regularly to review project applications with the scientists concerned.

The committee also recommended reforms for the central AWERB process, establishing a new role for this forum. The central AWERB should receive reports from the local AWERB and discuss strategic and operational issues on animal welfare. The central forum is to be chaired by a senior faculty member such as a Dean. Both local and central AWERB meetings should be wider advertised and anonymised minutes should be made available.

The committee recommended an increase in staffing levels and a reduction on the reliance on agency staff. They also recommended staff monitor research labs at least once daily, which will contribute to competency reports of license holders.

The BUAV video raised questions on the training of researchers experimenting on animal research and whether the College's animal welfare officers were performing their jobs effectively. The committee's training and competency assessment found that the training was "ad hoc" and the mechanisms for sharing information currently in place were not effective. The committee recommended a "significant increase" for the resources allocated to training and competency assessment and suggested that this be accompanied with the appointment of a senior Named Training and Competency Officer (NTCO).

The report studied the culture, leadership and management of animal research at Imperial, recommending an annual College prize to the team that make outstanding commitment or contribution in the development of the 3Rs. In addition, the committee recommended the creation of a new senior directorial role that will take overall responsibility for the delivery of bio-services at Imperial.

Imperial College responded by promising "to move quickly to implement the recommendations" and stated that there is "a significant scope for improvement in aspects of the operation, management and oversight in order to become a world leader in animal research."

A separate inquiry, undertaken by the Home Office, is expected to be published soon.

'They say everyone has skeletons in their closet, I actually do.'

> Dr Silvia Bello Palaeoanthropologist

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Balls to ask about Amendment to Immigration Bill

Ben Fernando Reporter

he Union's campaign to stop international students being charged for NHS services under the Government's Immigration Bill received a strong boost late last month when Ed Balls, the Shadow Chancellor, agreed to look into an amendment to the bill that would exempt students from the charge. Responding to a question put to him by the author as part of an Imperial College Labour Society delegation that went to meet with Mr Balls in December, he explained his views on the government's new drive to reduce immigration to the UK.

When asked what he thought of the Union's campaign, Mr Balls responded by saying that 'we're not opposed to migrants contributing to the NHS' (presumably in the same way that UK citizens pay National Insurance contributions), but stated that the government's attitude toward international students was daft. 'What we're seeing is a reduction in

the number of students from India and Pakistan, which he agreed was 'not beneficial' to the economy. In response to the author's questions about what could be done to ensure that international students from poorer backgrounds weren't disadvantaged, Mr Balls agreed to 'ask Yvette [Cooper]', the Shadow Home Secretary about a potential amendment to the bill.

Mr Balls' agreement to do this comes at a critical time - Labour MPs recently abstained from voting on the second reading of the Bill in the House of Commons in an attempt to force the addition of several other amendments, including one that tackles the exploitation of low-paid migrant workers. Should Labour end up in a position to pass these amendments in the final reading of the Bill in the Commons, it will go forward to the Lords and if passed there (as seems likely), will come back to the Commons for a final consideration of amendments. Once these are approved by the Lords, the Bill will be signed into law.

Many have asked why international students were not excluded from NHS charges under the original wording of the Bill - was it an oversight, or deliberate? Mr Balls had a few ideas to share, and seemed to suggest that it was the latter: 'the majority of illegal migration into this country is from people who are here legally to begin with and who overstay their visas, and the Conservatives aren't doing very well to manage this. As a result, he suggests that the Tories are attempting to reduce net migration by targeting sectors of the population that they can manage – nominally, international students and migrant workers, even if doing this is detrimental to the longterm health of the economy.

One might expect Mr Balls to be suspicious of the Conservatives' motives, but his suggestion is supported by the statistics. The government looks likely to miss its target of reducing net migration to below 100,000 people per year (a target many have ridiculed as meaningless), and this isn't the only piece of legislation that has discriminated against international students in recent years. Caps on the number of visas issued and an increase in tuition fees have reduced the number of 111

Ed Balls reaching out to Ordinary People

applicants for taught postgraduate courses. Unfortunately the decrease has been most noticeable in students coming from the 'poorer' Asian countries of the Indian Subcontinent, with a 23% drop in the number of Indian students and a 20% drop in the number of Pakistanis.

This does really seem unfortunate, given that the speed at which the economies on the subcontinent are

BEN FERNANDO/FELIX

growing and the potential benefit to the British economies that their young, enthusiastic populations could bring. We can only hope that the Government will see sense and not stick another financial hurdle in the way of those who want to bring their talent to the UK. If they don't, I'm sure the onset of damage to our economy will be apparent soon enough - and what a mess that would be..

Future of Science: in the hands of Citizens

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San Chun Yin Imperial Hub Vice-President

ith the Create Lab's Venture Catalyst ads Challenge plastered all around campus, those of us who aren't

that interested in entrepreneurship and/or are more academicallyoriented might feel a little left out. But while the research model (and wizened scientists in general) might appear to stick with what works and not necessarily engage with the latest and coolest of technology, there is actually a surprising amount of progress and innovation beneath the surface.

The most important development over the past few years is arguably the rise of citizen science. While businesses and high school students jump abroad the Internet train to post Instagram snaps and tweets in dogged bids for attention and popularity, scientists globally are taking advantage of the hyper-connected nature of today's world to create new models which allow for easier communication of scientific ideas, and inspire people to take an active role in research projects which may have profound results.

Zooniverse is perhaps the biggest citizen science initiative across Europe today. Started by academics from the University of Oxford and the



Samples of Spin-off Citizen Science Projects from the original Zooniverse

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Adler Planetarium, it allows anyone anywhere to participate in research projects with nothing more than a computer and an Internet connection. Those of you who are fans of Prof. Brian Cox might know Zooniverse from the BBC's Stargazing Live show, which had featured Zooniverse's project on discovering exoplanets around foreign stars. And for those of you who frequent London Tube stations or are interested in cancer research, then you may know the Cancer Research UK-Zooniverse partnership which allows the public to analyze cancer patient data en masse.

It may seem like such initiatives are merely for those with a lot of time on their hands (during lectures, for instance?), but they have incredible potential to make change. Science communication, in particular, benefits massively from citizen science initiatives. By letting people get their hands dirty and actually be part of science, they can have a personal understanding of topics that they're involved in, and shrink the divide between scientists-atop-ivory-towers and the rest of civilization. The range of projects and areas being offered by projects like Zooniverse, which ranges from physics to zoology and medicine, also allows prospective scientists and science students to explore their interests and inspires them to pursue higher education in those areas. With astonishing statistics of educational levels & literacy across London boroughs, as shown by the Schools Plus programme, even a little push could mean a lot.

ZOONIVERSE/REALSCIENCE.US

But if the opportunity of translating whale songs on Zooniverse doesn't satisfy your appetite for 'hard science' (what sort of person are you???), then projects like CitizenScienceLab and the European Citizen Science Association might interest you. Both are initiatives with Imperial involvement, and deal with superserious science projects like using crowd-sourced efforts to assist in particle physics discoveries and

developing new organic parts through synthetic biology. A number of their projects are still in infancy, presenting plentiful room for you to be involved in future science.

But citizen science isn't all about science; for those of you involved with International Development, then UNITAR-UNOSTAT's 'Disaster Mapping' is worth a look at. As the project's profile on CitizenScienceLab states, "an expert on the Nubian people of Sudan can look at a photograph of a location experiencing famine and immediately determine specific details such as the clan or subclan of people depicted...and perhaps minute details such as adequacy of firewood stocks or potential crop yields." By using the Internet to bring together people who can give input, information on the regions affected can be quickly collated to help with relief efforts. The Internet suddenly is an extremely powerful tool which can save countless lives.

As citizen science's momentum continues to grow, it'll be interesting to see whether more of science research will permeate into our daily lives. In the meantime, projects are already up and running, so let's go exploring!

If you are interested to find out more about Zooniverse and citizen science in general, and how such projects could engineer social and educational change, then be sure to attend Imperial Hub's THE Series: Citizen science in future research and science education on Thursday, 23/1. The talk lasts for only 1 hour and is FREE. Prior registration required at hubseries.eventbrite.com.

FEATURES

WELLBEING

Editor: **Marissa Lewis** felix@imperial.ac.uk

January Blues

Marissa Lewis Wellbeing Editor



he January exam period can be a tough one. For first years, this is the first set of university exams you will have and it can seem a bit intimidating to step into your first Imperial exam hall. For everyone, there's the sad fact that a grey and larv can make it a miserable time of year even if

rainy January can make it a miserable time of year even if you don't have exams.

I've been at Imperial for almost five years now and I'm pretty sure I've fallen into every exam trap there is: I've spent entire nights in the library, I've procrastinated to avoid that one topic that just seems impossible, I've lived off junk food and caffeine pills, the list goes on.

I know it's really easy to say, but actually making a plan which incorporates regular breaks and time to look after yourself is the easiest way to get through exams and ensure you don't burn out – particularly relevant if you have multiple exams in one exam period.

This is where the Union's Stress Less campaign comes in.

What is normal stress?



- Physical symptoms headaches, stomach problems, palpitations and back or neck aches are all physical signs of stress.
- Disordered eating continuously skipping meals or, conversely, overeating.
- Sleepless night the odd restless night isn't unusual in the exam period but if this continues, and is impacting your health, there's a problem
- Substance abuse an increase in smoking, drinking or other drug use, including 'study drugs' e.g. Adderall and modafinil.
- Feeling overwhelmed feeling a little worried or stressed out is completely normal, but if you begin feeling out of control, overwhelmed or like you're unable to cope with the situation, this could be a warning sign.

If you have concerns about exam stress, it's a good idea to talk to your personal tutor or course director as a first port of call. If you have concerns about how stress is impacting your mental or physical well-being, you can also speak to your GP in confidence.

There are various services run by the Union, College and external providers that can also offer help: these are outlined opposite

STORESS SPRING 2014 All Stress Less events are free. There's no need to book just turn up!

Stress Less is a programme of fun, free events that are running throughout the exam period to tempt you out of the library and give you a good excuse to take a break and relax. The wide range of events available (everything from meditation workshops to laughter yoga) are designed to suit a range of tastes, so you should be able to find something that appeals to you if you check out the website at

imperialcollegeunion.org/stressless

Top Tips for Stressing Less



Stay active

Exercise increases production of endorphins (your brain's feel-good neurotransmitter), can improve your sleep and even boost your self-confidence. Simple changes like walking or cycling to College rather than getting the bus can help you find the time to fit this in.

Breathe

Relaxation techniques such as breathing exercises can help calm your body and mind. If you feel revision is getting too much, taking a few, deep, calming breaths can help get you back on track. To find out if this works for you, head over to one of the mindfulness mediation or InnerSpace sessions.

Talk

Chat to friends and family about how you're feeling – even if they can't offer much advice you might find just letting off some steam calming. It's also a good time to check on your coursemates or friends to make sure you are all coping at a stressful time of year.

Break it up

Taking a big topic or module and breaking it down into smaller concepts can help revision seem less daunting. Structuring your revision also allows for you to plan it around times of day you are most productive and factor in regular breaks.



Get perspective

Although it may feel like this mid-January, realise that exams are not the end of the world. It's easier said than done but try taking a step back to see the bigger picture.

Useful Contacts

The Advice Centre

Independent, impartial and confidential advice centre run by Imperial College Union. Contact: 020 7594 806. advice@imperial.ac.uk

Counselling service

Free, confidential counselling for all Imperial students. Contact: www.imperial.ac.uk/counselling

Nightline

Talk to a fellow student based in London in confidence. Contact: call, e-mail, Skype or talk online 0207 631 0101. 18:00 – 08:00. Every night of term.

Samaritans

Discuss whatever's on your mind in confidence.

Contact: ring, e-mail or drop in to a Samaritan's centre. 08457 90 90 90 any time of day or night





WELLBEING

How do Sabbs Stress Less?



DAVID President Listen to 'A History of the World in

100 Objects' podcast, drink tea and

do yoga.



Felix Editor I am always super super stressed. :(I should go to Stress Less events to get some ideas!



KIERON Deputy President (F&S) I play competitive sport.



YAS Deputy President (C&S) Get outside in the fresh air, reconnect with nature and do some high intensity exercise.



NAT Deputy President (Education) I put on some loud music and dance like I'm Beyonce.



If all else fails, I fully endorse looking at pictures of cute animals until the world seems less awful.

What's On This Week in Stress Less

Laughter Yoga

Join us for some endorphin-releasing silliness and laugh your stresses away. No yoga experience required. Wear comfortable clothing and flat shoes or trainers.

Tuesday 21 January, Activity Spaces, 12:30 – 13:30

Group Walk

Join us for a gentle stroll around Hyde Park. We'll be meeting in Beit Quad, Imperial College Union. Friday 24 January, 12:30 – 13:30

Thay 24 January, 12

Zen Lounge

Drop in for a free massage, kick back and relax with our chill-out music. This is a work free zone.

Monday 27th January, Metric, 11:00 – 16:00

Your Exam Preparation Checklist

Weeks before your exam:

- Revise come up with a plan but be flexible about it. If you come across a topic you don't understand, flag it up early with your personal tutor to give them a chance to respond.
- □ Manage your stress make sure to take regular breaks, get some exercise and check out the Union's Stress Less programme at imperialcollegeunion.org/stressless
- □ Check your dates make absolutely sure you know when your exams are and note them in your diary.
- □ If you have a disability, disclose it to the Disability Advisory Service or your department. You can contact the Disability Advisory Service at: http://www3.imperial.ac.uk/disabilityadvisoryservice

One week before your exam:

- □ If anything has happened that might impact your exam performance e.g. illness or bereavement, apply for Mitigating Circumstances. You can find more guidance on this from the Imperial College website or you can ask your personal tutor for advice.
- □ Make sure you find out when and where your exam is and note this down so you aren't scrambling to find out the night before your exam.
- $\hfill\square$ Check the format of your exam so you can plan your time in the exam hall smartly.

One day before your exam:

- Pack get together your exam kit; pencils, pens, your CID card and a water bottle are all essentials.
- □ Read over the key points on the topics you've been struggling on most try not to fall into the trap of trying to cram everything in to this one day.
- Plan your route into College and check there are no planned disruptions TfL can be a fickle friend.
- □ Most importantly get some sleep!

The day of your exam:

- □ Leave plenty of time to get into College for your exam you don't want to end up panicking because of tube delays or traffic.
- □ Aim to arrive 20-30 minutes early so you have enough time to take a breath and get yourself settled before the exam starts.
- □ Eat something although you might be feeling queasy, having something (healthy) to eat before your exam can give you an energy boost.

After your exam:

- Avoid exam post-mortems your exam is over and you can't change it, there is no point spending ages agonising over how many marks you may have missed or how your friends did.
- □ Take a breather if you have more exams, try and take a short break to relax before leaping into revising for the next.
- □ Celebrate!



SCIENCE

Editors: **Philippa Skett**, **Keir Little, Fiona Hartley** science.felix@imperial.ac.uk



Denial on ice: the polar vortex of confusion

Philippa Skett discusses the views of the global warming deniers in the USA

he polar vortex that swept across North America this holiday was one that left both the ground and politicians rather frosty, albeit for different reasons.

As the temperatures dropped and ice hardened across the country, more and more famous faces appeared across the media denying global warming. Many justified their arguments by pointing out what they considered to be the obvious: how can we be causing global warming when it is just so cold?

200 million people were affected by the snow storm that plunged temperatures to as low as -12[°]C in Chicago last week, with over a dozen deaths reported as a direct result of the weather. The Niagara Falls were brought to an icy standstill, schools and workplaces across the country were closed and thousands of flights were grounded. The economic impact the storm had was estimated at around \$5 billion.

The cause of the cold was the breakdown of the Arctic polar vortex. Polar vortices are actually persistent cyclones permanently located at the geographical poles of the Earth. They are cold-core, low pressure areas of the stratosphere that are caused by the differences in temperatures between the equator and the poles, and span around 1,000 km in size.

The breakdown was triggered by a sudden temperature increase in the polar stratosphere, causing the westerly winds of the vortex to reverse due to alterations in the usual pressure differences. The vortex spread southward, outward beyond its usual confines of the Arctic Circle to encompass Northern Europe as well as North America, with cold fronts being felt as far south as Florida.

Despite the localised effects being a decrease in temperature, the overall shift of the polar vortex may have actually been an example, albeit counterintuitive, of global warming in action, something concurrent with the consensus on climate change taken by the scientific community.

A recent study looked at papers peer-reviewed and published about the climate in the past year, and found that out of 2259 articles, from 9136 authors, only one of those scientists did not believe global warming to be a reality. However, this pales in comparison to the numbers of people from both the mainstream US media and politics who also deny global warming in the wake of the arctic weather conditions.

Donald Trump, the well-known American investor and real state entrepreneur, the stateside equivalent of Sir Alan Sugar on *The Apprentice*, and rumoured presidential candidate for 2016, took to twitter to say this of the USA's cold snap:

Donald J. Trump O

This very expensive GLOBAL WARMING bullshit has got to stop. Our planet is freezing, record low temps, and our GW scientists are stuck in ice

A Reply 13 Retweet * Favorite *** More



The Fox News website, never one to stay out of an argument, chose its side of the debate by publishing an opinion piece by Matt Patterson, the senior editor at the Capital Research Center, stating that "global warming is the most widespread mass hysteria in our species' history."

Others decided to link those considering global warming to be a reality as deluded as those who believe that Jesus will not return in some sort of glorious second coming:



The difference between people who believe in the 2nd coming of Jesus and those who believe in global warming is that Jesus will return.



Meanwhile, Republican Sen. James Inhofe of Oklahoma, who once built an igloo in his garden labelled "Al Gore's new home," stated that climate change is apparently a harmless act of God, and stated that the polar vortex breakdown was further evidence that global warming is a "hoax."

He went on to interrupt a debate over unemployment insurance in Senate last week, to offer up the seemingly relevant insight that it's "a little bit humorous to me that we are talking about extending unemployment benefits in the midst of one of the most intense cold fronts in American history...It has to make everyone question...whether global warming was ever real." Such words resonated with particular discomfort due to the fact that Inhofe is currently a ranking member of the Senate Environment and Public Works Committee.

In fact, over one hundred state representatives have been on the

record denying global warming, whilst 24 Senate members have also voiced distrust in what is universally accepted by the scientific community. Some of the more damning quotes

Follow made by these politicians include:

"There isn't any real science to say we are altering the climate path of the earth." (Sen. Roy Blunt)

"[Scientists] are making up their facts to fit their conclusions. They've already caught them doing this," (Sen. Rand Paul) "I do not think the science clearly

supports global warming theory." (Sen. David Vitter)

"Global warming has not been proven to the satisfaction of the constituents I seek to serve." (Rep. Trey Gowdy)

Other politicians may agree with the scientific community, but still struggle to see the importance of climate change, or simply flounder when formulating intelligent opinions on the matter. Louisiana Sen. Mary

Follow

Landrieu has previously urged President Obama to stop the Democratic Party focussing on climate change entirely, whilst Minnesota Rep. Collin Peterson stated that global warming will be good for farmer's crops, as the warmer weather will allow them to grow more corn. Luckily those with the

ultimate power were quick to step in on the

debate. Obama's science advisor John Holdren stated in a two minute video in a blog released by the White House on Wednesday that "If you've been hearing that extreme cold spells like the one we're having in the United States now disprove global warming, don't believe it."

The blog went on to say that "...This week's cold spell is of a type there's reason to believe may become more frequent in a world that's getting warmer, on average, because of greenhouse-gas pollution."

Encouragingly, the White House has also arranged a Google+ hangout today (Friday the 17th) to publically debunk claims that the harsh winter spell was proof that climate change does not exist. The discussion, called "We the Geeks," will feature government officials and independent scientists in a final bid to push back against the climate change deniers that have been allowed such a grand platform in the American mainstream



The Niagara Falls rendered stationary by the cold front of the Polar Vortex

media.

Although this may raise further concerns around why the most powerful people in the USA are using dysfunctional social media constructs to debate international issues, it is a positive step forward. It is also a step that not only shows that the US government is ignoring the incorrect opinions of Trump and others, but adds to the greater efforts the US government is finally taking to counteract global warming.

Obama recently introduced the Global Climate Change Initiative, outlining the promise to invest more in technologies aiding climate adaptation whilst simultaneously reducing emissions, and also ensuring the sustainability of economic growth in climate sensitive sectors.

The Secretary of State, John Kerry has always been passionate about climate change too; after he negotiated an agreement with China to stop hydrofluorocarbon usage, he plans to aid the implementation of a new climate treaty in 2015 that will commit the USA, and others, to significantly reduce fossil fuel pollution.

With US economics driven by oil and coal it is easy to see why those who benefit from fossil fuel sales most may turn a blind eye or even deny the long-term effects of fossil fuel burning. However, no amount of tweets, debates or comment pieces are going to discredit the increasing scientific evidence that global warming is a very real, and a very damaging phenomenon.

It seems that this polar vortex brought with it not only a front of icy winds and snowy storms, but also a new wave of scientific ignorance within the depths of American politics that, if not addressed, will persist long after the Niagara Falls begin to flow once more.



Obama is tackling climate change with his Global Climate Change Initiative



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SCIENCE

Maybe you should sleep on it...

Matilda Hay looks at new research on sleep and memory consilidation

id you, like everyone else, vow to get more sleep this year? Sleeping is common to all animals and a vital part of staying healthy and alert. However, when we sleep we are missing opportunities to be more productive, and by switching off we leave ourselves vulnerable to attack.

It must be a very important process to be worth all of these risks but what is actually happening while we sleep?

When we learn something new, connections between the synapses involved are strengthened so that the learned pathway will be activated more easily next time. This is the basis of memory.

Sleep is known to be important for consolidating short-term memories into long term memories, and it used to be thought that we did this by replaying and strengthening those connections during our sleep.

However, sleep experts at Wisconsin University have challenged the theory that sleeping strengthens the connections in our brain. Drs Tononi and Cirelli propose a 'synaptic homeostasis hypothesis' (SHY) which suggests that sleep is important for weakening the connections in our brain, and resetting the synapses back to normal (hence the reference to homeostasis).

However, if we are resetting all our synaptic connections, how do we remember anything? They study shows that significant learning experiences are dampened less than trivial experiences; overall those connections will be stronger relative to the rest. This also helps to explain the phenomena of 'smart forgetting' where our brain rids itself of unimportant details that accumulate each day.

But why would our brains need to reset? One reason is an energy benefit. To transmit a signal across a synapse neurons must release chemical neurotransmitters. Stronger connections release more neurotransmitters and this requires more energy. By dampening down all of our synaptic connections we reduce the energy demands on the cell without losing the relative strength of the signal.

Another reason has to do with the fact that nerve cells are essentially binary – either they fire an impulse or they don't. They will only fire an impulse when they are stimulated above a certain threshold level, either by other neurons or by sensory inputs. If the synaptic connection is made stronger between two neurons then less of a stimulus is required to trigger the threshold in the receiving neuron. This means that old learning would drown out possible new connections and interfere with our ability to learn new things.

The new SHY hypothesis helps to answer several questions that the 'active strengthening' hypothesis couldn't. Essentially the old idea was that while asleep, 'replays' of



Neuron connections strengthen or weaken to consolidate memories during sleep, ensuring we remember what matters most

recent waking activity patterns in the synapses would 'instruct' learning.

But these replays have been seen to occur while we are awake, so why would sleep be so necessary? If there are also many other spontaneous firings that occur, how does our sleeping brain distinguish these from genuine replays? Furthermore, replays during sleep decline rapidly after the first hour. If their purpose is to strengthen our memory then why do they fade so quickly?

With the SHY hypothesis, a feedback method has been proposed so that as the neurons fire spontaneously through the night, the stronger connections preserve themselves and are dampened less than weak ones. This explains how the learning could be easily preserved.

Tononi and Cirelli have taken into account evidence from behavior, physiological studies and computer simulations too, and so far their hypothesis looks promising. However they have acknowledged that it could be wrong, particularly if we find out that synaptic resetting could occur while we are awake. For example, having only some circuits of our brain engaged on a task and the 'offline' ones resetting themselves would suggest that something else important is going on while we sleep, something that cannot occur whilst we are awake.

This study is just one of many that is looking at the reasons behind why we sleep, and there are still lots of unresolved mysteries as to why we need our recommended eight hours a night.

However, according to the Great British Sleep Survey 2012 most of us are only averaging 5.1 hours, so if reading this hasn't sent you to sleep yet, go and get an early night!

Hypervelocity stars discovered trying to escape the galaxy

Emma Wills Science Writer

20 candidates for a new type of hypervelocity star have been announced by an international team of astronomers.

These are stars travelling fast enough to completely escape our galaxy's gravitational field, which means travelling at more than six hundred kilometres per second relative to the galaxy.

Previously discovered hypervelocity stars are thought to have been accelerated by the supermassive black hole at our galactic centre, but the newly announced stars appear to be travelling in all directions, none of them from the centre of the galaxy. Neither do they seem to have come from the black hole of our closest large galactic neighbour, the Andromeda galaxy.

Possible mechanisms for their speed include a binary system where one of the stars goes supernova and ejects its companion, or a single star that encounters a binary pair of black holes. It is hoped that observations of their spectra may give clues to their origin.

The candidates were identified by the Sloan Sky Survey, and were spotted by looking at their angular speed relative to the centre of the galaxy, which had not been focused on before. This method can come with large errors, but a number of statistical tests were run to check the accuracy of the velocities.

"We think that although some of

our candidates may be flukes, the majority are real", said Lauren Palladino, the lead

author of the paper. An additional puzzle comes from the size of these stars – they are all much smaller than the hypervelocity stars known to come from the galactic centre. If the theory of the previously discovered hypervelocity stars is correct, then there should be a range of sizes of star ejected from the centre of our galaxy. These smaller stars are still being searched for.



The pathways of some of the new stars discovered as they travel at over a million miles an hour

FRIDAY 06 DEC

FELIX

COMMENT

Editors: **Eoghan J. Totten, Tessa Davey** comment.felix@imperial.ac.uk



Confessions of a GTA: Part Seven

A new and slightly more awkward year

The GTA Anonymous

wkward moments in a GTA's life come pretty thick and fast. I had hoped to start a new term off well. but 3 months of GTA experience had taught me better. I have several times marked something as completely wrong only to realise five minutes later it is a perfect solution and had to cross out all my notes. I have also had to start calling my lecturers by their first names, which is not only weird and wrong, but also impossible with people who the other staff refer to as Professor. Yet still they insist.

Most awfully I've had to rebound chat up lines from students. With the MScs and their older wiser ways this is only vaguely embarrassing but by undergrads, who look to me about 12, it is just awful and not cute as my sister determined in her wails of unfeeling laughter.

But today did not get off to a good start. I was invigilating an extra time exam which had just one student in it. These are the best GTA jobs (apart from the fieldtrips) as you can stay the whole way through the exams, which can be over 4 hours (good cash times after a rather indulgent Christmas). You can also take in your own work. Thus, you have 4 hours of time alone with your work, with no emails or people or funding proposals, and you get paid for it.

This sounds pretty ideal until your stomach starts rumbling. Very, very loudly. Now this is awkward on any occasion. I still remember a particular primary school teacher whose stomach would always kick off at around 12pm, but in a tiny silent room with only one other unknown person who is trying their hardest not to fail an exam. Seriously!!! And it just went on and on and on, sounding quite a lot like a cat singing the song of its people.

I think the worst thing about it was there was nothing I could do. With corrections there is tipp-ex, with lecturers you can go as long as possible without calling them anything, and with students you can make it quite clear you are looking for someone who is rich enough to pay for the rest of your academic career. Here, I was helpless.

So apologies to you. I hope the exam went ok. Thus my confession this week can only be that even GTA's bodies let them down more often than they would like to admit.



Christy Kelly thinks now is the winter of our discontent

ichard III marks the start of Shakespeare's longstanding engagement with villainy. From the motiveless malignity' of Iago to the sublime tragic grandeur of the Macbeths, the roots of all can be spied in this early work; the scandalous graveside seduction, the poisonous force of Queen Margaret. And yet, it is an early work and this shows: the play lacks the psychological subtlety of Othello, the (if you will forgive an oxymoron) crude sophistication of Troilus and Cressida, the scale of A Winter's Tale, the profundity of the undeservedly lesser known Richard II. Similarly, the pathos during the death of the little Prince is a little too pathetic, the ghosts serve too simplistic a function when compared to their counterparts in Hamlet, Julius Caesar and Macbeth. Finally there is Richard himself, vulgar without Iago's intelligence, a short (Napoleon Complex susurrates on the periphery of every analysis), grotesque figure of a very picturesque evil.

Yet he has a certain tragic dignity, behind the bathos. The legacy bequeathed on us by the ancients, of sympathy and catharsis, still hold sway in the poetry of the classical époque. We know well that Richard is nothing other than his rapacious surface, yet the very form of tragic theatre grants him a closeness to us. A closeness which, while we stare on, in wonder and in terror, is stolen from the rest of the world.

This, to adapt a phrase from our friends across the Atlantic, is the

world this winter: in Iraq, Mohammed Abdul-Hameed, Raad Yassin Al-Baddi, Wassan Al-Azzawi, Jamal Abdul-Nasser Sami and Ahmed Khattab Ohmar are murdered during a raid on local TV station Salaheddin TV. In Bangladesh a nameless lawyer is beaten by four men as she protests in the run-up to the coming election. In Japan, TEPCO employees are 'asked' to return compensation money for working in the devastated nuclear wastes of Tohoku. In the US, in New Orleans, a sex worker unknowingly contracts HIV. Earlier, she decided not to carry condoms with her; she heard the police were using them as evidence in prosecutions for prostitution. In the West Bank, 23 Palestinians face the immediate loss of their homes and livelihoods following an illegal court ruling in early December. In South Africa, Funeka Soldaat tries to help another victim of 'corrective rape', rape aimed at 'curing' lesbians of their homosexuality. In Colombia the family of Albeiro Váldez Martínez continue to face death-threats for attempting to reclaim their land. When Váldez returned to his farm in November 2009, a cattle rancher who had taken over the farm while Váldez was displaced threatened to kill him. When Váldez was found murdered in March 2010, the mayor of the town returned the land to the cattle

rancher... Meanwhile: a complacent Alain Fienkelkraut holds court on the 'clash of civilisations' from his desk at the École Polytechnique. TEPCO shareholders see a 136% yearly return, while the Telegraph worries that John Kerry and America might just be a little too late to come to the 'rescue'. I presume that asking of whom is to beg the question? Bloomberg announces – surprise, surprise – that the rich got richer, and – surprise, surprise – that they will continue to get richer. That ballast of intellectuality and historical sensitivity, Shinzo Abe, takes a spiritual jaunt with war criminals before watching Japan's latest big budget nationalist farce Eien no Zero, The Eternal Zero...

Perhaps it is not so much that the

form of theatre grants our favourite tragic heroes an immediacy lost to others, as that a certain distance in the very ways in which we relate with each other allows the theatre to maintain an equally 'close distance', so to speak. It has long been said that, at least since the dawn of the classic age, and in my opinion since long before, language is autotelic, that signification is reflexive, that representation is always representation of representation... Certainly Shakespeare assures us that all the world's a stage, and if the men and women are really only players

then perhaps, just perhaps, these players gain the dimensions of men and women.

Yet when we reach events where all the world really is a stage (you will, I hope, forgive the anachronism), the players lose their tragic dignity. They become not individuals but a faceless mass, without name and without history. And when the winter of our discontent is made summer by the rising sun of York? Keats wrote of 'the murmurous haunt of flies on summer eves'. Harbingers of the stench of death...



FELIX FRIDAY 06 DEC





COMMENT



There's an east wind coming... Felix

ello all! Welcome back to a new term! Hopefully you've recharged over the Christmas break and are all ready to sit your

exams, do your coursework, or laugh at the poor souls who do so while you get away scott free!

At Felix, over the Christmas break we've been working behind the scenes to bring you some improvements and are happy to announce the release of our new app and some updates to our website. Have a look around and see if you can notice what's changed (although a lot of it isn't design related).

For those of you who are experiencing the stress train, fear not, the Union is hosting the originally named "Stress Less" fortnight! Head over to the Wellbeing section (pages 8-9) to find out more. Stress is never a plesant issue and many students can sucumb to pressure during exam periods, especially in this terrible weather. If you do end up having any problems always remember that you can consult your personal tutor, the College counselling service or the helpful staff at the Union, all of whom will be happy to assist you.

There's some exciting news this week, our hard working Sabbs apparently do more than spend all day



dancing on a screen. Thanks to lots of work by out Sabbs and Professor Lord Robert Winston, the issues surrounding the potential problems faceb by international students in the face of the looming Immigration Bill will be explored in an inquiry by the House of Lords Select Committee on Science and Technology. Talk about results!

Also this week we bring you news of College's residential experience survey. It's great to head that College has perked up a bit and has started to take more of an interest in the impacts it operations and decisions have on its student stakeholders, especially after last term's debacle with the handing of communications concerning the cleaning provision in halls and the accomodation license.

The panel will discuss a wideranging number of topics to do with the Imperial College Residential Experience, presenting the results to the Provost's board at the end of March. However there are some concerns regarding the length of the consultation. While we understand that it is necessary in order to bring needed change to the College Accomodation experience, we believe that decisions that have the potential to cause major upheaval to the accomodation system (and student welfare), should be taken over a longer period of time, with more stringent student, warden and welfare feedback. Regardless, we welcome the fact that College is staking some action to improve the student experience in ways that aren't only focused on academia.

The remit of the review is wide ranging and is expected to also touch on provisions for students in private accomodation. If you feel that you would like to provide feeback (and are not furiously revising, go to http://tinyurl.com/icRER.

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The Ashes Column On the eve of the Ashes, in our new column we preview the series.





Piano drops in Iceland



Campus Services Dep... Last week Felix reported on College Campus Services' decisions to



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Arts Emergency!

How an educational charity is bringing art back to the masses

Indira Mallik ^{Writer}

resent education

resent education policy seems to be driven by the political notion that culture should be seen as a 'luxury' and a 'commodity' and

purely in terms of economic utility. In April 2013, arts secretary Maria Miller spoke on the subject of British arts, saying that the argument for continued arts funding must be made primarily on economic grounds, so that it "will get traction, not in the press, but with my colleagues – and with the country at large".

Meanwhile the reforms to university tuition fees that came into force in 2012 have had a profound and devastating impact on the arts across the UK. Students are applying to study vocational subjects rather than take the gamble and end up with a degree that will leave them up to £36,000 in the red.

"The government is emphasising that culture is a luxury we can't afford," said campaigner and fundraiser Neil Griffiths, speaking at the one day conference at Central Saint Martins College of Arts and Design entitled 'What's the Point of Art School?' in May 2013. This idea is reiterated by award winning comedian Josie Long, who believes the liberal arts have been side-lined by a government that sees higher education as a means to employability rather than an end in itself.

Arts Emergency Service is a grassroots project co-founded by Griffiths and Long in 2011. It aims to reverse the trend by "gathering a national network of volunteers to create privilege for people without privilege and counter the myth that university, and in particular arts degrees, are the domain of the privileged."

Long, who won a place to study English at Oxford despite coming from a family with 'no connections' and modest means says that studying the arts 'changed her life'. She is passionate about giving underprivileged children a chance to explore creative careers and the benefits that it can bring. The project primarily runs the 'Alternative Old Boys' Network', subverting the tradition of alumni from elite schools and universities helping each other to get a leg up in the jobs market. The Alternative Old Boys' Network gathers hundreds of volunteers working in



Alan Moore, Josie Long and Philip Pullman at the Oxford Literary Festival, discussing 'What's the point of arts and humanities?"

fine art, theatre, media, comedy, design and more to provide mentoring services. Amongst volunteers from the members of the public, an impressive list of big names are also involved; patrons include the journalists Polly Toynbee and Laurie Penny, artist duo Jake & Dinos Chapman, authors Neil Gaiman and Alan Moore, poet Scroobius Pip, and comedians Stephen K Amos, Stewart Lee and Shappi Khorsandi. Mentors need not even have an arts degree; they include scientists, public sector workers and self-trained artists, the only common factor being their passion for arts education and keeping the door open for students from all backgrounds.

Mentors work with student members aged 16-19 in further education to help pursue a personal goal and explore their options in the arts, media, academia and professions such as Law and Architecture. They are given the opportunity to meet useful people from the network, and give themselves a foundation of confidence and connections on which to build a successful future - on their own terms. Mentors meet students face to face, talk on the phone or email offering information, advice and guidance relevant to their experience. Many also offer work experience, taster days and further access to others in their personal networks. According to Arts Emergency the program has found considerable success in the pilot scheme; each student member that joined is now studying at university or is the process of applying. 'Graduates' of the scheme are offered on-going practical support in the longer term through access to the network.

Speaking to the Guardian in 2011, Long said that the "ultimate aim" of Arts Emergency Service is "to reinstate free education for all at a tertiary level." As well as running the mentoring scheme, Arts Emergency are involved actively in the community by running workshops in schools and sixth form colleges to 'de-mystify' creative careers. Members also speak regularly at public events; Josie Long appeared alongside author Phillip Pullman and world-renowned graphic novelist and magician Alan Moore at the 2013 Oxford Literary Festival to discuss 'what's the point of the arts?' and whether the arts and humanities can survive in times of economic hardship. In addition to positive propaganda, in order of raise money for the arts education cause, in 2014 Arts Emergency will run the 'Student Debt Lottery' in which winners get some and possibly all of their debts paid off.

Ironically, the government's withdrawal of support for humanities higher education is likely to prove to be a short sighted decision. The July 2013 report 'Humanities Graduates and the British Economy: The Hidden Impact' conducted by the University of Oxford has found that 80% of all Oxford humanities graduates go on to be employed by key economic growth sectors such as finance, law, media, and education. This trend is almost universal across universities. Employment trends indicate clearly that Humanities higher education is not a disadvantage for graduates in a highly competitive economy; in fact the creativity, literate, critical, and communication skills that have long been the core of Humanities-based higher education have proven appeal to employers.

In lieu of government funding, the mantle of keeping the arts alive seem to have fallen to charities such as Arts Emergency, and if successful, its work and the work of similar projects will no doubt be claimed as a victory for the 'Big Society' in operation by the Tories in the years to come. Meanwhile the public can support the Arts Emergency Service by joining up to be a mentor or donating at their website: www.artsemergency.org

Hipster German expressionism

Clara Clark Nevola Writer

What: From Morning to Midnight Where: National Theatre, SE1 When: Until 26th January Price: Various

o here you are. You've watched all the Salvador Dali films in the house, knitted all the hipster beanies you need, the bars in Shoreditch are too mainstream on a Friday night and you've already spent hours listening to unknown bands on Soundcloud. So what next? Well, you get yourself a ticket for a German expressionist play at the National Theatre, obvs.

So if this is your plan, let me talk you through the pros and cons.

First pro is that you're unlikely to see it again for a long time: *From Morning to Midnight*, Georg Kaiser's masterwork has not had much airing since its premiere in 1917. Basically, now's your chance.

Secondly, and this is quite a major one, taking the lead role as the Clerk is Adam Godley. Doesn't ring a bell? Charlie's dad in the 2005 Charlie and the Chocolate Factory film, Elliot Schwartz in Breaking Bad, he's been in heaps of TV and theatre. Nominated multiple times for the Oliver Award and winner of numerous other awards, Godley is basically the only actor in the cast who got what the play was about. Oh wait, that's a spoiler more of in the cons. Anyway, Godley really brings the existentialist angst to this performance. Playing the boring, middle-aged clerk with a repetitive life and a repetitive job, he evolves as a character from his infatuation for a travelling Italian lady to his quest to find the meaning of life. In a 24 hour whirl, he tries out the thrills of life, looking for meaning in adrenaline, debauchery and religion. Comic but tragic, the clerk is self-aware of his

failings and yet desperate to discover an underlying truth – the epitome of the expressionist hero.

ARTS

Next up, all praise to Soutra Gilmour, the stage designer. This really makes the production stand out, creating surreal and often disquieting sets, framing and highlighting the spiritual angst which the play conveys. In many ways, the stage design speaks more than the actual cast, and certainly more convincingly. A giant clock towers over the stage, a reminder of the limited time that the clerk, and indeed everyone, has left. Below, the people scurry in pursuit of pointless activities and empty pleasures. The thrill of a bike race is marvellously rendered, the excitement of a nonexistent crowd palpable. Bed sheets turn to snow and snow to waves as the clerk goes on his journey form his domestic repetition to the urban life outside. Houses collapse, lightning strikes, banks are robbed - this is all done seamlessly, with props being reused inventively to create a dream like stage geometry. All is set to almost constant refrain from Wagner's Tannhouser., which sometimes works and sometimes doesn't, but definitely adds to the overall angst of the viewer.

And now for the negatives of this production. It's hollow, it's predictable and it's flat.

The overall production is striking and impressive – but overwhelming. The constant flashes, music and stage surprises, though wonderful and ingenious, do nothing to improve your interest in the clerk's fate. Is he going to find the meaning of life in religion? Is he going to get caught? Will he go back to his previous lifestyle? You just don't care. And the truth is none of the cast members seem to either. With the notable exception of Godley, no one seems to have got into their part, or even be aware that their lines are part of a dialogue.

All in all, a trip to *From Morning to Midnight* may be better than another evening polishing your fixed gear bike, but only just.



JOHAN PERSSON

ARTS

Editor: Arianna Sorba arts.felix@imperial.ac.uk



Republic of the Moon

Fred Fyles takes a trip to the new Earth-based Lunar Embassy

ince the dawn of humanity, mankind's relationship with the Moon has been a special one. When our ancestors looked up into the sky, they saw the same heavenly sphere that we see today; unchanging and dynamic, familiar vet distant, the Moon has provided a wealth of inspiration about what it means to be human. For many years now space has been seen as the 'final frontier', culminating in the first manned moon landings in 1969. While enthusiasm for lunar exploration seems to have somewhat waned - the last manned landing was over four decades ago - as China and India begin to make their mark on the lunar surface, it seems likely that we will see renewed interest in the coming years. But there is a massive question that hasn't yet been answered: now that we have finally reached the Moon, what do we do with it?

It is this question that *The Arts Catalyst* is attempting to answer with their new conceptual exhibition *Republic of the Moon*? Bringing together artists whose work resonates with the lunar landscape, *The Arts Catalyst* has taken over an old bargehouse, which they have declared an Earth-based embassy for their newest republic.

Given the current economic and environmental situation here on terra firma, it seems highly likely that there will be some attempt within this century for international corporations to exploit the natural resources the Moon can provide. While an international treaty was signed in 1979, banning the use of the Moon for exploitative activities, it has never been ratified by the United States government, nor any countries that have launched missions to the Moon. With so little to protect it, it seems somewhat inevitable that a new colonialism will emerge centered on this celestial body.

Astronauts are described as 'emissaries of humanity', a label which can surely be used to describe the role that artists play in our society. Therefore it seems to make perfect sense that they are the ones to explore what the Moon means to us.

American artist Liliane Lijn looks back to ancient times for her inspiration, exploring the link between fertility, lunar cycles, and the notion of femininity in her work *moonmeme*. Unrealised as of yet, *moonmeme* is a complex work in which Lijn, working with scientists and astronomers, plans to project the word *SHE* across the lunar surface, large enough to be seen on earth. As the Moon wanes the word fades out, becoming *HE* before disappearing, linking together the



male and female, revealing how one is integral to the other. The work is represented by a real time projection of what the word would currently look like on the lunar surface, along with a soundscape created by Lijn, in which she combines mystic quotes about the Moon by thinkers such as Pliny with repetition of the word 'She', which has been used for millennia to describe the Moon. Stretching out the word, it begins to lose its meaning, becoming a part of the magic of the lunar cycle. Furthering the idea of the Moon not belonging to any one nationality, Lijn has furthered the project by expanding it to other languages; 'Elle' becomes 'El', 'Ona' becomes 'On', and so on.

The beauty and mystery of the Moon has inspired a myriad of artistic works, and Agnes Meyer-Brandis' work is informed by one of the earliest works of science fiction: Francis Godwin's The Man in the Moone. Published in the early 17th century, it describes a man who is carried to the lunar surface by a flock of 'Moon Geese'. In Meyer-Brandis' piece, Moon Goose Colony, the artist attempts to recreate this absurd journey; raising a flock of geese from birth, she has trained them as 'astronauts', and they are now embarking on a habituation mission together, spending a year on a Moon analogue in the Italian countryside. Comprising a short film, in which she documents the project, along with photos of the geese involved and a model lunar habitat, the work is full of whimsy and wonder, reflecting the unique magic of the Moon.

However, Meyer-Brandis also uses the work to raise questions about human impact on the environment; we see her trying to teach the geese about avoiding space debris during their journey, but for many bird species today, migrating to their breeding grounds can become as daunting a challenge as being sent into space.

This theme, of humans and their interactions with earth and space, resounds through the exhibition, which opened last week with a 'Manifesto Launch'. Artist group WE COLONISED THE MOON addresses the problem of space tourism and colonisation head on, organising antimining protests throughout the run of the exhibition. While this might seem like a far-fetched concept, it is difficult not to be reminded of the current protests surrounding fracking, which has become a talking point only within the last couple of years; is it really so absurd, considering the inexorable march of technological progress, that the Moon could become the new arctic circle, or oil sands?

This decision about what to do with the Moon is summed up, somewhat pessimistically, in a piece by *WE COLONISED THE MOON*, who give us the stark choice: 'Theme Park or Quarry'. But are these really the only two options that we have? Perhaps this exhibition can inspire a different vision of the future.

The idea of colonialism can seem difficult to apply to the Moon, but when we look at historical dominance over the territory it seems hard not to draw parallels. Thus far twelve people have walked on the Moon – all white, American men, they can hardly be described as emissaries of humanity. But this could soon change. The Indian Space Research Organisation was established in 1969, but it was not until recently that the ISRO stepped up their space programme, successfully launching their first lunar probe, Chandrayaan-1, in 2008. Challenging the status quo of space exploration, it today seems more likely than ever that the main challengers for control of the Moon will not be the US and Russia, but India and China. Chandrayaan translates as 'Moon Vehicle, which has become the name of a joint project between the ISRO, artist Joanna Griffin, and students at Srishti School of Arts, Bangalore. Essentially and outreach programme for the school, Moon Vehicle shows how the prospect of space exploration can inspire an entire generation of young people.

Katie Paterson's work, while directly inspired by the Moon, is unique in that it focuses on what is missing as opposed to what is actually there. In her first piece, *Second Moon*, a piece of lunar rock is being sent by courier around the world, at twice the speed of the real Moon. We can track this artificial moon as it makes its manmade orbit through an app (when I visited it was somewhere in Eastern China); as it passes through cities it will be exhibited at art galleries, before making its triumphant return to the Republic's Embassy.

While the work delightfully subverts the idea of a human satellite, it seems rather high-concept, and pales in comparison to her second work *Earth-Moon-Earth*, which makes use of 'moon bounce' technology. Paterson has converted Beethoven's *Moonlight Sonata* into morse code, before transmitting it at the Moon; the notes are reflected back to the earth, but parts of the information is lost in the craters of the lunar surface. Lacking part of the information, we are left with a piece that resembles the original, but is peppered with gaps. As the automatic piano plays the piece, these discordant pauses create a tense, melancholic atmosphere in the exhibition space.

If one criticism could be levelled at the works exhibited thus far, it would be that they are all very highconcept, and removed from the individual relationship we have with the Moon. Luckily we have work from photographer Leonid Tishkov's series Private Moon. Tishkov represents the highly personal link each person has with the Moon by carrying around a luminous crescent with him. In a series of candid shots we see him taking his moon sailing, sleeping next to it, and showing it the Moscow skyline. It is difficult to understate the sheer beauty of these pictures; beautifully lit, and technically accomplished, they manage to make the Moon a tangible presence, rather than a distant rock in the sky. These pictures form the highlight of an exhibition that is brimming with excellent pieces, creating a mood that is both sombre and intimate.

Artists provide us with a unique outlook on life, and, as mankind seems poised to erupt from this crowded earth to reach for the stars, their voices become increasingly important. Thus far the Moon is viewed through the prism of our current Earth-based technology; such a seismic shift in human migration requires a completely new way of thinking, one that scientists have as of yet - been unable to provide. We can see this attitude in the US space programme, whose spacecrafts are given names such as Pioneer and Prospector, indicating that the Moon is just another frontier for the US to conquer - an out-dated concept when one considers the stratospheric rise of India and China. It is exhibitions such as these, in which scientists, engineers, and artist work together, that give us a more suitable context in which to place space travel. When I leave the exhibition, I find that the cloudy sky when I arrived has been transformed into a clear winter's night; staring up into the sky, I can see the brilliant waxing Moon staring straight back. It may be thousands of kilometers away but - for tonight at least - it has never seemed closer.

The Republic of the Moon is on display in Oxo Tower bargehouse, Southbank, SE1, from 10th January to 2nd February 2014. Entrance free.



FelixImperial

An epic poem of everyday Gods

Brand New Ancients is a storm of a performance, says Lily Le

ate Tempest is a 27 year old performance poet from Lewisham, London. As poetic as her name may sound, she remains unheard of to many. But all of this is changing, fast.

Tempest is the latest winner of the Ted Hughes Award for innovation in poetry, with her new piece Brand New Ancients, a poem-story-play combo currently touring some of the most prolific venues in London and the UK.

Standing on the candle-lit stage of St. Leonard's Church in Shoreditch, before a quartet of musicians playing a score composed by the award-winning Neil Catchpole, she announces that this is a piece about "a world beyond the immediate, beyond trainers and nice clothes; about the forgotten. It is about empathy, love, and courage, which for humans are the most important, and should be cultivated in us all."

Do not be misled, however. As emotional and tense as it is, Brand New Ancients is not a soppy affair. Even prior to the meanings of her words being fully realised, before her poetic majesty is registered and causes a pause for thought, Tempest's presence is truly a storm, which eyes or thoughts cannot wander from.

She describes it herself as an epic narrative poem – a story that brings back the mythology of old tales in the form of the everyday people that get up and go to work. Indeed, her chorus repeatedly chimes of them as "The Gods" doing this or that in various guises.

Her story of two families with young children that fall apart, get together, find themselves and each other in a modern setting is not an unfamiliar one. The unique aspect is the celebration of the everyday, though an extreme version for those who may not be acquainted with the infamous violence of her hometown, which no doubt grounds the basis of her work.

The way in which the story unwinds is also evidently influenced by her play-writing. As she narrates, clear images of the events are formed in the mind with a backdrop of dramatic music, as visual as though watching a film.

Despite all this, the wittiest part was her silence, as the violin played as a manifestation of two young lovers kissing for the first time. Sweet. "I take great inspiration from something that makes me feel," she explains. "If something speaks to you through the



ages then that's the most important thing in bringing us closer to each other and ourselves." This also true of her own work; as was demonstrated by the standing ovation she received at the end of her performance.

Although nothing would come close to experiencing Kate Tempest other than watching her speak her poems before you, Brand New Ancients is available in book form for those who take enjoyment in perusing beautifully

SPITALFIELDS MUSIC FESTIVAL

laid-out phrases for more than a fleeting moment.

Kate Tempest: Brand New Ancients is touring now until 20th April. See bit.ly/1fyfaXZ for more information.

All-male Swan Lake makes ballet history

Clara Clark Nevola Writer

What: Matthew Bourne's Swan Lake Where: Sadler's Wells, EC1 When: Until 26th January Price: Various



ance newbies: this is not frilly dresses and satin shoes. You will be exposed to raw power, unsettling emotions and unsettling

scenes. Ballet aficionados: prepare to be amazed at the side of Swan Lake this performance brings out.

Set to Tchaikovsky's music for Swan Lake, one of the most loved and most performed classical ballets, Matthew Bourne's production created great controversy. And yet, 18 years from premiere, every tour sells out - a testament to its truly unique impact. The performance revolutionises Swan Lake as a performance, while sticking faithfully to the musical score.

At the centre of the dance, replacing the traditional figure of Odette, the fragile princess turned swan, is the Prince and the Swan. The former (Simon Williams) is timid, insecure



and alone, the latter a powerful, vital, extraordinary creature, filled with mystery, masculinity and strength. Jonathan Ollivier brings an almost frightening power to this role, commanding the hearts and emotions

of the Prince and the audience in a wav rarely seen on stage.

Scorned by his frigid, fashionable mother, the Prince drifts through his royal duties, distracted and sorrowful. Escaping the strict, sterile geometry

of his castle, he discovers passion, sexuality and life in a grimy bar downtown. This is when his life starts intertwining with the swans, creating scenes with an almost hallucinatory atmosphere, between reality and visions. Masculine, powerful, violent, hauntingly beautiful and utterly nonhuman, the swans appear repeatedly to the Prince. First hostile, then almost within reach, with the lead Swan by turns beckoning and aggressive.

This interpretation is inspired: the side of a swan we all know exists. Yes, swans are graceful and pretty, like the iconic female tutu-clad swans of Swan Lake. But they are also powerful, wild, ruthless and unreachable, as are Matthew Bourne's half naked, muscular men with shaved heads alluring and terrifying.

The performance continues in an increasingly frenzied setting, as the Prince's obsession with the Swan grows. Ollivier takes the role of the Stranger, the Black Swan/Odile of traditional Swan Lakes, and appears in sexy black leather at a palace ball. Tantalising the Prince by scorning his affections in public, the Stanger dances provocatively with all the women at the ball. And yet the emotional tension between him and

the Prince is palpable - can this lady's man really be the same wild and heartbreaking creature of the Prince's night time encounters?

The genius of this production does not lie in reimagining a well-known romantic ballet as a modern, male couple dance, though the homoerotic tension has got many tongues wagging. Nor does it lie in choreographing a jazz routine to Tchaikovsky soaring score, though this is an impressive achievement.

The reason for which this performance is, and will remain, a key production in the dance repertoire is that it shows us what a classical ballet is for. Not for tutus, not for repertoire steps and revered, un-modifiable canons. Ballet is not even for pointe shoes or scenes of pretty heroines against ungainly baddies. A real dance production will stir dark, buried emotions inside you. It will make you long for those wild and unharnessed feelings described by the music and incarnated in the dance.

There has not been a new performance of this kind since early twentieth century Paris, and Matthew Bourne, a fifty year old east Londoner, has created something worthy of balletic history.

BOOKS

Editor: **Maciej Matuszewski, Eva Rosenthal** books.felix@imperial.ac.uk



A story of loss and beauty

Vithulan Patkunan reviews Donna Tartt's latest masterpiece

Anyone familiar with Donna Tartt knows that her works take time; her debut, The Secret History, took her eight years to complete and her following novel, The Little Friend, a decade. Anyone familiar with Donna Tartt also knows that the wait is completely justified and worth it. The Goldfinch, her third and latest novel is no different from its predecessors, in both senses. Fans have been waiting for her next novel for eleven years and it was finally unleashed on the world in the autumn of 2013. At a hefty 771 pages, the book is her longest yet and the world she creates is, no doubt, the richest.

The Goldfinch is a tale about a man's life from teenager to adult, and how it completely metamorphosed after a single piercing event: the loss of his mother. After baiting us with a literary 'cold-open' – the protagonist, Theodore Decker, is cooped up in a hotel room in Amsterdam, waiting to discover if his name and implied crimes, whatever they may be, have been outed in local news reports – the narrative goes back in time to tell the story from the beginning.

"...hauntingly familiar yet seemingly inexplicable..."

It all starts on a particularly rainy day in New York City where Theo and his mother are on their way to a parent teacher meeting, set up for the thirteen year old on account of him being suspended. Met with some free time before the meeting, Theo's mother, a lover of art - and of a specific piece being exhibited that day in particular, decides to visit the museum, unaware of the terrorist bombing set to destroy the building. Having been separated from his mother inside, Theo finds himself amongst rubble and bodies. Here he experiences the single most important encounter of his life. An old man, badly injured, communicates with him: incoherent but with moments of extreme clarity. He gives him a ring and the words "Hobart and Blackwell". He also urges him to salvage Fabritius' masterpiece, The Goldfinch, which happened to be the very painting that Theo and his mother had come to see.

Theo leaves the bombsite back to the agreed emergency meeting point: their apartment. He has with him nothing but the painting, the ring and an assured feeling that his worried mother would be waiting for him back home wondering what took him so long. The writing of the following events shows off Tartt's genius beautifully, contrasted with the tragic circumstances they describe. The emptiness of the apartment, the nausea of the concussed Theo falling in and out of consciousness and perhaps worst of all, his unfailing belief that his mother would walk in any moment now are conveyed painfully to the reader; the broken sentences interspersed with long meandering ones place us amidst the confusion, chaos and concussion of it all. Perhaps the most disturbing aspect of the situation is the indifference and abruptness with which a couple of social workers let the thirteen-year-old Theo Decker, along with the readers, know that his mother was dead: one of the most fascinating passages in fiction that isn't outstanding due to the events that occur, but to the intensity and accuracy with which the emotions are expressed.

It wouldn't be an exaggeration to say the rest of the book details how Theo copes with the news. As his alcoholic father had left him and his mother a long time before, he was suddenly alone and shipped from place to place; we see the life of a private school kid in New York get turned completely upside down, to a life where child and drug abuse are commonplace, to a place where nobody cared if he came home for the night or not. One of the first things you'll notice about this book is its wide array of characters, each with their own quirky, carefully revealed personalities. Having said that, there are really only two main characters in *The Goldfinch*: Theo and his mother. Despite the fact that his mother is alive for only a tiny proportion of the book, the echo of her life exists through the pages, through Theo. His actions, his thoughts, the people he likes and dislikes, can all be traced back to his mother and to his deep sadness at her loss. We learn, with regular drips of information, of her past, her tendencies and her small quirks. The way Tartt keeps the character connected to his past is startling in its realism. We see Theo go through massively contrasting situations, harrowing lows and ecstatic highs; each event molds his personality and we see the results in his future decisions.

It is difficult to write about the plot of this book without spoiling it somewhat. After the opening chapters set in New York and Theo's mother's death – which form the premise of the story – the plot goes at high speed from one place to the next. Half of the fun in reading this book is the anticipation of the plot and where it would lead next with its many twists.

There are a few major themes running through this book, one of which is the theme of antiques. Theo becomes fascinated with *The Goldfinch* painting



GOLDFINCH

he takes from the destroyed art gallery and then with furniture and antiques in general. Perhaps after witnessing the transience of human life, he takes solace in the longevity and assuredness of ancient pieces of art. James Hobart of "Hobart and Blackwell", which we find out to be an antiques store, is to whom Theo is led after heeding the injured old man's words. Affectionately called 'Hobie, the giant of a man becomes Theo's guardian and his teacher in all things antique. Theo's relationship with Hobie is one of the few real connections we see him have; his exchanges and presence give Theo (and the readers) an anchoring in the otherwise choppy waters of his life.

Perhaps one of the most intriguing characters in the book is that of Boris: a misfit Russian kid Theo befriends at school after his mother's death. An alcoholic from age ten, Boris sets Theo off into a routine of alcohol, cigarettes, glue-sniffing and shoplifting. Boris' casual criminal behavior, suffering of abuse at his father's hand and exposure to an adult's world at too early an age makes him a tragic yet interesting character, not least due to his genuine caring for Theo. The inevitable dependency on drugs that Theo develops becomes a source of some of the more depressing but beautiful passages in the book. Theo's musings and frustrations at the "human predicament" during his drug fuelled highs and withdrawal depressions create an emotional depth, while the unfolding of the story brings a sense of fast-paced action, all leading up to the events of the 'cold open'

"A different and much deeper sort of beauty altogether"

in Amsterdam and the intense ending. Donna Tartt has always had an ability to express hauntingly familiar yet seemingly inexplicable emotions in an exact and precise way, an ability to explain abstract concepts in a tangible fashion. This novel is no different, in fact it seems Tartt has honed this skill even further to the point where she has created moments where you truly and strongly relate to Theo.

A passage from the book where an art connoisseur describes The Goldfinch, the painting, comes to mind when describing the novel itself. "There's a doubleness. You see the mark, you see the paint for the paint, and also the living bird...Rembrandt. Velázquez. Late Titian. They make jokes. They amuse themselves. They build up the illusion, the trick - but, step closer? it falls apart into brushstrokes...A different and much deeper sort of beauty altogether." The novel as a whole is her masterpiece, her brushstrokes are her abilities to make words malleable and form them to articulate exactly what she wants: a deeper sort of beauty altogether. Anybody who loves reading should read this book, whether you like the characters or not, you will love the experience. All that can be said about The Goldfinch: 11 years well spent. And well spent is exactly what the time invested in reading this mammoth book would be.

Union Page

January Sales



The Union's January Sales are designed to save you money on the products you buy most, as well as introduce you to some new products we are stocking. Offers include:

- £1 off your next lunch in FiveSixEight
- ▲ Two pints of Aspalls for £5.50
- ▲ Try the amazing new Posh Snakebite in FiveSixEight and the Union Bar
- All premium Whiskys for only £2.50

Visit our website and see all of our deals in FiveSixEight, Metric, The Union Bar, the h-bar and Reynolds.

imperialcollegeunion.org/january-sales

Give It A Go, again!



imperialcollegeunion.org/giag

Give It A Go (GIAG) is back and has been off to a flying start!

There are a number of sessions on throughout January, all led by some of our Clubs, Societies and Projects. We have an incredible range of things students can do and get involved in and GIAG provides a fantastic way for people to find out about some of the great events our student groups organise.

You can see the full range of events at imperialcollegeunion.org/whats-on under our Give It A Go category. You can also find out more about Give It A Go at imperialcollegeunion.org/giag.

Real Ales







imperialcollegeunion.org/realales

You can vote for a Guest Ale to feature in The Union Bar and h-bar for February.

All you need to do is take the polls on the Union website and the ales with the highest votes win!

The current polls will close at **10:00, Friday 31** January and the winning ales will be on sale from the following week. Visit <u>imperialcollegeunion.org/realales</u> to see the guest ales for each bar and cast your vote! January's Guest Ales, Belhaven Robert Burns and Old Speckled Hen are now available in The Union Bar and h-bar.



EVENTSTHISWEEK

imperialcollegeunion.org/stressless

LAUGHTER YOGA Tuesday 21 January, 12:30 -13:30 Free Activity Spaces

Join us for some endorphinreleasing silliness and laugh your stresses away. No yoga experience required. Wear comfortable clothing and flat shoes or trainers.

MINDFULNESS MEDITATION Tuesday 21 January, 13:00 -13:50 Free Chaplaincy Multi-Faith Centre

An introduction to meditation not connected to religious tradition. Gives simple ways to practice meditation in dialy life. Run by the Imperial College Chaplaincy team.

GROUP WALK Friday 24 January, 12:30 -13:30 Free Meet on Beit Quad Lawn

Join us for a gentle stroll around Hyde Park. We'll be meeting in Beit Quad, Imperial College Union.



imperialcollegeunion.org

Happy N

ICU Mens Hockey:

ude Year

ICHC DelVants

FELIX

MUSIC

Editor: Simon Hunter, Riaz Agahi, Stuart Masson, William Stocker music.felix@gmail.com



A Thrill-Ver Mount Zion Stuart Masson reviews the Godspeed side project's latest album

t's difficult for any side project to ever be judged in comparison to anything but their parent band, and when that band is Godspeed You! Black **Emperor**, it is probably never going to go well for you. Starting as A Silver Mt. Zion in 1999, Thee Silver Mt. Zion Memorial Orchestra are onto their seventh album and fifth name (including the memorable **Thee Silver** Mt. Zion Memorial Orchestra and Tra-La-La Band with Choir). They are probably the best known of the numerous Godspeed side projects, and a lazy journalist might describe them as Godspeed without the experimenation. They do bring a few new things to the table though, with the addition of vocals in particular being an interesting innovation. They've taken a backseat for the



last few years due to the Godspeed reunion, meaning that *Fuck Off Get Free We Pour Light on Everything* is their first album since 2010. It's definitely been worth the wait, and not just because of, you know, the Godspeed reunion.

Opening track, *Fuck Off Get Free (for the Island of Montreal)* opens with a grungey shoegaze with strings affair before descending into a hypnotic waltz. This all culminates in crushing,

almost doom metal type guitar overlain with a screeching guitar wail and chanted vocals. It is an absolutely superb track. This is a track that wouldn't feel out of place on a Godspeed record, and would have been a highlight on the most recent one. It also taught me that Montreal is on an island, which is useful knowledge... Austerity Blues has a slow start, building into a droning unrelenting guitar track that gets a bit much after a few minutes. As the crescendo hits, and the screeching guitar sings out a beautiful melody, you can't help but fall into its trap. This leads to a big noise jam, before that dies off too and reemerges soft and becalmed. Take Away These Early Grave Blues is the first shorter track on the album (but still clocking in at slightly under seven minutes...) and as such, doesn't really let up from its combination of distorted guitars and manic strings. That's not to say I want it to though, especially as it's followed by the actually guite short

it's followed by the actually quite short (two and a half minutes) Little Ones Run, a pretty piano led affair. *What We Loved Was Not Enough* has a similarly calm opening, and whilst it does build into something a bit louder, it

doesn't ever build something into that catches the imagination in the same way the earlier epics did. Rains Thru the Roof at the Grande Ballroom (for Rough Steez) is a bit of an oddity. Really quiet drumming underpins shimmering strings and a clinky piano. It's definitely a change in style and it is a really nice end the album. to This is a really great album. It's



certainly not a poor man's Godspeed defini record. It is something a bit different (and not as good). Post-rock has been retreading a hell of a lot of ground in recent years, and this doesn't exactly break the mould, but there's a few novel ideas and it's not as if the rest of it is run-of-the-mill. It's also one of the better SMZ releases, and

definitely a great place to start for any Godspeed fans who have never got round to listening. I probably wouldn't recommend it to people who aren't familiar with Godspeed, mostly because I'd be too busy recommending F#A# ∞ , but this is great, and the fact that I've fallen victim to my own opening sentence doesn't change that.

AMS album of the week

Warpaint – Warpaint

Warpaint, the eponymous follow-up to 2010's well-received debut, *The Fool*, offers a different manifestation of the LA foursome's brand of delicate rock music. It smacks of the same cohesion which *The Fool* was noted for, however, whereas *The Fool* was generally characterised by a restless streak, *Warpaint* presents a departure towards a more natural, slow burn. Indeed, it opens with a clue that this might be the case: a peek behind the abstracting mask of musical production at a quirk

of their recording process. **Warpaint** are inviting us into their world rather than presenting it to us from the outside.

This idea continues seamlessly on the second track, *Keep It Healthy*, which further defines the approach the band appears to have taken when composing the album. They guide us on a journey through with gradual, gentle touches, settling on the most satisfying hooks and repeating them in an appealing way. By doing so, we are allowed more time to get the most out of each musical thread before the journey starts off again. *Feeling Alright* is another track which shares this quality and sounds as anthemic and uplifting as anything the band has produced as a result. The album's melodies are generally delivered at a slow tempo which allows the sleepy, dreamy introspection of tracks like *Drive* and *Teese*, a stripped-down love-note of a song which may be the album's most personal and heartfelt moment.

That's not to say we ever stray into too indulgent or maudlin territory. Time is still found to show flashes of a mercurial edge reminiscent of *The Fool* on *Hi* and *Disco//Very* which stand in stark contrast to *Biggy* and *Go In* which respectively follow the two tracks. *Hi*, my personal favourite, kicks off with a drum beat and bass line so grippingly seductive that they wouldn't sound out of place on a **Portishead** record. The single, *Love Is To Die*, also falls into this category, the urgent bass indicating a digression from the album's main arc. These three songs importantly provide depth beyond the picture of peaceful contemplation which the album otherwise builds.

Warpaint is both artistically beautiful and easily listenable. It achieves the feat of delivering emotional extremes in gradual, friendly doses. Although it bears hallmarks of the same group of four which produced *The Fool*, it is musically more straightforward, which results in a more accessible but nonetheless rewarding album.

Matthew Okenyi

Tara Jane O'Neil - Where Shine New Lights

Stuart Masson Music Editor

ara Jane O'Neil is a multitalented musician based out of Portland, Oregon. At the age of 19 she was already playing bass for art punk band Rodan. She then went about forming **Retsin**, a folky indie duo and The Sonora Pine, a more experimental post-rock type band. Since then there has been a collaboration with legendary slowcore band Ida, a wide range of guest appearances and even a prominent role in the film Half-Cocked. She is also a notable painter. (I did say multitalented!)

Tara has been releasing solo albums since 2000's *Peregrine. Where Shine New Lights* is her seventh solo album



and it's a really beautiful listen. It's certainly a long way from art punk, with the arrangements here generally relying on a few instruments played pretty quietly. It veers from Julianna Barwick-esque choral ambient (in particular on the opening track Welcome) through to really tender folk pieces. The Lull the Going is a particular highlight. matching a picked guitar with some quite fabulous harmonies. Elemental Finding opens

with a vibraphone before opening out into a dark folky number. It's really quite haunting, but it's also really quite beautiful. *Over. Round, in a Room. Found.* is almost hypnotic with a busy beat underneath sparse instrumentation and virtually

a busy beat underneath sparse instrumentation and virtually lyricless vocals. The slowly repeated synth in *All Now Vibe* transforms it into a really spectacular listen, whilst the final track, *New Lights for a Sky* adds a dissonant edge to the pretty ambient feel that works an absolute treat.

There are a few tracks here which remind me of other



more prominent singer-songwriters. The aforementioned Julianna Barwick comparison is definitely one that keeps coming back to me, **St. Vincent** is an obvious touchstone on *This Morning Glory* and there's even a touch of **EMA**, especially in the first half of *Wordless in Woods*.

This is a really great listen. A wonderful collaboration of ambient and folk; this is the perfect remedy for all the stresses of student life. It's not the most exciting listen, but that's pretty much the point. It's relaxing, it's comforting and it really does go down easily. This is definitely one I'd recommend to all.



neur year fair

Tuesday 28 January 11:00 - 16:00, The Great Hall

The New Year Fair will showcase every aspect of your student life for 2014 - from jobs to entertainment, sports to volunteering, advice to travel, and more.

New year, new you!

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Nebraska, Nebraska, I love you

Jack Steadman

Treasured Writer

Nebraska

Director: Alexander Payne Writer: Bob Nelson Starring: Bruce Dern, Will Forte, June Squibb Runtime: 115 minutes Certification: 15



Following on from the Oscar-nominated The Descendants (featuring George Clooney's best performance in years, and introducing the amazing Shailene Woodley - soon to be seen in The Fault in Our Stars), Nebraska is Alexander Payne's latest film as director, and (unsurprisingly) it's almost everything you'd expect - and a little more. Shot entirely in blackand-white, Nebraska gains an ethereal kind of beauty in appearance - the frequent landscape shots, previously so full of life, colour and Hawaii in The

ing images of the wide-open spaces of Nebraska: a sunrise without any colour is an incredibly surreal shot, but a strangely picturesque one. It's through this lens the rest of the film is viewed, and with some drop-dead gorgeous shot composition (even of a field full of cows, at one point), it's a fantastic place to start.

Descendants are replaced by haunt-

Fortunately, Nebraska doesn't drop the ball from there - if anything, it builds on it. The plot is simple, slowmoving and rather easily resolved, but it's also utterly irrelevant here. The focus lies on the interactions between the characters, and it shines through the monochrome in glorious Technicolor. Bruce Dern delivers a careerbest performance as Woody, the confused, elderly father convinced he's won a million dollars, capturing every nuance of a man who's not quite sure where he is anymore, while the supporting cast are almost universally excellent. Will Forte steps away from his comedy background to play the role of the earnest, caring Dave, while Bob Odenkirk (Breaking Bad's Saul Goodman) pops up to take on a somewhat less legally and morally questionable role, with the an absolute treat that is June Squibb as Woody's feisty wife.

The chemistry within the family

unit is incredible, but it's the comedy of the extended family and friends that really steals the show (although, having said that – a scene in a graveyard is priceless, proving an undeniable highlight that tops The Descendants' running-in-flip-flops scene for comedic absurdity, and manages to be funnier than half of 2014's comedies so far). There are a multitude of scenes that provoke prolonged, out-loud laughter, tinged (as always) with a hint of melancholy and sadness. Although Nebraska lacks the emotionally crippling ending of The Descendants (I appreciate this review is just turning into an extended comparison, and I would apologise were it not for the fact I loved The Descendants, so there), it still has its moments of tenderness and plain-dealing emotion, if never quite tipping over into out-and-out sentimentality.

There are a few moments of wry social commentary hidden amongst everything else – most notably a cheeky nod to America's relationship with technology over people - but ultimately this is a deeply personal, intimate film about people. It's near perfect, and it'll leave you with a smile on your face but a tinge of sadness in your heart. And it also features the best fight sequence ever, so there's that.





The last samurai movie PLEASE

Anonymous

Asian Writer

47 Ronin

Director: Carl Rinsch Writers: Chris Morgan, Hossein Amini, Walter Hamada Starring: Keanu Reeves, Hiroyuki Sanada, Ko Shibasaki, Rinko Kikuchi Runtime: 118 minutes Certification: 12A



There is no doubt that 47 Ronin was Universal Studio's hope-child given its vast budget of \$175-million. However, unlike The Last Samurai in whose footsteps this movie obviously attempted to follow, the difference between their respective results is stark; in fact, rather akin to that between a samurai (warriors following



the bushido serving their liege) and a ronin (ex-samurai who has failed and thereby lost his liege), a concept that the film is supposedly based on but on which the film curiously lacks much expansion apart from a brief narration of the definition of a ronin in the beginning and sporadic mentions of 'honour' here and there.

One foremost difference is that the protagonist in The Last Samurai was a foreigner and hence, the dialogue was clearly split between English and Japanese. As the protagonist in 47 Ronin, Kai (Keanu Reeves), is born and raised in Japan it follows that the entire Japanese cast (basically everyone except Reeves) would need to act in English lest the film become subtitle heavy. Apart from 18th Century Japanese



characters speaking English somewhat denting the authenticity of the film itself, this is surprisingly less of a hindrance in enjoying the film compared to the predictability and general cheesiness of the film's dialogue itself. "I would search through a thousand worlds and ten thousand lifetimes until I find you"? Yes, it might actually take that long before such line does a 180° and is considered not cheesy. Or a desperate attempt to keep the love line that seems forced in plot as well as in performance.

The legend of the 47 ronin is a fundamental one surrounding the Japanese culture and history of the samurai, which has been retold in so many forms of arts and literature with lots of material to offer. However, you just

can't help feeling much has been stereotyped and simplified - exiled warriors striving to revenge their wronged master with a cliché villain and starcrossed lovers thrown in for good measure. Throughout the film you can see much evidence that the film struggled to walk the fine line between an art-house samurai film (abundance of cherry blossoms, the colourful costumes and even somewhat bizarre looking makeup making up an overall impressive visual) and a more easy-toswallow mainstream action film with Eastern influences (err, the character Kai himself, the illustrious shapeshifting witch (Rinko Kikuchi), feeble love-line with Mika (Ko Shibasaki) the daughter of Lord Asano (Min Tanaka) etc.).

In theory, catching two such birds with one stone would have been great, however, in real life, it would have been better if the film simply directed all its efforts to one and did it well rather than being neither here nor there. Rather disappointingly for a samurai film, it even lacks in decent swordfights: they are all too quick and easy to end, which was probably not helped by its 12A rating.

Apart from the underwhelming quality and amount of action scenes many other aspects of the film remain shamefully underused. Lord Kira (Tadanobu Asano) spends most of his time sitting down and is only awarded with a rather short ultimate fight at the end, there is very little plot surrounding the Tengu (nanny figure of Kai with owl reminiscent eyes in the film, a mythical Japanese creature typically with red face, long Pinocchio nose with big sword and feather fan in Japanese myth) and the full-bodyskeleton-tattooed gunman and even Kai himself spends a considerable amount of time standing around like a bystander. The character that carries the heavy burden of leading and carrying on the plot of the film falls on the shoulder of Ôishi (Hiroyuki Sanada) who fortunately provides gravitas that the film otherwise lacks. No wonder the film was not very well received even in Japan itself – despite a special edit that was specifically designed for its audiences.



Writer

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FILM

Director masterclass: David Lynch

Peter Brook

Lynch is the master of creating unsettling dreamlike visions and the surreal. He has written and directed cult classics such as Eraserhead (1977), Blue Velvet (1986) and Mulholland Drive (2001). He also directed the more mainstream Elephant Man (1980). Though the he has been making films for 37 years there has been a set of aesthetics and themes throughout his work which bind them together to create a consistent body of work. Critics Le Blanc and Odell stated that "his films are so packed with motifs, recurrent characters, images, compositions and techniques that you could view his entire output as one large jigsaw puzzle of ideas."

The main thing that most people will quickly recognise is the dreamlike nature of his films. The director Bergman has been described as someone who would "refashion the stuff of his unconscious" and due to the oneiric quality of his work, Lynch might work in a similar way. Of his work, Lynch says:

"Waking dreams are the ones that are important, the ones that come when I'm quietly sitting in a chair, letting my mind wander. When you sleep, you don't control your dream. I like to dive into a dream world that I've made or discovered; a world I choose... right there is the power of cinema."

Another recurring motif in his films is that of two co-habitanting yet contrasting worlds. Often one of happy, 1950ies Rockwellian values, American, clean cut, and wholesome goodness with a flip side of a dark, grimy, industrial underworld, neither of which alone is real. In Mulholland Drive Betty Elms is hunting the 'Hollywood Dream' in a swell apartment, Diane Selwyn lives in a grotty cabinlike dwelling: dirty and drab. Blue Velvet starts with this Rockwellian wet dream of American life and the scene morphs to show creepy unsettling world that lies under this thin facade. Again we can see something similar in The Elephant Man with the Circus underworld and the life of a wealthy Doctor.

There many other repeated motifs, things like the machine like nature of the world, or showing the world as a stage and split characters. There is a lot going on, and many of the films warrant second watches; but, if you are unfamiliar with Lynch, I suggest you sit down and let these films wash over you and I think you'll find that – dispite all the strangeness – they are very engaging and captivating.





His first movie *Eraserhead* (1977) was meant to be a short 21-minute art film for the American Film Institute but ended up as a 90-minute feature that became a classic midnight movie. With its droning industrial soundtrack and weird imagery, it shows a man living in a sparse derelict city. He goes to visit his girlfriend at her parent's house where his mother tells him that she has given birth to their child. His girlfriend protests saying that it's not a child. The plot then sort of takes a hike and works it's way deeper and deeper into a warren of oddities and ideas.



After seeing Eraserhead (Lynch's first movie) it would be easy to believe that he is an oddball filmmaker with a cult following. The Elephant Man (1980) shows that whilst maintaining all of the oddness and horror from Eraserhead, Lynch can make a more accessible film. It is the beautiful tragedy of one John Merrick (The Elenhant Man) a deformed man travelling with a freak show who is taken in from his cruel showmaster and treated like a human for the first time. However, because of how strange looking he is, it is difficult to get away from being treated like a Victorian oddity and soon becomes the center of a more sophisticated freak-show.

John Merrick played by John Hurt gives a knockout performance despite the fact he is wearing very heavy prosthetics. It would be so easy for a film like this to come across as silly or almost mocking, but you feel so much for John Merrick by the end that I felt my self welling up. Also Anthony Hopkins deserves to be remembered as much for his role as the Doctor who takes Merrick in as he does for Hannibal Lecter.



Blue Velvet (1986) starts by toying with the ideas of a crime/mystery investigated by a high-schooler and slowly creeps into a dark underworld of voyeurism, obsession in a neo-noir style. Lynch at his best and almost on a par with *Mulholland Drive*.



Lost Highway (1997) in my opinion is harder to follow, but as I said before Lynch is someone you really have to immerse yourself in before you can really enjoy. This is at its core a neo-noir thriller which is very engaging.



With *Mulholland Drive* (2001), you've never been further into one character's psyche than in this film. It is a bizarre and deeply engaging dreamscape, some moments so intimate and then snapping out of them and pinging into the same place with a different perspective. Using film to its full potential to explore the dream world of a person, Lynch shows us so much more of person's workings than anyone has ever done before. This film is really a must see for any person with even the most remote interest in film.

Imperial Cinema

This week we've got two cinematic gems for any film fans; Alfonso Cuaron's interstellar stunner *Gravity* and to celebrate the imminent release of the Martin Scorsese's latest *The Wolf of Wall Street*, we're going old school and bringing back his classic crime epic *Goodfellas* for one night only.

The tale of two astronauts in peril, *Gravity*'s plot is minimalist (the details of their ill-fated mission are never made abundantly clear) but it still manages to be all-encompassing in scope as it lets its stunning visuals do the talking. One particularly indelible shot of Sandra Bullock's character as she tumbles further and further away into a chasm of darkness, perfectly captures the insignificance of man in the face of nature. Be prepared for a visceral cinematic experience.

Based on a true story, *Goodfellas* tells the story of Lucchese crime family associate Henry Hill's rise to infamy as he goes from wannabe gangster to actual gangster with plenty of coke and bitchez along the way. Infused with Scorcese's trademark black humour, *Goodfellas* portrays the brutal violence and moral depravity of a life of organised crime whilst still managing to be thrillingly entertaining.

Goodfellas: Monday (20/01/14) 7pm: Tickets: £3 for everyone, including FREE ICE CREAM/ POPCORN

Gravity: Tuesday (21/01/14), Thursday (23/01/14): both showings 7pm: ε3 Members ε4 Non-Members

Spring Term Line-up

January 28th and 30th:

Thor: The Dark World/Frozen

February 4th and 6th:

The Hunger Games: Catching Fire

February 11th and 13th:

Don Jon/ Anchorman 2: The Legend Continues

February 18th and 20th:

Oldboy

February 25th and 27th:

The Hobbit: The Desolation of Smaug

A new year, a new start: https:// www.imperialcollegeunion.org/ shop/club-society-project-products/ cinema-products/2969/cinemamembership-13-14. It's only \pounds 5 for membership and means you get cheaper tickets for the rest of the year!

FILM

Editor: **John Park** film.felix@imperial.ac.uk



FRIDAY 17 JAN

FELIX

Every day I'm hustlin'

John Park

Film Editor

American Hustle

Director: David O. Russell Writers: Eric Singer, David O. Russell Starring: Christian Bale, Bradley Cooper, Amy Adams, Jeremy Renner, Jennifer Lawrence Runtime: 138 minutes Certification: 15



"Thank god for me", says Rosalyn Rosenfeld (Jennifer Lawrence), after setting fire to her brand new microwave, ignoring her husband's advice to not put something metallic in there. She then proceeds to furiously tackle some housework whilst listening to 'Live and Let Die'. Yes, thank god for Jennifer Lawrence, who steals the show completely with her utmost confidence and relentless energy in David O. Russell's smart heist comedy that is no doubt the director's best film to date.

That's not to say the rest of the cast under-performs. The big names in this star-studded ensemble, most of whom who have worked with Russell before, are all on top form, with even a bonus cameo appearance from a screen veteran who makes the most of his brief, uncredited appearance in which he



scares the hell out of everyone by being a smart, bilingual mob boss.

Based on the ABSCAM (Arabscam) sting operation in which a number of corrupt politicians were arrested for taking bribes, we first meet Irving Rosenfeld (Christian Bale) and Sydney Prosser (Amy Adams) who hustle money off of desperate individuals ready to fork over large sums over the promise of massive returns. Everything seems to be going swimmingly for this couple, an arrangement that is not only beneficial financially, but also in terms of embarking on a love affair. But their ideal world is shattered when FBI Agent Richie DiMaso (Bradley Cooper) arrests the pair. Giving them very limited options, this ambitious Fed is looking to take down some of the biggest names he can think of, all for the benefit of his career.

The idea behind American Hustle is that everyone here is desperate to find their own versions of ideal happiness. And to do so what they resort to is deception. They lie to others, and sometimes lie to themselves. Irving's volatile, tiresome relationship with his wife, Rosalyn, is one that will generate the most laughs, but it's a relationship that is also the most thought-provoking. Irvin and Rosalyn are together for various reasons, and love barely features in them. And when the truth hits her, most devastatingly so when her husband's mistress Sydney boldly faces off against her, Rosalyn is a vulnerable, teary, insecure mess, a scene for which Lawrence deserves an Oscar.

Mayor Carmine Polito (Jeremy Renner, rocking a retro hairdo that is criminal by today's standards) is the major target of Richie's new operation, one that is barely approved by his agency superior Stoddard Thorsen (Louie C.K. in a priceless supporting role). Carmine's love and dedication for the state of New Jersey is unashamedly used and manipulated by the authorities to bag what they want, and in the end it's difficult to not feel some sort of remorse for an all-round enthusiastic family man who wanted nothing more than to set a good example to his constituents.

The "scam" itself is full of hilarious moments as not everything goes exactly to plan. One of many examples of this is having to settle for a Hispanic FBI agent to pose as a rich Arabian Sheik who will be providing all the false bribe money. The "good guys" are all desperate for their plans to succeed, and it's in their sincere, earnest efforts that the sparks begin to fly and the script starts to have fun with unpredictable twists and turns.

"He wasn't necessarily in good shape, and he had this combover that was rather elaborate, but he had this confidence that drew me to him" says Sydney in a voiceover that explains the immediate attraction she had for her partner in crime. Throwing Richie into the mix and the bubbling sexual tension that arises with Sydney in the middle of it all, constantly flashing her side-boobs in her many different outfits, is a car crash waiting to happen.

Are Sydney and Irving a steady enough couple to survive the cagerattling by Richie? Is Richie only using Sydney to gain what he wants? If push comes to shove, will Irving choose his mistress or his wife? Can Irving really betray Carmine who is slowly but surely becoming a good friend of his? Where does Sydney's heart truly lie? Should Rosalyn really be looking after a young son? The classic game of who's conning whom takes place and for those wanting to get to the very top, security and freedom, difficult decisions must be made and it's in these fascinating characters Russell's smart, sexy heist comedy is made complete.

American Hustle is an absolute blast from start to finish and it never lets go in terms of gripping the audience with its intriguing plot and unique characters caught up in highly entertaining scenarios. Released towards the end of 2013 in the States, it's no surprise there's a lot of awards attention surrounding this, and although it's way too early to call it for the 2014 European film market, *American Hustle* will remain as one of 2014's best.

From one station of life to the next

John Park

Film Editor

The Railway Man

Director: Jonathan Teplitzky Writers: Frank Cottrell Boyce, Andy Paterson Starring: Colin Firth, Nicole Kidman,

Jeremy Irvine, Stellan Skarsgård Runtime: 116 minutes Certification: 15



It's an unbelievably touching story of human survival, love, and forgiveness. Young Eric Lomax (Jeremy Irvine), a prisoner of war when the allies surrendered to the Japanese in Singapore during the Second World War, goes through gruelling times to say the least when enemy soldiers discover he's been building a radio and drawing a map. Years after the eventual victory, Lomax (now Colin Firth) has a chance encounter with Patti (Nicole Kidman), who later goes on to become his wife. It's only then the signs of post traumatic stress disorder come to surface, which spurs on Mrs Lomax to find some sort of closure for her longsuffering husband.

With the help from an old army

friend (Stellan Skarsgard) Patti learns of the brutal torture and inhumane cruelty her husband was subjected to. And Kidman, playing a supporting part in the first half of the film or so, is quietly effective in showing warmth and compassion, which is also heartbreaking of sorts, as Patti struggles to improve her husband's condition.

Flashbacks reveal the ordeal Lomax went through, something that is shown in a lot of beatings, screaming, and one scene of water-boarding, although you get the feeling that the film is holding a lot back when it comes to methods of torture.

But through excellent performances coming from both Firth and Irvine, there is an element of continuity that paints Lomax as one person rather than splitting him up into two separate characters to fit into the different timelines.

Less well executed is when Patti reenters the picture towards the end. In a clumsy voiceover that attempts to finish off all the loose strands, Lomax credits his wife and their love as being an important influence of good in his life. The thing is, there hasn't been a whole lot of Kidman to make that statement convincing.

The eventual reunion that takes place between Firth and his torturer Takashi Nagase (Hiroyuki Sanada) is a powerfully moving and equally tense sequence that will rightly get those tear-ducts overflowing.





Film Editor

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FILM

Here we go again

John Park

The Hobbit: The Desolation of Smaug

Director: Peter Jackson Writers: Fran Walsh, Philippa Boyens, Peter Jackson, Guillermo del Toro, J. R. R. Tolkien (novel) Starring: Ian McKellen, Martin Freeman, Richard Armitage, Orlando Bloom, Evangeline Lilly, Lee Pace, Luke Evans, Benedict Cumberbatch, Sylvester McCoy Runtime: 161 minutes Certification: 12A

Dwarves are useless and can't do anything, whilst Wood Elves and their fluid, slick gymnastic movements are awesome and humans haven't yet had the chance to shine: that's the message to take away from Desolation of Smaug, the second entry to Peter Jackson's overblown *Hobbit* trilogy.

It's a good thing we got all of the introduction out of the way in the first film. Remember how it took nearly forty minutes for Bilbo Baggins (Martin Freeman, still going strong and reliable as the protagonist) to make up his mind about the Dwarves' quest to take back their home from an evil dragon? Now the Dwarf Fellowship and Bilbo are well on their way to the Lonely Mountain where the deadly Smaug (voiced by Benedict Cumberbatch) awaits. During the journey, Gandalf, perhaps the only useful member, decides to leave them to fend for themselves whilst he ventures into a scary dark worn-down castle to hunt down some clues that may or may not have to do with a certain dark overlord who may or may not be rising. There is also the sinister underlying subplot of the infamous golden Ring and Bilbo's growing attachment and reliance for the object, something that can lead to no good given how much the audience knows about the Ring and its dark powers.

Cue the spiders, Orcs and other ugly antagonists until the band of brothers whose names or faces you will certainly not remember from the first film (there are thirteen of them...I can barely remember the names of the Three Musketeers) are rescued by the Wood Elves. Enter Legolas (Orlando Bloom, looking very serious as though he means business throughout the movie), and Tauriel (Evangeline Lilly, who nails the posh English accent), both characters who don't even feature in the original novel, plus a hint





at a possible love triangle, as Tauriel is taken by , Kili (Aidan Turner) an eligible Dwarf who she claims is taller than most Dwarves she's seen.

As if the trilogy wasn't long enough, (this second installment alone lasts over two and a half hours) the lengthy diversion into the Wood Elves' livelihood plus an extensive tour of their insanely decorated palace may seem unnecessary, but it's with these mystical creatures the fantasy action starts. There's something refreshing to be seen in individuals who know to take care of themselves, and between Legolas and Tauriel, with their quality archery skills and knife-wielding abilities, the two of them slay a vast number of antagonists in an extended sequence that comes mostly as relief: reassurance that the good guys aren't so buggered after all.

Jackson's vision of Middle Earth is still one to behold, as the many different settings come to life in the film's many, many grand sweeping shots, most noticeably once Smaug enters the picture. The endless treasures that fill the Lonely Mountain is gold, more gold, then even more gold, as poor Bilbo is tossed into the ring to face off with the dragon in the film's tense but equally funny exchange between a teeny Hobbit and the mighty dragon. It's down to Freeman's likablility as an unexpected hero and his desperate attempts to outsmart and distract the dragon that works to the film's advantage.

Even if your concentration drifts in certain parts, even when Stephen Fry and Luke Evans turning up as human characters who will be put to more substantial use in the third and final film can't hold your attention for long, Smaug will wake you back up and make the whole movie-going experience worthwhile. Designed with motion-capture and voiced by the nation's favourite Sherlock Holmes, Smaug alone is the best use of CGI in the *Hobbit* franchise so far, and given how the film wraps up with an exciting cliffhanger with one major loose end relating to the fate of the dragon, we'll certainly get to see him again and it will be a visual treat once more for sure

Being the middle film, there are many hanging strands that need addressing. What is Gandalf so afraid of? What will become of the dwarves, the humans and the elves? And will Lee Pace, as Legolas' father Thranduil, show up once more with his excessive wardrobe and head accessory that puts the fashion of Vatican to shame? We will all just have to wait until December 2014, when the *Hobbit* trilogy will come to a close, more than a decade after the *Lord of the Rings* took the world by storm.

Best Lead Performer

Peter Brook



Why we should join the Oscar for Best Actor and Best Actress into one award.

There are a many strange things about trying to decide who is the 'best actor' because whatever performance they give is through the lens of a director and rewritten by the editor. We also don't know what they set out to do. For example, in Dr. Strangelove, George C. Scott, wanted to play the role of General Buck Turgidson straight, but was tricked into performing over the top "practice takes" for comedic effect by Kubrick. The main point is that "Best Actor" sounds objective, when really it is a completely subjective affair, alongside the fact that the academy who votes on these matters may well have vested interests in improving revenue of their own films.

There is however another anomaly in way these awards are designed and that is that there are gender boxes for the acting awards, but for none of the others. We don't see best female editor, or best female VFX, or best female Director.

I have talked previously about the problems that arise from the lack of female directors in the industry and I think giving female talent more airtime can only be a good thing. HOW-EVER I cannot think of anything more patronising than saying to female directors they are going to be in a new "little league" for the girls. This isn't sport, there are no justifiable arguments like "men are on average bigger or stronger". This is a creative intelligence thing in which men and women are entirely comparable and it you disagree I suggest you go away read 'The Mismeasure of Man' and rethink your approach.

One argument against combining Best Actor and Best Actress is that men and women on screen can't get the same jobs unlike anything behind the camera. I have to say I thoroughly disagree for two reasons.

1. Because there are a lot of things that make people unsuitable for a rolerace, size, age are just a few examples. It would be ridiculous to suggest categories like the Best Tall Female Hispanic Leading actor in a 20-30 age bracket.

2. Prosthetics and makeup are currently good enough that this is no longer a consideration. Take for example Todd Haynes surrealist Bob Dylan Biopic *I'm Not There*. It's shows Bob Dylan at different stages in his life from young boy to old man and how they would interact if they met. It has a stellar cast; Christian Bale, Richard Gere, Heath Ledger, Ben Wishaw and in my opinion the most convincing and engaging Bob Dylan (based appearance and mannerisms) is Cate Blanchett.

There are also many other movies out there in which a woman play men, and more difficultly people on both sides of a transsexual operation (*Transamerica*).

The only problem I see with this now is that there are many more men in movies, and most leading characters are male (Only 1/3 are women). This may push women to the back of the pack in the awards. However I think that we have to make a decision as to whether we should patronise artists at the cost of giving them more airtime. Maybe this is an idea that works better in a perfect world where woman are equally represented in film, but I think we need to standardise our approach and not have a system in place that would have given Kathryn Bigelow a Best Female Director award instead of a Best Director Award.

2014 Golden Globes

Best Motion Picture (Drama): **12 Years a Slave** Best Motion Picture (Comedy): **American Hustle** Best Actor (Drama): **Matthew McConaughey** (Dallas Buyers Club) Best Actress (Drama): **Cate Blanchett** (Blue Jasmine) Best Actors (Comedy): **Leonardo DiCaprio** (The Wolf of Wall Street) Best Actress (Comedy): **Amy Adams** (American Hustle) Best Supporting Actor: **Jared Leto** (Dallas Buyers Club) Best Supporting Actress: **Jennifer Lawrence** (American Hustle) Best Director: **Alfonso Cuaron** (Gravity) Best Screenplay: **Spike Jonze** (Her) Best Original Score: **Alex Ebert** (All is Lost) Best Original Song: **Ordinary Love** (Mandela: Long Walk to Freedom) Best Animated Feature Film: **Frozen** Best Foreign Language Film: **The Great Beauty**

TELEVISION

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The best of festive TV

Maciej Matuszewski reviews two highly-anticipated Christmas specials

Sherlock

here must have been few shows in recent memory that were so widely anticipated as series three of *Sherlock*. The first two series earned themselves a legion of fans for their clever stories, impeccable characterisation and fine acting from leads Benedict Cumberbatch, playing Holmes, and Martin Freeman, playing his friend Watson. The final episode of second season, 'The Reichenbach Fall, proved particularly popular, with Holmes having his final confrontation with his nemesis Moriarty and faking his death - the final scene showing that he had somehow survived a fall from the roof of St Bart's Hospital, despite several witnesses supposedly seeing his dead body.

With two whole years between this and the start of the latest series, fans had driven themselves wild with speculation as to how Sherlock survived. It is therefore quite appropriate that the first scene of the first episode, 'The Empty Hearse', purportedly an explanation of how Holmes did it, turned out to be, in fact, a wild theory from a character who is obsessed with proving that the great detective is somehow still alive. Indeed, a major subplot of 'The Empty Hearse' is effectively an affectionate satire of fan culture - with the episode showing us a group of Sherlock Holmes obsessives who take turns to present their increasingly outlandish theories of how the our protagonist could have survived. This was a very fun element of the first episode which fortunately distracted somewhat from the fact that the actual explanation turned out to be somewhat pedestrian. It was also an example of the show's continuing clever and successful efforts to bring the story into the modern era. The first episode, for example, also very briefly touched on the theme of controversial terrorism legislation while the third, 'His Final Vow', focussed heavily on Murdoch-style journalistic excesses - all the while remaining true to the spirit of the original Holmes stories.

However, what really made this series of Sherlock so enjoyable is what earned the show its popularity in the first place - its writing. The original Sherlock Holmes stories were known primarily for their meticulously constructed mysteries, and Holmes' unique ability to solve them. The show maintains this key feature but also goes far further in exploring the characters of Holmes and Watson - building up a powerful study of the relationship between the two men. This is done particularly well in the second episode, 'The Sign of Three', which leaves the mystery element somewhat in the background and focuses on Holmes having to deal with acting as best man at Watson's wedding. Everything – from the pacing, to the plotting, to the brilliantly sharp and witty dialogue - comes together perfectly to show how the two men, despite each often finding the other frustrating, have grown to genuinely care for one another.

While 'The Sign of Three' was more introspective, 'His Final Vow' was a return to the show's more traditional tense drama, with Holmes up against master blackmailer Charles Augustus Magnussen. The episode was fast paced, exciting, and filled with twists that, while unexpected, felt very natural and which were, in hindsight, set up well in advance. The ending in particular was done very effectively, drawing on many elements that had been developed earlier in the series and finally presenting Holmes with a true no-win scenario. It was a tragic and poignant sequence that would

have served as a fitting finale to the show itself

That is why I have somewhat mixed thoughts about how the very final scene was a set up for the next series. While I have every faith in the show's creative team I fear that they may struggle to replicate this series highs. In any case, I hope that this time it will take us less than two years to find out.





Doctor Who: The Time of the Doctor

Who

is



potential. With a machine capable of taking our heroes anywhere in time and space, and a protagonist whose face and, to some extent, personality, change every few years, the writers of Doctor Who have the freedom to tell pretty much any story that they want. Yet, throughout its many years, the show has too often been plagued by bad writing and terrible story decisions.

show with a premise that has so much

The first few years of Matt Smith's

tenure as the Doctor, and Steven Moffat's as head writer and executive producer, were, in particular, a very mixed bag. A small number of brilliant episodes, like 'Vincent and the Doctor' and 'The Doctor's Wife', couldn't outweigh an often painfully convoluted metaplot and some of the worst moments in the show's history - from the simply dreadful 'The Curse of the Black Spot, to the offensively bad 'The Almost People, to the near incomprehensible 'The Wedding of River Song'.

The most recent series of the show, however, did seem to show some improvement, with most episodes being at least competently written and executed. This, together with a generally enjoyable fiftieth anniversary special in the form of 'The Day of the Doctor' made me reasonably hopeful going into this year's Christmas special, and Matt Smith's final episode – 'The Time of the Doctor'.

The episode opens with the Doctor setting off to explore a mysterious planet that has been transmitting an incomprehensible signal throughout all of space and time. However, upon arriving he discovers that the planet is Trenzalore, the world on which he is fated to finally die. With Trenzalore beginning to be surrounded by the fleets of all his enemies, who have also received the signal, he must work to uncover its secret while protecting the planet's innocent inhabitants.

'The Day of the Doctor' certainly didn't disappoint. Many previous Doctor Who season finales and specials have focused on big threats to the existence of the universe itself - not only making the show repetitive but also making what should have been big events seem cheap and vacuous. 'The Time of the Doctor' was a pleasant change in that, while maintaining high stakes, it focused far more on the character of the Doctor himself. Here we see him at his best - fun and eccentric, while also absolutely dedicated to doing right and helping others. The Eleventh Doctor's 'death', of old age after having literally spent centuries protecting the people of Trenzalore, fitted the character perfectly and was executed remarkably well. The episode even managed to tie together most of the loose ends from the Silence plotline, which had been plaguing Matt Smith's run since his first episode, in a surprisingly satisfying fashion. The use of so many of the Doctor's classic old enemies, and some surprising old friends, would, in many other episodes, have felt cheap. However, with the themes of the finality and reflection permeating through the entire episode, here it felt very appropriate.

Sure, the obligatory Christmas theme felt tacked on – but then it was not treated as particularly important by episode itself. Sure, there were a lot of plot holes - but by now I've gotten tired of complaining about such things when it comes to this show. Sure, it wasn't the best thing that I've ever seen and it doesn't quite stand up with the true classics of Doctor Who but it was far better than I could have dared to expect given what had come before. Truly, a fitting farewell to the Eleventh Doctor. With the show now seeming ready to make a fresh start, and with Peter Capaldi taking his impressive acting talents to the role of the Twelfth Doctor, I am quietly hopeful about Doctor Who's future.

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TELEVISION

Girls, uninterrupted

Emily Fulham celebrates the return of the most honest show on TV

t's been a year since we last saw the girls of Girls, so the news that its third series would return with a double bill was definitely welcome. The ever-divisive show picks up a short while after we left off at the end of the second season, in which time there's been more than a few developments. Although Hannah and Adam are very much in an 'on' phase of their on-off relationship after he ran through the streets of New York in answer to her desperate cry for help, Marnie and Charlie are most definitely off, with the former turning to her mother in consolation. Also firmly broken-up are Ray and Shoshanna, while wild child Jessa has resurfaced after months of disappearance – in rehab.

If the finale of series two seemed uncharacteristically optimistic and rom-com-esque, with Adam heroically dashing to Hannah's rescue and Marnie and Charlie's reconciliation, the first episode of season three soon bwrings us back to *Girls*' familiar territory of poor life decisions and public confrontations. When Adam and Hannah find themselves face to face with Natalia, his ex-girlfriend from last series, she and her friend waste no time in letting Adam know exactly how badly he treated her. Although Adam seems genuinely sincere in his apologies, things get worse when Hannah is dragged into the mix. By the time Natalia has finished describing Adam as an 'off the wagon, Neanderthal, sex-addict sociopath' and telling the couple to 'enjoy your urine-soaked life,' any lingering rom-com illusions have been fully dispelled.

Meanwhile, Jessa's trip to rehab is, it emerges, courtesy of her grandmother, who's dictated that she spend sixty days attempting to recover from her many, many problems. Unsurprisingly, it doesn't prove to be effective, as Jessa endeavours to disrupt every meeting and make every other patient hate her. Even a pep talk from guest star Richard E. Grant doesn't seem to make a difference, and when Jessa accuses another patient of using rehab to avoid coming to terms with her sexuality, anyone with more than a cursory familiarity with the usual events of the show can predict what follows

The second episode of the double bill takes a different approach, with the majority taking place on Hannah,



Adam and Shoshanna's road trip to pick up Jessa from rehab. (On a side note, Hannah's willingness to drive for hours to pick up the friend who abandoned her months ago is one of those subtly perfect *Girls* moments.) The trip provides ample opportunities for interaction between polar opposites Adam and Shoshanna, and a painfully frank conversation on whether college days really are the best days of your life with Hannah, which particularly resonated with me as a final year soon-to-be graduate.

It's impressive that, even in its third series, *Girls* still feels as fresh as ever. It is unique in its place as a no holds barred depiction of uncomfortably relatable young women, imperfections included. It'll be interesting to see where Lena Dunham, growing visibly more confident in her skill as writer and director, takes the rest of the series. Having already proven time after time that she's unafraid to take risks, one thing is for sure: it'll be anything but boring.

Cartoon Corner Let's talk about Batman

Tom Rivlin

atman is a popular superhero to say the least, and, as such, he's appeared in many TV shows over the years. Three years after the 1989 film, a new animated series was produced, called Batman: The Animated Series. The 80s had been a prolific year for animation, producing shows like He-Man, Transformers and GI Joe, but they had a tendency to be simplistic, repetitive, and unchallenging. This show forever redefined American animation by saying that kids' cartoons could be dark, mature, and intelligent. It never took its audience for granted, showing Batman and the characters of his universe in the noir. grown-up way that Burton had done on film and Miller had done in comics in the previous decade. After airing for over 100 episodes, it spawned an entire universe of connected animated shows, including two Justice League shows and a far-future sequel. To put it briefly, it was both good and successful.

However, it isn't the last Batman show to have graced our screens. Since *B:TAS* stopped airing, there have been three more shows about the caped crusader. The first one, The Batman, was largely similar to the original except for being worse (which is not an insult - it was still a decent show). The most recent one, Beware the Batman, is getting canned after only 13 episodes (which is a shame, I have heard it was good). The second one, however, was something completely different. Let's compare Batman: The Brave and the Bold with Batman: The Animated Series.

The description here of *B:TAS* stresses how "mature" and "dark" it was (the word "noir" was even used at one point). The reason the show was that way was because it was heavily influenced by the trend in comics at the time, and by the aesthetic of the Burton films. In the mid-80s, the comics *Watchmen* and *The Dark Knight Returns* were published. They both essentially redefined the entire genre of the superhero

comic – putting the final nail in the coffin of the campy, child-friendly aesthetic they had had since the 1950s (perfectly encapsulated by the Adam West Batman show of the time). This has generally been considered to be a Good Thing. It allowed the comics industry to "grow up" and reflect their changing audience, and *B:TAS*'s acceptance of this played a big part in how great a show it was.

Batman: The Brave and the Bold saw things differently. At the very height of the Nolan movies' popularity (just after The Dark Knight came out), this show began. It rejected the accepted wisdom that had been established for superheroes, and for Batman especially, that superheroes were Serious People who did Serious People Things, and took Batman right back to the aesthetics of the comics from the "Silver Age" (the 1960s – the name of the show comes from a comic book anthology series from that time). Drawing inspiration from the zaniest, most far out, obscure corners of the DC universe, the central premise of the show was that every episode had Batman teaming up with a different DC character to fight an impossibly huge variety of villains. Recurring characters included 'second-tier' heroes like Blue Beetle, Green Arrow and Aquaman, with more minor and major characters only making oneoff appearances (Superman only appeared twice).

Everything in the show was a love letter to the Silver Age comics the writers clearly grew up loving, with every episode bursting full of references to characters, places, themes and stories from the whole history of DC comics. There were even references to other Batman shows, with Adam West playing Batman's father in one episode. (Adam West also played a pastiche of the 60s Batman in *B:TAS* – he sure made a career out of making fun of himself!) The show was filled with the imagination and lighthearted enthusiasm that made comics so appealing to kids at the time, and spotting every gag, in-joke and subtle nod to the wider DC universe in each episode was a fun game for long-time fans.

Most importantly, *Brave and the Bold* was completely self-aware. It knew it was going against the trend by presenting Batman in this way. It knew it would be considered less "adult" by modern day Batman fans, but it didn't care. In one memorable scene, Bat-Mite, an omnipotent imp from the fifth dimension who is a hardcore Batman fan, attends a fifth dimension Comic-Con (I feel the need to say "not making this up" a lot in this column) and justifies the lighter nature of the show in front of an audience of hardcore fans who prefer the dark/ gritty Batman. The show didn't take itself too seriously as a story where the characters go through hardship and turmoil, but it took itself seriously as a valid alternative to the modern Batman that kids, long- time fans and everyone in between could enjoy.

This column was originally intended to be a side-by-side comparison of the two shows, but as I began writing it became clear that the only thing I wanted to say about B:TAS was that it was great for the same reasons things like The Dark Knight were great, and everyone already knows about that. There was a lot more to say about Brave and the Bold because it was just so different. The creators knew they didn't want to make another clone of B:TAS, so they made something unique, and that was far more interesting to talk about here. Brave and the Bold ended after 65 episodes, a decent run for a cartoon, but it definitely could have run for longer. Sadly, it was probably cancelled to make way for Beware the Batman, which swung way back to the dark/gritty side of things, which is what the suits wanted. Either way, it made its mark and had fun doing it. Which of the two shows was better? It's hard to say, for although being about ostensibly the same character, they were as different as night and day.

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The Star in Command

Khurram Liaqat reviews the mobile Star Command

Delays, delays and more delays, at the end of which only 30% of the game had been realised. Truly ... the cake was a lie. I'm talking, of course, about the Kickstarter campaign of Star Command, a game that was pitched as a strategic space simulator, where aspiring Captain Kirks would explore planets and fight against aliens, all the while chewing bubble gum. For many, Star Command became the typical example of many Kickstarter campaigns: too ambitious, so features had to be cut to meet the deadline. For larger studios, this isn't a problem, as the features which were cut are usually unknown. With Kickstarter however, the

game and ideas are first pitched to the public, who then invest because of feature X, or mechanic Y. Once development is underway and it becomes apparent that feature X won't work, they have to cut it, much to the dismay of investors who feel as though they've been ripped off. Unfortunately, the deadline was missed, features were still cut, and we're left with 30% of the game realised, according to the developers. But at last, it's here, so let's see how well it does. A couple of loading screens, customising your Captain, choosing a Ship, and that's it: the game has begun. It's very quick and easy to jump in and get your hands dirty. You have aliens shooting at you within 5 minutes of starting, so pacing is definitely great.

However, you can't simply load it up and play from where you left off while you wait at the dentist's as you're unable to save the game



at certain points; usually during missions. So when you sit down to play, be sure to have plenty of time, otherwise you're going to have to sit through parts you've already done.

Star Command primarily consists of a series of linear missions, with a few options near the middle portion to do what are, essentially, sidequests. The missions themselves are typically preceeded with dialogue. You're given options, but most of the time they don't affect anything, which is slightly disappointing. The core gameplay revolves around

assigning crew members to different rooms. There are three types of rooms: Medical, Engineering, and Weapons. Crew members assigned to Medical rooms have a blue shirt and the ability to heal team-mates, while crew assigned to the Engineering rooms wear yellow shirts and the ability to repair the ship. Lastly, crew assigned to Weapons rooms are outfitted with a red shirt and a gun to shoot invaders.

There are five main rooms that you use during ship to ship combat. The Weapons rooms, the Shield Booster room, the Dodge Generator, and the Medical Bay. When these rooms have crew assigned, a button appears on your HUD. When they're fully charged you're able to activate them.

Upon activation, the weapon room shoots at the enemy ship, and after the completion of a minigame, the Shield Booster increases shields, the Dodge Generator dodges one incoming projectile, and the medical bay increases the health of all of your crew in your ship. If this is sounding overly complex, don't worry. It's very intuitive and simple in actual use, and forms the basis of your decision making as Captain of the ship. For example, do you pull a crew member out of a weapon room (which causes weapons to charge more slowly) in order to take out one of the invaders on your ship? Once you've progressed further

in Star Command, and acquired more crew, which happens pretty quickly, and you don't have to constantly swap them between rooms, it becomes somewhat easy. Increasing the difficulty does alleviate this by providing a better challenge, but not by much. It's a game that desperately needs another mechanic to add an element of strategy, both in the ship-to-ship combat as well as against invaders. Perhaps cover, or different types of guns. AI, hostile and friendly, could definitely use reworking, as well as the core concept. At the moment, you have to constantly move each individual crew member a few spaces forward so that they might aim at enemies. This does not make for particularly entertaining gameplay. I'd much rather assign 'zones' for

a group of my crew to patrol. This would allow the autonomisation of the more mundane tasks outlined above. The developers could then add in more varied types of AI to fight against, so that the element of decision making is not lost.

Occasionally it feels unfocused and rushed. For example, the ability to customise your ship from the meagre selection of rooms is so shallow you wonder why it's even there. I can only surmise that they kept 30% of all features, rather than keeping the few features that worked, and cutting out entirely the ones that didn't. Their intention may be to upgrade and improve these features with updates. Star Command does make references to possible new features, for instance, the ability to beam down to planets is, apparently "coming to a Star Command near you". The controls are good; responsive and easy to use, while minimising screen clutter. It works well with a

touchscreen, with simple gestures

to zoom in and out, and tapping on

crew members to move them about.

uld making, where there are no right as answers or solutions. The dialogue is pretty funny, and the universe feels rather deep and substantial, with many different and distinct alien races. at The story won't blow minds, for but it's something that doesn't lay. take itself too seriously – part of for the charm that the game offers. his There's also the strange attachment of you begin feeling to your crew

members, watching the your crew sucked into the vacuum of space is actually saddening. Star Command does a great job at making the player feel like a Captain.

Despite the repetitiveness and

ease, it does manage to be a fun and

engaging experience for most of the

time due to the very frantic decision

Star Command primarily uses pixel art for most of its graphics, and it really looks beautiful, despite becoming overused in recent years. Aliens are varied in design, and so are their ships, with menacing, insectile Antorians, and the sinister Vox. Weapon effects could be improved as they're fairly bland: simple coloured streaks and circles across the screen.

The music is extremely good, and helps add to the deliberate fauxepic atmosphere of the game, as are the sound effects of the weapons.

While the gameplay can be improved, the atmosphere, story and depth of the universe make up for it. Hopefully the developers are still committed to bringing updates out to extend the longevity of this title, but for now, this can get old pretty fast.





GAMES



@feliximperialFelixImperial

GAMES

DayZ, nothing about flowers

Maximilian Eggl Games Editor

Shivering in the cold, dressed in an assortment of scavenged clothes and gear I wait on top of the hill overlooking Balota Airfield. Through the scope of my Mosin, I watch down below hoping to see something interesting or somebody to talk to. I see some movement off to my left, and excitedly I turn my scope that way to see if its a fellow survivor. I sigh, only a zombie and return to my vigil. Suddenly bullets appear out of nowhere, hit me in the back and a black screen appears: You are dead.

This is a usual scenario in DayZ, the zombie apocalypse MMO, which has been dominating the Steam sales for about five weeks, ever since its early alpha release. The game itself started out as a mod for ARMA 2, the hyperrealistic army simulator, which became immensely popular, catapulting its maker Dean Hall to internet fame. Following several knock-offs which disappointed (e.g. WarZ), this game has finally been released. It has now sold more than a million copies and is the success that it was aways promised to be.

The games premise is that you wake up with only a flashlight in the postapocalyptic Chernarus, which has been ravaged by zombies. Looting the cities, towns and surrounding military bases for gear, water and food is your only hope. The only goal of the game is to survive as long as possible, because I promise you will die at some point. Oh I didn't mention the fact that once you die, you start over completely? Yeah, that's a bummer. Now why would anyone want to play such a horrible game, I hear you think? Because it is just so original and different from anything out there. Not only that, but it also does it really well. Even though DayZ is still in alpha, with bugs, glitches and several features missing, this game



still offers more than most full games. One of the great feature that this game is its immersion. Without any HUD indicators (e.g. life, stamina etc.) you have to rely on the periodic status updates like "I am hungry/thirsty" from your character. Furthermore the fact that your death actually means something adds tension that very few games possess. Another feature that adds to the immersion is the realism (apart from the zombies of course) of the game. You need to purify water before you drink it, you need to make sure food isn't rotten before you eat it and your gear degrades naturally, in some cases making it completely unusable. You actually feel like you are bleeding to death while running from a crazed zombie while wielding a badly damaged axe. In fact it gets so tense at points that I need to take a break to just calm down. That's how immersive it is. Another great aspect of this game is the multiplayer aspect. The zombies, while dangerous at the start, become just a nuisance once you kit up. It is the other players who are the true danger. Unpredictable, I tend to find more people willing to shoot me than

actually team up and help me. In one instance this has lead me to being handcuffed, drained of my blood and then force fed some disinfectant which led to my death. Yet for all these idiots' dickishness, they are what keep the game new and interesting. In the future I am actually hoping that I will find someone genuinely nice, and we will make the most awesomest team, and hunt down all those bandits.

On the technical side, the graphics, new AI and map are quite impressive. Furthermore the game seems relatively well optimised so should run well on most computers.

All in all this game is well worth the £20 I paid on Steam for it. Furthermore considering that the price will only be going up as the game goes through alpha, beta and then release stages, you may as well just buy it now. Furthermore if you want someone to play with once you bought the game, don't hesitate to add me on Steam and join the growing Imperial clan in Chernarus! My steam name is **MeggIman**. I hope you guys will join me on my zombie killing, bandit hunting adventures!

Virtual Reality Here Felix Games presents a poem for you: gamers are artists

Ah, what a powerful feeling! I manipulate Red Man and Green. My thumbs are in full control, I order leaps, dashes and sprints across the screen.

I am the virtual boss, Haha! I click at buttons A and B, Every problem you could ever think of, I can solve, Brave is what I am, staring into the face of adversity.

Princess Peach needs rescuing? Fear not, I am here! Relax. I have the ability, the agility, Pumped with self-esteem.

Impossibility? Impossible!

I defy the laws of physics, Yes, I double jump my way through World Six, With my artillery; fire flowers, And my sidekick, Luigi.



Here comes my 'Mario-mobile', He's my dinosaur. You can call him Yoshi.

Everything is under control. Literally. Just another day in the office, Muscles grow very quickly. No need to strain myself in a weight room, Body mass times two after eating my favorite Mushroom.

Hardcore gaming. Amazing.

Sadly, back to reality, a light flashes red and yellow. A handheld system cries for life. Oh no! Nintendo! Desperation is signified.

Please, a moment of silence, The battery of my GameBoy... has just died.

TECHNOLOGY

Editor: Maximilian Eggl, Yong Wen Chua, Osama Awara technology.felix@imperial. ac.uk



Steelseries 9H Tournament Headset

With a bewildering array of gaming accessories on the market, it can be difficult to find out which one is best to purchase for your particular needs and the Steelseries 9H is a good start

Hassan Khan Technology Writer

Steelseries. It's a name all gamers are familiar with, and it's a company which deals with all aspects of a gamers needs by providing good quality peripherals and accessories. The Steelseries 9H is a top range headset from the H series of tournament grade headsets provided by Steelseries and has been available only as of late 2013. Starting with the aesthetics, the 9H looks like a heavy duty headset which has padded ear cups thick with leather cushions used to isolate noise in a passive fashion, encompassed by a durable plastic sheath around each ear cup which can resist a sizeable amount of wear and tear. The black on orange is a characteristic Steelseries colour combination and it functions very well, producing a great overall look. The headband is an iconic design emblazoned with the Steelseries logo and is complete with four discrete cushions which are, similar to the ear cups, very soft and do make it very easy to last

long gaming sessions without having the need to readjust or remove the headset. It is of a great overall build quality, as the sturdiness of the outer shell coupled with the luxurious cushions definitely makes it feel like a high quality headset.

The bass and the treble quality produced bv the 9H exceed the price tag of the headset. It functions like professional headphones listening when electronic to music, however the highs aren't as crisp as would preferred, be this however a minor is issue which can overlooked be considering the headset is not designed with music in mind, and the infrequent highs in games means that it wouldn't normally be noticeable. The bass feels richer, however it surprisingly does not detract from the overall sound quality which is a combination rarely achieved by headphones. The headset boasts virtual Dolby 7.1 surround sound, which significantly enhances the gaming

precision pinpointing of sound origins, a critical feature which I personally found to greatly add to the experience of games. This is facilitated by the addition of a USB sound card with the headset which is an optional feature, but allows for a wealth of customisation to suit the user's needs. An equaliser is provided to easily adjust the sound settings for different game types and different needs, and a host of microphone settings are provided which can reduce ambient noise as well as automated microphone compression which allows for a constant microphone volume across different communication software, removing the need to fiddle around with settings on different VoIP programs, all in a simple user

experience and allows elevated

friendly piece of software downloaded from the Steelseries website.

The microphone is one aspect of the 9H which was average at best. The quality is very good, and the background noise reduction is highly effective, however in the midst of these settings, the true sound of the voice is somewhat distorted and does not clearly represent the voice of the user. It must be added that the unidirectional nature of the microphone is a fantastic feature and definitely helps to pick up only what needs to be heard.

Overall the Steelseries 9H is a perfect accessory to all varieties of gamers and is a solid purchase. At £130 it is not the cheapest headset out there, but it is a worthy investment for those looking to buy a good headset to last them for a long time. They are durable and provide a high sound quality, and with their swappable cables they can be taken on the go to listen to music, not restricting their use on the computer. The lacking microphone quality and the slightly lacklustre highs are the only issues with an overall outstanding headset, and it therefore gets a score of 8.5/10.

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Simply go to: http://bit.ly/1dkDF6J and press download!



Log on to catch up with your weekly College news :)







Consumer Electronics Show

Wacky new stuff you should check out....or is it just a fad?

Osama Awara Technology Editor

The Consumer Electronics Show (CES) is an annual technology and consumer products show held every January in Las Vegas. Being the global stage that attracts next generation innovations and electronics, CES is the largest of its kind, showcasing over 3000 exhibitors from computer hardware manufactures to automotive and lifestyle electronics manufactures.

The CES really is the hub for rising technologies, not only attracting big names such as LG and Intel but also emerging innovators and start-ups that are keen to make their new products stand out. The Occulus Rift, a virtual reality

gaming head-set, made its mark at last year's 2013 CES show making virtual reality buffs insist that we are ever closer to a next generation of gaming, all virtual. In 2014, the developer Occulus brought about more improvements to their original design in the latest prototype, Crystal Cove. Enhancements, such as carefully placed LEDs on the ski-goggle like design has added to the headset positional tracking technology, greatly reducing motion blur and hence the need to vomit every time you peep around that corner to get a better view of the enemy. The new external camera provides upper body tracking, enabling the user to lean, turn and crane their neck as they please, giving a truly 'immersive' experience. With \$75 million in new funding

we can expect to see a lot from Occulus Rift. The Crystal Cove prototype that was seen in CES is by no means a finished version with upcoming improvements in resolution and camera quality. The Galaxy NotePro, Samsung's newest note tablet, comes with a 12.2 inch screen, widget based interface and premium specs. What's innovative about this new tablet is that it leaves behind the traditional android user interface, TouchWiz, going for a more widget based graphical feel. Utilising Samsung's newest Magazine UX interface has allowed a much more immediate access of apps and information. The specs of the NotePro are, in short, nothing but a premium selection of hardware. With a Qualquam Snapdragon 800 quad core processor at 2.3GHz per core and a built in GPU that delivers

up to a 50% increase in graphics performance, users can expect a much faster and better performing tablet when it comes to multitasking and running taxing apps. The screen has a 2560x1600 resolution, delivering sharp images. The rear camera is at 8-megapixels with LED flash while the front has a two megapixel camera.

After showing off the NotePro at CES, the success of this product will depend on Samsung's new Magazine UX and how customers react to it, so far the feedback on the new UI has been positive and it's good to see that Samsung is doing something different rather than just introducing another android tablet.

Audi A7 demonstrated its automated vehicle technology at this year's CES. Being still under development we can expect to see automated driving in the not too distant future. This technology is aimed at automating the car when it's driving below 40kmph to give drivers 'a break' by using its forward-looking radars and laser to detect the traffic in front. Moreover, a camera mounted on the windshield is used to detect lane lines to keep the car in its lane and a rear radar to detect upcoming cars on either side. All of these sensors and detectors work together in harmony to provide the car's computer with all the information it needs to control the brakes, steering wheel and accelerator.

Autonomous driving is not a new concept or even a new technology, but what Audi managed to do is bring automated driving closer to the consumer market place. If you compare the Audi A7 with Google's famous autonomous cars with their large mounted roof detectors, the A7 has its gear neatly hidden in the bodywork still giving the car its distinctive aesthetic Audi look.

Perhaps the most awkward part of CES 2014 was Transformers director Michal Bay's supposed Samsung Talk that ended up in him leaving the stage in front of hundreds of journalists and industry professionals due to a teleprompter fail. Not knowing what to say, Bay walked off the stage with, "Excuse me, I'm sorry, I'm sorry", as his final words. Samsung chose the director, best known for his special effects, to praise the company's ultra-high definition curved TVs, but due to a series of unfortunate events, the main one being the autocue failing, the talk ended in a disaster mainly for the embarrassed Hollywood A-lister but also Samsung, who thought their new TVs would get the promotion of a lifetime. Onto a less embarrassing story, all

eyes were on Gabe Newell, CEO of Valve as he unveiled the low-cost and diverse Steam Machines. Alongside computer gaming giants such as Alienware, Scan and GigaByte, Valve's aim is to bring PC gaming to the mainstream with each of these gaming companies designing and developing their own Steam Machines that come in different shapes and sizes. What these Steam Machines aim to do is bring PC gaming into the living room and take a large portion of hardcore XBox and PlayStation gamers from the hands of Microsoft and Sony. With Steam's open source software, Newell stated that they plan to give gamers the flexibility to play on their rigs how ever they want to while at the same time be user friendly. The most important thing for many console gamers when they switch is that they don't lose their game titles, and indeed for many years Steam has amassed a plethora of games which many gamers will still be able to enjoy on new Steam Machines.





The News Bubble

General news from around the tech world, so you can keep up to date with the newest, wierdest and most futuristic things around

The Coin of a generation

Given the popularity of electronic coins it is not surprising that somebody came up this genius idea: originally know as the Coinye West, this currency pays tribute to the biggest thing on the internet. Now after threat of court action by Kanye West, the creators of the coin have been forced to change its name, as well as asked to hand over their website. Now further controversy has been added, by the fact that the Coinye coin has folded completely due to continued legal threats by the West Estate.

Windows 9

Given the recent and less than positive reception of the Windows 8, it may be a bit surprising that Microsoft is bringing out a new OS already. However rumours of Windows 9 have been surfacing recently and may be released at the developers' conference in April 2014. What the rumours seem to suggest is that this update will just be a fix for all the negative reception of Windows 8 and 8.1 e.g. updating the Metro interface.

Bad code in films

You know what I am talking about. You are watching a movie where somebody does something IT related, scanning through lines of code and just making it work. As you watch this you wonder what the hell did that code just really mean? Well somebody started a Tumblr that deals with this very important question. For example in Elysium, we have a bunch of code which is actually an Intel instruction manual! If you want to see more just check out: moviecode.tumblr.com

Maximilian Eggl Yong Wen Chua Osama Awara Technology Editors

CLUBS & SOCS

Editor: Nida Mahmud felix@imperial.ac.uk



Imperial's Motor Mascots

Stephen Ball RCS Motor Club Chair



M HARPER



5 BA



IMEPRIAL COLLEGE



Free Books and Other Events from Sci-Fi Soc

Sci-Fi soc tell us about their exciting events

hat could be better than curling up with a good book? That's right, curling up with a good book that you got for free! That's why the Science Fiction, Fantasy and Gothic Horror Society is bringing back our hugely popular Book Blind Date event. Last October we found new homes for over fifty great books and this term it's all going to be even bigger and better.

Come along to the Beit Hall entrance archway at 12:30 on Wednesday, January 22 to pick up your free, high quality second hand book. All the books will be tightly wrapped to make what you're getting a surprise. Your only clue will be a set of keywords written on the wrapping paper. But don't worry – we'll make sure that there's something for everyone. So, whether you're interested in dying-Earth science fiction, magical realism, Lovecraftian horror or any other subgenre, come along to see what we have. Last time the event was very popular so be sure to turn up early to avoid missing your chance to pick up a free book.

If your free gift stirs up your passion for genre fiction don't forget to check out library in the Beit West Basement. Open every weekday in term time from noon to 2pm, and often also in the evenings, it's the perfect place to meet up with likeminded people and watch some of your favourite films and television shows on our widescreen TV. We have a collection of over 9000 books and 2000 DVDs, which can be borrowed by any of our members.

For more information about the other great events that we run throughout the year check out our website at icsf.org.uk. The highlight of our calendar is our annual literary convention, Picocon, now in its thirty first year. Picocon 31 will be taking place on Saturday, February 22, with the theme of 'Survival'. Guests of Honour will be Sarah Pinborough (The Dog-Faced Gods Trilogy, Mayhem), Charles Stross (The Laundry Files series, Accelerando) and Professor David Southwood (President of the Royal Astronomical Society and Patron of the SF Foundation). Come along for a full day of talks, panel discussions, silly games, quizzes and much, much more. Tickets are now on sale from the Union website.



Marrow Volunteers needed

very 20 minutes, someone in the UK is told they have a blood cancer. That's 70 people a day, 25,000 people a year.

Blood cancers can be lifethreatening as they leave patients with few functioning blood cells. Although extensive chemotherapy may work, for many replacing these cells is the only way forward. Only about 30% of people in need can find a suitable donor within their family, which means that 70% rely on the kindness and generosity of strangers to save their lives.

Marrow, the student branch of the Anthony Nolan Trust, work hard to help this 70% by recruiting students here at Imperial onto the national bone marrow register. For every 100 people we recruit, 1 can go on to save the life of someone in need. All it takes to register is filling out a simple form

MARROW

BE A MATCH, SAVE A LIFE

and giving us a spit sample. If called forward, donation has never been easier: in more than 90% of cases, cells are collected in a similar way to how you might donate blood. Donors are simply hooked up to a machine which filters the blood, taking out the cells that are needed!

If you would like to register our next recruitment event is on Thursday the 30th of January from 10am until 6pm in the Union Dining Hall, Beit Quad!



Sudoku

Each row, column, and 3 x 3 box must contain all the numbers from 1 to 9. That's all. Enjoy...

Harder:



Killer:

No clues! Instead, the numbers in each cage must add up to the number in the top left. Numbers cannot be repeated in a cage. Tips: The numbers in each box, row and column must add up to 45. Look for cages with only one possible combination e.g. a two wide cage total 3 must contain 1 and 2.





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



FUCWIT League

nickwp 35 Jia Choo 31.5 Adam Stewart 18.5 Yufan Zhao 17 Juliette Chupin 8.5

Helix Gabriel Quek Emma and Ben WJ

Crossword



Nonogram

The lengths of runs of shaded squares in each row and each column are given. Squares can only be shaded or unshaded. Solve the puzzle to unveil a pretty picture.





PUZZLES

Crossword Clues

Across 1. Whales (8)

7

6

6. Greek stringed instrument (8)

- 9. Brass instrument with a slide (8)
- 10. Implausible (10)
- 14. Prehistoric pachyderm (8)
- 15. Thracian city (8)
- One of Johannesburg's poorer areas (6)
 Unfortunate, as in, of a person (7)
- 20. Unforfunate, as in, 22. Blends (11)
- 24. Pacific atoll that witnessed a battle (6)
- 29. Robinson Crusoe, for one (8)
- 30. Britain's most famous junction (7)
- 33. Death personified (6)
- 34. American telegraphy pioneer (6, 5)
- 35. Man Echo pursued (9)36. National park famous for its geysers (11)

Down

- 1. Double-hulled boat (9)
- 2. Ireland's head of government (9)
- 3. Conductor's coach in the old days (7)
- 4. Outspoken American conservative political commentator (3, 7)
- 5. Verbal error (5)
- 6. Low male singing voice (8)
- 7. Mythical, brutish, humanoid creature (3)
- 8. Natural to a particular locale (10)
- 11. Igloo-dweller (6) 12. Pleasure-pursuer (8)
- 12. Pleasure-pursuer (8)
 16. Russian people known for cavalry (7)
- 21. Pocahontas' dad (8)
- 23. September 29 (10)
- 24. Not a talker (8)
- 25. Spiritual movement built around Haile Selassie (9)
 - 26. Generosity (8)
- 27. Famous pepper (8)
- 28. Jesus' denonym (8)
- 30. Confection made by heating sugar (7)
- 31. Looney Tunes hen (6)

Guess the Stop

The British rail network runs far and wide. The name of a line is scrambled in the following anagram, and the name of a stop on that line, with the given number of letters is encoded by the sum of the letters, where A=1, B=2... Z=26, <Space/Punctuation>=0. Find the line and stop. Note that London Underground lines may also be possible answers.

Anagram:

Tim the yams march din

Stop:





HANGMAN

36

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FELIX

This Week In The Past The Historian Hangman Contributor 2012 - The Costa Concordia crashed off the shore of Tuscany, proving there is someone less qualified to be a captain than Captain Birdseye. 1983 (or maybe 1982) - Kim Jong-un was born, continuing the Kim legacy in North Korea. I'm not touching this one with a bargepole, so I'll leave it to Dennis Rodman. "DO YOU HAVE ALL THE NEWS? Email hangman. felix@imperial 1967 - Ronald Reagan was sworn into his first ac.uk AND political office, proving that politics and acting GIVE IT have been essentially the same for a long time. BACK." 1955 - The first nuclear powered submarine, USS Nautilus, was launched, giving the Liberal Democrats something to complain about for the rest of their existence. **1929** - The first Tintin comic was published; forever giving your distant relatives something they can give you for Christmas. 1863 - Tube trains started running between Paddington and Farringdon Street, the oldest "Do you existing stretch of London Underground. feel lucky, Unfortunately engineering works cancelled all punk? Email trains for the day, so a replacement horse and hangman. cart service was in use. felix@imperial. ac.uk and find out!"

Mind the Gap is probably still useful advice to anyone underneath him.

Editorial - Stress More



anuary exams - the reason your Christmas was shit, but don't worry, the Hangman editor will provide his top tips to help you get through them.

Firstly, make sure to not read through your notes until the day before. You forgot all that crap once already, why

forget it twice? Research has shown that this is the optimal time to learn everything. If research includes a medathanol fuelled cramming session before my final examinations. I passed, but my friend trying it with me was admitted to hospital crying about the numbers. Still a 50% success rate is enough to pass your exams.

Next up, don't bring any pens or pencils with you to the exam. It shows vou've been worrving too much over it, and the invigilators will smell the fear. Turn up like a boss and demand they provide you with some, they'll respect you more and give you a passing grade.

Remember water. That's the advice you're normally given, but what good is that? Bring vodka with you. You'll get more confident throughout the exam, and when you're confident you'll perform much better. Why worry about your answers when you can get kicked out the exam hall for trying to drunk call your ex?

So best of luck for any exams you have, and if you do follow any of this advice you probably don't deserve to stay here.

Ecclestone Supporting **German Economy**

Timothy McSweeny Hangman Contributor



for his talent in owning Formula 1 racing, will soon be facing trial in Munich for allegedly bribing a German banker.

Acting for his defence, lawyer Klaus Vendetta argues that almost all of Germany's economic growth is caused by Ecclestone:

'Formula 1 needs lots of people to keep it running. People are required to package money into suitcases, others are required to deliver it, it's an expensive business.'

A spokesperson for the German Treasury, or CashHaus as it's known locally, claimed that the billionaire created a trickle-down effect that made everyone richer.

'Plus, it didn't hurt that he was throwing around huge wads of cash. I used mine to buy a boat, and that means I need someone to clean the boat and someone to steer it. So that's two jobs created right there.'

Sabbatical Bonuses Capped at Paltry 2000%



The Hangman Hangman Editor

ollowing unconfirmed rumours of private boat parties and champagne breakfasts after managing a quorate council the Union has taken the decision to limit the potential bonuses it's sabbatical officers can be awarded to a paltry 2000% of their pre-tax salary. Bonuses have historically been given out for outstanding achievements such as turning up to work on time, attending meetings and not losing £200,000.

An anonymous Union source spoke to Hangman, "While these bonuses might seem large to the average student, you have to consider what the sabbatical officers put up with. Next thing you'll be asking us to check up on their election promises or something."

Of course not everyone is in favour of the large bonuses; an Imperial graduate at RBS is launching a campaign against the move. "In my job we're only allowed a bonus up to double our salary, and even then Labour are trying to reduce it. I didn't spend my final year filling in those stupid online tests for this."

Gout Not Funny Now That People Have It

Queen Vic Hanaman Contributor

ore and more people in Britain are getting gout, a study by the Institute of Hilarious Diseases reveals. Gout is a form of arthritis caused by a build up of uric acid in the blood, this forms an amusing swelling on the big toe.

"The big toe, or the first piggy, has traditionally been regarded as the funniest toe" claims health expert Jack McMac, "It used to be that we'd get someone come into the surgery with

gout and we'd all pop off for a laugh while he waited for tests. But now that lots of people have it, it's much less funny."

Many doctors claim that the best way to treat gout is to lose weight and exercise, but Pretend Health Minister Gordon Bennett admits that this is unlikely to have any real effect: "We've been trying to get people to live healthier lives for many years now, but now that gout is no longer funny, people no longer get the push they need.

I had one patient with gout whose friends laughed him out of the pub. This caused him to drink less, and

his gout went away. Now they all remember it as "that time Gary had Gout".



Funny cakes are apparently the only gout image we can publish.





HANGMAN

the turnip **Student Life Unchanged** Hangman's Finest College News Source

Captured US Soldier Has No Idea How Breaking Bad Ended

video showing that US Sergeant Bowe Bergdahl has been held in Taliban captivity for the last four years has been released. Staff at the Pentagon have been making urgent investigations into his safety, location, and whether he even knows the premise of Breaking Bad.

'What we're dealing with here, is nothing short of a crisis? announced General Hapablap at a press conference this morning, 'We need to know where this man is, and how far into the show he's gotten. We are prepping the Navy Seals with Spoiler Prevention sniper teams as I speak.

'Nobody, and I mean nobody who proudly serves their country should have to find out from Facebook.

A spokesperson at the CIA commented on the situation, saying 'We're currently in talks with the UN Council on Human Rights to establish whether TV spoilers are a form of torture.

until vou graduate.

ARIE



Bryan Cranston was not impressed

Until we find him, however, there's nothing we can do but prepare for his return to the US. We've got the whole of Homeland on our Netflix, and we're studying up. We just hope that when the time comes, we're able to cry as unconvincingly as Clare Danes.'



Felix in The Past -

Feburary 14, 1958

of FELIX, Mr. Bridgwater dismisses with soorn "sex and beer" as opportunities of broadening our interests, but I think that they are two of the most important channels open for possible promotion of our intellects.

Is it not a fact that we meet more outsiders with diverse opinions at hops than on most other occasions in college life? Can we not express ourselves more freely with a jug of alcohol in our hands than without There is more to be gained from these pursuits than from inviting outsiders to join our social clubs and societies.

Yours etc.,

V.K. Royce.



This week you wake up and This week you decide to drop realize that you are a cunt. Well, out of Imperial and start a new your parents told you for long career in dance. You're not sure whether the Royal Academy of tutor that one time. And your Dance has a twerking course, sister. And the Sunday Times. but you're such a pioneer That was an awkward weekend you decide to press ahead with Giles and Victoria Coren. regardless. 20 years from now you realise it's the best decision you ever made as you twerk to a



Б





given newspaper writers across the country free reign to dust off their GCSE B in French and treat us all to the worst Franglais the can imagine.

Whether it's the Telegraph's "éléphant dans la salle", the Guardian proclaiming "Vive l'Entente Cordiale!" or even the BBC's helpful guide to all the vocabulary you're going to need to follow the story ("Gauche caviar" is apparently the French equivalent of champagne Socialists) they've all been at it.

Of course the real news story here is that Hollande got this far into his term without being accused of cheating. It's so common for French politicians that upon election they're provided with a free Ashley Madison account. For those of you who don't know what Ashley Madison is, Google it and rediscover that the world is a horrible place.

I wonder whether the French media reports on our stories similarly, with lists of required vocabulary like "benefit scroungers" and "plebgate". Thankfully the word for paedophile is the same, so our French neighbours can easily learn about everyone on TV in the 70s.



This week vou use a slur at the homophobic Cambridge Union, continuing your rebellion against the political elite. Since nobody takes you seriously anyway you're very upset at the under reaction to your headline grabbing attempt. You get in the Daily Mail at least, behind the Benefits Street article.



This week you learn about the debate between pie and tau. You try and use it to pick someone up in Metric. It's the nearest to success you've ever come at Imperial, but unfortunately they're just more of sigma.

This week you decide to put all of your money into Bitcoin. The value of your Bitcoins increases 1000x and you decide to celebrate by going to a lap dancing club. While ages on the script and had you are in the club the value tried really hard making sure of your Bitcoin crashes to it passed the Bechdel test. zero. Left with no money to You show it to your parents pay for your private dance, who disagree. you are forced to work there

TAURUS This week you wonder why your sex tape wasn't nominated for an Oscar. Sure it was shot on a small budget, but you'd spent

This week you have an exam. it goes badly. You go home and revise furiously, Physics, Medicine, Mech Eng., anything you can find lecture notes online for. It becomes an obsession, you just can't stop. It was a prostate exam.

enough. And your personal Oh well.

GEM

AGITTARIL

CAPRICORN

sold out Wembley Stadium.





bank. You cry yourself to sleep Jamie roleplay is a step too far. and bad, you know like ev- side you'll finally get on TV while working out how to kill him.

This week you decide it's time This week you're so excited about This week you will meet a This week you will meet a mysteri- You are very pleased to have to give your parents a call for the new Game of Thrones trailer mysterious stranger and go ous stranger and go on a journey won a Golden Globe this the first time since they kicked that you don't talk about anything on a journey this week. This this week. Both the stranger and week. However, as you have you out over Christmas. The else for the next 3 weeks. Your is a horoscope, so this jour- the journey are completely real never been in a film or on phone is answered by your friends stop talking to you but ney can be metaphorical if this time. Unfortunately, this is a TV this perplexes you. You replacement, who sounds so that's fine, Jon Snow didn't have you're not actually going on journey to an abandoned abat- realize that you have a talent much better than you do. He's any friends to start with either. a journey. And the stranger, toir in rural Hertfordshire, locked for winning things you aren't studying at Cambridge, and You try and see if your sister is they can be metaphorical too. in the boot of a car. The stranger qualified for, so you decide to already has a job lined up at a a fan too, but the Cersei and You will have both good luck is a serial killer, but on the bright run for a Sabbatical position. eryone else in the world ever. when they find what's left of you.

SPORT

Editor: Kunal Wagle sport.felix@imperial.ac.uk



Snooker and Pool: The year so far

Rob Hughes

IC Snooker and Pool

It was a term to remember for the Imperial mints, as membership rocketed and records tumbled, in what was a fantastic ending to a difficult year.

The autumn term began, as it always does, with the madness of Freshers' fair – an event at which Rob "robbing frames" Hughes excelled and embarrassed himself in equal measure. His decision to dress up as a pool table left him continually swamped by freshers, with several begging to borrow the outfit for the after-party and many more pledging to join the club. The gimmick, along with the club's mini pool table, manned by president Max "maximum safety" Chalmers, clearly captured the imagination of the fair-going public as membership was up by 50% on the previous year by the time freshers' fortnight drew to a close.

The Southern Universities 8-ball Pool Championships took place in the third week of term and the club departed for a sun-soaked Guildford with a number of new and exciting talents in tow. They had been selected from the hugely well attended - and extremely competitive - team trials tournament, which saw the club take over the whole of Rileys sports bar in Victoria.

The tournament might have been a complete disaster for our lads after all of them were knocked out of the Individual Championship in their first or second round matches. The team tournament also got off to an equally shaky start; with the firsts and seconds taking one frame between them (from a possible 18!) in their first three matches. Things began to look desperate, before they took a dramatic turn, with Markus "the Marksman" Frembs (a newcomer to the club), President Max and Ben "hardly ginger" Harvey putting in some stunning frames to inspire their respective teams.

From there the first team won all their remaining group matches to qualify for the championship, while the second team put in some excellent performances despite finishing bottom of their group and leaving a day early. While the first team was subsequently knocked out by a very strong Kent side, their 7th placed finish was the club's best ever result in a pool tournament and they left the competition with their heads held

high.

No national university snooker took place in the first term, but that didn't stop the club holding a number of internal events, with the early rounds of the Freshers' tournament taking place on commemoration day. Players of all strengths took part in the firstyears only event, with LSE's Charnon Boonnuch the first non-Imperialite to take part in the competition. He was only defeated in the final which he lost 4-3 to "the Marksman" who was making quite a start to his time at Imperial.

TCU

Snooker

& Pool

The Internal Snooker League had its opening group stage from November until the conclusion of term, with the competition as fierce as ever. A number of shock exits were seen, as this year's freshers provided a greater threat than many had anticipated. Predictably, Bogdan, loser of only 2 internal matches ever, sailed through while "hardly ginger" Harvey won an impressive four out of four in what had looked like a tough group. The competition now splits into the Championship and Trophy in the spring term and there is all to play for – even for those whose luck didn't hold in the first term.

The year came to an exquisite end in Telford, at the UPC 9-ball Pool Championships. Compared with Guildford, the tournament turned out to be somewhat of a reversal of fortunes, with the major triumph coming in the individual event and the team performance being a little disappointing. Due to the harsh nature of 9-ball competition, our three man team found themselves completely knocked out after only two losses, a result which disappointed Alex "magic cross" Lambrianos almost as much as the lack of sausage rolls at the event.

Similarly swift eliminations from the individuals were in store for both Max and Alex, but not for "the Marksman" of Deutschland. The affable German ran nurburgrings around his hapless opponents all the way to the Semis where he fell to fellow "auslander" Bernd Gentoner in a match which UPC's Facebook page described as "arguably the best match we have seen in the history of the competition". In finishing 3rd he became the first Imperial player ever to medal at an external pool tournament. What a player.

Triathlon Club Take on the BUCS Chilly **Duathlon to End 2013**



Ed Hallett

IC Triathlon



turn out the club seen, five

of cars, minibus and one van down the M4. The term was to culminate on Sunday 24th at the 2013 BUCS Duathlon at Castle Combe.

This fast pace race sees competitors circumnavigate the famous Castle Combe race track before mounting bikes and racing five laps of the track itself. Then to finish you off, a painful final two mile lap around the outside of the track on foot brings the painfaced athletes to the finish line.

Outstanding performances were seen from Charlie Houston with a finish time of 48:06.7 putting him 67th and Sophie Kirk in 56:45.7 for 40th fastest woman of the day, closely followed by Imo Simmonds six seconds later to take 42nd. The pressure of the day got to a few competitors, with Ed Hallett having a disappointing day after losing his racking position in transition and wasting 30 seconds of hard earned time; Sian Morgan again lost time in a momentary loss of awareness by starting the second run with her shoes on the wrong feet!

Commiserations must be made to Ellie Howard however after putting in a strong first run time of 13:39.8 her helmet strap broke. The marshals tied the helmet quickly to her head but alas, too tightly: three laps into the bike leg and she was losing blood supply to her head... enough was enough and she had to back out of the race.

After a quick race and with pain faces a thing of the past, Weatherspoons provided the necessary post-race burger and beer to round off the day and see everyone home replenished

after the final race of 2013.

Next term sees the start of the Triathlon session for 2014, and some big events, including BUCS sprint and Olympic triathlons, as well as an Easter tour to Paris and a Summer tour of England. Bring on 2014!

Thanks again to our sponsors, Jaguar Land Rover:





IC TRIATHLON



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IC put Bristol mini-tour to full use

Man of the mini-tour Matt Cann gives his account



At 2pm on Friday 22nd November the first impatient members of the mini-tour arrived in the union, for a live #AskMattCann. Like moths to a flame the remaining 34 touring rangers arrived to finally set eyes on the fabled tour tops. A rather fetching vellow and black number had been hand-picked from the literally tens of other options, and was met with looks of disgust from some and approving discussions of where it sat on the ICUAFC Kit Pengness scale from others.

Once everyone had arrived we made the short trip to Paddington to board what rumours had said was the busiest train in the country. These viscous rumours were soon shown to be true and a hasty free first class upgrade for half the team was the only way to get standing room, let alone an excellently reserved seat. The unsuspecting members of the First Class quiet carriage were shown a wonderful display of train box, one of the harder disciplines of the game.

After arriving in Bristol 1 hour and 43 minutes after leaving Paddington, we made our way to the hostel, which was a literal stone's throw from the destination for that evening, Pryzm. Despite being voted the second worst student night in the UK. IC were not to be disheartened and entered looking for a stage to dominate. After kicking up a fuss about the dire lack of a stage, Frosty had a tiny disagreement with the door staff and promptly put himself under house arrest.

The game day was finally upon us, but the club Pimp had forgotten all his essential kit so a last minute dash to Sports Direct was undertaken, and a very late decision to purchase a ball would later be totally vindicated.

The bus journey took in some of Bristol's more cultured sights, including the cathedral, a Banksy and the museum, before dropping us near the middle of nowhere. It was here however we discovered that Georgie, one of the netball social secs, had had so much fun at a previous football event that she followed us the 120 odd miles. Creepy,

Minds turned back to the football we were ready to bring Tiki-Taka (pronounced Punt and Rush) to Bristol. However the pitch turned out to be on the side of a hill with more bobbles than over the road at Harlington. This wasn't ideal for the high-tempo pass and move football Tim Beasley wanted to impose on the squad and so IC reverted to Tiki-Taka.

To match the disarray of the pitch the opposition provided a flat football (hence the excellent purchase just hours earlier), and after at least an hour, some nets. The light was fading but that was no matter, and the match began.

It was a very cagey affair with neither team able to keep possession, but both defences holding strong. The game needed a goal badly and Imperial aren't ones to disappoint. A corner was promptly conceded and no-one picked up a runner from deep who buried his header into the roof of the net. University of Bristol Captain's Select XI 1 – 0 ICUAFC. Disaster. IC responded by winning a throw-in deep in the Bristol half and exploited Miles Covers' long throw with the help of the tall team, Dom Wood scoring with a looping header over the keeper. Cue pandemonium in the stands and a pitch invasion.

Within minutes it was 2-1, Guy Frankel scoring after some good work from Julian Iacoponi on the right sparking a second pitch invasion. Things were going far too easily for IC.

A mistake from Frosty at the back let the Bristol Striker get one-on-one with Sam who was beaten with an elegant dink which received a well-deserved round of applause from the travelling fans. Minutes later and an even worse mistake from Frosty put Bristol clean through again to put IC 3-2 down. Calamity, Julian came to the rescue once again and levelled the game at 3-3 on the stroke of half time. What a game. The only thing that could make it any better would be 8 more goals...

A disastrous change of goalkeeper led to an early flurry of goals, by which point the floodgates had been well and truly opened. Some more football was played and the final score was irrelevant. IC had got the allimportant moral victory and that was all that mattered. Matt Cann was voted player of tour, an award all too familiar for him. We headed back to the hostel with some dignity intact, ready to be lost for good later that night.

After already having sampled the worst club in Bristol, IC thought it wise to keep low quality in mind and visited Walkabout, ranked 6, followed by Syndicate, second in the worst nights in Bristol (The Tab Bristol, 2013).

Again IC weren't troubled by the poor quality of nightlife - we knew how to make anywhere good. Channelling Shakers, we headed forth but were stopped in our tracks, much like Groves, when a photo booth was spotted. Several hundred photos and millions of shapes later the night looked to be coming to a premature end. However IC weren't quite finished and Kebab U Like It wasn't ready for what was about to happen. YAYA! YAYA YAYA! YAYA YAYA! YAYA YAYA TOURE! KOLO! KOLO KOLO! KOLO KOLO! KOLO KOLO TOURE! 20 minutes later and it was time to call it a night.

Sunday arrived and IC departed, making it back in time to catch the last 3/4 of Super Sunday with heads full of memories of a successful domination of Bristol.

ICUAFC is sponsored by:



Immortals barely beat **Bears**

Henry Badham IC American Football

The Immortals returned to Harlington to take on the Royal Holloway Bears in another tense game of American football.

Going into the weekend the Immortals were undefeated, having only been scored against once by the KCL Regents. The Bears, who were also unbeaten, looked as though they would be the toughest opposition yet, with playmakers on both offense and defense. This match was important to both teams as whoever won would be placed at the top of the London Conference.

There was tension in the air as the match kicked off, both teams knew what was on the line and both were clearly up for a fierce game. The Immortals kick off team chased down field to make the tackle. The game was tougher than the Immortals has expected, the Bears had talent in all areas of the field and had clearly greatly improved from previous years.

It was only minutes into the first quarter when the Bears got their first big play; a screen pass gave them a huge gain, positioning them only one yard from the goal line. They then managed to run the ball in for a touchdown, only the second to be scored against the Immortals' defense this season. They converted their PAT attempt and the score stood at 7-0.

The Immortals were shaken, never before this season had they been behind another team. The offense took the field, but the Bears defense proved too much, forcing a punt from the Immortals. The Bears offense wasted no time getting back into their rhythm and drove the ball deep into the Immortals' half. A deep pass from their quarterback scored their next touchdown, then with another successful conversion the score was 14-0, and the Immortals had been stunned.

The first quarter came to a close, and as the sides switched ends there was seemed to be a change in mentality from the home team. They opened the second quarter hitting them hard with big run plays, with the thought of losing their fuel for aggression. The Immortals worked their way deep into the Bears' half, and then Duncan Mackinnon ran in for a touchdown from just vards out. The coaches opted for an extra point attempt, which was converted as Marcus Stead-Hall ran into the end

zone. The gap was then decreased to 14-8.

SPORT

The Immortals' defense stepped up their game and managed to stop some of the Bears' key plays, allowing the home offense to take the field once more before the half was over. Again the ball was taken into the Bears' half, and then a deep pass from Toby Sinclair to Tino Millar was caught in the end zone. Once more Marcus ran in on the extra point attempt, setting the score at 14-16.

The Immortals had the lead going into halftime, but the players were well aware that the game was far from over, the Bears had proved that they were capable of scoring and had the ability to stop the Immortals' offense.

The third quarter was slow, both sides driving the ball but neither able to make the final push to score a touchdown. The next change in score came in the fourth quarter. The Bears' quarterback read the defense and kept the ball, running in for a touchdown. They tried to get the extra point, but were unsuccessful.

The Immortals offense returned to the field with the score at 20-16. The Bears stopped the Immortals advancing down the field and the home defense had to get on the field and stop the Bears scoring again. Big tackles from the Immortals pinned back the Bears, stopping them from running down the game clock, and importantly giving the Immortals' offense one more chance to score.

They were back on the field with barely any time to spare. If the Immortals were going to remain undefeated, they would have to score, and fast. The offense drove down the field, and with time running out Toby found Tino with a deep pass, which was caught on the one-yard line. There were merely seconds remaining when the players lined up in their positions, and with just 3 seconds left when the ball was snapped, Toby snuck into the end zone to score a touchdown. The Immortals' sideline erupted. They had come from behind to win the game 20-22, beating their hardest opposition of the season so far.

Most valuable player awards were given to Tino Millar for his great catches, Toby Sinclair for controlling the offense, Jordan Douglas and Joe Downey for their great work on the offensive line, and to Guillame Fontan for his big plays from the defensive line.

The unbeaten record still stands, and is now set at four games.

SPORT

INSIDE

IC Snooker register first ever individual medal

their swords and slew the Oxford

IC Fencing win in Oxford

Camille van Hoffelen IC Fencing

The first fencing premiership BUCS tournament was held in Oxford in December, where the home crew, as well as Cambridge, UCL, Bristol and the mighty Imperial crossed swords once again.

For two days, the teams competed to take lead in the race for the coveted league title. Saturday started with an early 9am match against Bristol. Winning the weapon's order toss, we decided to start with our foilists who were so pumped they had begun their warm-up the night before.

Despite a tricky opposition, the team pulled off a promising 45-42 win. Sabre was up next, and we decided to sharpen the game. A ruthless and almost perfect performance by Chris "8pak" Lawrence lead to a 45-15 sweep, and left no time for the opposition to realise that their match was getting out of hand. This inspired the epee to finish off the match, scoring 41 points and giving the newly named "Pimperials" a comfortable win, 131-102.

Next on the list was the talented Cambridge team, an old rival that has been known to give Imperial fencers a hard time... Foilists were put up first and trailed by a few hits against a strong side. However as the match progressed, Imperial fencer "Super-Soren" Pfitzner got increasingly angry, leaving no chances for a terrified Cambridge team. A beautiful finish by Glen "The Beast" Ostacchini turned the tables round and ended the match in a 44-42 win. Sabre was up next and felt the pressure to perform after the textbook foils win. However, the sabreurs were too proud to be outdone by another weapon and slashed their way through the opposite side to fetch a brutal 45-18 win. This provided a precious lead against Cambridge's tricky Epee team. The epeeists did not take this as a sign to rest though, and battled to the finish getting an impressive 35 hits. This totalled to a 124-105 for Pimperials, showing the opposition who was really dominating the tournament.

After a long tiring day of winning, the Imperial fencers gathered their forces to fight the Blues for Saturday's last match. To the keen Imperial foilists' disappointment, the weapon's order toss was lost so the sabreurs reluctantly warmed up to start the match. Just kidding, they absolutely could not wait to kick some butt. The trio sharpened

sabreurs 45-15 with a star indicator by Didier "Old-School" Nohlmans. As Oxford's strengths lying in Foil and Epee, the next match promised to be challenging. However Pimperial foilists kept it together, and with some swift attacks from Clyde "The Beard" Fare, reached a safe 36 hits against their on-form adversaries. The tension was at its peak as Epee started the last leg, needing 25 hits to win against the Blues. A difficult start showed that it was not going to be an easy finish. Wanna-be epeeists Camille Van Hoffelen and "M-Iron Man" Ratneswaran used their sabre speed to confuse the opponents, pushing the Oxford team's pride a little further into the ground with Maiyuran's toe shattering foot flick. In the second half of the match however, Oxford changed tactics and played time. They were trying to avoid being hit, betting that their anchor would be able to catch it all up against our second-finisher. Little did they know that Jonathan "Ice-Croft" Ashcroft was the coolest man alive, and slowly took apart the top Oxford epeeist's game in a thrilling penultimate bout. This gave the leverage for Harry "The Flick" Gulliver to finish off the match 45-25, winning overall by one point. Or, as we like to call it, "one-ing" against the Blues.

After a well-deserved lie-in on Sunday, Pimperials got ready for the last match of the tournament against an impressive, newly promoted UCL team. Sabre was set to start. The onform UCL side fenced really well, but the sabre trio kept focus and won a comfortable 45-25. Epee was granted the arrival of resident star Jamie "The Hulk" Simpson direct from Bratislava U20 World Cup. His intimidating shouts and signature Green Mask spurred the team forwards. Harry The Flick" Gulliver proceeded to destroy the opposition with his flawless technique in a 12 hit run, leading to a huge 38 points against an international standard UCL side. This left foil with a tense finishing task. A combative UCL side grinded away hits and kept up the suspense down to the last few seconds. Despite the building tension, a solid performance from "Super-Soren" and "Is it a sabreur, is it a foilist, is it an epeeist, no, it's M-Iron Man" carried the Imperial team 2 points from the win in the penultimate bout. This paved the way for Glen 'The Beast" Ostacchini to shine at the tensest of moments and take the win by scoring 4 consecutive parries over the UCL finisher. Pimperial won the last match of the weekend 118-114, coming back home with a clean sheet and hunger for many more.

Success for Imperial College Equestrian Teams!

Editor: Kunal Wagle

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Rachel Gregory describes the action



n the 11th December 2013 both of Imperial's Equestrian teams had their second competitions of the year. The first team was hosting their competition at Trent Park Equestrian Centre and the second team were visiting Southampton.

Despite a few mishaps in the morning before the competition, the first team was ready for the start of the competition on time. The team warmed up the dressage horses for the other teams to see. Franklyn, Hope, Lucy and Samba were all impeccably behaved and so the first riders on each horse began their allotted warmup time. Andre Wilmes, a returning team member who had unfortunately sprained his ankle two days before the competition but was determined to ride, rode Samba beautifully and they achieved the best score of the whole day. Team Captain, Rachel Gregory, riding Lucy and Natasha Woods-Kreisler riding Hope also managed to ride the best dressage tests on their horses. Our fourth team member, Leila Royle-Davies rode a beautiful test on her horse Franklyn, but was unfortunate to only be placed second on her horse. Once the dressage tests were complete the jumping course was put up, whilst the scores were counted. We were in the lead after the dressage, on a score of 19 penalties, with our closest rivals Royal Holloway on 62 penalties. The jumping course was as big as the rules allow, and again the team warmed up the jumping horses before Rachel was the first to compete on Maximus, Andre was second on Brazil, Natasha was third on Avignon and Leila was the last to ride Teak. Andre was judged to have ridden the best on Brazil on so he won overall. Rachel came second on her jumping horse and was placed third overall. Natasha scored 9 penalties on her horse and was placed sixth, and Leila scored 22 penalties. The team results were announced as well, and with all four riders' scores counting, we had won on 55 penalties. The University of Kent was second on 108 penalties, Royal Holloway was third on 110 penalties and LSE were fourth on 302 penalties. After this competition, Imperial is leading the mini-league, with Rachel individually second and Andre third.

The second team's competition at Southampton was run under exactly the same format, with the dressage tests in the morning and jumping in the afternoon. In the dressage Sara Wieclawska was the first to ride her horse, Becky Salen was second to ride her horse, Sorin Popa third and Lucie Walder fourth. All the dressage tests were ridden extremely well, and the team was in third place after dressage. In the show-jumping Becky rode a fantastic clear round, Sara was unlucky to have one fence down and both Lucie and Sorin unfortunately had two refusals. Overally, Becky was placed 7th, Lucie was placed 8th and the team was placed third overall, an improvement on their first competition.

If you would like to try horse-riding, we are holding a Give It A Go session for beginner riders on 29th January. For more information email **riding@ ic.ac.uk.**

IC Taekwondo produce strong showing

Nathaniel Gallop IC Taekwondo

"Keep the

Cat Free

17/01/14

Issue 1564

felixonline.co.uk



Last weekend saw Ethos sports centre nearly full to capacity as over one hundred and sixty competitors descended on Imperial College to take part in the Imperial College Open.

Now in its second year, the Imperial College Open has become a major event in the competitive year for many university clubs, with students from as far as Newcastle and Sheffield flocking to South Kensington to participate. Over 130 fights, across 35 different weight and class categories took place throughout the day, posing a significant challenge for the largely student-run competition.

Despite these hurdles, Imperial College Tae Kwon Do club (ICUTKD) dominated proceedings, taking home a staggering 21 medals (9 bronze, 6 silver and 6 gold) from a pool of 25 competitors, across all weight and skill categories. This was the highest number of medals of any university club, and enough to ensure the newly inaugurated 'Imperial Award' remains firmly in the hands of Imperial College in its first year.

We would like to take this opportunity to thank all of the people who volunteered on the day, helping to ensure the smooth running and ultimate success of the Imperial College Open. Thank you to the British Student Tae Kwon Do Federation (BSTF), the Red Cross, Sport Imperial and the Ethos staff, who were all instrumental in the organisation of the event. We would also like to thank our instructor, Master Reza Saberi and our coaches for their guidance and support over the last few months.

With the Imperial College Open 2013 being a huge success and a milestone in terms of our sporting achievement, we realise that there is still much work to be done this year. We hope that with this experience under out Tae Kwon Do belts, we can go forward to achieve bigger and better things at the Student Nationals and the Imperial College Open 2014. Watch this space!