

“Keep the Cat Free”

ISSUE 1505

FELIX



09.12.11

The student voice of Imperial College London since 1949

THE CHRISTMAS ISSUE

It's that time of year again – the final issue of 2011

THE CUTTING EDGE OF RESEARCH

The final industry interview of term at the UK's largest science experiment: **Page 6**

Imperial College London



GRIFFON STUDIOS – UP TO SCRATCH?

A term of initial occupancy issues for new postgraduate accommodation

Clare Cheng

The Christmas holidays approach, signalling the end of the first term for the residents in the new Griffon Studios. The new halls of residence, branded a part of accommodation option provider GradPad, opened this October exclusively for postgraduate students. Located south of the river in Battersea, it boasts “affordable, secure and high quality accommodation”. It emulates top-notch student living; over 450 modern studio apartments with wireless internet, free gym on site, large social space with plasma TVs, and a host of shops within five minutes walk. But has this ‘GradPad’ lived up to all of these claims? Upon investigation beneath

the shiny exterior of Griffon Studios, cracks appear to have emerged.

A regular complaint from the first intake of postgraduate students revolves around the availability of a wireless internet connection. Unknowing postgrads signed their tenancy agreements for Griffon Studios, putting their faith in the assurance by GradPad of “wireless broadband internet connection throughout the building – up to 30mb”. Unfortunately it seems so far they have failed to provide such a reliable service. Residents have reported the internet, both wired and wireless, to be “dysfunctional”. Upon complaint, StudentCom informed the residents that they did not anticipate the volume of mobile devices, expecting

most of the students to stay plugged into the internet, despite advertising claims made online. StudentCom have since been working to provide more IP addresses in order to improve the service.

In addition to these problems, a resident informed Felix that one of the two lifts in Block A, which serves ten floors, was out of service for over a month. Putting this into perspective, that is more than a third of the tenancy so far. The break down of washing machines is also reported frequently. Again in Block A, one of the three washing machines was out of order for a week at the end of October, with a second also failing. This left one washing machine for the 225 studios in the block. Heating

of the flats has been highly variable – with reports that some studios have no heating.

As a result, the experience for some has not matched the high prices of rent and the “high-quality” promised by John Anderson, the Chief Executive Officer of the Imperial College Fund who invested jointly in the project with Berkeley First. Originally there were two price brackets differing by the size of studio, £235 for 19sq metres and £300 for 22sq metres. Early in October it was discovered by residents that a new lower price bracket had been included for 11 of the 452 studios at £195 for 19sq metres with half-sized windows. This was met by speculation
...Continued on Page 4

POLITICS



What could happen over Christmas?

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FILM



Felix Film Awards – the best of the year

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TRAVEL



Visiting the Cannabis Cup in Amsterdam

Page 44

HIGHLIGHTS

What's on

Volcanoes and their impact on society

Professor Stephen Sparks from the University of Bristol delivers a lecture on the vulnerability of the modern world when confronted by volcanic activity. Considering such events as the disruption caused by Iceland's volcanic activity in 2010, volcanology will be shown to be a key tool in tackling such future events.

1.31 Royal School of Mines
Thursday 15 December
17:15-18:15
Open to all

Competition

An outrageous number of you entered both of our competitions last week. In fact, our STABILO pen was the most popular competition of the year so far. What that means? I'm not too sure. Anyway, on with the results!

Pen Competition

Winner:
Alexandra Turner

Ping Pong

Winner:
Da Jung

Congratulations! We'll be in touch.

PICK OF THE WEEK

Season's greetings from Felix



Until next year, folks. We're off on the next Coca-Cola truck out of here

This may be the last issue of term, but we've gone all out to bring you the best of Christmas. Expecting the usual roast dinner recipe from the Food Section? Well we've gone all alternative; chocolate, coffee and cupcakes await on Page 42.

Merry Christmas and a Happy New Year!

Editor

I, SCIENCE
THE SCIENCE MAGAZINE OF IMPERIAL COLLEGE

MAKE SURE YOU CHECK OUT THE NEW WEBSITE AND JOIN IN THE SCIENCE DISCUSSION

WWW.ISCIENCEMAG.CO.UK

LOOK OUT FOR ISSUE 19:
UNEXPLORED WORLDS
OUT 13TH JANUARY

CLASSIFIEDS

One spare room available at £487.50 a month in Shepherds Bush, 20 minute cycle from college. Open to anyone, other lodgers are three males. Contact details: joseph.gibbs10@imperial.ac.uk

Four student volunteers are invited to St. Josh International School, Chennai, India during the 2012 summer vacation.

For more information contact Tony Britto at info@nesamedu.com, or call **02070960879** or **07438888105**

Just so we're clear, Felix accepts no responsibility for services bought or sold, capiche? Good.

Lolcats of teh Xmas



Corporate Fatcat



FELIX

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NEWS

Blast Injury Centre set up at Imperial

Royal British Legion provides £5m towards understanding roadside bomb injuries

Sophia David
Alex Nowbar

A new £8m Royal British Legion Centre for Blast Injury Studies at Imperial College has officially opened this week. The Centre aims to provide a better understanding of the injuries caused by roadside bombs, or Improvised Explosive Devices (IEDs). These are the leading cause of death and injury for Service personnel on operations in Afghanistan and Iraq.

At the research centre, based in the Department of Bioengineering, civilian engineers and scientists will work together with military doctors in order to improve both treatment and means of protection against roadside bombs. One potential benefit is the design of “intelligent” combat boots that are better able to deflect the impact of a roadside bomb since foot and heel injuries account for a large number of injuries. Another aim of the research is to diagnose and understand the damage caused more quickly in order to reduce future medical problems.

Professor Anthony Bull, from the Department of Bioengineering at Imperial and Director of the new Centre said, “Previously, servicemen and women who were wounded from blasts would have died from their injuries, and now military protection, medical science and

practice has improved greatly so that there is a greater prospect of survival. We now need to assess the effects of blasts on these survivors. We urgently need to know more, so that we can protect and treat people more effectively.”

“We urgently need to know more, so that we can... treat people more effectively”

The Royal British Legion, the leading Armed Forces charity, is providing £5m to establish the Centre which will also be partially funded by Imperial itself. The research will build on the work already carried out by the Imperial Blast research group at the College. The Ministry of Defence have been supporting the work of the Imperial Blast group since 2009 and will continue to contribute clinical experience and resources, ensuring that the research focuses on areas of most value to military personnel. However, it is hoped that knowledge acquired could also be of benefit to injured civilians, for example, following terrorist attacks.

Roadside blasts not only cause dam-

age to extremities, but also affect the body internally, damaging whole organs such as the lung, symptoms of which may not show for days. Therefore, it is crucial to understand system-wide internal trauma, information which could lead to new therapies and better outcomes for patients. Researchers at the Centre are aiming to develop a test to diagnose Blast Lung, the most common cause of death among people who initially survive an explosion. An early diagnosis could help prevent complications such as fluid build-up in the lung, improving the chances of survival for patients.

One model that Imperial Blast is already using for its research is an Anti-vehicle, Underbelly, Blast-Injury Simulator (AnUBIS), the only device of its kind in the world, which can simulate a roadside bomb blast in laboratory conditions. This device is able to reproduce the velocities seen in the floor of vehicles targeted by bombs by accelerating a 42kg plate. This enables scientists to assess the effect of leg orientation and positioning on injury severity and thus develop preventative strategies to minimise damage.

The research centre should have a significant impact on those serving in current and future conflicts, thereby limiting the long-term effects of blast injuries on individuals and their families.

Imperial College London



Professor Anthony Bull, Director of the newly opened Centre

Dinner in the House of Lords, anyone?

Paul Beaumont

This Wednesday the Royal College of Science Union (RCSU) announced via email to the Faculty of Natural Sciences that it will be holding the Science Challenge 2012 Final in the House of Lords.

The Science Challenge is the RCSU's annual essay competition and this year, entrants will be given four questions to choose from, all set by distinguished judges. A good essay will then land you at a Dinner Reception in the House of Lords, and in with a chance of winning the ‘top prize’. The details of this prize, however, will remain secret until the Launch event.

This year the guest judges – who will all be speaking at the Launch event – include names from all aspects of the media. Professor Lord Robert Winston, Imperial Professor and TV personality will head up the judging panel, complimented by the BBC's Science Editor and Imperial Alumnus Pallab Ghosh. Mark Henderson – Science Edi-

tor of *The Times* and newly appointed Director of Communications for the Wellcome Trust – and Peter Lacy, the Managing Director of Sustainability at Accenture complete the judges.

The official ‘description’ of the Science Challenge is: “An essay competition that aims to encourage scientific debate, reasoning and the communication of science in a public-friendly context.” In practice, this requires entrants to write a compelling scientific argument that any member of the public, with only a basic grounding in science could read, understand and be swayed by.

Previous winners have branded the RCSU Science Challenge ‘life-changing’. Isha Puri, who won the school's version of the Challenge (the competition is run in one-thousand schools nationwide concurrently) was awarded – as part of her prize – a financial bursary to study at Imperial. Now in her third year of Imperial, Isha is “preparing herself” to enter the Imperial Students' competition.

Last year's competition – reported on by Felix last week – was won by Andrew Purcell for his response to the question “Why should the average person care whether we discover the Higgs Boson?” The essay was a mix of well-researched yet amusing tales of physics banter with his Father and his “thick Lancashire accent”. It is available – along with all the other winning articles – on the Science Challenge website.

At the Launch event, the only two currently unallocated tickets to the House of Lords will be given away for free. The Launch will be held in SAF on Tuesday 17 January 2012 at 6pm. Unlike previous competitions, tickets for the Final won't be on sale: the only way to get to the House of Lords is by entering or via these two free tickets.

Registration for the Launch is required, free, and now open for students of all Faculties at the Science Challenge website, rcsu.org.uk/sciencechallenge. For more information, contact science.challenge@imperial.ac.uk.

Sponsored Editorial

More student cuts

Discount haircuts for Imperial students at Fresh Hairdressers

More student cuts for Imperial students at South Kensington's FRESH Hairdressers.

Men's cuts £22

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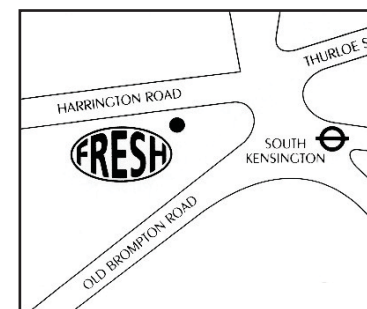
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We are only 70 metres from South Kensington tube station

To book an appointment, call

0207 823 8968. Ask for a student discount and bring your Imperial ID.
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NEWS

News Editors: **Sophia David**
Alex Nowbar

news.felix@imperial.ac.uk

In Brief

Movember Mayhem

Over 80 male members of Imperial College took part in Movember 2011, raising a total of £5,595 for the cause. Movember, an annual event in November, is a campaign that seeks to raise awareness and funding for men's health – specifically, prostate and other common male cancers. Originating from Melbourne in 2003, Movember has since grown into a worldwide movement involving more than 1.1m participants.

Movember participants receive sponsorship for their efforts in growing and maintaining moustaches for the full 30 days. Participants and companies alike have come up with various incentives and novel ideas to raise as much as they can for the cause – such as restaurant chain Byron's offer of a free burger a day for registered Movember participants.

In 2010, a total of £11.7m was raised by Movember participants across the UK – money that has since been used to fund significant research programmes on prostate and testicular cancer, with one such programme being carried out by Honorary Research Fellow Dmitry Pshezhetskiy here at Imperial College London's Hammersmith campus.

Carol Ann Cheah
Niki Kesharaju

Academics criticise White Paper

In a letter to *The Daily Telegraph* this week, academics, including professors from Imperial College London, Oxford and Cambridge, criticised government White Paper proposals for higher education reform, specifically the idea of universities being run by private companies, i.e. for profit. They warn it will be to the detriment of students, graduates and taxpayers. They believe the proposed system will emulate private universities in the US, claiming that in the US higher education system, "for-profit companies offer derisory graduation rates, crushing levels of debt and degrees of dubious value."

The letter demonstrates fears that universities run by profit-driven firms will provide a poor service to students whilst maximising short-term gain for shareholders, all at the expense of the taxpayer. This is shown by a claimed statistic mentioned in the letter, which states: "According to the US Education Trust, only 20 per cent of students at for-profit colleges complete a four-year course and the same proportion of those who do finish default on their loans within three years."

The government plans would, according to the signatories, facilitate universities becoming private sector bodies by enabling private providers to gain degree-awarding powers, which are likely to be seen by private providers as a desirable intellectual property right. Potential advantages of private investment might be increased funding to provide a better service to students particularly in 'struggling' universities without dependence on the taxpayer. Nevertheless academics are urging the government to reassess its plans in order to prevent "students and taxpayers suffering the consequences".

Alex Nowbar

Avoid student scammers

Nicolas Massie

Since the start of term Imperial students have lost thousands of pounds to practised conmen and women. 'How could they be so stupid?' you might wonder... it's not as straightforward as that. These people employ all sorts of tactics – and they're doing their Christmas shopping. Below are examples of the three most common scams, all of which have happened to IC students since the beginning of term:

1. *Help me, I'm in a pinch!* In this scam, a female (though it could just as easily be a male) approaches a student claiming that she lives in Enismore Gardens, she has been locked out of her house, her children have been in a car accident and she has no husband. She then asks for money to pay for a taxi to the hospital. She has stolen significant sums this way.

2. *Help me I'm having a hard time – I used to be rich.* Here, students meet a model who has fallen on hard times but has suitcases full of (fake) designer gear. They are leftover from his catwalk days; he is willing to part with them

cheap cheap cheap. 'Come in the car – we'll just go to my flat.' At this point most students say 'no Thank you.' Usually this is fine. Sometimes the 'model' and his 'friend' get aggressive. When students get into the car, which they have in the past, the real trouble starts. Don't let it happen to you.

3. *You sir – yes, you sir, STOP, I'm the police!* Man A: "Excuse me, do you have the way to the Royal Albert Hall? I think it's here on this map." Imperial Student: "But of course, I'm kind and helpful, it's just this way." Men B and C pretending to be police: "Oi, we suspect you of a drug deal. We need to search you." Imperial student, in good faith: "Oh, ok, of course." Police impersonators then empty the student's wallet and run. Not good. Many students do not know how to distinguish a police impersonator from the real deal, or what a proper Stop and Search looks like. Whether you agree with the principle or not, the police do stop and search and it's worth knowing what a warrant card looks like (see photo). To watch or take part in a Stop and Search, to find out more about these



A genuine police warrant card

scams and others, and to learn how to protect yourself, come to the Safety Session in Pippard Lecture Theatre in Sherfield at 12:30pm on Tuesday 13 December. Good personal safety freebies will be available! Feel free to email dpwelfare@ic.ac.uk with any questions.

Issues with Battersea 'GradPad'

...Continued from Front Page

that this was an attempt to entice more tenants in to fill up the empty studios, which are still not at 100% occupancy.

Imperial and Berkeley sold the property to Legal and General Property (LGP) for £116m in September, contributing to Berkeley's 64% increase on profits from the same period last year. LGP will lease the property to Imperial for a 45 year period, thereafter returning the property.

An Imperial College spokesperson commented, "As is often the case with new developments, there have been occasional issues during initial occupancy... the Residence Team and the developer have been working closely with the residents to resolve any problems."

Griffon Studios is still in its infancy, at just one term into occupancy. The Residence Director and team welcome feedback openly, addressing issues raised through email. Some residents have expressed hope for their future tenancy. 2012 is almost upon us and perhaps with it comes a new term and new improvements. Indeed, it has been noted by some residents that the situation has improved.

Does this excuse the failings observed so far? As a student the mind always returns to the issue of money. With prices of up to £300 per week, students at Griffon Studios will likely have little time for excuses, especially over the coming holiday period.

UK extradition laws to be reformed

MPs call for applied changes to Babar Ahmad case following evidence admissions

Aemun Reza

A parliamentary debate on extradition took place on Monday 5 December where it was concluded that there should be further calls for a public inquiry into the Crown Prosecution Service (CPS). The debate came as a result of an e-petition to put Babar Ahmad on trial in the UK securing over 141,000 signatures within three months.

The CPS has already admitted that it had never reviewed the evidence against Babar Ahmad (who was an employee of Imperial College's IT department at the time of his arrest in 2004) before it was sent to the US. The CPS claims that it was not aware of all the evidence possessed by the US authorities even though the British police had seized all the evidence in the UK. The CPS has nevertheless repeatedly refused to prosecute Babar Ahmad in the UK claiming

that there is "insufficient evidence".

Consequently, Caroline Lucas MP called for a full public inquiry into the CPS and their handling of the evidence of Babar Ahmad's case.

Stephen Phillips MP said he was "hor-

"Caroline Lucas MP has called for a public inquiry into the handling of evidence"

rified" by what Caroline Lucas revealed, adding that it was a "stain on justice in the UK" for Babar to have been imprisoned for over seven years without trial.

Father of Babar Ahmad, Ashfaq Ahmad said: "The government continues

to dodge the serious questions raised by Dr Caroline Lucas in relation to the CPS behaviour. The CPS has allowed Babar to languish in prison without trial for over seven years claiming there is "insufficient evidence" to prosecute him, evidence which they now admit they never even saw."

"We fully support Dr Lucas's call for a full public inquiry into the CPS actions in this case and call on the Attorney General to direct the Director of Public Prosecutions to review all the evidence against Babar with a view to prosecuting him in the UK."

A motion was passed for the UK's extradition laws to be urgently reformed in order to strengthen the protection of British citizens. Many MPs called for any potential changes in the law to apply to cases such as those of Babar Ahmad, Talha Ahsan, and Gary McKinnon.

UK Parliament



MPs called for a public inquiry as a result of the parliamentary debate

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6pm**

Holy Trinity Church
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No tickets required.
Please bring your friends.

CHAPLAINCY



www.imperial.ac.uk/chaplaincy

Features Editors: **Katy Bettany**
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FEATURE

Interview: Trevor Rayment

Alice Yang talks to the Director of Physical Sciences at Diamond Light Source

Diamond Light Source, the UK's national synchrotron facility, sits in the form of a gigantic steel ring amongst stretches of the green countryside surrounding the Harwell Science and Innovation Campus in Oxfordshire. Less than a decade old, this facility is at the cutting edge of research and luckily for me, having interned here for eight weeks, Professor Trevor Rayment, Director of Physical Sciences at Diamond, has managed to find a few minutes in his busy schedule for this interview.

Diamond Light Source is the UK's largest science experiment, and is a third generation synchrotron that accelerates electrons to almost the speed of light in order to produce synchrotron light. This light, ranging from IR to X-Ray in wavelength, is then split off to beamlines, of which there are currently 32 under operation around the 561m ring – all to help deepen our knowledge of science, from chemistry and materials, to engineering and earth sciences.

After a brief introduction, I sheepishly admit to Professor Rayment that I don't know much about his past other than a brief summary of his education history. "Good, that sounds about right" he replies, "in these days of the internet, I prefer people to ask me in person."

In a place of such responsibility, overlooking the entire operation of the physical sciences sector of the UK's biggest research facility, Professor Rayment admits that it wasn't a path he just fell in to.

"From the age of 12, I've dreamt of being a scientist; it's what I wanted to do. One of my earliest memories is going into a public library and picking out a book on nature of some sort."

Having completed his degree in Chemistry at Durham University, Professor Rayment decided to move south to Oxford University to study for a

DPhil in Theoretical Chemistry. Despite the tragic death of his supervisor part way through, he persevered and completed his DPhil, whilst in fact discovering that he was a much better practical Chemist than a theoretical one. As a result, he moved to Cambridge University where he did a Post Doc in practical chemistry that led onto a Research Fellowship there.

"Most of my career I've been an academic Chemist working at research facilities. After 25 years in Cambridge, things were going very well, but I really feared getting into a rut.

One of the things you'll find as you grow older is that the opportunities for change will get less and different, and if you simply want a change for the sake of a change, that's actually not so easy."

For Professor Rayment, however, change did come several times. After holding the position as Chair at Birmingham University for three years, the position as Science Director came

"To be a successful academic you need a whole variety of skills"

up at Diamond in 2008, for which he was asked to apply, and he has held the position ever since.

When he arrived at Diamond, Phase 1 of its construction had already been completed with 7 beamlines already under full operation, and Phase 2, for the further construction of 15 beamlines, was underway.

"My job was to bring the new beamlines from construction to operation, and then in operation, to make them into mature beamlines with a strong competitive international science programme carried out on them.

"I am here to share the leadership of

Alice Yang



Director of Physical Sciences at Diamond Light Source, Professor Trevor Rayment

the science division at Diamond and to make it into a world-class research institute. A research institute that is focussed on delivering science to the communities of academia and industry.

"Day by day, it's full of all different sorts of meetings, mostly management. I spend around a day a week doing my own science – well that's the dream anyway, but the rest of the time I do what managers do, which is to listen to and talk to people. I need to understand the organisation well enough to be able to make the short-term decisions in such a way as to maximise the long-term benefits."

Picking up on the dream of spending time working on his own experiments, I ask whether the practical chemist in him misses the hands-on science.

"I would like to do more of my own science of course, but that's the same with every academic you ever see.

"However, one of the privileges of synchrotron science is that experiments come around on a periodic basis that you really can get involved with. When we're doing experiments on the beamline, I help on a practical basis."

Professor Rayment admits that his knowledge and experience has come with "an unimaginable number of mistakes", and it is the lessons he has learnt from these that allow him to recognise the mistakes of others and solve them, saving crucial time on experiments that on average last only 48 hours.

Despite its undeniable presence, both on the physical landscape and on the horizons of ground-breaking science

research, Diamond Light Source is not a name that many are familiar with. Professor Rayment feels that this may partly be due to many journalists avoiding scientific writing as a result of their lack of scientific background, as well as scientists themselves not being able to explain their own experiments.

He goes on to explain that with only 400 members of staff and a comparatively modest budget, Diamond believes that is, in fact, "punching above its own weight" in terms of getting the word out and engaging with the scientific and non-scientific communities.

"There is a great deal of science carried out in the UK and we underpin a fair proportion of it. In many cases, the work done at Diamond was absolutely vital, but it's underpinning and so doesn't make headlines."

I question Professor Rayment further on the topic of Diamond's funding, and if the government's recent budget cuts have affected the facility.

"Diamond is 86% funded by the UK Research Council and 14% by the Wellcome trust. When there have been cuts in funding, Diamond has felt it, but we do the best we can to make sure the users don't feel it. This is a user synchrotron, and the users are kept first by making sure the people who work here are scientifically great. All of our principle scientists are researchers in their own right."

Moving on, I question further into Diamond's employment schemes and how current science graduates can get involved.

"For people wanting a career here, if you are one of the principle or beamline scientists, we want people to have an independent academic research profile.

"In the science division, there are also positions for Postdocs. We support research students, offer internships and every beamline has two students that we co-fund with a university. We also have an engineering division."

Curious as to what the Professor would look for in terms of skills when employing, I ask more about his opinions on science careers.

"My personal experience of recruiting Postdocs and students is that you look for ability in their grades; you look for their vision, passion and enthusiasm.

"To be a successful academic you need a whole variety of skills. I think to be a good researcher; you actually need to have a passion for the subject, and you have to learn to fail, and learn from those failures.

"One of the things I've learnt is that you always keep on learning. Over time, I've also learnt that sharing what you learn and what you know with others is exceptionally valuable. One of the characteristics of an academic life is that it can be quite solitary; it's a feature of academics to want personal recognition. That can be positive, but it can also be destructive.

"Doing research is hard work, and part of your responsibility is to communicate it to other people. If you're not excited about your research, then you'll never excite anyone else about it."



Harwell Science and Innovation Campus, home of the synchrotron facility



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In brief**Pandas arrive in Edinburgh**

Two giant pandas arrived in Edinburgh, Scotland, last weekend after a nine hour non-stop flight from China. The pandas, Tian Tian and Yang Guang, are the first to live in the UK for 17 years. The eight-year-old pair will live at Edinburgh Zoo for the next ten years, and the Zoo hope that they will eventually have cubs.

Kelly Oakes



I hope that the panda wasn't too jet lagged...

Habitable planet found

Scientists have discovered a new planet outside of our solar system that might be capable of supporting life. The planet, known as Kepler 22-b, lies within the habitable zone around its star, which means that if water exists on the planet it should be in liquid form. Kepler 22-b has a relatively comfortable surface temperature of 22°C. But those harbouring hope that we may be able to move there one day will be disappointed to hear that it lies 600 light years away – even if we were able to travel at the speed of light, it would take us at least 600 years to get there. The planet was discovered by NASA's Kepler mission that has so far discovered 28 confirmed planets outside our solar system and a further 1,235 planet candidates.

Kelly Oakes

Confused by DOIs?

DOI stands for digital object identifier. A DOI will help you find the journal article a science news story is based on.

Just type <http://dx.doi.org/> into the URL bar and add the DOI to the end. For example: cyberduck <http://dx.doi.org/doi:10.1038/nature10550> will take you straight to the Nature letter about the dwarf planet Eris. Alternatively go to <http://dx.doi.org/> and put the DOI into the search box on that site.

Or, if you're feeling lazy, Googling the DOI usually works too...

Wolves help predict climate effects

Sophie Buijsen

Scientists at Imperial College have devised an evolutionary model based on climate change and a study of grey wolves.

It has long been known that environmental factors play an important role in the evolutionary development of species. This is best exemplified by the fact that the same species may have a different phenotype when living in different environments. For example, grey wolves' coat colour is dependent on their location. Recent changes in the climate have also led to drastic changes in certain species, such as the rapid physical shrinkage of the polar bear.

Predicting the influence of these environmental changes on species' development is important, especially for species at the top of the food chain, as their development influences changes lower down the chain.

Professor Tim Coulson of the Life Sciences Department of Imperial College and his colleagues observed a group of 150 grey wolves (*Canis lupus*) in Yellowstone National Park for the duration of 15 years. The scientists tracked the wolves' reproductive success, genotype and body weight and mapped these against the environmental changes in the park. With this data they created a mathematical model that can predict future evolutionary changes in the observed factors in the grey wolf species.

The wolves were exceptionally good subjects for the study as they had only been introduced to the Yellowstone Park in 1995,



A pack of wolves bed down in Yellowstone National Park

after humans populating the area had driven them out of their original habitat. The wolves in Yellowstone National Park are therefore all descended from the original pack that moved into the park. The Yellowstone Park is a closely monitored nature reserve, and so a lot of data is available on the changes that occurred within the park over the decades.

The results showed that overall changes in the environment had a greater impact on wolf populations than year-to-year fluctuations. An-

other important result was that changes in the wolves' characteristics depend on which part of the wolf's life cycle is most impacted.

The model will now be applied to a wide variety of species to see if it is globally applicable. Unfortunately, such extensive data as for the Yellowstone National Park wolves is not available for many other species.

If the model works more globally, it can be used in helping to set conservation policy.

DOI: 10.1126/science.1209441

How sharks swim faster than you

Sotirios Karamitsos

Scientists have discovered how sharks are able to swim faster than most other fish. Making use of an advanced imaging technique, they were able to examine how sharks swing and stiffen their tails to swim more efficiently.

Sharks, like all fish, wag their tails to propel forward. However, sharks, unlike most fish, have tails that are not horizontally symmetrical. Instead, the top of a shark's tail protrudes further back than the bottom, giving the shark a lift while swimming. Sharks do not have natural buoyancy and sink when they stop moving, so the lift generated by their tails' shape is indispensable in helping them stay at constant depth. In 2005, Harvard biomechanist Brooke Flammang discovered a muscle in sharks' tails that activated at various times during the tail's stroke cycle. A new study, published recently in the *Proceedings of the Royal Society B*, observed the tail's movement in close detail to examine the muscle function.

To detect the finer details of tail movement, researchers scatter small particles in the water. Lasers are shone on the particles, which can then be detected by high-speed cameras that capture the reflected light. The tail pulls the particles along as it swings, and so the tail's

motion can be reconstructed by tracking the particles. This technique had, up until now, been two-dimensional. The particles' movement was tracked in the horizontal and the vertical directions only, and movement perpendicular to those was only estimated. However, Flammang wanted to directly detect movement along depth as well, and so added a third camera. This method, known as volumetric imaging, had been used only by engineers to study water flow. Biomechanist Frank Fish of West Chester University notes that its use constitutes an entirely novel approach in biology.

“Sharks, unlike most fish, have tails that are not horizontally symmetric.”

Flammang and her team put two spiny dogfish and two chain dogfish in a water tank with a constant water flow so that the sharks could swim in place, along with a robotic shark tail. The current understanding is that, as fishes'

tails swing, they send the water to one side, and then push it away, abruptly changing its direction and thus causing vortices. Most fish cause a single water 'ring' to propel backwards at the end of their tail's stroke, and sharks were thought to produce two rings because of their asymmetric tail. As expected, the robotic tail created two rings of different size.

However, the group reported that real sharks' tails produce the larger, second ring as they reach the shark's midline, contradicting the currently accepted model. A set of dual-linked vortex rings are produced each half-stroke, which, as Flammang states, is greatly advantageous since the shark "has added thrust mid-swing". She believes that the muscle she had previously discovered is used to stiffen the tail mid-swing, changing its shape and even possibly its texture, to facilitate the creation of the second ring.

MIT ocean engineer Michael Triantafyllou observes that the discovery has the potential to be applied to the better design of underwater vehicles. While he warns that it might be cumbersome to design shape-shifting components, Flammang expresses her desire to build "a fully functioning shark tail model" that can change its stiffness.

DOI: 10.1098/rspb.2011.0489

Let it snow, let it snow...

Science Editors **Alexander Karapetian** and **Kelly Oakes** bring you an inside look into snowflakes

Snowflakes start out life as small particles of dust in a high up cloud. Water freezes around the dust particles, forming tiny ice crystals. At first, the ice crystals grow slowly, developing flat sides known as facets. At this stage they are hexagonal prisms, with eight sides or facets – two shaped like hexagons and six that join the two hexagons together to make the prism. All facets grow at equal rates and, for a while, the ice crystals slowly get bigger. Once they reach a certain size, branches sprout from the six corners of the crystals. The branches grow at the same rate to begin with, because the atmospheric conditions are the same all around the crystals.

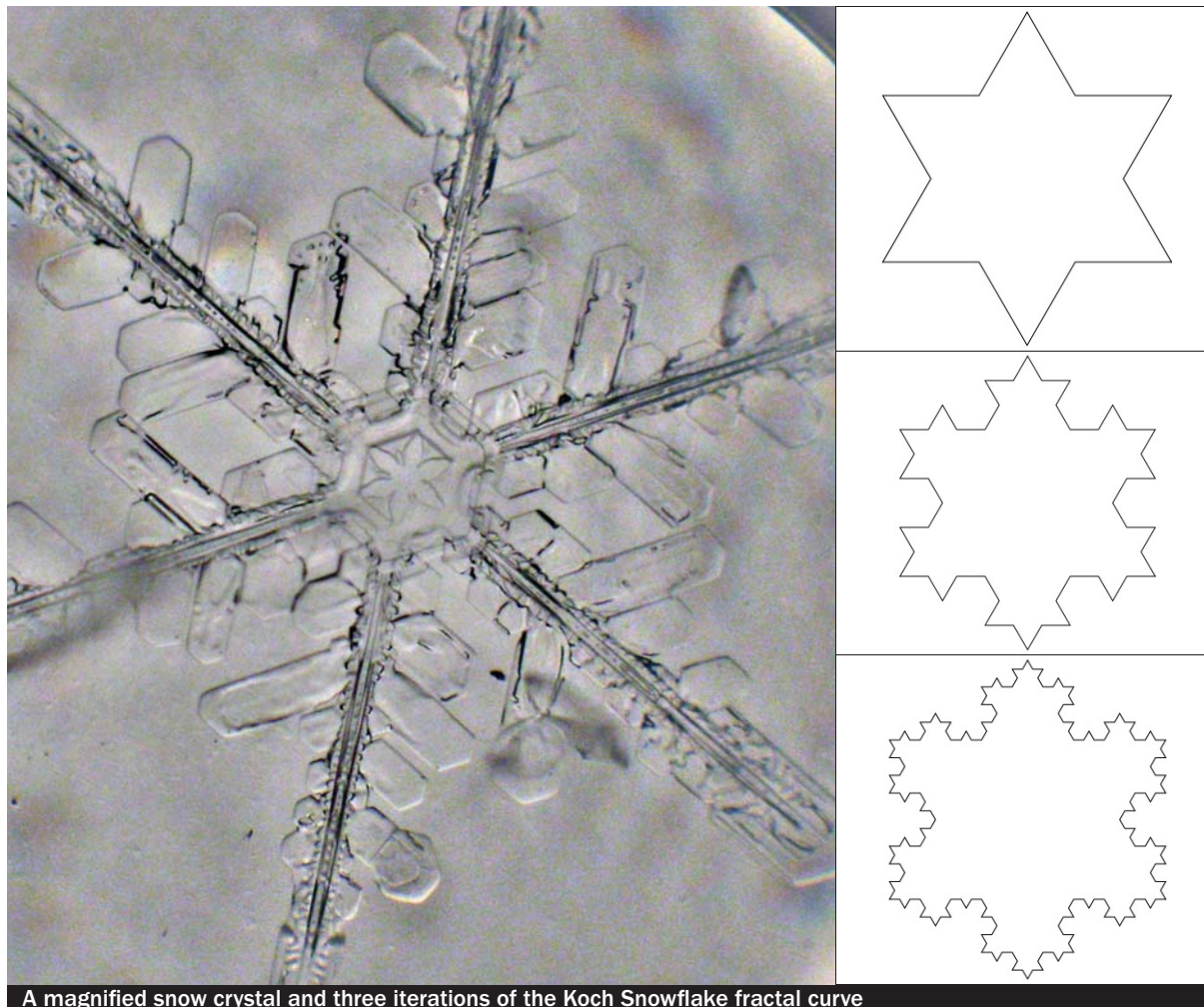
But once the weather starts to get better and a crystal is blown around in its cloud, the surrounding temperature changes randomly. Crystal growth rate is linked to temperature so the branches start to grow more erratically. All sides of the crystal experience the same conditions at the same time, so they grow at the same rate – but that rate changes with the constantly changing temperature, resulting in the beautifully complex structure we call a snowflake. Each snowflake looks slightly different thanks to its unique growing conditions, but has six-fold symmetry because of its early life as a hexagonal prism.

At least, that's what a snowflake looks like in theory. In practice, two branches do not always grow at exactly the same rate even if they both exist in exactly the same conditions. So not all snowflakes have perfect six-fold symmetry – but they come pretty close.



Technically, an ice crystal in the shape of a hexagonal prism is a snowflake. It would not be difficult to find two of these small snowflakes that looks essentially identical. Once they get larger and more complex, however, you would be looking for an increasingly long time – possibly forever – to find two the same.

What an individual snowflake looks like depends on a fine balance between two processes: faceting and branching. Faceting is the formation of flat sides and branching is the formation of, you guessed it, branches. These processes are both affected by temperature and other atmospheric conditions. Once a snowflake leaves the hexagonal prism phase of its growth and starts branching, especially under changing atmospheric conditions, it diverges from the simple hexagonal shape and becomes complex



A magnified snow crystal and three iterations of the Koch Snowflake fractal curve

rather quickly.

An individual snowflake is the result of so many 'choices' – which way to branch, how fast to grow – that the chances that two of these complex snowflakes will be the same is very small. If only a hundred choices were made in the formation of a snowflake, there would be 10^{158} possible different resulting snowflakes. That's seventy orders of magnitude more than the number of atoms in the universe. In reality, there are many more choices made, and many more paths the snowflake could have gone down in its formation – resulting in an almost unimaginable number of possible snowflakes.

Putting aside the complex branching that goes on, the stuff that snowflakes are made of can also be the source of much variation. Snowflakes are typically made up of around 10^{18} water molecules. All water molecules are not created equal: most will be exactly the same, but in one in five thousand a deuterium atom will have replaced one of the hydrogen atoms, and in one in five hundred, a slightly heavier isotope of oxygen will replace the usual oxygen atom. The probability that two snowflakes have these mole-

cules laid out in the same way is very, very small.



The shape of snowflakes has been familiar to many of us from a young age, instilled in our minds by media ranging from cartoon depictions to weather reports. Their symmetry has been a research topic for some time; Olaus Magnus, a Swedish writer, published one of the earliest snowflake diagrams in 1555. Researchers, philosophers and the curious eventually began to know more, with René Descartes publishing a study for the crystallization process in 1637. Just under thirty years later snow crystals were observed under magnification, in what was to become the first major publication of the Royal Society of London by Robert Hooke. His book, *Micrographia*, inspired a wave of interest in bringing the world of the small to our eyes by way of microscopes, and further research catalogued the various types of crystals involved in forming snowflakes.

By the 1900s, we had 97 types of snow-

flakes, and had studied the relationship between temperature and water vapour saturation. Japanese physicist Ukichiro Nakaya, who famously said that "snowflakes are letters sent from heaven", looked into how snow crystals naturally form various patterns, with his Nakaya Diagram outlining relationships among vapour, temperature, supersaturation and excess vapour density in clouds. Nakaya created over 3000 photographic plates of the various shapes and was driven to create artificial snow from ice crystals grown in his laboratory. His technique of using a cooled dual-layer hollow glass tube failed to create snowflakes. He did, however, manage to produce a snow crystal on the tip of a single hair of rabbit fur – three years after his first attempt.

In 1983, snow crystals were made in orbit on the Challenger Space Shuttle while testing biological materials in electrical fields under microgravity. The Nakaya diagram was confirmed shortly after, with artificial snow crystals made in an updraft. Now, scientists can create artificial snow at will, with a deep understanding of the environmental and chemical processes involved.

The shape of snow crystals has also

been intriguing to mathematicians. The Koch snowflake, named after Swedish mathematician Helge von Koch, was one of the earliest fractals to be described. It consists of equilateral triangles drawn on to segments of an existing triangle repetitively. Adding triangles to every side of the previous state is one iteration. The Koch snowflake is what you end up with as the number of iterations tends to infinity.

Considering the fractal as a mathematical curve, it would be continuous across the real numbers but differentiable nowhere, similar to the curious Weierstrass function that holds the same properties. These functions challenged the once-believed idea that every continuous function was differentiable except on a set of isolated points. They, like fractals, exhibit self-similarity; a zoom anywhere on the curve would look exactly the same as the bigger picture.



Fractals such as the Koch snowflake tend to have simple rules for generation but often result in complex plots after few iterations. A mathematician called Felix Hausdorff introduced a means of better understanding how fractals fill space in 1918, called the Hausdorff dimension. It was used in cases where the space was better described with non-integer values, as opposed to those in classical topological dimensions. The Sierpinski triangle, a famous fractal, consists of three copies of itself after each iteration, with each copy shrunk by a factor of a half. The Hausdorff dimension provides a more intuitive means of describing the space taken up by each iteration by taking into account a ratio of the natural logarithms of the amount of copies created and their respective scale factors.

A Sierpinski hexagon, or Hexaflake, is built with the presence of a Koch snowflake at all zoom levels, and is a generalisation of the traditional shape used, allowing snowflake-like fractals to be generated from arbitrary polygons tessellated recursively. The Hexaflake has a larger Hausdorff dimension than the Koch snowflake, with features including the replacement of each flake with smaller polygons on each iteration. Several fractals have been classified successfully according to this method of calculating the space they use, but some have no analytical solution as yet.

Snowflakes have always been a symbol representative of the festive season, and Felix Science is keeping its fingers crossed for a white Christmas.

In brief**Graphene makes inkjet printer electronics a possibility**

Graphene is a unique material consisting of single layer of carbon atoms bonded in a hexagonal pattern. As the thinnest and most conductive material ever discovered it has countless possible applications in electronics. Research into the material is progressing quickly, with the government setting aside £50m for this purpose earlier this year.

Now a group of engineers from Cambridge University have announced that they have managed to produce a graphene based transistor using an inkjet printer. Writing in a paper published last month on arXiv.org, a pre-print repository, the team describe how the performance of their transistors is broadly comparable to that of traditional semiconductor transistors.

The ink for this process was produced by using the solvent N-Methylpyrrolidone (NMP) to strip off single layers of graphene from a block of graphite in a process known as liquid phase exfoliation. While other solvents could have been used, NMP was chosen since it stops flakes of graphene in an ink droplet becoming concentrated around its perimeter as it dries on a surface – a phenomenon which is known as the ‘coffee ring effect’ and which is highly detrimental to the function of electronics produced in this fashion. A centrifuge was then used to remove graphene flakes with a diameter of more than one micrometer, which might have blocked the printer nozzle, and the quality of the ink was assessed using spectroscopy and transmission electron microscopy. A modified desktop printer was used to print a transistor onto a surface which was coated with hexamethyldisilazane (HMDS) to further reduce the “coffee ring effect”. The printer was first tested by producing dot based patterns before moving on to attempt a transistor.

While inkjet printers have already been used to produce conventional complementary metal-oxide-semiconductor transistors these have proved, unlike those created by the Cambridge team, to operate far too slowly to be of any practical use. Graphene based electronics are still far more expensive than their conventional counterparts, but the use of simple inkjet technology promises massive reductions in price.

The wide range of surfaces on which transistors can be printed and the fact that graphene ink is transparent also opens up a wide range of possibilities. The team says that their work “paves the way to all-printed, flexible and transparent graphene devices on arbitrary substrate” and foresees it being used in the production of “touch screens, electronic paper (e-paper), sensors, radio frequency tags, photovoltaic cells, and electronic textiles”.

Maciej Matuszewski

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The subtle parasite

Maya Kaushik explains the link between slow reactions and suicidal rats



Parasites may be lurking on a cold winter's day, better off staying in...

It's the start of a cold winter's day in London. A young man gets into his car to drive to work. Amongst the bustle of traffic, a pedestrian runs onto the road – the young man sees this, but does not react fast enough. The car swerves, bumps into the pavement, and he wakes up dazed in hospital a few hours later.

At the back of the hospital, a rat scurries across concrete, foraging for food. He senses a smell that should raise alarm – a cat. But instead of running away, the scent intrigues him. Throwing caution to the wind, he scurries into the open, only to be pounced on by a tabby.

Overlooking this scene from the window of a nearby university, anthropology students are discussing cultural differences around the world, debating how these differences might have occurred.

Are these events completely unrelated? They would appear to be – but may be linked by one, rather unknown little creature; a parasite named *Toxoplasma gondii*.

In rats, the parasite is responsible for a phenomenon known as ‘fatal feline attraction’. The rat becomes less cautious, more active, and even seems attracted to feline odour. In this way, *T. gondii* may have led to our rat's untimely demise.

As for our young man, he may have just been tired and careless – or more shockingly, his behaviour may have been influenced by parasitic infection. *T. gondii* reduces reaction times in humans, and can increase the risk of road accidents. On a more global

level, it is possible that the prevalence of *T. gondii* infection, through subtly affecting individual personalities, may affect a country's entire culture.

The situation reads as if it were a script from science fiction. How can a parasite produce such dramatic effects? Until recently, this question has been very difficult to answer, but genome sequencing of *T. gondii* has produced insightful results. Two genes in the parasite produce an enzyme that increases levels of the neurotransmitter dopamine, which is known to affect mood, personality, and plays an important role in some mental illness.

To understand why this parasite may possess these genes, we need to turn to our second case – the tale of the rat and the cat. The parasite relies on cats to spread, and an important part of its life-cycle occurs in a cat's gut. Altering the rat's behaviour to increase its chances of being eaten would allow the parasite to complete its life-cycle, reproduce, and emerge in the cat's faeces.

Given this life-cycle, why – and how – does the parasite affect humans? It would appear that we are accidental hosts; our mammalian brains are similar to those of rats, but we aren't affected in quite the same way. The main route of transmission to humans is through eating undercooked meat (from infected cattle, for example). Humans can also contract the parasite from the environment; soil or unwashed vegetables, which may have been exposed to cat faeces.

Many people around the world are unknowingly infected. The parasite's effects are subtle, and in most healthy people it produces no illness beyond mild flu-like symptoms. The precise prevalence of infection is not known – in the UK it may be around 7%; in other countries it may be much higher, reaching as high as 70% in some parts of the world.

But the effects of *T. gondii* can range beyond just subtle changes in behaviour. Studies show that schizophrenia patients show a higher prevalence of infection, and whilst this correlation does not imply causation, the link is under investigation. People with AIDS often suffer from acute toxoplasmosis, which can cause an inflammation of the brain leading to severe symptoms, and even death. Perhaps the best known symptom of the parasite is its impact on foetuses, where it can cause spontaneous abortions and severe neural complications.

For a parasite that is so common, and has such a wide range of effects, the mechanism by which it works is surprisingly unknown. Its lack of obvious symptoms in healthy people has led to it being ignored. My research will help understand how this parasite works in the brain – is it the increase in dopamine that causes the rat to change its behaviour? What does this imply for infected humans? In regions of the world where over half the population are infected, the effects of this parasite, subtle or not, can no longer be ignored.

A brave new molecular world

Will Prince

Professor David Phillips, current president of the Royal Society of Chemistry, took to the lectern on November 8 for the latest Friends of Imperial College (FOIC) event.

In line with FOIC's celebrations of the UN Year of Chemistry, the Imperial professor emeritus guided the audience with an authoritative yet avuncular manner through a few of his personal predictions for the future of chemistry.

A great deal of the work done by the RSC centres on highlighting the key challenges faced by the world today for which chemistry hopes to hold solutions. Foremost amongst these is the development of green chemistry, especially ionic liquids as a substitute for more harmful solvents. Solvents are critical in most industrial chemical processes, as illustrated by the fact that they represent 90% of the waste products in the pharmaceuticals industry.

Regrettably however these same solvents make up 35% of global emissions of volatile organic compounds (VOCs) that give rise to smog and greenhouse gases.

There were a few bewildered faces amongst the group of visiting secondary school students as Phillips cited the case of Viagra production as an

example of the improved consumption habits and efficient use of solvents. Having required 1300 litres of 'red', harmful solvents to produce a kilogram of Viagra in 1990, today we need only 6.3 litres of less dangerous 'amber' solvents, with the hope being that we might need an even smaller amount of the ideal 'green' solvents in the near future.

“support for the sciences in the UK would sow the seeds of future prosperity”

An explanation of Viagra's applications and an anecdote involving Prince Phillip later, the look of confusion on the faces of school students quickly changed to one of horror, probably as a result of mental images that the wizened prince and a sex-drug together might evoke.

Whilst some of the more virile among us might question whether the efficient production of Viagra represents a key global challenge, the importance of securing a safe, environmentally friendly food supply is undoubtable.

Phillips shared the case of azoxystrobin, a seemingly paradoxical fungicidal fungus discovered through blue-sky research by Czech and German chemists. Having found that trees with the fungus strobilurin (the active agent in azoxystrobin) grew no other fungi, research was undertaken that led to a frantic patent battle between Sygenta and BASF. The former won, handing in their application 24 hours before the latter, and Sygenta announced annual azoxystrobin sales of over \$1bn in 2008. Used as a fungicide in wheat, vegetables and a wide range of commonplace foodstuffs, Phillips hypothesised that without the chemical (and the grasp of chemistry to harness its properties) we would see food prices increase by half overnight.

Shifting from the kitchen table to the operating table, Prof. Phillips' most impressive examples of frontier chemistry came in medical applications. Photodynamic therapy (PDT) enables the treatment of malignant tumours through photosensitive agents that attach exclusively to the tumour tissue and bombard it with singlet oxygen. Talking through the case of a patient with a tongue tumour, Prof. Phillips pointed out that two decades ago, treatment would have certainly resulted in removal of the tongue, rendering the patient speechless for life.

With PDT, a technique developed



Professor David Phillips, president of the Royal Society of Chemistry

from research in bio fluorescence, a patient can expect to see the tumour in remission within a week of treatment and be fully healed in a matter of months.

If things couldn't get any better, the procedure is minimally invasive and tumours hold no possibility of developing a resistance.

Naturally accustomed to political persuasion through his role at the RSC, Phillips took every opportunity to impress upon his audience the mer-

its of blue-sky research – how whilst today it may seem aimless, it will no doubt form the springboard for the great leaps of tomorrow. Given the current economic climate, he proposed that support for the sciences in the UK would sow the seeds of future prosperity, highlighting that even today apparently trivial discoveries made two decades ago are finding life-enriching and economically beneficial applications. Are you reading, Mr. Cameron?

Lasers may hold key to cryptography

Alexander Karapetian

“The generation of random numbers is too important to be left to chance.” This was the title of a 1970 article by recognised expert in pseudo-random number generation Robert R Coveyou. There are many controversies surrounding the various algorithms used to generate numbers with the illusion of randomness, but one Ottawa physicist appears to have developed a way to generate them truly randomly.

Ben Sussman, who works with quantum technologies at the National Research Council, used laser pulses which last only a trillionth of a second to demonstrate the generation of random numbers. The laser pulse is fired at a diamond and the emergent photons are measured. Due to quantum vacuum fluctuations, the quantum state of the photons which were fired are changed. This is due to the microscopic flickering of the amount of energy in a minute point in space.

If the method of transforming an

entity is known to an attacker, the cryptographic system the technique is applied to can be compromised. Sussman commented on the photons' changes of state, explaining “what quantum mechanics tells us is that it's against the laws of physics to know”.

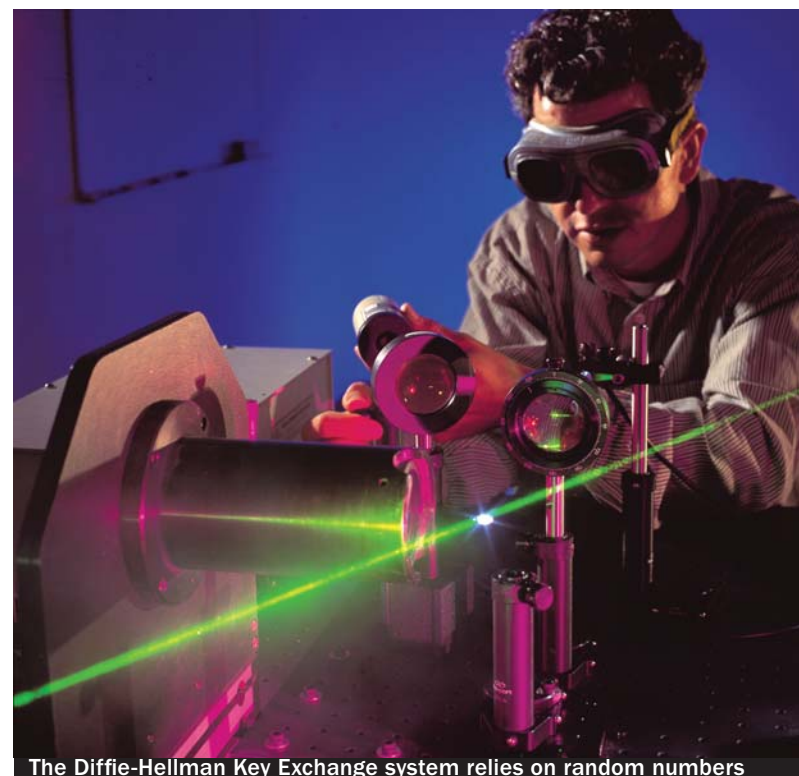
Random numbers are used to seed cryptographic systems worldwide. They are used in the core security algorithms which provide two way protected communication, site certification and digital signatures. These features can then be applied to secure website browsing, credit card transactions and other security-intensive elements of the digital world.

In cryptography, Kerckhoffs's principle states that only the key of a security system needs to remain secret and not the algorithm. In many cases, digital keys are formed from outputs given by pseudo-random number generators. If these generators contain flaws, the keys will contain inherent vulnerabilities to attack.

Sussman's method of taking advantage of quantum mechanical effects to produce random numbers has the potential to produce large quantities of random numbers very efficiently, with the added benefit that the method of generation, how the quantum states were changed, is impossible to deduce.

The one-time pad cipher, known to be information-theoretically secure, is a mathematically perfect means of securing information. The drawbacks are in the effort required for its successful implementation. One requirement is the use of truly random numbers as keys. Sussman hinted at this in his comments, noting “a truly random number generator will provide impenetrable encryption for communications”.

While some scientists continue to understand more about the mysteries of quantum mechanics and probe what we can and cannot know mathematically, others utilise the latter to benefit those requiring secrecy.



The Diffie-Hellman Key Exchange system relies on random numbers

TECHNOLOGY

Tips & Hacks

Spotify launches app platform



Spotify launched an app platform last week that will allow developers to add features to the stand-alone Spotify application. The first applications announced include the *Guardian* app, which allows users to read reviews and new music recommendations, as well as similar apps from *Rolling Stone* magazine and *Pitchfork*. London's Music Hack Day saw a few more interesting apps released: Chordify allows you to select a song and automatically finds you guitar tabs for it, and CTRL allows you take control of a virtual turntable, giving those Spotify party mixes some extra effect.

While the app model will definitely see some interesting software being released for the platform, it is worth asking whether every piece of software adapting the model adds much of value. Bloat is an unavoidable feature of most commercially released software, and an app system for what is essentially a music player is perhaps a step too far.



Merry Christmas from the Felix Technology team!

Enjoy this USB Christmas tree, only £12.99 on Amazon

Technology Editors: **Chris "The Snowman" Bowers**
Feroz Salam under the mistletoe

technology.felix@imperial.ac.uk

Nokiasoft: a match made in heaven

Jason Parmar coos over his new Nokia Lumia 800



deadmau5 helped to launch the Nokia Lumia 800 at Millbank Tower in late November

When Nokia announced their partnership with Windows Phone 7 instead of Android back in February I honestly thought that they'd made one of the biggest mistakes in the company's history. How wrong I was.

Windows Phone 7

As much as I'd like to talk about the physical phone, the truth is, just like the iPhone, the greatest feature of the Nokia Lumia 800 has got to be the operating system. Having previously owned an iPhone, iPhone 3G, iPhone 3GS and a HTC Desire I'm quite familiar with iOS and Android, the two biggest mobile phone operating systems.

So I put my bias against Windows Phone 7 to one side – just for a day – to try this OS out, and I wasn't disappointed. We were used to listening to Steve Jobs at every keynote speech, consistently overusing the words "innovation" and "revolutionary" until they almost had no meaning. Yet what Microsoft have done is truly innovative and, well, genius. Windows Phone 7 has struck a perfect middle ground between iOS and Android: it looks slick, it's incredibly fast and most importantly, it's unbelievably intuitive to use.

Price

At £350-400, depending on what network you're on, it's £100-150 cheaper than an iPhone 3G or Samsung Galaxy S2. It's even cheaper on contract. For example, I pay £26 a month for 600 minutes, unlimited texts, unlimited data, 2GB free BT Openzone a month and 4 months insurance, and get the phone for free.

Integration

The integration of several separate applications into one phone is one of the main successes. I'll

quickly give you two of many examples. The first is games: all games go through a very slick Xbox Live interface which, if you have an Xbox, is made even better. The other is social networking integration: if you click on a group of contacts, e.g. "Chemistry" on "what's new" there is a feed of all your friends' updates, Facebook, Twitter, Live Messenger, Google+ and even LinkedIn.

Even with messaging it integrates social networking: imagine if text, MSN, Facebook Chat were all in one thread – on this they are. You can be messaging one of your friends using Facebook and, when they go offline, you just tap a button and you can send them the message as a text, it's all part of the same interface.

Productivity

This phone isn't only great on a personal use level, it's great for work. Microsoft Office has OneNote, Excel, Powerpoint and Word so that you can edit all your documents from your SkyDrive offline or online, on the go – great for some last minute edits to your lab reports.

Another awesome feature for productivity is, because it's Microsoft, Outlook and Calendar are by a long way the best I've ever seen on any phone (or even tablet). It doesn't matter if it's

Gmail, Yahoo, Hotmail or, for best functionality, Outlook Exchange, it's quick, slick and intuitively designed for navigation and organisation.

For example, threads of e-mails are kept grouped, much like in Gmail, and you swipe from "all" to "unread" to "flagged" to "urgent" and you can link as many inboxes together as you like. With calendar, not only do you get your "day" and "agenda" from your e-mail calendar (that is how I organise my life) but you have the option of including Facebook events and other calendars (which are all kept colour coded). This also links in with "tasks" of the "to-do" list as it's called on the phone, organised in level of priority, deadline and again, colour coded. If you keep yourself organised online using Google or Outlook it's an absolute lifesaver and helps keep you exceptionally well organised.

Criticism

No phone is perfect. The two biggest flaws with this phone are, firstly, the battery life, and secondly, the limited amount of apps.

But I'm pretty sure Nokia and Windows Phone 7 know about these. Nokia has a "battery saver" option you can turn on, or to automatically come on at "xx%". The "Marketplace" may be sparse in its range of products, but at the moment it has everything I can think of that I would want on a phone, and it seeing as its relatively young for an app market, it'll definitely grow.

Conclusion

I can honestly say I never thought I'd be in favour of, let alone endorse any Windows attempt at a mobile OS, but here I am, in ownership of the best phone in the world.

There is so much more to this phone than I can write, but I'm running out of space. I guess the point I'm trying to get across is, forget your bias against Microsoft, get that iPhone out of your arse and just try this thing out. You will not regret it.



It's love at first sight for Jason Parmar

The Student Online Evaluation (SOLE) Survey

The first SOLE of the academic year (third of 2011) is now LIVE!
www.imperial.ac.uk/sole

The Student Online Evaluation (SOLE) Survey is designed to gather information from undergraduate students on their lecture modules in the term that has passed. It provides vital information for students, staff and the Union; this information allows us to acknowledge courses which are well run, and address issues which need to be taken care of.

SOLE runs once a term and is one of the few chances you will get to give constructive, anonymous feedback on lectures and labs that will help mould your course for future students. It only takes a few minutes to make a real difference, so do the right thing....fill in SOLE at www.imperial.ac.uk/SOLE (plus the top three departments with the highest participation get money for their DepSoc).

Student Representation

You may have seen the "You Said, We Did" posters around campus asking you to fill in SOLE. But even though I'm trying to convince you to all do SOLE, it's important to bear in mind that SOLE has helped improve the teaching of your course, but not the wider student experience. All of the improvements to the student experience seen on these posters come directly from Student Representation.

SOLE is just one part of student representation, focused on improving lectures and labs. The other, hugely significant, way for us to improve our student experience via Student Representation is by fully utilising our Year and Dep Reps.

If you can think of something to improve not only your own, but also future students experience at Imperial College

contact your year rep and/or dep rep to make sure it's discussed at Student-Staff Committees, from which your recommendation can be enacted on.

If you don't believe me, read the posters for examples. They include providing your timetables on your Imperial Outlook, getting microwaves in departments for students to use, getting reading weeks, spacing out exams more, getting Apple iMacs for app development, getting more social spaces, getting more computer rooms and more!

None of these changes would've been possible without Student Representation.

So make sure you're fully utilising the year and dep rep positions and make sure you fill in SOLE before it closes on Friday 16th December.



your SABBATICALS

Jason Pamar
 Deputy President (Education)
deducation@imperial.ac.uk

Keep up-to-date with your Sabbaticals at:
imperialcollegeunion.org/sabbs

Mechanical Engineering

“YOU SAID” There was not enough computer room space.

WE DID

We created an awesome new computer room on level2.

Help mould your course/Have your voice heard. Filling in SOLE is one of your main chances to give constructive, anonymous feedback on your course, It only takes a few minutes to make a real difference for the

Make a difference, fill in SOLE at www.imperial.ac.uk/sole

Politics Editors: **Joseph Letts**
Rajat Jain

politics.felix@imperial.ac.uk

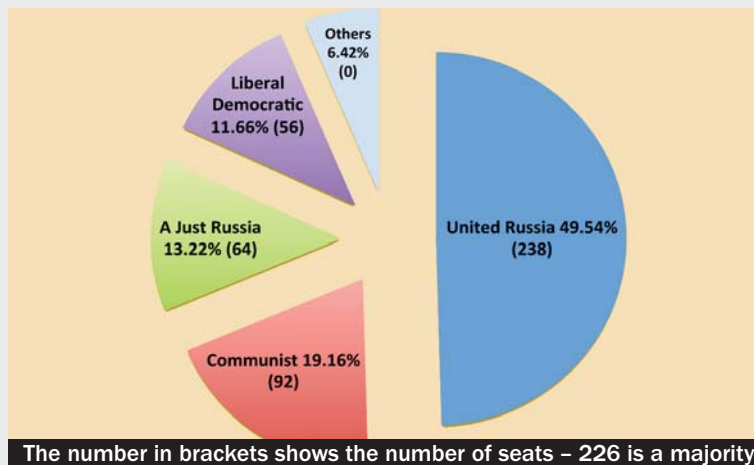
POLITICS

Recent elections and scandals

Rajat Jain writes about Johnny Foreigner as we approach the New Year

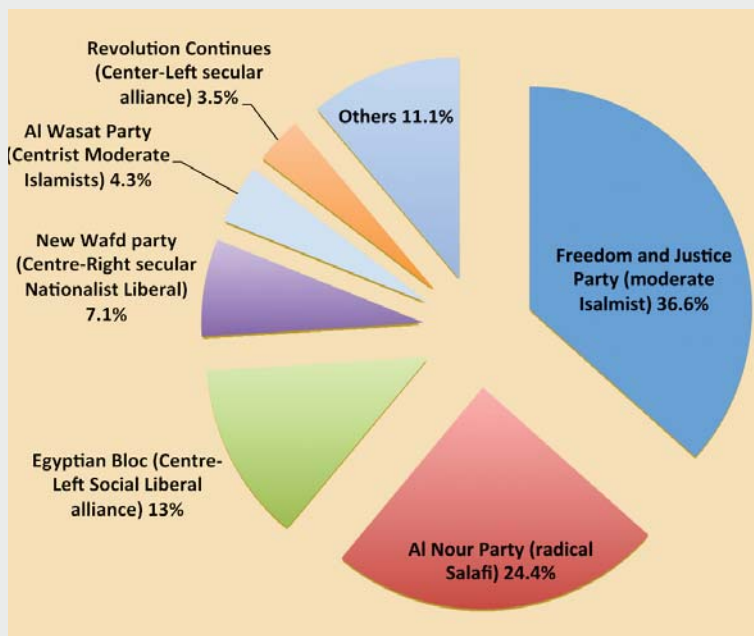
Russian Election

Vladimir Putin's party looks set to lose its two thirds majority in the 450 seat State Duma, Russia's lower house. The two thirds of seats had allowed United Russia to change the constitution so Putin can become president for two six year terms. The fall from 64% to fewer than 50% of the popular vote is particularly embarrassing given widespread allegations of fraud. However, since parties with fewer than 7% of votes cannot take seats, United Russia will still hold a majority in the parliament.



Egyptian Election

Results from Egypt's first stage of Parliamentary elections suggests Islamist parties will take two thirds of seats. Though run offs will eventually determine distribution, the moderate Islamist Freedom and Justice Party and the radical Salafi Islamist Al Nour Party are clearly dominant. This means the new constitution and legal framework is likely to have strong Islamic influences including implementation of Shariah law. The results have caused alarm in Israel, where Egypt's previous dictator, Mubarak, maintained good relations. Coptic Christians, who make up between 10-15% of the population, are particularly nervous that Egypt could become the new Iran and many are planning to leave the country.



The Euro



German Chancellor Angela Merkel and French President Nicolas Sarkozy made it clear that the EU treaty would be changed at a meeting last Friday – regardless of British Prime Minister David Cameron's opposition. Sarkozy had tried to convince Cameron to drop his insistence on repatriation of powers from Belgium in exchange for supporting a tighter fiscal union. However, the German leader has said that a new treaty will be signed, whether it be between all 27 members or just the Eurozone 17. This leaves Cameron the choice of being isolated from Europe or supporting the treaty and being isolated from his party, who are demanding a referendum on any changes to the EU treaty.

Public Sector Strikes



The BBC has received over 30,000 complaints about Top Gear presenter Jeremy Clarkson's comments on the One Show. Clarkson and the BBC have apologized for the comments, which included mention of people who commit suicide by jumping under trains being 'selfish' (which they kind of are, right?) and the most contentious point: Clarkson's view that people striking should be shot (a prison sentence clearly being more appropriate). Despite leader of the opposition Ed Miliband also condemning him, intelligent people everywhere agreed that Clarkson is a bit of a douchebag but was clearly joking when making his remarks live on air.

If I was a Head of State, what would I want for Christmas?

UK



Queen Elizabeth II

Slippers and a corgi-themed hot water bottle

USA



President Obama

Well Santa, I kinda need some change...

Zimbabwe



President Mugabe

Royalties from that annoying Nando's advert!

Palestine



President Abbas

An invite to the UN Christmas Party?

Iran



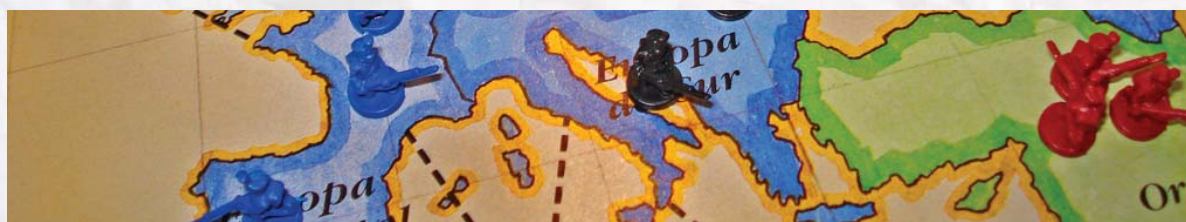
Supreme Leader Khamenei

Christmas? Really? Don't get me started...

THE NEWS THAT'S NOT

“Bringing accurate, fictional news to readers around campus”

Who will we invade this Christmas?



IRAQ Iraq's leader Nouri al-Maliki is too dangerous a threat for us to ignore. A former rebel, this Shia leader has developed a strong relationship with the regime in Iran and Syria's Al-Assad family. He is now taking full advantage of his forces to crush dissent from Sunni opposition and liberal media. Not only would a full scale invasion allow us to free the Iraqi people from an oppressive regime, but would give us a strategic position in the Persian Gulf and increase oil security. Besides, we'll easily have the military capacity when we finally withdraw troops from Iraq at the end of the year.

IRAN Iran's supposedly peaceful nuclear programme is the greatest threat to the stability of the earth. Who the hell do they think they are? The USA? Russia? Britain? France? China? Israel? India? Pakistan? Why on earth do they think they should be allowed to develop such dangerous weapons? The mentalists even blew 17 of their own Revolutionary Guards up to show they're not messing around. This is not like Iraq in 2003 – not only do they have a lot more oil, but the IAEA's report has made it clear that they are developing weapons of mass destruction. They might even be able to deploy them within 45 years.

GREECE Germany and France are presently requesting Britain's financial help in bailing out Greece. What they really need is a bailiff, and that is a role that I think this country is well-qualified to assume, given its tradition of colonialism for furthering economic objectives. In addition, occupying Greece would also provide a stepping stone from which to launch an invasion to reclaim Cyprus, in order to secure sandy beaches and gaudy nightclubs regularly frequented by British tourists.

By Rajat Jain and Veli Akiner

USA Watch



With Obama's tumbling approval rating and Herman Cain dropping out of the running for presidency, the possibility of the USA being led by madman Mitt Romney looms ever closer. A pre-emptive strike would prevent this occurrence; despite the USA's significant advantages in technology and manpower, Korea, Vietnam and Afghanistan has shown that these do not ensure military victory and as such should not deter any action against the States. In fact, a drawn-out war of attrition would rejuvenate their military-industrial complex and kick-start the American economy, which could help drag the rest of the world out of recession.

By George Galloway

3 Strikes!

With a recent cut in public sector wage rises for the next two years leading to a pay cut in real terms, and a call to reduce public sector pensions, civil servants and other affected parties went on strike last week. This forced approximately 58% of schools in England to close today, along with affecting roughly 6,000 routine medical operations. The strikes also had the effect of increasing the number of middle aged, middle class people handing out flyers on the streets and standing around with neatly printed posters. While this has given printing companies a slight boost in revenue, these events caused annoyance for people on the street as they had to put more effort into not accepting flyers or making eye contact on their way to pick up lunch.

The government gleefully reported that less than a third of civil servants were on strike, having been sneakily chained to their desks the previous evening after carefully scheduled office parties around the country. However, our sources tell us that these parties were funded by budget cuts in government departments forcing the closure of toilets in all publicly owned office spaces. Needless to say, groggy and disgruntled civil servants were heard to be muttering in rage on Wednesday morning, angrily sending emails to their line managers, saying how ministers were “taking the piss”.

After a brief, sparsely attended cabinet meeting last Thursday, PM David Cameron is set to announce the implementation of a Three Strikes Policy in all public bodies, starting next January. The idea being that any public sector workers engaging in 3 or more strikes during their career will be politely sent a disparaging letter from the Prime Minister before promptly being fired and replaced by younger, more downtrodden workers. Public sector unions such as NAPO are already urging members to strike for the right to strike. However, with decreasing pay and increasing apathy towards life, will civil servants roll with the punches, or take a stand after rushing home for the toilet?

By Joseph Letts

Americans Protest in Central Park

Since Monday thousands of Americans have been heading to uptown Manhattan to take part in a new movement, Occupy Central Park. Today I've been talking to a few of the settled protestors to understand their motives. So far it seems that the people gathered here are united with a single purpose, to show their dissatisfaction with the current democratic system of government. In fact, these protestors are calling for an end to democracy in the White House and the introduction of open corruption and dictatorship to the head of the country.

I had a conversation with the leader of the movement, Dick Jersey, who elaborated on the ethos of the group:

“Well Pete, it's like this. America is hurting, and we the people find the Administration guilty of negligence. However this negligence is not a passing phase, we believe this institutionalised negligence is a result of the poison of democracy. We believe, that it is time for the Federal Government to step aside and allow one man,



Occupy Central Park – Credit: The Guardian

a politically powerful, well connected and wealthy man, to take control of our blessed country and steer it in the direction of it's future glory!

“For too long we have suffered the indignity of decency, having to always do what's right in the eyes of the world, being champions of justice and fairness, and now it is our time to prosper. America is a humble and poor nation, we rule the world fairly, often at a cost to ourselves, and we even sell our excess food to inhabitants of less privileged countries, giving them to chance to enjoy American food. However, thinking only of others and not for ourselves is

hurting our fair nation, and it's time to do something about it! We're calling for change, change to the power structure of our beautiful land.

“We need to be lead by one man, a man who has the voice of America, a man who epitomises the pinnacle of tyranny, a man who will put the needs of our nation before his own, a man who will make backroom deals in order to increase our prosperity. Without a dictator we are lost sheep, subject to the whims of squabbling politicians, each trying to shout louder than the other in order to make their voices heard. It will be tough and the change will encounter friction,

but if we want to be able to compete with our peers in the Arab States and Africa we will need to evolve and adapt to face this ever-changing world!”

The protestors wish to broadcast their message to the world in hope that they will find comradeship amongst like-minded groups with a passion for activism. They have a well-established groups and pages on prominent social networking websites and the movement so-far seems to appeal to three key demographics in the American population, the unemployed youth, the contrary intellectuals and the uneducated masses. There have already been interviews with self-professed experts in American Law who claim that the right for dictatorship is clearly stated in the Constitution of the United States and that any American worth their salt will back the rising movement.

At the time of writing, the White House has refused to comment on the movement, however as the pressure grows will the political establishment start to feel the tension?

By Joseph Letts

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BUSINESS

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The Paper days are over

The days of the printed newspaper are numbered, argues **Marie-Laure Hicks**, as the salad days of social media see a decline in the printing of broadsheets and Berliners

Take the tube and read a newspaper. Most people there are doing the same, but their number is in rapid decline. Between 2007 and 2009, newspaper circulation dropped by 25% in the UK. Only the US saw a heavier decline. This \$50bn business, employing 400,000 people in the US alone, is in trouble. In the space of two years, eight major newspaper chains have declared bankruptcy and newsrooms have been cut by a quarter. British newspapers have also needed to lay off workers. The newspaper industry is living its worst crisis since the Great Depression.

Newspapers are not simply losing readers, they are also losing huge amounts of funding. Companies now prefer online ads to printed publicity. This is a major issue as, historically, advertisements represented up to 80% of newspaper revenues. Online start-ups, blogs and websites are proving ever more popular. Moreover, even if newspapers have their own website, it is notably difficult to make money off them – why would people pay for subscriptions when they have access to almost all information for free online? People's habits are changing. Why read an entire newspaper if you only really care about one or a couple sections? A website will, most likely, contain all the information, if not more, about a reader's specific interests.

But the internet is young, and the

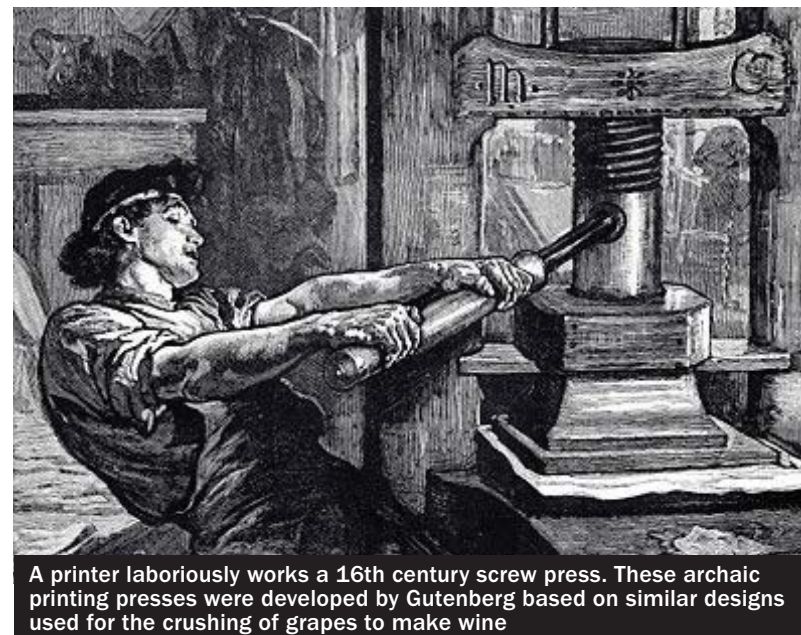
competition-bloggers and news start-ups inexperienced. Some have even argued that this lack of knowledge, connections and analysis could pose a risk to democracy. The right to Freedom of Speech, however, keeps governing bodies in check. Already the White House and Congress are subject to reduced coverage due to cost cuts. Events could happen unnoticed and uncovered. Governments have discussed taking action to help newspapers. In France, the state will provide free subscriptions to 18-year-olds for a year, in the hope of turning them into loyal readers and customers. Then again, relying on Governments to save the paper industry could go against the freedom of the press to a certain extent. Newspapers would be biting the hand feeding them.

Democracy, however, need not worry, because the big boys are still out there. The greater use of cameras and microphones means that news coverage is wider and faster, not missing the smallest detail. Obama and Sarkozy's little gaffe (muttered complaints about the Israeli PM while their microphones were on for all the press to hear) earlier this year is probably not going to be the last of its kind. Newspapers still have the resources, influence and power to hold an important place in the world. Wikileaks is the perfect example for this; Assange leaked information for a few years and was only noticed by the public eye when the US diplomatic cables were published in three, then five major

newspapers, namely *The Guardian*, *The New York Times*, *Der Spiegel*, *Le Monde* and *El País*. The impact would not have been as strong without the unprecedented collaboration of news giants.

“Newspapers need a new model to survive”

In fact, going online is a drive for competition and higher quality and even more free speech. Bloggers hold journalists accountable and open a platform for discussion. News is becoming more social and papers are beginning to understand this. *The New York Times* has received accolades based on its use of social networks. Its employees have aggressively adopted Twitter and, on average, a *Times* story is tweeted every four seconds. British papers have followed a similar course by developing Facebook apps. By the end of November 2011, four million people had signed up for *The Guardian's* app. These produced massive increases in readership, especially amongst young people. Social networks are being used as a platform for debating, commenting and sharing news stories. Google is also participating in improving the quality of webpage content with Google Panda. This algorithm pushes “low quality” (containing large amounts of advertising) websites to the end of search results and “high



A printer laboriously works a 16th century screw press. These archaic printing presses were developed by Gutenberg based on similar designs used for the crushing of grapes to make wine

quality” (large amount of text, news and social networking) websites at the top. Furthermore, the web represents a new market for papers as they reach more people. *The Guardian* now counts half as many American readers as British ones.

The move from readers to the web is forcing newspapers to find a new model just to survive. For the moment, a hybrid between paper and webpage is still needed. Not enough money is made online for papers to survive. An example is Politico which has three million online readers but printed ads account for 50% of its revenues. Internet returns are not increasing as fast as hoped for, but this is slowly changing.

The most effective model so far has proven to be the limited free access – pay walls set up by *The Financial Times* and *The New York Times*, for example. *The New York Times* experimented with a first pay wall that resulted in a big drop in readership and was therefore scrapped. This also happened to *The Times* in the UK when it first launched its pay wall. Currently *The New York Times* and *Financial Times* allow free access to a limited number of articles per month and increasing levels of access for a subscription charge, the lowest being \$15. This generates enough traffic for ad revenue and encourages people to subscribe. The results are very promising. Traffic is up 2% on the *New York Times* website and total digital earning reached \$210m – enough to operate a profitable news room. Theoretically *The New York Times* could stop printing tomorrow and survive. Similarly, *The Financial Times* has seen an increase in 30% for online subscriptions and *The Berliner Morgen-*

post has doubled the traffic on its website since its pay wall went up.

The other model for which a number of groups have opted is the non-profit organisation. An example is ProPublica, founded by Paul Steiger, a former Wall Street Journal managing editor. This NGO specialises in investigative journalism – a rather costly business – and relies entirely on donations. So far support has only increased, reaching more than \$10m in 2010, but this might not last forever.

Other than bankruptcies, some great failures have also occurred as news corporations try to find their place in the new technology age. Murdoch launched an iPad exclusive newspaper, *The Daily*, available for 99 cents a week. The app needed 500,000 subscribers to cover costs. It had 120,000 users in October, eight months after being made available. Knowledge of the “old” paper industry is not enough.

Brand loyalty, perhaps also known simply as trust is going to be a determining factor in the survival of newspapers. Big and respected names that provide good analysis will make it through this crisis. Trust is also essential as shown by the phone hacking saga. Community papers, affecting smaller and well defined groups of people will maintain their place. Turning a failing newspaper into a free daily has had its success stories too. Even if it leaves the paper behind, the newspaper industry has survived the rise of the radio and the television and is not likely to end now. This new challenge will only make it come out better and stronger. So enjoy your newspaper while it lasts and get your tablet ready.



Mobile technology and social media networks played a key role in the uprisings of the Arab Spring such as the ones in Egypt pictured above. Twitter identifies streams of trending topics allowing users to follow and contribute to the breaking news. The most-used hashtag of 2011? #egypt

Are you a Gangster?

The **Imperial Entrepreneurs** tell us the story of a new kind of 'gang warfare' within the Social Media, and how it is bettering the work of young entrepreneurs

Serge Vasylechko

Walking up towards the exit from the SAF lecture theatre I saw two people approach me who asked that exact question. "Are you a gangster?" Unsurprisingly, it made a few other people turn their heads around in wonder, as they were also leaving the lecture hall after a presentation on social economy.

Little did they know about what made these two strangers say this and how it could be connected to one Christian Vanizette. Despite what some friends may say for the usual joke this had nothing to do with my Russian/Ukrainian background and the tales of Russian mafia wars...

As I smiled and replied "yes" the eavesdroppers drew closer towards us to try and understand what was going on. In fact, what these two strangers were referring to was a movement that originated in France about a year ago called MakeSense. It challenges people from around the globe to help social entrepreneurs to solve some of the world's most stressing problems by organising creative brainstorm sessions that are called 'hold-ups' (yes, just like the 'robbery at gunpoint'). When a hold-up is organised, 6 to 15 gangsters (that is, members of this movement) come together to meet one social entrepreneur with a specific problem to solve.

The challenge could be anything from the basic question of "How do I build an online community for my fair trade business?" to more complex ones such as "How do I scale internationally to support my microfinance charity in India?" or "How do I introduce new streams of revenue for my environmental initiative in Chile?" The case is then brainstormed in a structured way so that after two hours the gangsters are able to come up with 100 ideas and five possible solutions to a given problem.

Of course, the answers are not always right, and in fact, quite often they are truly out-of-the-box, but what MakeSense-ers are able to do is to give to the social entrepreneur an outsider's perspective. By breaking down the business concept into tiny pieces, thinking creatively, and reconstructing it with a different view, MakeSense gangsters give the entrepreneur an opportunity to see those crucial improvements and flaws in their initiative – something that is paramount to any business survival and success.

One could compare it to a cool con-



Wise guys (from left) Ray Liotta, Robert De Niro, Paul Sorvino and Joe Pesci play old-school gangsters in Scorsese's *GoodFellas* (1990)

sulting case study, or an engineering problem. Whatever you may call it, there are a few of things that make hold-ups very special indeed. Firstly, by working with real world businesses that pursue an ethical mission to tackle an environmental or a social problem – the definition of social enterprise – it offers a sense of real achievement. Secondly, it teaches participants to think in real business terms – a skill which most of us don't get taught in the classroom. Lastly it also provides a point of contact with lots of ambitious people who are passionate about making a difference.

As MakeSense is growing and new members are adding up, more and more hold-ups are being organized around the world. In the past 6 months it grew from a small community of around 100 gangsters based in Paris, to more than 500 across London, Vienna, Berlin, San Francisco, Shanghai and even Melbourne. The gang recently reached the hallmark of 100 organized hold-ups, and is growing exponentially as I write. Indeed, right now, the Paris hub is leading six hold-ups simultaneously to help improve six unique social businesses.

So, what kind of businesses do MakeSense gangsters get involved in anyway? One of the new enterprises that the London MakeSense gang is planning to work with is GiveMeTap, a social business that aims to create UK's first free water refilling network. The idea is that anyone who has bought a

landfill waste that get packed up with plastic water bottles, it also challenges our perception of water as a 'paid for' commodity. A lot of people today may feel too shy about asking for tap water in a restaurant as it is seen as an act of 'cheapness' rather than a basic right. GiveMeTap is trying to challenge that notion and save the environment at the same time. Moreover, 70% of its profits from the sale of refillable bottles go towards building sustainable water projects in Africa.

However, despite all this, as the founder describes it "the challenge for GiveMeTap is to be able to scale significantly enough so that there is a refillable station every 500m around big UK city hubs." It will inarguably struggle to gain a mass following unless one of the bigger retailers, such as Starbucks, will sign up to its scheme. Herein lies the challenge to solve for gangsters of MakeSense.

Another interesting business that MakeSense had previously organized a hold-up with is a microfinance startup called Emaji. Currently in its early stages of development, Emaji is building an online marketplace which will allow entrepreneurs in the developing and third world countries to sell their products directly to consumers in the west. The current issue with many market makers, especially Emaji's main target market – craft-makers – is that they receive only a tiny profit from the products they sell in their localities, which often is not enough for sustaining their families. Drawing on their passion in entrepreneurship, the founders of Emaji plan to develop an easy-to-use e-commerce platform which will connect consumers with craft makers and their stories. The challenge posed to MakeSense gangsters was to think bold and to answer "How can Emaji become a Facebook of Fairtrade?"

Still, if you feel that your greatest skill is not in strategy or marketing, but rather, for example, your coding abili-

ties, there are gangsters who do just that. Earlier last week, Mike Momp from MakeSense London gang helped organize a two day 'hack-a-thon' with Random Hacks of Kindness and MyBnk Social Enterprise, which challenged the problem of financial illiteracy and financial inclusion. The event brought together developers, designers and financial experts who attempted to come up with new solutions on the subject of matter and tested them right away.

Quite a bunch, isn't it? The current status of social enterprise as a branch of entrepreneurship, or indeed as the sole way to do business, looks likely to grow exponentially as more and more people become empowered with technology, especially that of social networking. Increasingly, corporate social responsibility is becoming essential for support of large businesses and, logically, the next level up would be to build businesses which have a social aspect deeply integrated into their business concepts.

Last but not least, given the recent events of political and economic instability the politicians often agree that the old systems need to be reformed to become more socially responsible. In fact, UK is already a leader in social innovation with 1.7m people working in the social sector jobs and one in three startups having a social aspect in their business models.

So, if you still dream of changing the world and want to hang out and learn from social entrepreneurs feel free to email us at entrepreneurs@imperial.ac.uk. We'll make sure to let you know about the next hold-up, and more importantly, hail you as a gangster.



Paul Newman (right) and Robert Redford as Butch Cassidy and the Sundance Kid in the 1969 film of the same name. Their real-life counterparts gained notoriety holding-up banks and trains, though never young entrepreneurs

Business Editors: **Beñat Gurrutxaga-Lerma**
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BUSINESS

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Why is the UK economy sinking, too?

If the Good Ship *Eurozone* goes down, we are going down with her, explains **Albert Nickelby**

The Eurozone crisis has all the traits of a perfect story: a choral drama with a fuzzy and mistrusted anti-hero, pompous and obscure villains, few and powerless heroes, and many victims; the plot is so twisted that its outcome remains as mysterious as exciting, and its consequences so open to chance and mishaps that any guess in this respect is but a fools errand. Hence, it comes to no surprise that the UK press devotes so much ink to the Eurozone crisis: it is where the news seem to be.

This, of course, has the intriguing consequence of neglecting domestic affairs: “*the European Union could be doomed, so why would we care about the UK economy at all?*” Consider this example: in 2009, as the Euro crisis unfolded, Larry Elliott, professional doomsayer and, sometimes, *The Guardian*’s business editor too, adopted this peculiar point of view and decided – and he has been rather consistent in this for the last two years – that the Eurozone crisis arose due to the existence of the euro alone – which the UK did not adopt, and the lack of monetary sovereignty amongst its members this implied: they cannot devalue their currencies, nor use their central banks to buy their own debt. No matter that even a 1st year economics undergrad would know that devaluing currency, buying bonds and printing money are but short-term measures that do not generate wealth (they only water it down and generate inflation), Mr Elliott concluded that it was that inflexibility that had made make the euro fail and the Eurozone break up; after all, “*it is a newspaper’s duty to print the news and raise hell*”. Thank goodness – Mr Elliott would say – the UK, with its own central bank, is so far away from the euro trap that none of its limitations and their consequences could affect it. Hence, it is most curious to realise that, despite all that, the UK economy is sinking as badly or even worse than that of the Euroclub. How is this possible, being outside of the euro?

Two weeks ago, the Organisation for Economic Co-operation and Development made public its half-yearly economic outlook report and, albeit historically the credibility of its predictions has been similar to those of a drunken fortune-teller, it still offers a useful analysis of the economic health of each country. The UK’s was as bleak as Mr Elliott’s account on the issue was lukewarm: unemployment had increased, inflation was on the rise, economic growth had been almost non-existent, public indebtedness had not been halted. As an outcome, it predicted the UK economy would enter recession in this last quarter and next year’s first



An allegory of the current state of the UK’s economy: as Great Britain sinks under the burden of its debts and weaknesses, the Palace of Westminster is flooded with problems

one. The economic growth forecast for 2012 was reduced to a mere 0.9% GDP – as opposed to the previous prediction of 2.5%. These gloomy forecasts were followed by those of Mervin King, the governor of the Bank of England (BoE), who pointed in the same direction: George Osborne, Chancellor of the Exchequer was urged to stick to his austerity measures, and the BoE to continue its quantitative easing program. Finally, last Wednesday, in his address to the House of Commons, Osborne reluctantly admitted defeat. He acknowledged that, as the economic perspectives for the UK were turning drearier than he had expected, the austerity measures would have to continue beyond this Parliament (2010-2015).

At the same time, Osborne pointed out that even though the UK government would be forced to borrow more, the UK public debt was cheaper than ever, so the borrowing costs would be lower than expected. Indeed, for three days during last week (Monday, Tuesday and Wednesday), UK public debt was cheaper than German one; on Thursday, the fickle debt markets broke the trend

Osborne was apparently hoping for the next few years. Of course, the House of Commons was not satisfied with faintly optimism alone, so Osborne was forced to name a culprit, which he found in the Eurozone crisis negatively affecting UK exports.

It is most ironic that such a eurosceptic as George Osborne would implicitly acknowledge that the UK economy is so dependent on that of the Eurozone that the latter can actually lead the former to recession. Indeed, the UK is the Eurozone’s second commercial partner (just behind China), and as for financial transactions, it is also its second partner (right after the USA). One wonders, this being the case, how long it would take for the UK to go bankrupt if it were to abandon the European Union altogether... But, despite this easy pun, Labour came up with a perfectly valid excuse to attack the government: it could be, after all, that the severe austerity measures Osborne has taken so far were done too soon; that Osborne’s inexperience had lead him to lift too soon the economic stimuli Gordon Brown had implemented and dramatically decrease gov-

ernment expenditure, thus depressing the economy. This is the stance some renowned international commentators such as Paul Krugman or Joseph Stiglitz have taken: it is not the time for tackling deficits, but for making the economy grow; rather than budget cuts, governments should develop fully expansive monetary and fiscal policies aiming at economic recovery.

It might be that both Labour and Osborne are right in their analysis, and that a combination of the austerity measures penalising consumption, and the Eurozone crisis penalising exports, is most likely a reason. But it might also be that this is not all the truth at all, nor a true cause. Chris Giles, from the *Financial Times*, pointed out several weeks ago that UK exports remain at the same level as they were in 2008 – before the Eurocrisis – and that, whereas in countries such as Spain exports had contributed by 6.3% towards economic growth, those of the UK had done so by only 2.5%. He concluded that the UK’s economic health was weak; the cause of it was, according to him, structural: over the last decades, as the UK industry sec-

tor underwent several crises, it appears that most of its activity did not recover. Think, for instance, of the Manchester industrial belt and how, in general, northern UK economy, traditionally reliant on industry, has not fared quite as well as that of the more service-focused southern England. According to Mr Giles, the UK economy has been remarkably bad in creating substitutes for foreign imports, even after the British pound depreciated by 20% during the crisis.

Furthermore, the crisis seems systemic. As it happened in so many other countries, at some point during the gilded 90s and 2000s, economic figures stopped reflecting reality. After a trip to London during the early 2000s, a Canadian analyst from the Toronto Star pointed out he could not understand how UK citizens could afford to live in London: their salaries were, it is true, higher than those of Canada, but the cost of living was also in proportion, extremely high. Indeed, at some point after reaganomics kicked in, salaries and pensions stopped reflecting reality: they were just not enough to pay

for basic goods, not to mention luxury ones. Fortunately, credit was cheap, so consumption was kept up with debt. As Alan Greenspan and company lowered interest rates further, they fuelled the late economic bubble, which finally burst. After it burst, all that remain were heaps of debt to be repaid.

In this sense, the UK is amongst the highest debtors in the world, owing about 450% of its GDP, and with a government debt of around 85% GDP. But, despite having a deficit higher than that of Portugal, Italy, Greece or Spain, and being far more indebted, “the markets” are not attacking the UK. Why so? Osborne claims this is due to the credibility his austerity measures have given the UK. Most analysts, however, believe it is due to a complicated combination of facts. On one hand, most of the potential attackers dwell in the City of London, and some believe that “one does not pooh where he eats”. Besides, the maturity of British debt is of 13 years on average, meaning smaller refinancing needs, and the quantitative easing program seems to be buying so much UK debt anyway that markets are not seeing much of it. Furthermore, the economic growth being so low and the austerity measures so tough, it is believed that the Bank of England will not dare to raise the interest rates in the years to come. Hence, any eventual UK bankruptcy is deemed unlikely.

However, these measures have flooded the markets of the pound, and along with the slim growth, explain the pound sterling’s recent devaluation. They also account for one of the most dramatic consequences of this gambit: the UK’s huge inflation. With figures of around 5% in the last two years, Mervin King

forlornly pointed out that inflation, combined with the crisis, the budget cuts and the loss of social benefits were dramatically harming UK citizen’s standards of living. Recent projections expect them to be at the same level of 2001 by 2017. This is as bad as Greece, and unprecedented in the UK; something similar in the 1970s cost Callaghan his premiership. But with the markets especially sensitive to high indebtedness, and with a stagnant economy, Osborne can only keep his cuts, and the BoE can only keep his QE and low interest rates – at least, in appearance.

Those being the structural problems of the UK – a weak industry and high indebtedness – the Tory agenda seems to have miserably failed; none of its promises have been delivered, nor it seems they will; neither has the private sector overtaken the public one as the main driver of the economy (has Osborne done anything after all to enforce that?), nor do the British people live any better than they used to; the Cameron government has actually made them worse off. It could be seen as a matter of political inexperience – after all, neither Cameron nor Osborne had any before coming to power – combined with too much ideology and too little pragmatism.

For, if the reader wonders whether anything better could have been done, he can kindly turn his gaze towards Sweden, where the conservatives rule a non-Eurozone country, and by wisely combining mild budget cuts, fiscal stimuli and political discretion rather than confusingly mixing savage cuts, fiscal austerity and neo-liberalist fanaticism, they have been able to maintain their people’s standards of living.



After a good lunch, George Osborne was happy to show his confidence in his plan

The UK should adopt the Euro

Dimitri Raphaelovich argues that the UK should become part of the Eurozone



The euro sign, illuminated in the European Central Bank logo, outside the ECB HQ in Frankfurt, Germany

In last Wednesday’s Autumn Statement, George Osborne confirmed that the UK economy’s health was far worse than his office had expected. He blamed the ongoing Eurozone crisis of negatively affecting the UK’s economic growth, by pointing out the negative impact the former had in our country’s exports.

The effect of the Eurocrisis in the UK highlights that, despite having its own central bank with all the freedom to buy public bonds, to devalue the currency, etc, the UK economy is so interlinked to that of the Eurozone that all their troubles are the UK’s too. Nowadays, the UK is the eurozone’s second commercial partner both in commodities and in financial transactions; in 2009, the UK exported £103bn worth goods to the Eurozone, representing around 77% of the UK’s exports.

That is, there is no doubt that the Eurozone is the UK’s main commercial partner. And right now, like it or not, it is its position as a member of the European Union that sustains UK economy. Analysts from *Foreign Policy* wondered what would happen to the UK if it were to abandon the European Union and get the same commercial status as other non-EU European countries such as Switzerland have. Their conclusions were not very encouraging: the degree in which UK economy depends on that of the EU is far greater than that of Switzerland, and the commercial treaties Switzerland has are so stiff and strict that the Swiss government usually thinks of Brussels as the ‘house of pain.’ It was deemed that

with the same levels of custom duties and financial transaction checks as those of Switzerland, the UK economy would not survive.

All in all, the recent eurozone events have led to the proposal of a new financial transaction tax by some of its members and the European Commission. Aimed at “speculative transactions”, according to the EC’s proposal the tax would consist of a 0.1% tax on bond and equity transactions, and 0.01% on derivative transactions between financial firms. The money thus collected would be used to support European countries in crisis.

This tax, proposed within the framework of the Eurozone, could harm the interests of the City firms, who mostly trade in this kind of financial products. They are, as a French commentator put it, “experts in exporting financial rubbish”. Despite the protests of the Prime Minister, it seems he can do little to prevent this tax from becoming reality. After all, the Eurozone has all the right to tax whatever it wants in the same way the UK has, and if its protests are not heard it is just because it deliberately chose not to be part of the Eurozone.

However, if one considers the level of dependency the UK has with the Eurozone, and on top of that, the obvious benefits it gets out of being a EU member, it could be argued that its position as a eurozone outsider is harming the UK’s national interests. The UK should join the euro, and it should join it soon.

This might sound surprising; after all, the euro has been considered doomed many times by UK media; so was the EU

in the 1992 crisis. But, as the unfolding events are showing, it was not the euro that was flawed, but the lack of a unified fiscal policy within the Eurozone. Now that the latter is heading towards a fiscal union, the euro is expected to stabilize. What comes next is a highly unified eurozone working on its own interest, excluding non-eurozone countries from decisions such as the financial tax that might affect the UK.

It could be argued that by joining the euro, the UK would lose a great deal of monetary and fiscal sovereignty. But in reality, the UK is not exerting it in essentially a different way to the European Central Bank. It is true that the Bank of England is being noticeably more flexible in buying public bonds than the European Central Bank, but the latter’s reluctance is explained by the lack of a unified fiscal discipline within the eurozone; and as Merkozy already hinted, that could change once the fiscal union is implemented. Besides, even with its “independence”, the BoE and the government have been utterly unable to prevent the UK from reaching the sorry state the UK economy is in right now: the UK is not gaining anything from having its own currency.

Hence, with such an interlinked economy, and with a fiscal and monetary policy akin to its own, not being part of the Euroclub seems pointless. By being a member, the UK’s voice would be rightfully heard in Brussels, and the economic benefits it is already extracting from being part of the EU would only be enhanced.

Comment Editors: **Tim Arbabzadah**
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COMMENT

FELIX

Concerns must at least be considered

This week professors from various institutions across the UK outlined their fears regarding the higher education White Paper in a letter, in particular highlighting a perceived move that the Paper could lead to: a US-style higher education private sector that would see for-profit companies becoming able to acquire struggling universities. Claiming that one of the negative consequences of such a move would be “crushing levels of debt”, the conclusion that the academics have reached deserves at least some analysis, especially considering the ongoing debt situation that graduates already face.

Critics may initially point out that the letter is simply a knee-jerk reaction to the changes outlined by the White Paper by academics unwilling to adapt to the creation of a form of higher education market, a market that would be responsive to the needs of the student and would potentially lead to far more dynamic changes than we see at present. However, studying the grievances of the professors further sees significant worry towards an American system of for-profit business.

However, there is always a possibility that the private sector could allow universities access to greater resources than we can find at present. After all, alumni fundraising at UK universities pales significantly in comparison to institutions in the US. Help from the private sector, despite danger from the shareholder, could be immeasurably more profitable than at present.

Another comment that the academics make concerns the fact that a move towards a higher education private sector would see a heavy burden on the taxpayer, as well as the indebted student. Yet the taxpayer, as we are reminded by the past government-subsided system and fierce critics of the proposals of the current government, currently foots the bill for university degrees across the country.

We are heading inexorably towards £9,000 fees next year. For better or for worse, and whatever your own personal opinion on the government's proposals, we will begin to at least have a better idea of the new worth of a degree under our current system once the new intake of students begin next year. Concerned academics such as those who signed the letter to The Daily Telegraph will likely have to wait and see whether the new fees will lead to an American system. At the very least, we must have faith in the current system and the focus on financial support that we continue to enjoy.

Balderdash and other lies

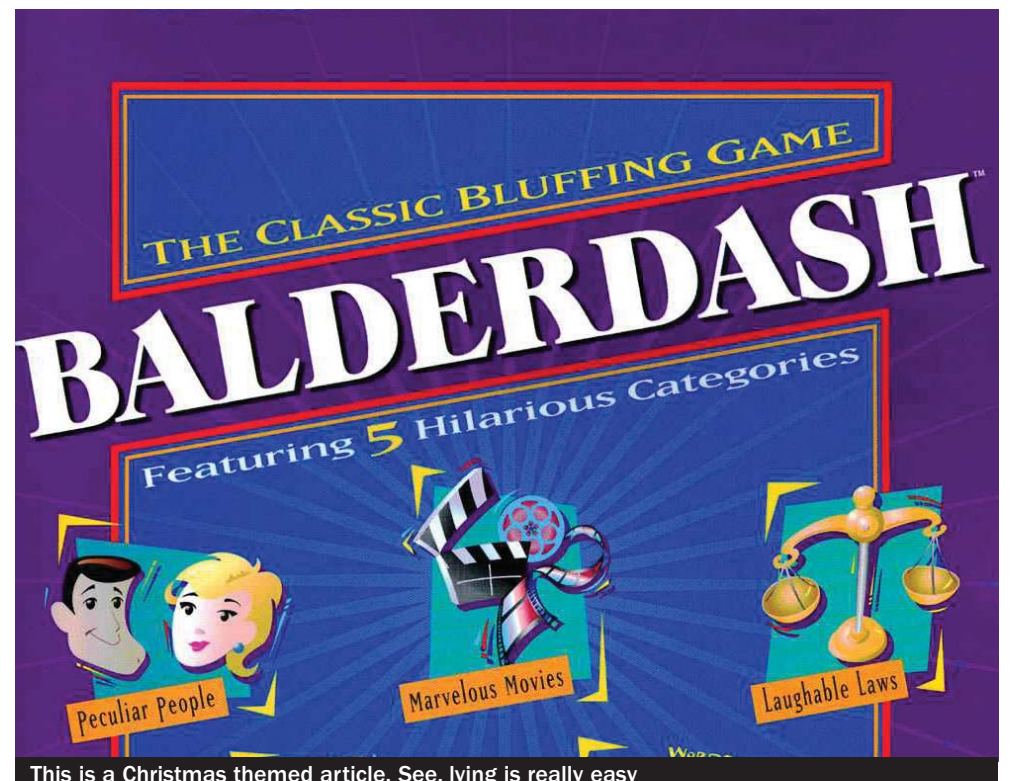


George Barnett

I discovered a game called Balderdash at a dinner party last week (I can feel the mid-life beckoning me already – damn). For those of you unaware of the game, it essentially involves making things up to trick people. A player reads something off a card; an acronym, a name, a law, or something else of that nature. The other players then have to write down a response; what the acronym stands for, why the name is (supposedly) famous, that sort of thing. Answers are collected and read out by the individual who originally wrote the card. Following this the players pick what they believe to be the correct response and duly advance around the board if they're right. Some of the answers really were absurd; I wish I could provide some examples but they have eluded me somewhat (maybe it's that middle aged thing again). In essence, you do well in this game by writing bullshit that's believable. I've used the word 'bullshit' because I really don't think any other word would portray exactly what I'm trying to say in this article (advanced apologies for the overuse of that particular word).

What has struck me since playing Balderdash is how much nonsense I see and hear every day. It would appear as if there are two reasons why someone might bullshit (excluding to win a game of Balderdash, of course); first off we have the “cry-for-attention” bullshit. I've given it that name because, let's face it, everyone knows someone who bullshits for attention due to insecurities – and even if it usually works it doesn't make you any less pathetic. It may involve deciding to sleep on the floor of a lecture theatre during a lecture so that people can notice you and think: “ooh they must be really tired” or, more likely, “what a twat”. It could also involve talking loudly about how much you've been bench pressing in Ethos. Yeah, great, you have big pectorals. Good for you.

The other type of rubbish that has been somewhat prominent as of recent is the “I have no idea what I'm talking about” type (I may regret saying that). Why do people open their mouths when all that prevails are nonsensi-



cal, ill-thought out, feeble and often contradictory attempts at coherent beliefs? You may or may not have seen or heard about a video on YouTube called ‘My Tram Experience’ (approximately 48 hours after uploading it had close to 3.5 million views). The passengers of aforementioned tram all bear witness to a white, 34 year old, probably drunk or drugged up woman with her child sitting on one knee. The mother is ejecting racist remarks like a torrent of vomit. Admittedly it's not the worst video I've seen in terms of racism; in fact, it's somewhat tame compared to EDL member ‘Cobz Smith’ attacking Asians on the tube for no apparent reason other than their place of origin. Nevertheless, it doesn't exactly make for pleasant viewing.

This woman clearly had no idea what she was on about. After accosting another woman because of her skin colour she fumbled around for words like Ed Miliband in a union dispute, telling her to “go back to where you come from, so back to Sib... fucking Nig... N*****agua”. I assume she meant Nicaragua. Following this she spewed out the following: “You ain't fucking British! Fuck off! You ain't British, you're black! You're black! You ain't British, you're black!”. So it turns out that being black and being British are mutually exclusive events. Apparently.

This whole Jeremy Clarkson issue is a load of rubbish as well. It saddens me how the journalism industry completely misconstrues a situation to make ‘news’. If you watch the whole interview you can tell that in typical

“I'm sorry, but that really is just a load of bollocks.”

Jeremy Clarkson fashion he wasn't being the slightest bit serious and it's safe to say that if Jeremy were to be presented with a gun, a private sector striker and their family, no one would get shot. Some people may not see the funny side of what Jeremy said (which isn't surprising as it was taken out of context) and consider it to be bullshit – that's fine – but then again does it really matter that you think he's talking a load of rubbish? Karen Jennings, assistant general secretary of UNISON likened how Clarkson had spoken to “almost like Gaddafi would have spoken about demonstrators” going on to call it “an incitement to hatred”. I'm sorry, but that really is just a load of bollocks.

So how do I feel about all of this: ‘My Tram Experience’, the media outburst over Clarkson and bullshit in general? I honestly don't care. The woman on the tram spoke pure bollocks. If I were on the same tram I would have done as few of the other passengers did – sat there and ignored it. And the ridiculous media frenzy resulting from Clarkson's comments on the One Show? They're a load of rubbish, so I'm ignoring them too. Much like I choose to ignore people who cry for attention in various ways – because, quite simply put, they exude bullshit.

Have you been a good boy/girl this year? You have? Well, why don't you tell everyone how good you have been (or, you know, just talk about stuff) at: felixonline.co.uk



“Bah Humbug!”, I hear you cry. “Why are the first two pages of Comment devoid of Christmas cheer?” Never fear child, all your festive desires will be fulfilled on pages 24 and 25.

COMMENT

If Britain attacks Iran I'll quit my degree in protest



Stephen Smith

I'm too young to properly remember what the run-up to the invasion of Iraq was like, but I imagine it was rather similar to the situation today with Iran. UN inspectors find no conclusive evidence of weapons, the media spreads irrational panic, diplomatic ties are removed, and then the carpet bombing begins. Fortunately Iran is yet to experience that final step, but a war is looking increasingly likely. Which brings me to my main point: if Britain goes to war in Iran and if even one civilian is killed as a result, I will quit my degree in protest, I'll go to Iran, and I'll see what I can do to help. That is, if I can muster enough confidence.

Here's the thing: I've read the IAEA (International Atomic Energy Agency) report in full, and there's no real evidence of any nuclear weapons. What the inspectors discovered was "equipment, materials and services which, although having other civilian applications, would be useful in the development of a nuclear explosive device." In short, Iran has some objects that might be part of a nuclear weapon, but could also be part of something else. This is rather like finding an alarm clock and some wires in someone's house and suspecting them of making a bomb.

As a science student, I am aware that if you make a claim the onus is on you to prove it. Evidently, the members of the UN Security Council could do with a few more years of university: they introduced a resolution in 2008 that ordered Iran to perform the impossible task of proving it had no nuclear weapons, or face "sanctions". Obviously Iran could not do this,

so now Iran's enemies can claim Iran has broken international law and can thereby legitimise invasion.

Another quote from the IAEA report is a good example of this stupidity: "The Agency is unable to provide credible assurance about the absence of undeclared nuclear material and activities in Iran, and therefore to conclude that all nuclear material in Iran is in peaceful activities." In other words, they have no proof of nuclear weapons, but they also have no proof of no nuclear weapons, so they cannot conclude that Iran's nuclear program is peaceful.

All of this comes under the title "Possible Military Dimensions to Iran's Nuclear Programme". This would explain the headline on Radio 4's news bulletin "A report released today talks of military dimensions to Iran's nuclear programme." Selective quotation from the report allows newspapers to mention "serious concerns" about "the development of a nuclear explosive device," to back up an otherwise nonsensical argument. For example, an article titled "UN Watchdog reveals 'serious concerns' about Iranian nuclear weapons research" was published in The Guardian on the day of the report's release.

Recent chaos in UK-Iranian relations, including the cutting of financial ties and the attack on the British Embassy in Tehran, has led to the current situation where the Iranian Embassy in Kensington (just a few roads away from Imperial, as it happens) has been closed and the British ambassador to Iran is now back in Britain. For lack of a better phrase, this is very, very bad. Diplomacy prevents wars, and when diplomacy is removed, war is often



Well, at least the military look is in nowadays...

imminent. The United States and its allies are gearing up for war, which (if Iraq and Afghanistan are anything to go by) means hundreds of thousands of dead civilians, lucrative opportunities for western oil companies, and very little else. Which brings me back, again, to my main point: if Britain goes to war in Iran and if even one civilian is killed as a result, I will quit my degree in protest, I'll go to Iran, and I'll see what I can do to help.

Of course, I severely doubt I'll have the confidence to do this. If I do, nearly all future career paths will close, and I'll probably never be able to get into academia. Quitting a degree definitely doesn't show sufficient dedication to one's subject. But faced with the huge numbers of people who will die as a result of a war, my plight is negligible. Who cares if I don't get a "proper job"? Does it matter at all, when

compared with the future destruction of Iranians' lives? Or does it matter when compared with the vast amounts of preventable suffering all over the world?

I know that as much as I want to help in Iran, I'll just keep working in science, occasionally reminding myself (as a morale boost) that at least I didn't go into finance. But when I'm old, I know I'll look back at this time and wish I'd been brave enough to take that step into the unknown, brave enough to challenge the ubiquitous school-university-work-retirement life that I am expected to lead. I'll look back at my life as comfortable but ultimately highly selfish and I'll wish that I could go back to those university days and make the right choices. When I can see all the possible paths in front of me, it's a terrible feeling to know for certain that I'm going to take the wrong one.

Who cares if I don't get a "proper job"? Does it matter at all, when compared with the future destruction of Iranians' lives?

Who did that? – A letter to the Editor

Dear Sir,

Since the beginning of this term Mech Eng students and staff, who are in early enough have boarded the lifts in the morning only to be assailed through the nostril by what appears to be last night's curry chemically processed through the duodenum to a noxious mixture subsequently evacuated to atmosphere. Being genteel and reserved most engineers hesitate to confront their immediate colleague for want of embarrassing them in public. The simultaneous presence of fruit flies in the lifts was something unusual but was no more remarkable than a student

from CEP taking the lift up one floor.

However the recent colder weather has led to the closing of windows in the lift halls and the reserved gentleman of the MED have noticed that the smells are getting more distinct and all pervasive, that there is a pattern to these smells and it emanates only indirectly from the inhabitants. For some six weeks the College FM (Facilities Management) team and concerned citizens of the MED have been trying to source the of the smells which arrive with each lift carriage door opening to together with relevant aphids. At this point first year fluids will be useful insofar as the mains sewers are above

Level 0 and all toilets empty into the space below Level 0 where a large tank is situated. The perspicacious amongst you will notice that we will need to pump the stewing sewage up and out of the tank into the main sewers using the famous sewage injector pumps.

Self evidently the collection tank is a prime source for these odours especially as it has been modified by the ongoing project to refurbish the lower levels of the Mech Eng Department. The project and project management have resourcefully denied all responsibility for the smells for some six weeks but using the College's specially designed

clothes peg Purple Team from FM have found at least one source where vapours from the tanks are escaping and making their way into the lift shaft to be pumped throughout the building. The contractors and project management in the form of ISg and Arup are finally admitting that they may have some culpability in the smells so don't think any less of the person next to you in the lift – this is something you or someone else may have done days ago.

Regards,

A shit stirrer

This letter has not been edited in any way. The views expressed are of the author, who wishes to remain anonymous. If you want to write a letter, to be published here, email: felix@imperial.ac.uk

Comment Editors: **Tim Arbabzadah**
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COMMENT

They are totally boots-iful



Tim Arbabzadah

I've been thinking about boots recently... is the campest opener I could have written, but it's true. I've thought about how amazing they are, and how everyone should have a pair. I mean trainers are fine, but they're just not as versatile. If you want trainers, by the way, definitely go for NikeiD's. You can make them reflect your personality a lot more, and waste a lot of time perfecting them. The knowledge that you could quite possibly be the only person with that pair of trainers is also key to their appeal. Even academics¹ and business leaders² have been known to wear them and think that they bestow large quantities of swagger.³ The idea of almost unlimited customisation is so good that other companies have stolen it, and, as we all know, it's only the best ideas that are stolen.⁴ It is likely that that last joke will be deemed to in-jokey, and so I apologise.⁵

So, back to boots. The reason they are amazing is that they are simultaneously casual and comfortable while being smarter than your average trainer. You can wear them everyday, without looking overdressed for lectures; unlike normal shoes, which can end up looking incongruously formal with certain outfits.

To be slightly more specific, brown boots are definitely a must if you ask me (please understand that I am definitely not talking about Ugg boots, I cannot stress that enough). Pressed to give more detail, I would say that the slightly weathered dark brown variety are my personal favourite.

Black boots are fine and can be worn with any pair of jeans, but they're just more discrete and there's not as much variation between different pairs. You

may be able to wear them with a certain colour of jeans you like, but you sacrifice the range of choice that other boots can give you. If something's black, it needs to be pretty special to be disguisable from something else that's black. Well, okay, I may be exaggerating a bit, there is variation, but it's hard to actually see until you're up close. I'll attempt to explain what I mean; at the distance between your head and someone's shoes (the usual distance you see boots at) all black boots look pretty similar.⁶ Even when, for me⁷, that distance isn't as far as I would like it to be.⁸ If I'm honest, I would advise you to get both black and brown boots. I just don't want to be blamed for encouraging irresponsible spending.

When I was shopping around for boots, I went everywhere. I even went to the high-end shops, although, unfortunately, my student loan doesn't really extend that far⁹, so I was only looking to see what they would be like. To be honest, they weren't anything special. They were either bland and uninspiring or just not what I was looking for (at a price I was never really willing to pay). In the end, I found that your standard high street shops really are the best bet. River Island is my personal favourite as they have a decent range of boots at a reasonable price tag. All Saints are okay, but they're all over £100 for something you really can get elsewhere. Although, being a man, I'm slightly unsure of how much they should be. How do I know what's a reasonable price for something that I've never paid for before? The only solution seems to be to shop around. Eventually, you will realise that, in general, All Saints are a rip off, and this isn't limited to their boot section. Their boots also look as if they



If it's good enough for him, it's good enough for me

have been designed purely for the use of JLS and The Wanted.

In conclusion, go to River Island, buy a pair of boots and wear them with pride. Having re-read this, I feel I should do something manly. So, I'm off to drink pints and chant about my credentials as a Zulu warrior.¹⁰

References:

1. Dr M.R. Arbabzadah MA, my brother, and noted Classicist (noted here).
2. B. L. Arbabzadah MA, my other brother.
3. For claims of invention of swagger, see Jay-Z and Kanye West in 'Otis', *Watch the Throne*, 2011, Track 4.
4. Much like this referencing in a Comment article joke. See K. Shubber, Felix, Issue 1,426, Friday 27 February 2009, p.7
5. General feeling gathered from previ-

ous conversations with K. Shubber.

6. The link to this reference is missing. Try searching Google Scholar.

7. See pictures of me next to other people.

8. Preferably roughly 6ft, due to conversations with girls over the past few years.

9. See bank balance of T. N. Arbabzadah.

10. Note: This is a reference to chanting performed when someone is downing their drink.¹¹

11. This note is added for the benefit of a fashion editor. Let's call her A. Yang, no, wait, that's too obvious, let's call her Alice Y.

12. N.B. Other punny titles that could have been used: Call me Bootsie Collins, What am I talking a-boot (I'm not Canadian, so that may not really have worked as well), Putting the boots in, Knocking boots.

If I'm honest, I would advise you to get both black and brown boots. I just don't want to be blamed for encouraging irresponsible spending.

Ashura: A lesson from Islam's history



Ahlul-Bayt Society

Instinctively, we all admire the 'good' things in humankind – compassion, honesty and justice. Our free will to actively pursue such attributes through our actions is arguably what gives us our worth as human beings. But have you ever considered the lengths you go to in order to stand by what you believe is right? Would you die for the sake of freedom? Malcolm X once said: 'If you're not ready to die for it, take the word 'freedom' out of your vocabulary.'

One remarkable man has touched the lives of many, including Charles Dickens, Gandhi and Antoine Bara. Hussein! Born in 5th century Arabia, he was known for his tremendous generosity and kindness. Being the grandson of the Prophet Mohammed (pbuh), and the

apple of his eye, he was a prominent and cherished figure amongst early Muslims. Yet, Hussein and his family were massacred in cold blood, on the day of Ashura, on the orders of, ironically enough, the Muslim Caliph of the time, Yazid I.

Why? Yazid was a tyrannical leader. He was known to rape, imprison and steal; he was swift to silence those who dared question his legitimacy as Caliph. Through propaganda and fear-mongering, he was able to assume power, and many people felt there was no choice but to accept him as leader. Hussein, on the other hand, was a man who believed in dignity and freedom; he refused to pay allegiance to Yazid, a person who had little respect for his fellow man. Despite the oppressive pressure mounted against him and the almost certain promise of

being killed, Hussein remained defiant in his stance and famously said – 'Death with dignity is better than life with humiliation.'

In the year 680AD, Hussein, his family, and 72 of his companions found themselves stranded on the desolate plains of Karbala (in modern day Iraq). They were surrounded by Yazid's army of at least 5000 men, who had their water supply, the Euphrates River, cut-off. On the Caliph's orders, a brief battle of several hours commenced, ending in the killing of Hussein, and all the men in his camp. The remaining women and children were taken as prisoners of war. Yet amongst all this carnage and destruction, a revolution had ignited. The words of Søren Kierkegaard could not be more relevant: "The tyrant dies and his rule is over; the

martyr dies and his rule begins."

The Battle of Karbala, in statistical terms, was hardly significant, but the story of Hussein's sacrifice has inspired people for centuries. Hussein's message is universal and ever-resonate, because it embodies liberation and renounces injustice. Mahatma Gandhi once said – 'I learned from Hussein how to achieve victory whilst being oppressed.' Today, several million people converge at Karbala to commemorate the day of Ashura. Undeterred by the very real threat of violence and terror, they come to relive and replay the message of a very distinct, free human being.

Imperial's Ahlul-Bayt Islamic society is holding its annual **Ashura Awareness Week** from the 12th – 17th December.



One of my little helpers told me that the views expressed here are the opinions of the authors, not Felix.

COMMENT

Ent committee elections? What a joke!



Philip Kent

Did you know that voting for First Year Entertainments Committee Members opened last week? Nope, me neither – until it was pointed out to me. In fact, for that matter, I never knew that you could stand for it!

Imperial's Union is a very democratic affair, and this is a good thing (though it is possible to have too much democracy, I may return to this in the future); it allows us, the students, to decide how our Union is run. Which is important, considering we are the ones who will use the services that the Union provides, and therefore it is in their interest to tailor it to our interests so that we actually give them money. The thing is, if this election (which is an excellent idea, in my opinion) is to be of any worth, you actually need to promote the damn thing.

Let's take a look at the Union's website. There is no mention of the election. Doing a search for the 'ents committee' does bring up some articles, but they only say that elections for the first year will only occur in the autumn. There is also the Union's elections page, which hasn't been updated since the year rep and council elections earlier this year. It will be a miracle if people actually knew that voting was open.

Maybe I am being too harsh. Taking a quick look at my emails does show an email from the President dated November 23, which does say when nom-

inations and voting can be performed, but this isn't really good enough. Many people probably do not read these emails (I certainly glanced over this one, though that was because my inbox was a mess at the time), therefore leaving them completely ignorant and locked out of the democratic process.

Now, let's say you did know about the election, and you logged on to vote. You may not have seen any campaigning (I gather this is because the candidates were not told when they were allowed to), so you have to turn to the manifestos (something that you really should be doing anyway). If you did, you would've seen a complete lack of photos and manifestos. I'm not entirely sure whether this is the candidate's or the Union's fault, but either way, it is not helpful – and does not allow me to make an informed choice.

Luckily I spoke to a few of the candidates, and actually found one who had good plans for entertainment at ICU; therefore, I was able to cast my vote. However, not everyone would have had this opportunity, leading to people making either uninformed decisions, or just choosing not to vote (or voting RON) because they were not provided with the right information. All this does is ruins the democratic process that usually serves the Union so well.

You may argue that this is just the Entertainments Committee, and therefore it doesn't matter. To a certain de-



A portrayal of how exciting being elected on the ents committee is

gree, you may be right. As a person who really doesn't like clubbing (or alcohol), the work of this committee is going to make very little difference to my life here at Imperial. However, I remain a principled man, and I refuse to believe that this disaster doesn't have any chance of being replicated in a more important election in the future, such as for faculty union representatives – or God forbid, future sabbaticals. ICU, please sort it out.

On a related note, if any of the people standing had planned to campaign against entry charges for the Union on Fridays, they would have instantly got my vote. As you may or may not know, it's Felix Drinks on a Friday evening,

and if I am running late I don't really want to pay for the privilege of getting into the place where I can have a drink with my fellow Felixians. One of the section editors also mentioned that he had to pay to get in to the office on Wednesday to put together his pages, which is an even more serious problem than my inability to get a drink.

It is a ridiculous charge. I can understand charging for entry into Metric, since you're under no obligation to buy anything when you go clubbing, but if you are going to FiveSixEight, you are pretty much guaranteed to buy some food or drink!

Please get rid of it, and both Common Sense and I will be pleased.

The thing is, if this election... is to be of any worth, you actually need to promote the damn thing.

Stuff your job, mate



David Bowe

I think I'm like most students heading into their last year of college. I like my student life and the thought of giving it up in place of a serious job is enough to make me want to repeat. Truth be told I'm a little terrified of stepping out into this big, bad world and experiencing life without a midweek party. Unfortunately for me, it seems the lunge is coming fast and I still lack that elusive spot of maturity which might actually make me in some way employable.

However, all is not lost because my plan is simple. I'm still young with little concern and plenty of unquestioning, ill directed enthusiasm. Even though I've had the responsibility of my own passport for several years now, the inner pages still sit idly blank and the most action it's seen is during a lads holiday to Majorca two years ago. So at this point, I think there is only one reasonable conclusion.

Now I'm no master of languages and

if I'm honest English still presents a problem, but even so, a trip to the far end of the world sounds like a well thought out plan to me. I'm dying to take a few months in Africa's deep jungle or Australia's precarious outback, but when I delve into the nitty-gritty most of what Google comes back with informs me that I've just become an unsuspecting millionaire. Luckily there are some flowers in the muck, and I did find an organisation that could help me with my traveling troubles. When I browsed what they have to offer, things started to look a whole lot brighter and ideas I would never have considered began to play in my mind.

While I began with wild dreams of remote locations unknown to man, I have been charmed into a more civilized approach to travel; somewhere a little more accommodating, namely Canada. I know what you're thinking. It's a far cry from my first speculative ambitions, but the fact is there are not many places better,

at least not for someone like me. Crucially, I'll still be able to knock back beers with people who speak in a way that's conceivable to me, but they also have a compliant visa policy, good standards of living and probably best of all, some of the best ski resorts in the world.

Yes, skiing may be somewhat of a mystery to me but it's not going to dampen my spirits. I can still get a decent wage as a barman, and live in a flat that won't eat into my student loan as much as a parking permit here in London. Ski resorts are full of young people looking to take advantage of the seasonal work, and if you've ever heard from anybody who's spent time in these places you'll find their banter isn't bad either.

The organisation that I'm going with (BUNAC, if your interested), seem really helpful and look like they're able to sort out most of what I need. In all honesty, I haven't had to do much apart from send an email or two so far and things already

seem to be well on their way to being organised. Although I am probably a bit ahead of myself, which is a nice new change, it's hard not to get a little excited. All I that is left right now is to find somebody else eager to try something similar to ensure I'll not spend my nights eating dinner alone.

The trouble is that it's easier said than done as most people I know have been swept up in the whirlwind frenzy for grad jobs. Honestly, I think this kind of thing should be made more apparent for those of us clinging to our last days at the student union. It's all too easy to get caught up in Imperial's endless battle to get ahead but employers recognise these difficult times and showing some independence like this will never be frowned upon. Personally, I would advise anyone in two minds, or struggling with assessment centres, to just go out and do it before work inevitably takes us over. You'll never have a better opportunity than now.

It's all too easy to get caught up in Imperial's endless battle to get ahead...

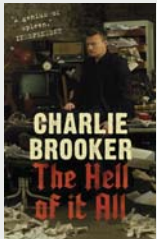
Comment Editors: **Sam Horti**
Tim Arbabzadah

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COMMENT

Christmas gift ideas from Comment

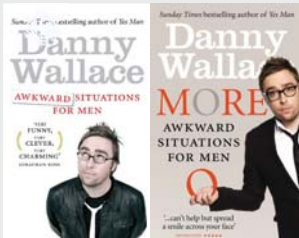
The Hell of it All by Charlie Brooker



Some people may think that Charlie Brooker has gone 'commercial' and 'sold out' recently. However, his earlier work, collected here in this book, is a perfect example of how to write a comment article that is funny and gets his point across effectively. Usually, he has a serious point that he wants to make. He ensures that it is humorous (or swears) enough to make you want to read all the way to the end. He also tends to use well reasoned arguments that don't hinge on a pre-decided viewpoint that he just wants to justify.

Felix equivalent to file with: Angry Geek

Awkward Situations for Men and More Awkward Situations for Men by Danny Wallace



Danny Wallace is the King of light humour, if you ask me. The books are split into separate little stories; many of them will make you laugh out loud. They are both a thoroughly enjoyable read and are a perfect example of writing a fun, irreverent column that is very readable. Put it in Felix and it would be the perfect way to cheer someone up on a dreary Friday morning.

With the January exams coming up (sorry for reminding you about them), you don't exactly want to be reading *War and Peace* do you now?

Felix equivalent to file with: Rhys Davies

Merry Christmas from Comment and an opinionated New Year!

I hate Christmas



Anonymous Grinch

It's about that time of year again. Bloody Christmas time. You're probably reading this right now with the most appalled look on your face. I suggest you remove it before someone notices. 'But why? Why do you hate Christmas?' You must be asking. Well let me tell you. Because its frickin' irritating. Irritating as hell.

Where do I even start? Well let's begin with the obvious: Christmas isn't even real. What is Christmas exactly? It's a celebration of Jesus' birthday, the Son of God and our saviour (as people believe). Here's a news flash for you: Jesus wasn't born on December the 25th. He was actually born somewhere in the spring-time. The day everyone is really celebrating is actually a Pagan holiday that Christians chose to replace with Christmas, as it was easier to choose a day that everyone already celebrated when Christianity was just starting. Weirdest thing? Loads of Christians already know this! They accept that Jesus wasn't actually born in winter but say it's still a good reason to celebrate God or something. This defeats the original purpose about Jesus being born or whatever... but okay. So Christmas isn't actually Christmas, it's Pagan-mas. But I guess that's not as catchy.

And so what if Jesus wasn't born on Christmas? Most people who celebrate Christmas nowadays don't even believe in Jesus. It's a known fact that Church attendance is falling every year. How many people go to Church on Christmas anymore? I don't really care. And neither do you, because more likely than not, you probably don't go to Church on Christmas. So if you aren't celebrating God or Jesus or anything else of a religious nature then what are you celebrating? Oh that's right, consumerism! The most celebrated part of Christmas is presents. We'd like to think of ourselves as deep and moral people, but the truth is that we bloody love stuff. Christmas promotes materialism. Children come running down the stairs on Christmas morning to open presents and stockings. I mean, what would Christmas be without presents? Face it; it'd be really boring. What else would have you running down those stairs? A tree? Let's not go into how environmentally unfriendly Christmas is in regards to trees – that's obvious enough.

Dare I even mention 'Christmas cheer'? Yes, because it's insanely infuriating. Everyone gets 'merry' and 'joyful' around Christmas, simply because it's Christmas time. Seriously? It's just a time of the year. I'm not going to get randomly cheery just because it's a Tuesday afternoon or because Jupiter has aligned with Mars.

It's just a time of the year. I'm not going to get randomly cheery just because it's a Tuesday afternoon or because Jupiter has aligned with Mars.

Lizzy Griffiths



He hates Christmas, I hate writing witty captions to please the masses

When someone smiles and wishes me a Merry Christmas it feels so fake I practically want to slap the smile off their face. Also, don't start looking forward to Christmas in October. What is that about? You've got two months! At least allow Halloween to pass. But that's not even the worse part. It's the stupid 'post-Christmas depression' that everyone goes into once Christmas is over. What the hell is wrong with you? It's just one day of the year! I don't get depressed after my birthday (apart from when I cry over how old I'm getting). It's understandable if you feel a bit down after summer but that's because university/work is starting. But you shouldn't get depressed because Christmas is over; there's nothing you can do about it. Get over it and get on with your life please. Thanks.

Christmas songs. I want to rip more than just my hair out when I hear one, I want to rip my whole frickin' skull out. If that isn't false cheer I don't know what is. Throw in some stupid shallow competition for the 'Christmas No. 1' and have 20 different songs released in the same week about mistletoe and shit and I'm just about ready to smash my radio in. Christmas loses a lot of sentimental meaning and value when you have so many cheesy songs about it. It's a quick way for celebrities to make a lot of money. In fact, Christmas in itself is one big money making machine. Card companies must love it. And obviously with the aforementioned present buying, retailers must be raking it in. Also, what is with shops being open on Christmas nowadays? Who on earth is going to go to McDonald's on Christmas day? A very lonely person, that's who.

But I'm not going to deny that Christmas does have some good points. I mean the lights are beauti-

... 'post-Christmas depression' that everyone goes into once Christmas is over. What the hell is wrong with you?

ful and they make people happy. I can agree that Christmas dinner is special and damn well delicious (I bet the poor turkeys wouldn't agree though). And the Christmas drinks they do at Starbucks are awesome (especially the Eggnog Latte). The main point is that Christmas is a good way to bring family together. There are very few times in the year when all the family get together and just well... spend time together. The fact that you need one day in a year to bring all the family together is a different problem in itself, but at least it can be counted as Christmas' redeeming quality. It makes it very depressing for those who spend Christmas alone, but for those of you that are lucky enough to spend it with family: good for you. Just remember that it isn't always about the presents, cards, trees or decorations. So if you don't get the present you wanted this Christmas, or your tree isn't as big as you wanted it to be, then just take a moment to shut the fuck up and stop complaining. Christmas is primarily meant to be about all that sentimental stuff (or the religious stuff if you're religious). Having said that, Christmas still annoys the shit out of me. Or maybe I just hate the way society perceives Christmas. Or maybe I just hate society. Who knows?

COMMENT

What are the lights for?



Guy Schofield

Unless you've been glued to your library desk, you've probably seen the rows of fluorescent bulbs hanging over the streets of London and thought, "is it that time of year already?" Sure, they light up the street a little more, and let's face it, we need that at a time of year when it gets dark at 4pm, but there must be more to it than that, right?

What if they signify something that lights up more than just the high street? Could they represent a light that illuminates a whole city, country, or even the whole world? Could they even be an image of a light that illuminates the whole of our existence – past, present and future? It sounds crazy, I know. Maybe Macbeth was right: "out, out, brief candle! Life is a tale, told by an idiot, full of sound and fury, signifying nothing?" What I'm hinting at is a promise made before the beginning of time, with implications that run further into the future than even a PhD physicist can imagine; a promise brought to light that first Christmas.

That first Christmas was nothing like ours. Most of us shell out our student loans to buy people gifts that they probably don't want – I know I do anyway. We all end up having to fake that look of surprise and awe when we receive presents that don't turn out to be that iPad 2 we wanted so badly. But what if we got something much better for Christmas? Something worth immeasurably more than we can imag-

ine; something that even the richest person couldn't afford to give, which would never wear out and you'd never get tired of. Is that what Christmas is all about – presents that knock those new holly adorned socks off your feet?

We all know Christmas isn't really about presents. It's about spending time with your family: the people who give you full acceptance the moment you walk in the door, as if you were never away. It's about catching up with all that's been going on, with everything you've missed on your family Skype sessions and those calls you got from your parents while you were in Sainsbury's. But that is hardly akin to the first Christmas now is it? I mean they didn't have Skype 2000 years ago, in a time when people barely left their home town, there was never much catching up to do with family. Hang on a second. Maybe Christmas really is about our catching up with family, and awesome presents and bright lights, which illuminate our existence. That could be what the first Christmas was all about.

Imagine Macbeth going up into his Attic to find his Author. Where would Macbeth find the light which makes sense of his whole story – brief candles, murdering wives and all? But what if Shakespeare wrote himself into his own story, and stepped onto the stage in his own play? Just imagine for a moment that the child that was born, Jesus, was also God himself writing himself into history. Why would God do that? The first Hebrew

Lizzy Griffiths



Yeah, he thinks he has a lot of work around this time of year. Slacker

I think it's time to really get to know the God that gives us the ultimate gift, to catch up with He who has broken into history.

Christians understood it was because "He is not ashamed to call them brothers. Since the children have flesh and blood, he too shared in their humanity so that by his death he might break the power of him who holds the power of death – that is, the devil". I think that is the present. The end of death itself. How can we do anything but live when death has lost its power? So we have life. Forever.

I think that changes things, that sheds some real light, not just on Christmas, but on where all our lives are heading. But you know what I love more than a good present? The person who gives it. God has come to earth so that we can really know him; the bible even says that when we accept

his gift we are adopted into his family and become his children. I think it's time to really get to know the God that gives us the ultimate gift, to catch up with He who has broken into history. That is what I shall be thinking about as I look up to those lights strung across London; as I give and receive gifts and as I catch up with my family back home. The last verse of the carol Once in Royal David's City sums it up perfectly:

*And our eyes at last shall see Him,
Through His own redeeming love;
For that Child so dear and gentle,
Is our Lord in heaven above:
And He leads His children on,
To the place where He is gone.*

There's something about Christmas



Rhys Davies

The entire final quarter of the year snowballs towards the 25th of December with the unstoppable momentum of an avalanche on a skateboard. Even by November, the excitement runs at fever pitch levels. In fact, there is a spike in A&E admissions that coincides with the first screening of the Coca Cola advert. Even after seeing it for so many years previously, I had to have a lie down with a stiff drink afterwards.

There are so many things that make Christmas... Christmas. Mince pies and mulled wine, carol singing, Christmas shopping and all the events that follow: all little quirks and traditions that make this time of the year so special, so magical.

Except they don't. A mince pie is nothing more than pastry, fruit and brandy. Carols are just songs and

hymns that no one lets you sing at any other time of the year – much like anything by ABBA really. The only difference between braving the heaving masses at this time of the year compared to any other is that we have a strangely increased tolerance for it. There is nothing special about any of these things. There is no magic to Christmas. It is all utterly meaningless. Much like the sum of all human experience. Ugh, how grim. I feel like I'm in a Frank Capra movie.

If there's anything special about Christmas, it's people. Oh, I know there are people all year round – in London I can't seem to escape them. But the way people act at Christmas is interesting to say the least. In this wintry season, the evidence is greatest that we are living in a cold and, at best, uncaring Universe. Yet, instead of rallying against the darkness, we

sing carols to it.

We take random chemical signals from a world malevolent to our existence and somehow try to make sense of things. The revolution of the Earth around the Sun is a thing of beauty. Watching some overgrown boys kick a ball about sweeps people away on the wings of passion. Despite having no reason for it, I am rather keen to preserve my life and deprive that leopard outside my window of his next meal.

The fact that we can enjoy life despite its meaningless makes us rather curious creatures. It is us who say that mince pies and mulled wine are special and can only be consumed at this time of year. It is us that enjoy carols. It is us who, if not enjoy, then suffer through Christmas shopping so we can bring joy to the people in our lives who we have decided are so important to us.

There is absolutely nothing magical about Christmas, except the magic that we decide it has. The fact that there is a time of the year that we have set aside to come together and share our silly traditions is a little bit special.

I think people get fooled by Christmas. They think that Christmas is all about gorging yourself on turkey and other middle eastern states/fowl, ice-skating at the Natural History Museum and sledding down the hill on the first snow of the season. These all mean nothing. They think that is where the magic is but it is just a ruse for people to get together: to share close communion and fellowship. That is where the real magic is.

There's something about Christmas, isn't there? Somehow in the coldest of weathers, we can share with one another the warmest of hearts.

Merry Christmas, one and all!

ARTS

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Will Prince

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The Poet's Column**Christmas Time**
by Pavitar Devgon

A single soft snowflake falling
On this cold December morning
Beckoning the ice and sleet
Envelops the land in a bright white sheet

Staring through the window pane
Wishing I were nine again
To feel the excited glee
Of Christmas time with family

Green tree lit with lights and tinsel
Mistletoe hung from every lintel
Warm mince pies and chestnuts' scent
Laughing at our woollen sock present

Snowball fights, snow hill sleighing
Snowman building, snow time playing
Cold at the fingertips, buzzing warmth within
Spending time with friends and kin

Contented sighs and hearth fire dries
Stockings hung with bright red ties
Holiday time and no work to do
The voyage home and the warming stew

Heated rooms and songs asinging
Christmas crackers and bells aringing
Excited chatter and mindless natter
Growing ever so slightly fatter

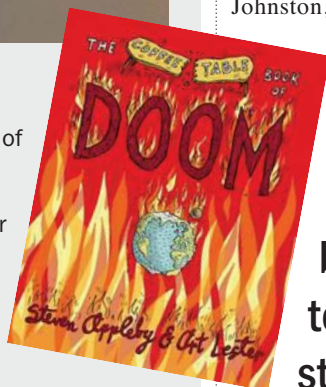
Smiling because we love it so
The wonderful white winter snow
Dreaming of this, memories flow
And all because of the calling
Of a single soft snowflake falling.

DOODLE OF THE WEEK



We proudly present the first winner of Doodle of the Week With a Prize!

Katie Harris is now the proud owner of *The Coffee Table Book of Doom* for her excellent rendition of the state of our brains at this stage in the term.



“this was not a play in homage to my life thus far – but it came close to being equally stimulating”

Howard you do?

George Howard turns a critical eye towards himself as he reviews *The Seven Lessons of George Howard*



George Howard (left) reviews George Howard (right), but not George Howard, the late jazz saxophonist (centre). Confused yet?

It was with great surprise, even perhaps shock, that I opened an email from the Editor a couple of weeks ago inviting me to review this play. It was not only the fact that I was being asked to write again for this paper (my previous comment articles were met by some misguided opposition) but that the show itself was so aptly named. Now to all you doubters out there: no, there has not been a typo in the subheading. *The Seven Lessons of George Howard* was indeed a genuine piece of fringe theatre. Unfortunately, this was not a play in homage to my life thus far, though it most certainly came close to being equally thought provoking and stimulating.

Seven Lessons follows the relationship between George, a once-famous theatre director turned teacher, and a new student, Agnieska, who has never acted before. Agnieska brings with her a play she has written and persuades George to use it as the focus of their classes. Her motives are unclear from the start, but as the play progresses the audience sees both teacher and student adapt to their characters within the play, and develop their own personal motivations.

I attended the world premiere of this show, by the relatively unknown playwright Chris Johnston, and was billed as still ‘a work in

progress’. Put on a with a small budget at a cosy theatre in Islington, it would be easy for your average theatre buff to turn their nose up and resort to a more established location and work. Yet it was these very characteristics – the intimate, ‘in the round’ set and the emphasis on dialogue and character rather than on flashy technical gimmicks – that worked in the show’s favor. Through this unique setting, the audience was drawn into the thoughts and motives of George and Agnieska; how they evolved throughout the play. As the story unfolded, questions as to the motives behind making theatre itself were highlighted and misunderstandings of various viewpoints were explored.

“the intimate, ‘in the round’ set worked in the show’s favour”

Whilst *Seven Lessons* was a very enjoyable evening’s entertainment, it was a far cry from the flawless shows you would expect to see at more established venues such as the **National Theatre**. Whilst I don’t feel this should be held against it, it was clear that the script was still early in its conception and certain dialogues were in need of something of a lift. On top of that, there were some interesting scenes (including a rather surreal on-stage sex scene) that could probably have done with some polishing. Notwithstanding this though, the final product was definitely captivating and although not a comedy, had enough one-liners and innuendo to keep the audience in good spirits.

Seeing this show performed on such a small budget and scale did indeed evoke certain questions as to why theatre has lost a lot of

the popularity it once had. The main problem is, I feel, not to do with the quality of shows (although this is definitely important!). In fact I believe that nowadays mainstream Hollywood movies and the like (with scripts that even the dullards of *Made in Chelsea* can understand) have rendered the art of theatre comparatively too inaccessible to the common person; the appeal of a night out at the theatre is simply too intellectually strenuous to be seriously contemplated. Why would anybody delve into the complexities of Beckett’s *Waiting for Godot* when they could so easily have their desire for entertainment satiated by the latest installment of *Desperate Housewives*.

The solution to this lies, in my opinion, not with the dumbing down of theatre (how would all those pretentious, alternative, artsy people with their silly jeans and headwear get their air of superiority otherwise) but instead with the opening up of plays to more audience interaction. For example, at the end of *Seven Lessons*, the audience was invited to have drinks with the cast to give instant feedback on the show. How better to get enthused about a play than by interacting with the company afterwards? It’s like backstage passes for everybody!

Not only was *Seven Lessons* an entertaining production, but also a perfect example of how theatre is adapting to the modern entertainment scene. Fringe theatre will always retain that sense of alternativeness that appeals to some, but is definitely adapting to a wider audience. I would urge you to therefore, perhaps once a month, abandon your widescreen TV and M&S Dine in for Two deal and experience what London’s theatre scene has to offer. Give it a chance; you might just learn something!

The Seven Lessons of George Howard at the **Pleasance Theatre** has since finished

Sexagenarian eager beavers

A Round-Heeled Woman: as cringeworthy as a Christmas dinner gone wrong

Laura Johnston

The auditorium dims, the stage lights go up, and I'm faced with a sixty-six-year-old woman lying on a bed, masturbating to phone sex.

It is safe to say I didn't know what I was getting myself into when I agreed to review *A Round-Heeled Woman* and I admit, I'm still a bit shell-shocked. The play is based on the true story of Jane, a woman so bored after her thirty years of celibacy, that she publishes an ad in the classified section of *The New York Review of Books*: "Before I turn 67 – next March – I would like to have a lot of sex with a man I like. If you want to talk first, Trollope works for me". The show follows the antics that develop from the sixty odd replies she receives from men aged 32-82.

The first half is all about the sex; I found myself watching most of it through my fingers, cringing at every line as a group of mature women chat about blowjobs, sucking on clits and the feeling of being filled by a penis. Don't get me wrong, I love *Sex and the City* as much as the next girl but my toes are still uncurling from the memory of the onstage conversation about the challenges that being sexually active aged over 60 presents (cue erectile dysfunction and the need for a

lot of lube). It is, however, undeniably laugh-out-loud funny; I suffered from childish giggles or spurts of hysterical surprise as line after line of explicit dialogue is exchanged.

On the other hand, the second half is a complete contrast as the story digs deeper into the life that Jane has lived up to the point of posting the ad. It addresses the issues she's struggled with: her unplanned pregnancy, failed marriage, disapproving mother and estranged son whom she hasn't seen for eighteen years. It gets more emotional as relationships founded through the ad cause heartbreak and rejection, and the audience start to sympathise with Jane's uncouth character.

"Before I turn 67 I would like to have lots of sex with a man I like"

Throughout the play, parallels are drawn between Jane's relationship faux pas and that of Trollope's famous character Miss MacKenzie, an unattractive spinster who inherited a small



Sexy at sixty-seven

fortune and suddenly found herself receiving an influx of marriage proposals. Unfortunately I am completely ignorant of Trollope's 19th century novels and therefore a lot of the references made in the play were lost on me. That being said, the constant appearance of Miss MacKenzie's ghost was an interesting addition to an already complex plot.

The storytelling is engaging throughout, and the sexy Sharon Gless, who

plays Jane, is absolutely exceptional; she's witty and charming, and her portrayal of a female orgasm was particularly convincing. She even strips down to her underwear in one scene. The onstage set is well thought out and compliments every scene.

So would I recommend it? I personally don't know anyone who would enjoy it, so I probably wouldn't send someone in my group of friends. Of course, that's not to say no one will

like it. It's certainly not one to watch with your mum... or worse, your dad. It wouldn't be great on a first date for that matter and I felt like I brought the average age of the audience down by about 40 years. Nevertheless, it was an outstandingly great escape from College life, even for the wrong reasons.

A Round Heeled Woman at the **Aldwych Theatre** – limited run only

Trauma on Chiltern Street

Rocío Molina Atienza

Trauma GV Art's new science-inspired exhibition revolves around the different manifestations of trauma. The exhibition explores physical and biological trauma, revealing the effect they have on those who suffer from them and investigating our own personal perception of them.

Science-inspired art goes beyond merely ripping off striking images of a scientific nature. It takes the knowledge beyond the lab and the blackboard, beyond the books, opening it up to be interpreted, to be put to measure with the human lives it affects.

Despite the diversity of materials and styles, the inner story of *Trauma* subtly weaves all the pieces together. Trauma itself is apparent in the violence and expressivity of the pieces, such as Andrew Krasnow's *Hollow Muscle* that presents a sculpture made out of thick leathery strips contorted to form a heart out of human skin. However, upon reading the

history behind the piece, the anguish acquires a new dimension as it is lit by the personal struggles of the artist.

In spite of the exhibition's gloomy title, it is unlikely the viewer will leave with a bleeding heart, but rather with an enchanting feeling of fascination evoked by the hypnotising artwork, especially Luke Jerram's glass sculptures or Susane Aldworth's lenticular prints.

Luke Jerram's glass sculptures magnify what is hidden to the human eye, revealing the beauty encapsulated in the perfect lethal geometry of a virus. The choice of clear glass as a medium strips his work of the distractions of colour and creates a mesmerising eye-catching gleam. Upon further reflection the viewer is drawn to consider how viruses such as HIV or malaria have scarred the lives of thousands of individuals; viruses are a constant menace on human life, with new breeds presenting daunting challenges for health specialists.

Susan Aldworth uses lenticular printing, a technique that allows images to

change when viewed from different angles, to give an interpretation of the electrical outburst in the brain that occurs during an epileptic seizure, all based on her own personal experiences. This series of three prints presents fiery lines, smoothed by a white cloud as the viewer moves across them, invoking the mental image of a bright explosion.

For anyone interested in the encounter between the Arts and Sciences this is a must-see exhibition. However, I would definitely recommend it to anyone who, as a scientist, is interested in a novel take on his or her subject. With its unusual collection of pieces, it certainly does provide food for thought. As a final note, it is worthwhile to reflect on whether, in our highly technified twenty-first century society, science-inspired art will become what pop-art was to the consumerism-based sixties.

Trauma at **GV Art**, 49 Chiltern Street London W1U 6LY – December 1 2011 to February 18 2012



Luke Jerram, T4 Bacteriophage, Glass



FIRE EXIT
KEEP CLEAR

ICU photo Bringi
Get ready for next year! Email centrefolds@imperial.a



ng you an alternative Christmas

OSOC

c.uk if you want to be right where these guys are!

MUSIC

Music Editors: **Íñigo Martínez de Rituerto**
Stephen Smith

music.felix@gmail.com

Kadhim's totally hot album of the week



Vondelpark
NYC Stuff and NYC
Bags EP
R&S Records
2011

And so this is Christmas. The season of merriment, mulled wine, and all-too-predictable disappointment. You were probably expecting the album of the week, given that it is the season of cheer, to be **Michael Bublé's** *Christmas*; if so, I'm sorry to disappoint. You may have expected it to be **The Black Keys'** latest release *El Camino*; if so not only am I sorry to disappoint, but I'm also extremely disappointed myself – the album is a bit of a dud. Given the overwhelming ubiquity of disappointment, I thought it better to simply embrace it. To welcome the ennui, loneliness, and introspection that accompanies the monotonous sounds of Christmas – Jesus Christ, **Leona Lewis**, you've been bleeding for almost four years now, die already!

Hence, **Vondelpark**. This Surrey/London trio have crafted a solemn and secretive sound that gives little away. I'm pretty sure they're feeling low and nostalgic, but I've no idea what about – although I'd guess from their sublime opener 'TV' they're sad that *Community* has left our screens. If you're going through a breakup, or agonizing over an unrequited love, I advise you to steer well clear; their cracked, sensitive beats are ripe for recording and amplifying your emotions.

I'd file them next to **Baths**, or **Balam Acab**. I'd probably also file them in the BBC's Sound of 2012, but obviously the BBC disagree. December is the time for putting albums in lists and 'predicting' next year's trends. None is more controversial than the BBC's Sound of Whatever-Year-Is-Next. This time around, alongside the brilliant **Azealia Banks**, the violent-but-talented **A\$AP Rocky**, and **Frank Ocean**, they've chosen destroyer-of-all-that-is-good **Skrillex**: a man who looks and sounds like he's from a dystopian future where Putin and **Lady Gaga** terrorise the Earth in a brutal transvestite, brostep tyranny.

But I shouldn't complain. It's Christmas after all. It's not a time to hate... it's a time to feel bitter and depressed. Enjoy Vondelpark.

Don't forget to write to Santa by going to **emailsanta.com**. If he doesn't reply and you're feeling down on Christmas Day, tweet me @kadhimshubber with the hashtag #SantaDoesntExist.

Be sure not to miss...

Ghédalia Tazartès: Häxan

Cafe Oto
Sunday 11 December

Drop in (and out) for surrealist throat contortions soundtracking the silent 1922 witchcraft film, *Häxan*. **Íñigo Martínez de Rituerto**

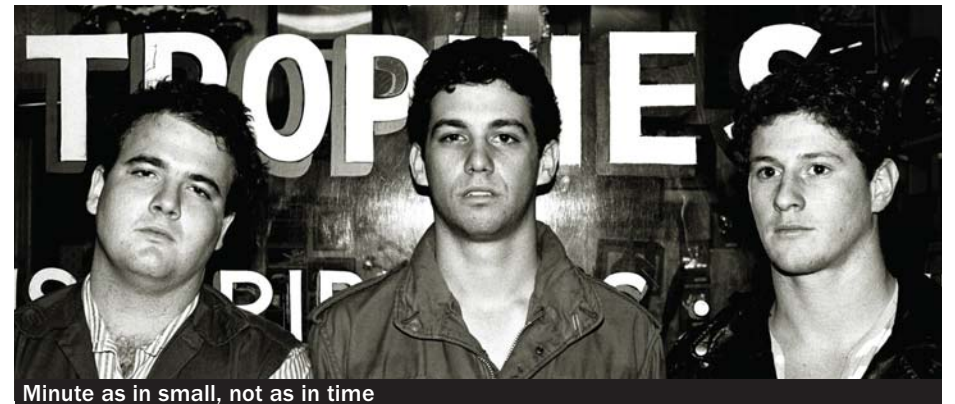
Funk's not dead

Douglas Heaven ends his trip around a Punk Planet

Most people probably wouldn't point to San Pedro, California, as a birthplace of punk, but they might as well. Punk isn't **Green Day** and **Blink-182**, punk isn't green hair and safety pins. Punk is an attitude and it can take any form you like. For **Minutemen**, that form was 2-minute bursts of jazzy, bombastic R&B, but in their attitude to playing – to recording, to touring, to what it meant to be in a band – Minutemen were the epitome of punk.

Minutemen (1980-1985) was a three-piece in which bass player Mike Watt's sound – his "low flow" – was as prominent as the bright guitar playing of his childhood friend D Boon. Their early output eschewed choruses and guitar solos – what they deemed commercialisms of rock music – and stuck to the short, sharp shocks typical of hardcore punk. Armed with such material, they played their first show opening for **Black Flag**. However, though the song-writing changed, embracing not only choruses and guitar solos but jazz licks and a little of **Captain Beefheart's** avant-blues, the commitment to anti-commercialism would define the band.

For Minutemen, a band wasn't a get-rich scheme or a path to glory, it was a way of life. They kept their day jobs and they jammed "eco-no": they rented studio time during off-peak hours, they used second-hand tape, rehearsing



Minute as in small, not as in time

the songs and recording them in as few takes as possible, playing them in the order they wanted them to appear on the record to avoid the costs of editing. They drove themselves around to shows they'd set up themselves and they preached what they practised. There's a book about the 80s US punk scene called *Our Band Could Be Your Life* and the title's taken from the first line of a Minutemen song. It's a statement that simply and inclusively says, 'you can do this too'. That's the punk ethos.

Minutemen ended when Boon was killed in a road accident. It took **Sonic Youth** to pull Watt out of his depression and Minutemen fan Ed Crawford to pester Watt and Minutemen drummer George Hurley to form **FIREHOSE** (1986-

1994). With Crawford on guitar, **FIREHOSE** flew the DIY flag for almost another decade, but Watt also contributed to the Sonic Youth albums *EVOL* (1986) and *Daydream Nation* (1988) and played with **The Stooges**. These days Watt is a punk statesman, driving himself around in a van, playing his "boom-stick" in a grab-bag of side projects, telling everyone he meets to start a band. And you should.

This is the final instalment of *Punk Planet*, Douglas Heaven's globetrotting quest for punk, passing through Italy, Sweden, France, China, New Zealand, Argentina and finally California. Remember the trip online at **felixonline.co.uk**

A tearful Obituary

Gareth Campbell

Formed in 2003, **Pure Reason Revolution** have since released three albums, supported bands such as **Mew**, **Placebo**, and **Porcupine Tree** and have received critical acclaim. However they have only ever attracted a small cult following, so this gig marks the end of 8 years of what guitarist, Jamie Willcox, described after as "a labour of love". Maybe the mix of new progressive rock and electro is too much for the general public.

As this was their final gig, they decided to leave us with a two hour concert consisting of their first, and arguably their best, album *The Dark Third*, played back to back in its original form. This suffered from a lack of a fifth member who left the band whilst touring in 2006: as a quartet they unfortunately had no choice but to use extensive backing tracks for this final rendition. But it is more than made up for by the three-part vocal harmonies which are what set this band apart from most other bands trying to resurrect prog rock.

The second half was a meant to evoke a party mood with a focus on their more upbeat electro songs from their latter two albums ending on a crowd favourite 'AVO', a stripped down song which captures the essence of the band. Usually



The band thought it was time to take an indefinitely extended nap

a cheery group, they were understandably in a sombre mood and found it hard to break a smile throughout the show. They were close to tears after the last song.

Support was provided by **Losers**, fronted by Tom Bellamy of **The Temple Cooper Clause**, who also co-produced PRR's latest album. **Losers'** most recent single, 'Summertime Rolls,' features vocals from Brian Molko from **Placebo** and

incorporates both rock and electronica.

I first saw Pure Reason Revolution in early 2007 and they have progressed a lot both in their recorded and live work. I have since seen them five times and every time they are more than happy to have a conversation with me afterwards, so I am sad to see them split. I have however been told to keep an eye out for their individual projects in the future.

Winter Ball

Nick Bright 

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TELEVISION

This is an official announcement

Maciej Matuszewski likes the latest from Charlie Brooker

I am a great admirer of Charlie Brooker. He is a master of satire and biting social commentary and so I had very high expectations of his latest work – the three part anthology miniseries *Black Mirror*, the first episode of which was broadcast this Sunday. I am happy to say that these expectations were more than fulfilled.

The title *Black Mirror* is a reference to monitor screens and each of the episodes focuses on the darker side of technology, especially social networking and new media. Brooker says that the inaugural episode, entitled *The National Anthem*, was inspired by “the kerfuffle over superinjunctions” and how “Gordon Brown was virtually commanded to apologise to Gillian Duffy”. The episode opens with Prime Minister Michael Callow being woken up to be told that the popular Princess Susannah has been kidnapped and will be killed unless he performs... well, let us say ‘certain acts’, with a pig on live television. The public are initially sympathetic to his plight but several incidents involving social media cause the situation to deteriorate before he almost literally has no choice but to acquiesce to the demands.

The program is certainly very funny, the best part coming near the end when we see a crowd in pub watching a message broadcast by the government on all television channels proclaim: “this is an official announcement – in a few minutes the prime minister will perform an indecent act on your screen”. This is



Look at the massive bogie I just mined from my nose!

of course followed by the entire group, including old ladies, laughing uproariously. The scene becomes far more amusing, or, if you prefer, far more disturbing, if you are aware of Brooker’s well publicised dislike of David Cameron.

The main focus of the episode, however, is how new technology means that the government has lost even a semblance of control over the media and how much it is now under the sway of the fast changing whims of the masses. This is helped by there actually being a strong sense of realism in how the situation escalates. As with all good satire there is a feeling that, if all the superficial, more ridiculous ele-

ments were removed, this would be a situation that could happen in the real world.

The National Anthem deserved its 1.86 million viewers – the biggest audience for any first episode of a Channel 4 drama series this year. Brooker has created something truly special – a show that is both relevant and funny. I am also pleased that he has decided to use the now rarely seen anthology format – which can offer a very different experience than a serial or one off feature length presentation. In Brooker’s own words, it provides a great avenue “for exploring ideas”. I’m certainly looking forward to the remaining two episodes and I advise you to tune in too.



Derision from Charlie Brooker? Whatever next?

Fancy winning a copy of Michael Portillo’s *Great British Railway Journeys (Series 2)*? Heard of Wikipedia? In which year did the famous “Portillo Moment” occur? Just email us at tv.felix@imperial.ac.uk with your answer and you could be in for a steamy ride with Michael...

Christmas Choice

Have your highlighter and copy of Radio Times at the ready



December 21 | 2100 | BBC1
Great Expectations

We’ve got great expectations for the BBC’s flagship period drama of the year.

Christmas Day | 1900 | BBC1
Doctor Who

Everyone’s favourite thing to ruin the conversation with on Christmas Day. Oh well. Some people like it.

Christmas Day | 2100 | ITV1
Downton Abbey Christmas Special

There’s a party at Downton this Christmas. Will Matthew and Mary get it on?

Boxing Day | 1930 | BBC1
The Borrowers

Victoria Wood, Stephen Fry and Christopher Eccleston star in the BBC’s version of this classic novel.



Boxing Day | 2130 | ITV1
Agatha Christie’s Poirot

Everyone’s favourite sycophantic Belgian sleuth.

December 30 | 2230 | BBC4
Charlie Brooker’s 2011 Wipe

Why not see out the year with Mr Brooker’s unique take on the events that made up 2011? The London Riots, scripted reality shows, the demise of the *News of the World* and Pippa Middleton’s bum will all be topics for discussion.



FILM

iCU Cinema All-Nighter Tuesday 13 December

It's that time of year again, when it is so brutally cold outside that finding a good night out where it's socially acceptable to stay wrapped up in blankets is the stuff of dreams. Fortunately, it is also the time when iCU Cinema brings us the **Winter All-Nighter** – the first all-nighter of the academic year, and a fantastic opportunity to catch all the films you might have missed over the last few months for only a tenner.

iCU Cinema will be featuring the following six films, back-to-back, from 6pm on Tuesday 13 December, to 7:30am the next day – the ultimate test for the true cinema fan:

Johnny English Reborn (6pm)

The sequel heralds the return of Rowan Atkinson – possibly one of the most popular comic actors – in the titular role. Parodying the ever-ridiculous British spy genre, this is a welcome reminder of Atkinson's irreplaceable talent for slapstick in this reprisal.

Drive (8:15pm)

In this crime drama, Ryan Gosling stars as a stunt driver who moonlights as a getaway driver in the dark LA underworld. The film, also starring Gosling's impressive costars Carey Mulligan, Albert Brooks and Christina Hendricks, received rave reviews and the Best Director award at Cannes 2011. A must-see.

Real Steel (10:30pm)

Hugh Jackman leads in this sci-fi story of robot-boxing, playing a former boxer who, along with his young son, builds up a junkyard robot to battle the slick cyborgs that dominate the world of robot boxing. A classic underdog story, this film is a straight-up action film for the purpose of pure entertainment.

Paul (1:15am)

The latest from the unshakable duo of Simon Pegg and Nick Frost, *Paul* is the story of two comic book nerd friends who encounter Paul – an off-beat alien (voiced by Seth Rogen) on their roadtrip. What follows combines the best parts of today's British and American comedy genres, with Rogen being the perfect addition to Pegg and Frost's team. Expect perfect comedy, together with endless sci-fi references.

Contagion (3:30am)

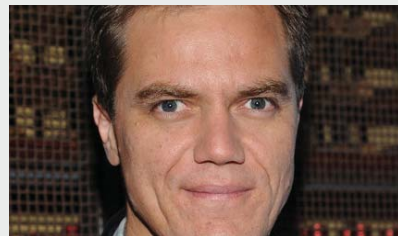
The serious feature of the evening, *Contagion* boasts an impressive cast including Matt Damon, Kate Winslet and Gwyneth Paltrow. Capably directed by Steven Soderbergh, this modern-day thriller follows the progression of a deadly virus as it sweeps the world. An tense, impeccably-acted and fast-paced thriller.

Troll Hunter (5:45am)

And now, what better film to end the All-Nighter and send you off to lectures than this Norwegian mockumentary that follows a group of students who find themselves tracking a giant, violent troll through the woods. Critically acclaimed for its originality and flair, this film is fantastic example of how low-budget films can produce some remarkable results.

There is really is no good reason to miss this line-up. Tickets can be bought in advance for £10 from www.icucinema.co.uk or for £12 on the door. For those who cannot handle the full night of films, individual tickets can be bought for £3 each. Food and drinks are available all night, and full details can be found online.

Felix Film Awards – celeb



Actor of the Year: Michael Shannon *Take Shelter*

What makes *Take Shelter* such a harrowing experience is not down to its marvellously restrained special effects. Instead, Shannon's intense performance as the unstable, paranoid family man is what grips us from start to finish. These alarming apocalyptic visions that haunt his everyday life; is he a prophet? Or is he showing signs of schizophrenia? Known for reliably playing loony characters, the consistently superb Shannon is just as good, if not better, in a lead role of his own, as he creates one memorable American hero.



Actress of the Year: Michelle Williams *My Week with Marilyn*

Williams absolutely nails Marilyn Monroe's looks, voice, and speech. But her performance stands out as one of the best this year because of her more silent, behind-the-scenes portrayal of the tragic, insecure movie star. The pain and suffering she constantly endures from both her personal and professional lives are well shown in the actress' masterful transformation, and for anyone who intends to play Marilyn Monroe in future productions that are bound to materialise at some point, Williams just set the bar a whole lot higher.



Director of the Year: Lars von Trier *Melancholia*

End of the world can be beautiful in von Trier's eyes, and he creates something truly illuminating and captivating as he focuses on sisters having to face difficult issues of their own, whilst a large planet seems to be heading to Earth on a collision course. Von Trier is hardly known for his socially acceptable behaviour, but when it comes to directing something that carries a dramatic punch, he's the master of utilising his talented cast, steady camera-work, restrained script, and in this case, some beautiful effects.



Supporting Actor of the Year: Nick Nolte *Warrior*

I'm a sucker for emotional dramas involving dysfunctional families with a hint of redemption involved, so *Warrior* was right up my alley, and the insanely kinetic, inventive mixed martial arts fight scenes were an extra bonus. But the family dynamic, involving two wronged sons (Joel Edgerton, Tom Hardy) and an ex-alcoholic, apologetic wreck of a father (Nolte), is the solid base this sports drama builds itself on, with Nolte giving one heart-wrenching, vulnerable performance as the born-again, sorry father who seeks forgiveness.



Supporting Actress of the Year: Octavia Spencer *The Help*

"Eat ma shit," will be the three words most people take away from *The Help*, uttered so hilariously by the irreplaceable Spencer. That's not all; her character Minny loves her chickens too (bear with me here). When her kind-hearted white boss suggests burning some of her fried chicken to give to her husband, Spencer pauses in absolute shock and disgust as she says, "Minny don't burn chicken." Spencer is an absolute class act, and is every bit deserving of all the supporting awards there are.



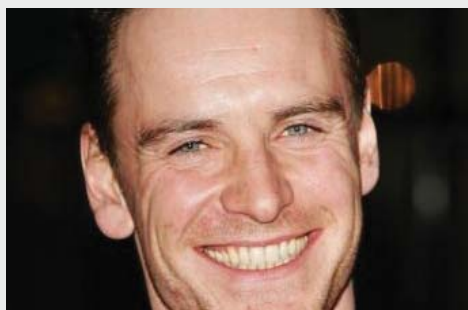
Ensemble of the Year: *Bridesmaids*

There isn't a single character or comedic performance to fault here; whether it's the horny mum of three semen-covered teenage boys Rita (Wendi McLendon-Covey), the sweet, "I've only slept with one man" Becca (Ellie Kemper), the plus-sized, strong and confident Megan (Melissa McCarthy), the rich, bitchy Helen (Rose Byrne), the fun bride (Maya Rudolph), and ultimately the insecure, rambly maid of honour (Kristen Wiig). The girls of *Sex and the City* should eat their hearts out, because female-driven wedding comedies should be exactly like this; with humour, rich characters, and a hint of vomit and lava-like diarrhoea (you know what scene I'm talking about).

Film Editors: **John Park**
Lucy Wiles

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Rating this year's best films



Rising Star Award: Michael Fassbender

Following critical hits *Hunger* and *Fish Tank*, Fassbender is quickly rising in the film industry as one of the most bankable, dedicated performers around. He was oddly chilling, yet appealing, as Rochester in *Jane Eyre*, he added layers of intensity and anger to Magneto in *X-Men: First Class*, his restrained performance in *A Dangerous Method* was a fascinating one, and his top-notch performance as a sex addict in *Shame* is already generating much awards buzz after his Best Actor win at the Venice Film Festival. All of this in a single year. A rising star indeed.



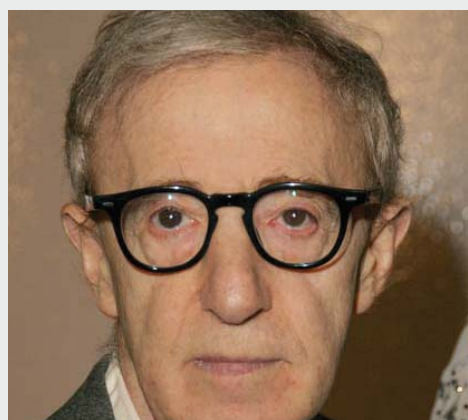
Rising Star Award: Jessica Chastain

It's hard to know where to begin with Chastain. Virtually unknown in 2010, a year later, she's possibly one of the most talked-about actresses around, thanks to a number of films (*The Help*, *The Debt*, *The Tree of Life*, *Take Shelter*) being released within months of one another. She gives varied performances in very different films, the kind of versatility a lot of actresses struggle to achieve in a lifetime. Her presence is felt in all the films she has starred in, and the genuinely talented actress will hopefully have a glowing career, with her résumé padded like never before.



Special Award: Andy Serkis

Serkis may never win an Oscar for his role in *Rise of the Planet of the Apes*, but his motion-capture performance is such a mesmerising piece of cinema acting that we just could not stand not acknowledging him for an award. If you watch some of the "making-of" footage for *Rise of the Planet of the Apes*, you will see that not only are his postures perfectly captured, but also his subtle facial expression. He virtually has no words to say, but he still manages to deliver something so powerful in his incredibly detailed and dedicated performance.



Special Award: Woody Allen

It takes a unique kind of genius to write and direct every year – and Allen is that man. He attracts the starriest ensembles, picks the perfect locations, shoots with his traditional modest style, and somehow manages to produce embracing romantic-comedies. He makes hiccups here and there, but who doesn't? For a man who has given us more than forty films over his distinguished career, Allen shows a high level of consistency in his work, and is most certainly an exceptional gem of a director/writer.



Brit Film of the Year: *Deathly Hallows - Part 2*

It took ten years, eight films, millions of dollars, and hundreds of cast and crew to get the final film of the *Harry Potter* franchise absolutely right. There is action, magic and most importantly, heart. With actors having matured into their roles over the years, and a faultless supporting cast boasting some famous English names, the finale to the most successful series in the history of cinema is a more than satisfying one, a real British triumph, and something every generation can embrace with pride.



Film of the Year: *Tinker Tailor Soldier Spy*

It's a great-looking, well-acted, smartly-written, completely absorbing spy drama, and its slow, patient pace works as a great advantage. It's layered with so much depth and detail that it does the great John Le Carré's novel justice. The highly underrated Gary Oldman falls beautifully into the role of George Smiley, whose mission is to identify a Soviet mole hidden in the high levels of British Secret Service. It's a complex ride but completely worth paying attention to; a triumph in every sense.

Top 10 Box Office films in the UK this week



1) **Arthur Christmas** – U – Jim McAvoy, Jim Broadbent, Bill Nighy

2) **Happy Feet Two** – U – Liam, Pink

3) **The Twilight Saga: Breaking Dawn - Part 1** – 12A – Robert Pattinson, Kristen Stewart, Taylor Lautner

4) **Hugo** – U – Asa Butterfield, Chloe Grace Moretz, Christopher Lee

5) **The Thing** – 15 – Mary Elizabeth Winstead, Joel Edgerton, Ulrich Thomsen

6) **My Week with Marilyn** – 15 – Michelle Williams, Eddie Redmayne, Kenneth Branagh, Emma Watson

7) **The Adventures of Tintin** – PG – Jamie Bell, Andy Serkis, Daniel Craig

8) **50/50** – 15 – Joseph Gordon-Levitt, Seth Rogen, Anna Kendrick

9) **Immortals** – 15 – Henry Cavill, Mickey Rourke, John Hurt

10) **Dream House** – 15 – Daniel Craig, Rachel Weisz, Naomi Watts

Games Editor: **Laurence Pope**games.felix@imperial.ac.uk

GAMES

(Even more) Web Games

So I guess I was lying when I said there'd only be one week's worth of web games. For the final Games section of '11 we're going to offer you up two awesome games that you can play right now in your web browser. In order to enjoy these you're going to need the Adobe Flash Player plug-in, which can be installed from <http://get.adobe.com/flashplayer/>

My First Quantum Translocator

<http://www.newgrounds.com/portal/view/548371>



There are a lot of teleporting/portalling games about, but *My First Quantum Translocator* puts another spin on this sub-genre.

You play as a little astronaut-like guy stuck in a lab. This chap has the ability to 'quantum translocate' – he can create a black 'shadow' that he can teleport to at will, conserving all his current momentum. Using this ability you can jump up high ledges, avoid death traps and generally mess with your head.

The game requires a mixture of timing, logical thinking and quick reflexes, and is certainly a great game to flex a little bit of your grey matter.

K.O.L.M.

<http://www.newgrounds.com/portal/view/556643>



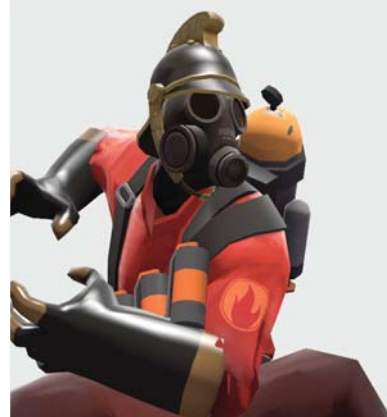
K.O.L.M. is another game that's more of an artpiece than a game. You play as a little broken robot who's been tasked with rebuilding himself for Mother, starting off slow, dim-sighted and defenceless.

As you explore the labyrinth you're stuck in, you find your eyes, legs, and weapons, along with other parts that allow you to reach previously inaccessible areas. Closed areas open up, allowing you to discover more of the small world you play in.

If you're into action, this isn't the game for you. If you enjoy calming music, mild puzzle solving and something generally quite relaxing, *K.O.L.M.* is the game for you.

The Top Picks from 2011

2012 is almost upon us, and one must ask themselves: what were the best games of 2011?



Michael Cook goes for *Team Fortress 2*

Team Fortress 2 is not a new release for 2011. But the renaissance it underwent over the last 12 months means it might as well be treated as such. A huge number of new ideas have been ploughed into this game, and it remains as fresh, vibrant and playful as it ever has been. The humour, the experimental nature and the inventiveness of Valve has been evident in every update, every store release and special event, and it continues to shine.

It's lost a lot of followers over the years, and those it gained back through free-to-play mechanics may have found themselves bewildered by the ever-shifting nature of its UI, class system, and bugs. But the servers are still flourishing, the unusual and rare items still enticing. Having given rise to the Steam Workshop, Trading and Cloud, I'm excited to see what the next twelve months herald for this game. No doubt I'll still be playing.



Laurence Pope picks *Dead Space 2*

Dead Space 2 is a game I maybe slagged off a little bit in the past, but let's be honest here – I foul-mouth most games. *Dead Space 2*, at the end of the day, is a solid game with solid (and fairly original) gameplay mechanics; I have yet to play another game where dismembering your enemies plays such a crucial role in surviving. You can shoot the necromorphs in the chest all you want, but it'll leave you as so many bloody pieces on the floor.

There's been a fair amount of DLC offered for the game, all of it free, which keeps everything interesting (if not somewhat imbalanced in single player). Hardcore mode still presents a deadly challenge, and to this day I've still yet to get through the game on the three saves the mode allows you. The multiplayer aspect of the game has died down a little bit since release, but on the basis of single player mode alone it gets my vote.



Laurence Pope (also) suggests *Limbo*

Why am I getting two bites of the apple? Why am I selecting a game that technically came out in 2010 on the XBLA? Because I'm the Games editor that's why, and if I can't exert my influence in real life I'll darn well exert it here to boost my meagre sense of self-esteem.

Limbo is dark, depressing and an absolute gem. You play as a young boy, stuck in a world filled with devices and creatures that just want to kill you.

You face buzzsaws, rolling stones and giant creepy insects, all black and featureless, only adding to the sense of foreboding the game seeks (and manages) to create.

Unlike *Dead Space 2*, *Limbo* is not for those looking for a high-energy, high action thrill ride. Ultimately, it boils down to a side-scrolling horror experience that aims to creep you out, and does so masterfully. Give it a shot.

Oh, and it came out on Steam in '11, so hah!

PopCap Goodie Bag Competition!

Holy moly, a competition? It sure is! PopCap have sent us a whole pile of goodies, and we have **four** gift packs to give away, including games, writing pads and collectible models. If you want a chance to win, simply answer this fiendishly difficult question:

Which of these games was NOT designed by PopCap?

- Ski Region Simulator*
- Plants vs. Zombies*
- Peggle Nights*
- Bejewelled Twist*

To win, email games.felix@imperial.ac.uk with your answer. Entries close at 14:00 on Dec 12. All winners will be selected at random.



Dancing the Grim Fandango

Sam Horti takes a look back at one of gaming's unique classics, *Grim Fandango*

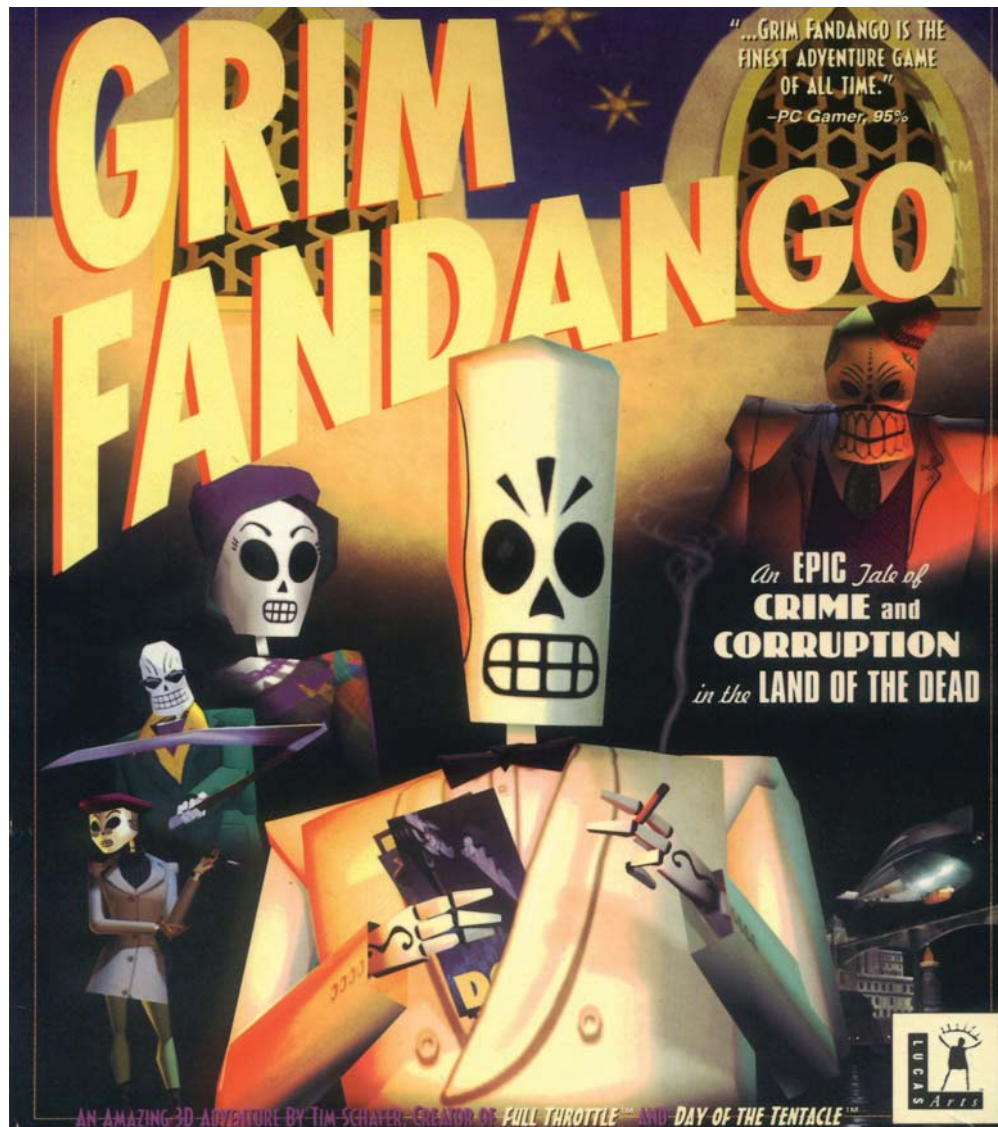
I have come to realise that there is one thing that gamers crave above all else in their video games: uniqueness. It's something that we only seem to see fleeting glances of in the modern day. Where did all the innovation and inspiration go? Well, a lot of it was spent in 1998 with the conception of *Grim Fandango*.

This is a game that manages to combine many apparently unrelated elements seamlessly, so that they all come together in a way that makes perfect sense. Specifically, the game creates a melting pot of Aztec beliefs in the afterlife and a Film Noir style, with heavy influence from films like *Casablanca*. The characters take the intriguing form of skeletons in the mould of "Calacas," ideas of which originate from Aztec times.

"Every single character has a unique personality with completely different voices, which means you care about their fates"

You play as Manny Calavera, a travel agent in the "Land of the Dead" who is working to pay off a debt owed to the powers that be. His job is to escort lost souls after they die, with the most desirable outcome being a ticket on the Number 9 Express, taking said souls to their final resting place, "The Ninth Underworld". Unfortunately, not all are deserving of this reward, and so they come to Manny to see how he can help them. Frustrated at always being given the worst clients, Manny ends up stealing a client from another travel agent. His quest to get this apparently deserving customer, "Meche," a ticket on the Number 9 Express turns out to be far bigger than he can imagine as the player unravels a tale of friendship, corruption and betrayal.

Now, what I've told you about the story may make this game seem just a bit too wacky for anyone over the age of eight. However, once you



are experiencing it first hand you realise that it is genuinely superb. You want to know what happens next, you want to tie off all the loose ends, and you really want Manny to succeed in his quest. The characters drive the story along brilliantly, and the voice acting in this game is some of the best I have heard in any video game, with the standouts being Manny and his oversized friend, Glottis.

The dialogue is very amusing and charming, and every single character has a unique personality with completely different voices, which means you care about their fate. Even the minor characters are brilliantly voiced and manage to be unforgettable, something many modern games fail to achieve (I'm looking at you *Fallout 3*). Manny himself is one of my favourite video game characters of all times. He is unassuming and socially awkward, but he has many hilarious anecdotes to relate to the player in the form of soliloquies. He is simply brilliant.

So what do you actually do in this game? Well, I would define *Grim Fandango* as a puzzle game, although simply labelling this game as just another puzzler would be very wrong. You normally arrive at a location with a set of tasks you are

supposed to complete to help Manny advance on his epic adventure. As you explore an area, you discover different items, characters, and locations that fill in the gaps in your knowledge, and give you clues as to how you can progress. The game play normally consists of finding different items strewn across the fantastic environments and working out how they can be used to achieve to goal in hand. This normally involves combining different items at certain locations.

This process requires thought, patience, and trial and error in equal portions. There may be times where you have 10 items in your inventory and not a clue about how any of them can help you do what you want. There is no hint system, so you may feel a little lost at some points. But as you persevere, the answer will normally reveal itself. The puzzles in one area all link together, so solving one will lead onto another, and eventually onto the advancement of the storyline (marked by a cut scene). The puzzles, in tune with the rest of the game, can be very weird and wonderful and require some imagination to solve, with only one or two that seem counter-intuitive, which is impressive for a puzzle game of this size. In general they feel both clever and

natural, and are difficult enough for you to get a sense of achievement when you solve one.

The game was designed by Tim Schafer (of *Psychonauts* and the *Monkey Island* series), which means you expect something a bit special, and you are not disappointed. *Grim Fandango* deserves the numerous awards it has for its artistic design. The game plays out with characters moving around static backgrounds, which change as you move Manny to the edge of the scene. The levels are very detailed and highly varied, and although you will return to some of the locations that you visit early in the game, you are never bored of the environment you are in.

The visuals are mind blowing for the time, not necessarily in terms of graphical performance, but in terms of the boldness of everything on screen. It holds up even to this day, with the character models being the real highlight. You would think that the skeletal figures you meet may appear recycled, repetitive figures, but they all have an individual styling and you can tell that great care was put into each and every one of them. Remember, this is from 1998, so don't expect full HD graphics. However, when I tried a patched version recently it ran like a charm and there were no frame rate issues to speak of.

"The puzzles, in tune with the rest of the game, can be very weird and wonderful and require some imagination to solve"

The controls may appear puzzling themselves at first, but you very quickly get used to them. Manny is moved around his 3D environment with the 4 directional keys, with different buttons assigned to different actions, such as picking up items, examining your inventory or attempting to use items. At its core, the game play is very simple. If you're looking for action packed thrills and spills you won't find them here. The action is reserved exclusively for the cut scenes, and the gameplay is decidedly slow paced. However, the story that drives the gameplay is the real point of interest, and as you always have a goal to accomplish you will never feel uninterested.

I absolutely love this game. I can't recommend it highly enough if you like a game with a superb story and terrific characters. Even if you don't like puzzle games, I feel you should try this game for an experience that few other games can deliver. Manny Calavera and his great adventure will stick with you for a long time. The interesting, challenging puzzles will keep you hooked, and the fact that you cannot fail to care about the characters mean you will definitely want to see this stunning adventure through to its satisfying climax.



You could say he's DEAD class (I'm here all night folks)

Games Editor: Laurence Pope

GAMES

games.felix@imperial.ac.uk

A right royal roundup

As 2011 draws to a close Philip Kent summarises the big events of the year – gaming related, of course

Hacks, cracks and website attacks

Without a doubt, the biggest thing to hit the gaming world this year would have to be April's takedown of the PSN. Gamers were originally left in the dark about the whole situation, with Sony initially only offering the explanation that there was an 'external intrusion'. It took Sony days to even admit that addressed and payment details may have been stolen – with some reporting malicious use of debit cards.

Subscribers did get a substantial apology from Sony – as well as identity theft protection for their US users, customers got two free games as well as their memberships extended for free. However, the damage was done; Sony estimated the costs from the break-in to amount to \$171m for the 23 days the PSN was down for.

Valve had some bad news too. The Steam forums suffered from an attack last month, with Valve also deciding to go silent and pretend that the site was down just for some maintenance. When they did admit the extent of the damage, we learnt that a Steam database had been broken into, with passwords and credit card details potentially in the hands of criminals.

Luckily for Steam users, the forums returned in just a few weeks, and it didn't affect the entire service, though, it is a stark reminder of the risks involved with "cloud" gaming services such as Steam and the PSN.

Releases Galore

There has been plenty of good news this year though, with lots of major releases to keep your fingers occupied with. The first was back in March when the much-anticipated *Crysis 2* was released, which reached over three million sales by June, and was generally decided to be an excellent title by the critics. Crytek's rhetoric machine was in full force for this release, with executives saying that *Crysis 2*'s graphics, AI and gameplay are the best in video gaming history.

"The Humble Indie Bundle 'pay what you want' model raised over \$2m"

Valve also put out a new title: the equally anticipated *Portal 2*. Even if you got tired of Cave

Johnson's voice, *Portal 2* has much to offer, with hilarious dialog, challenging puzzles and cooperative multiplayer. This also saw the start of Valve's obsession with hats, which developed further in June when Valve rereleased *Team Fortress 2* as free to play, with added benefits available to those who pay. You can also spend some of your hard-earned cash on hats, with a Proof of Purchase hat available for those who shell out for the premium version of *TF2*.

Fans of war games were also not disappointed in 2011, thanks to the release of both *Modern Warfare 3* in November and, surprisingly, *Duke Nukem Forever*. *MW3* was well received, and also saw the launch of the Call of Duty Elite web service, allowing die-hard fans to keep up to date on every single statistic, improve their game with "deep strategies" and much more.

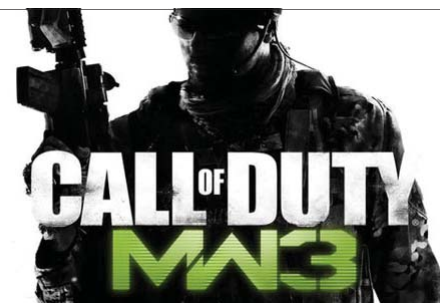
Duke Nukem, on the other hand, was a bit of a disaster. It may have taken 14 years to be released (an event which many may still find shocking), though this didn't lead to quality – Metacritic scores gave it a verdict of being merely average. And the bad news didn't end there – reviews slammed the game for its immaturity; the Official Xbox Magazine UK even said "isn't so much offensive or misogynistic as just suffering from an adolescent fixation with boobs and crowbarred-in innuendo."



The one time betting on Duke is a less than stellar idea

For those who preferred something a little bit lighter, the third Humble Indie Bundle was released in the summer, with many excellent titles such as *VVVVVV*, *Clash of the Titans* and *And Yet It Moves*. The 'pay what you want' model raised over \$2m, of which part went to charity. This was followed by additional Frozen Synapse and Introversion bundles.

And, of course, no wrap up of the year's big releases is complete without *Skyrim*, one of a few games to receive universal acclaim. Steam showed 230,000 concurrent players on the day of release, and approximately \$450m in sales over just five days, making it the second best selling game this year, beaten only by *Modern Warfare 3*.



Some of the big games from 2011 (From top left, clockwise: *Crysis 2*, *CoD: Modern Warfare 3*, *Portal 2*, and *The Elder Scrolls V: Skyrim*)

Consoles on the way

Bar the Xbox 360 dashboard being revamped a couple of times, Microsoft and Sony have been mute regarding new consoles. Nintendo, on the other hand, kicked off the year with the 3DS, an improved version of Nintendo's handheld games console, but with the unusual ability of supporting 3D gaming without the need for bulky glasses. It is, however, not perfect. The 3DS comes in at £120, with games ranging from £30 to a hefty £40, and suffers from a poor, 5-hour battery life.



What may be more successful for them is 2012's Wii U, the successor to their last console in 2006. This was unveiled at June's E3, and features a touchscreen on the controller, in addition to the high definition playback on the television. This would be in addition to using the older Wiimotes, and backwards compatibility (at least from an optical media angle) would be restricted to Wii games, owners of large GameCube libraries may have to repurchase their titles from whatever (if anything) succeeds the Virtual Console.

"Steam showed 230,000 concurrent players on the day of Skyrim's release"

What can we expect in '12?

It's hard to tell what will happen next year. One of the arguments against the high price of the 3DS games is the high cost, especially when you consider the increasing number of people gaming on their mobile phones, thanks to app store mania. This definitely seems to be the way things are going – Atari released 100 of their classic games onto iOS, and there have been calls by Nintendo's investors to do the same.

PC gaming has had a bit of a renaissance year, and hopefully this is a trend that will continue. Services like Steam are continuously becoming more popular, though with EA pulling all their games off of Steam to sell solely on their own Origin service, it may be that fragmentation will lead to harming the use of the PC as a gaming machine.

As ever, time will tell.



A visit from St Nicholas

Ross Webster signs off the year with a traditional Christmas jingle – *Portal* style



'Twas the night before Christmas, when all through the lab,
Not a test subject was stirring, not even the crab.
The turrets were placed by the windows with care,
In hopes that St Nicholas soon would be there.

The cubes were nestled all snug in their beds,
While visions of loved ones danced in their heads.
And GLaDOS in her chassis, after a solitary beep,
Had just shut down her cwwwores for a long winter's sleep.

When out in a chamber there arose such a clatter,
The turrets awoke to see what was the matter.
Their eyes lit up, in an unnerving stare,
Whirring and grinding, asking: "Are you there?"

The light from the thermal discouragement beam,
Highlighted the edges of the figments of a dream.
When, what to their wondering eyes should appear,
But a miniature sleigh, and eight tiny reindeer.

With a little old driver, so lively and quick,
They knew in a moment it must be St Nick.
More rapid than eagles his coursers they came,
And he whistled, and shouted, and called them by name!

"Now Dasher! Now, Dancer! Now, Prancer and Vixen!
On, Comet! On, Cupid! On, on Donner and Blitzen!
To the top of the porch! To the top of the wall!
Now dash away! Dash away! Dash away all!"

As test subjects trying to escape to the world outside,
When they meet with an obstacle, portals appear and through they glide.
So along to the core the coursers they flew,
With the sleigh full of toys, and St Nicholas too.
And then, in a twinkling, they heard up above,
The prancing and pawing of the animals they love.
As they lost their focus, and were turning around,
Through a bright red portal, St Nicholas came with a bound.

He was dressed all in fur, from his head to his foot,
And his clothes were all tarnished with moon dust and soot.
A bundle of toys he had flung on his back,
And he looked like a peddler, just opening his pack.

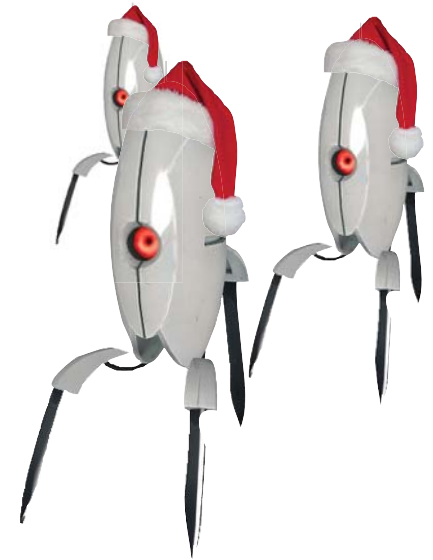
His eyes – how they twinkled! His dimples how merry!
His cheeks were like roses, his nose like a cherry!
His droll little mouth was drawn up like a bow,
And the beard of his chin was as white as the snow.

The portal placement device he held tight in his hands,
And the smoke it encircled his head like Jupiter's bands.
He had a broad face and a little round belly,
That shook when he laughed, like a bowlful of jelly!

He was chubby and plump, and his figure brightly glowed,
The turrets swooned when they saw him, in spite of their code!
A wink of his eye and then they all knew,
That like all human children, he loved them too.

He spoke not a word, but went straight to his work,
And filled all the stockings, then turned with a jerk.
And laying his finger aside of the trigger,
And giving a nod, ran through the portal with vigour!

He sprang to his sleigh, to his team gave a whistle,
And away they all flew like the down of a thistle.
But they heard him exclaim, 'ere he drove out of sight,
"Happy Christmas to all, and keep safe. For science!"



Imperial College

Just A Minute



LIVE RECORDING

Sunday 11th December at 17:30 in Metric

For the first time in recorded history, IC Radio brings everybody's favourite Radio 4 panel game to Imperial College campus as 4 scientists will be challenged to speak without hesitation, deviation or repetition for the half-life of Rutherfordium-261 to raise money for charity.

Join us for this experiment in improvised comedy at 5:30pm on Sunday 11th December in Metric, Imperial College Union. Entry is free and all proceeds from the collection on the door will go to charity.

Twitter: @ImperialJAM

Facebook: ImperialJAM

Hashtag: #ICJAM

icradio



**RIGHT
TOPLAY**

imperial
college
union

Fashion Editors: **Saskia Verhagen**
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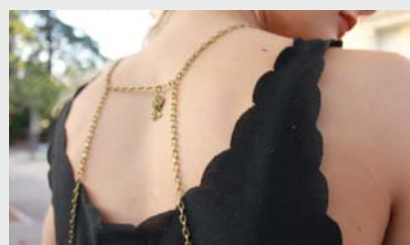
FASHION

Give your gifts in style

Saskia Verhagen and Alice Yang bring you this Christmas' most fashionable presents

GIRLS GUYS

Body-chain (£12-15)

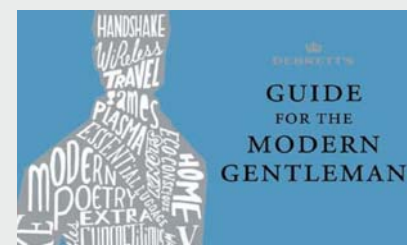


A completely unique gift inspired by Leonardo himself, and beautifully crafted by one of our own (Anabel St John-Lyle, Year 4 MechEng), these cross-body necklaces lend a downtown-chic touch to the plainest of outfits. Worn over a white tee, or a black dress, this simple little accessory reminiscent of vintage Angelica Huston, is perfect for the girl who has almost everything. Five different styles are sold, each featuring a different central motif, and with £5 off for the Christmas season only, the chains are being sold for only £12-15, truthfully a steal for every budget. -SV

< £20

For those men that need a gentle prod in the right direction (let's face it, most could use a little help), this stylish man's bible features tips from how to buy a suit, to business etiquette, international superstitions and essential films one must have seen – plus there's an entire chapter dedicated to chivalry. And there was I thinking chivalry had well and truly seen its last day well before my lifetime. But in the words of Theodore Roosevelt, quoted in the inside cover: "Courtesy is as much a mark of a gentleman as courage." Didn't I tell you? Essential reading for all those with a Y-chromosome. -SV

Debrett's Guide for the Modern Gentleman (£15)



Dior Couture (£70)

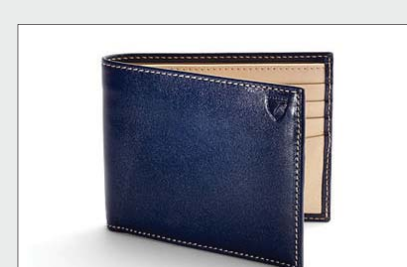


If you're shopping for a girl who likes to pretend she's a Princess, dreams of flowing gowns and pours over the pages of *Vogue*, *Dior Couture* is THE book to gift her with. Like a fairy-tale picture book, this is 250 pages of fashion history with designs from Christian Dior himself, Yves Saint Laurent, Marc Bohan, and of course, John Galliano. Hundreds of to-die-for dresses delicately captured by the famous photographer Patrick Demarchelier, on some of world's most beautiful top models, in some of the world's most stunning locations; there's no going wrong. -AY

£20 - £70

A guy's wallet is the holder of his life, yet too many guys have fallen down the trap of "boring black wallet" or even worse, "I've had this polyester wallet since I was 10". It's prime time we helped turn our boys into men, and smart sophisticated, stylish men at that – what better place to start than a good sturdy smooth leather wallet? This particular one by Aspinal of London is dark enough to be subtle, yet still shows character and screams quality. Whether it's a brother, best friend, boyfriend, or God forbid, father, show the man in your life that they deserve the best, and give them a gift that will never leave their side. -AY

Aspinal of London: Leather Wallet (£65)



Liberty London Collection Silk Scarf (~£135)



A scarf may seem like a typical Christmas present, but being Liberty's and being 100% silk, Liberty London Collection scarves are anything but ordinary.

Pamper that much loved woman in your life with this beautiful gift inspired by British winter gardens, featuring prints from jewelled toned peacock feathers, to monochrome orchids, and vibrant wild flowers. There are even online tutorials for the many different ways they can be worn: as hairbands, in braids and as turbans... this isn't just any scarf; this is a Liberty's scarf. -AY

£70 - £150

Dearest female-friends, should you be feeling on the generous side this Christmas, why not buy your male-counterpart something a bit more special? Yes, of course, feel free to splash out on a Rolex, but hey, that's just a tad bit mainstream don't you think? So why not go for this stunning timepiece instead? This leather strapped watch oozes of the perfect gentleman with a sense of heritage and respect for exceptional style; plus, we can bet the look on his face whilst watching those cogs turn will be a sight you don't want to miss. -AY

The Watch Hut: Skeleton Strap Watch (£131)



Chanel 2.55 (from: £1,200)

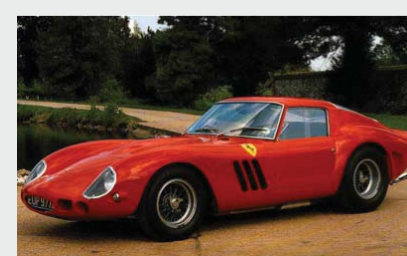


The ultimate in classic handbags, the Chanel 2.55 is a dream gift for almost any girl. Crafted from the softest lambskin, and drenched in the most formidable history of Coco herself (the chain handle is said to be inspired by bracelets the nuns wore at the convent she grew up in, and the inside pocket was for her love letters), you can keep your 'it' bags of the moment because this beautiful little piece of fashion history, first made in February 1955 will never, ever date. If your budget stretches this far, this is a gift that no girl could turn her nose up at. -SV

DREAM

To match your girl's shiny red Chanel, the ultimate vintage car truly blows the budget. The last one bought in the UK was that by DJ Chris Evans, a well-known collector of classic cars, which went for somewhere around the £12 million mark. The car (which, as a Ferrari, must be red) was originally produced between 1962-64, when only 39 cars were produced – hence the hefty price tag – though originally they were sold for \$18,000, to customers especially approved by Enzo Ferrari himself. I doubt he would have approved of Chris Evans driving this masterpiece. Something to ponder another time perhaps. -SV

Ferrari 250 GTO (POA)



FOOD

Wine Culture

Five things to know about red and white wines



1. There is one familiar rule which simply says that "Red with meat, white with fish". Is it correct though? In most cases, a red wine is more suitable for a meat-based dish, simply because the tannins (particular ingredients of red wine) bind the proteins of meat, resulting in a harmonic matching. Moreover, white wine and seafood have many things in common, like their flavour 'intensity' and texture.

2. Do you know a rule without any exceptions? Of course not. This is also the case for the previous point, where exceptions arise because of the uniqueness of each particular recipe. For example, imagine a meal with chicken in a white sauce with mushrooms. We can combine it with a mature white wine without feeling guilty, as the flavour and texture of meat will allow for it now. Surely, though, it is a matter of taste what you will choose in these cases.

3. Wine is extremely sensitive to temperature variations. For this reason it is crucial to store our wines in a place where the temperature is as stable as possible.

4. You should never put wine in the freezer, for the reason explained in the previous point. It's better to put it in the bin straight away.

5. Finally, our shelves should allow the horizontal placement of the bottles. The reason is simple; when the bottles are horizontal the cork is washed from the wine and remains moist and elastic, maintaining the ability to adjust well on the neck of the bottle. Therefore, the wine is protected from oxygen.

Anastasia Eleftheriou



A taste of Christmas

Michael Krestas makes his top festive food and drink decisions

Hotel Chocolat is the hotel of your Christmas dreams

A luxurious hotel must always include king size bedrooms, royal breakfast, at least one swimming pool, a spa, a gym, a posh bar or... just the greatest chocolate in the UK! I'm talking about Hotel Chocolat, the cocoa grower and chocolatier every choco-lover must have visited at least once.

At Hotel Chocolat you will find any kind of chocolate you can imagine; from milk, dark

and white chocolate bars for the traditionally minded, to chocolate fondue and champagne truffles for the more adventurous. Whether you're looking for a Christmas

gift or a treat to sweeten your tooth, this is the place to visit. Many may argue chocolate here is a bit pricey, and it's true, but – believe me – you are



getting the highest quality in the market. Milk chocolate cups filled with layers of praline and salted caramel. Irresistibly cute

Christmas Crackers, with space to write your guests' names and with a gorgeous filled chocolate hiding inside – perfect as table settings or as smart tree decorations.

Nearest shop: 5 Montpelier Street, Knightsbridge, SW7 1EZ

Warm up your winter with Starbucks

The last few days, the temperature has been falling dramatically, making me think that my flight back to beautiful Greece near the end of December may be cancelled like last year. There's not much to do but wear more clothes, buy more tissues and stay in the warm labs the most you can. If all of this has proven in vain, grab one of the Starbucks family of Red Cup hot drinks. Especially designed for the Christmas season – when people tend to spend more money – the Toffee Nut Latte, Eggnog Latte, Gingerbread Latte and the Mocha Praline are just what you need to celebrate the festivities; if



what you need to celebrate Christmas is a non-reusable paper cup.

Customer alert: Starbucks' fancy drinks, as any other's major coffee shop, consist of a shot of mediocre espresso, plenty of milk, a few milligrams of the syrup they get their name from and whipped cream on top. So keep in mind: these are not coffee drinks – not even latte – although I must admit they are very enjoyable during the cold days.

Nearest shops: 83 Gloucester Road, SW7 4SS/ 19 Old Brompton Road, SW7 3HZ

Bottlegreen Spiced Berry Cordial

A classic winter warmer combining blackcurrants, aronia berries, and spice, this cordial is best mixed with hot water although warm red wine is the choice to go with to capture the full essence of Christmas. When the cold days are over, if you have some cordial left try mixing it with sparkling water; it's just as refreshing as a soda and very tasty.

Available also in these flavours: Pomegranate & Elderflower, Sparkling Ginger & Lemongrass Presse, Lemongrass with Ginger Cordial, and many more.



Cherizena Christmas Coffee

Colombian filter coffee flavored with rum nuts, orange, and spices. A "different" choice for those seeking an intriguing coffee smell of high quality at an affordable price, Cherizena offers a wide selection of flavored coffee satisfying even the most demanding: caramel fudge, Tennessee whiskey, sticky gingerbread, chocolate orange, and cinnamon are just a few of the available flavours. Nice!



Epicure Wine Reduction

Epicure's exceptional wine reductions can be used in various ways to add intense, rich flavors to your dishes, from meats and casseroles to fish, salad dressing, and soups. The range includes: Madeira & Lamb, Muscat & Saffron, Ghianti & Porcini, Vermouth & Chicken, and Merlot & Fine Herbs. Epicure Creative Cooks offers all you need to skip straight to creative jobs that make cooking and eating so enjoyable.



Frosty the Cupcake

Warm up the kitchen with some classic Christmas baking

Yap Chin Hua

Follow these guidelines on how to make yourself the perfect base and frosting in time for Christmas!

Base

Ingredients

1 1/2 cups cake flour
 3/4 teaspoon baking powder
 3/4 teaspoon baking soda
 1/2 teaspoon salt
 Pinch of nutmeg
 85 grams unsalted butter at room temperature
 1/2 cup granulated white sugar
 1/4 cup light brown sugar — packed
 1 egg lightly beaten
 1 teaspoon vanilla extract
 3/4 cups full-fat yoghurt
 3 large nectarines, peeled, cored and chopped into 1-inch cubes

Method

Sift flour, baking powder, baking soda, salt and nutmeg. Mix dry mixtures thoroughly to ensure that everything is well mixed. Set mixture aside.

Place butter in a large bowl and beat with an electric mixer (or with a wooden spoon and sufficient arm grease) until mixture is soft, about 3 minutes.

Tip in the white and brown sugar and mix with the mixer until mixture is pale brown, creamy, and velvety, about 8 minutes. Remember to scrape down the sides of the mixing bowl every once in a while to ensure that all sugar is well mixed. Whisk marks left by the beater should be visible in the luxuriously fluffy mixture. This step incorporates air into the batter to ensure that the resulting cupcake is light and the crumbs are soft. Do take time to beat well.

Add the egg and beat it into the mixture well, scrape the sides of the bowl before beating for another 30 seconds. Mix in the vanilla extract and the full-fat yoghurt, and mix well.

Add the prepared dry ingredients and the cubed fruits. Mix by hand using a whisk or large spoon until everything is mixed. Try and resist the urge to be overzealous when stirring. Mix only until everything is just combined. Over-mixing would result in tough cupcakes.

Divide batter into muffin trays that are either lined with muffin paper cases

or greased with baking spray. Fill each muffin wells to about 3/4 full, any more and the mixture would overflow in the oven. Bake for 18 to 22 minutes at 150C or until a toothpick inserted into the middle of the cake comes out without wet batter. Do not open the oven door for the first 10 minutes.

When cupcakes are done, remove from the oven and cool cupcakes for five minutes in the tin. After five minutes, turn out the cupcakes and cool completely on a wire rack.

At this point, the cupcakes can either be frosted with cream cheese frosting, or eaten just as they are.

Frosting

Ingredients

45 grams of unsalted butter — room temperature
 2.5 cups icing sugar
 125 grams cream cheese — fridge cold.
 1/2 teaspoon lemon juice
 1 teaspoon vanilla extract

Method

Ensure that butter is at room tempera-



ture and that cream cheese is fridge cold. Cut cream cheese into cubes before placing back into the fridge for at least 30 minutes.

Beat the butter with all the icing sugar until sandy. Start mixing really slowly to prevent inhaling icing sugar.

The mixture will look like yellow sand.

Add the cream cheese, vanilla and lemon juice; beat with an electric mixer

(or with a wooden spoon) until mixture forms stiff frosting. The mixture may seem like it is never going to come together as it may look very dry. Give it time and don't add any more liquid. Don't beat for more than two minutes or the frosting will be too runny.

Top the cooled cupcake with about one tablespoon of frosting. Ensure that the cupcakes are completely cooled to prevent the frosting from melting.

Coming to a Wonderland near you: Münchener Currywurst!

Mario Hayashi

Winter is coming.

And so, as autumn draws to a close, we must all brace ourselves for the season to come.

But not all is lost amid chilly temperatures and shorter days: after all, it's the time of year when penguins suit up for their annual winter ball. With the holiday season just started, there's plenty to be celebrated and feasted on. Food, once again, has taken centre stage.

Enter Winter Wonderland. For those of you who've not yet been: situated in London's historic Hyde Park, it's an amusement park within convenient walking distance from our college. Ever notice the Ferris Wheel at Hyde Park Corner? That's the place I'm talking of.

As if modelled after a traditional German (or allow me to interject, Austrian!) Christkindlmarkt, food and souvenir stands exhibit an uncanny similarity to those found on the Continent. What's more, the rides and attractions are all sourced from (presumably) Germany and Bavarian flags dominate the wonderland scene. Welcome to Europe!

Back to our foods menu: Winter Won-

derland offers nothing short of roasted chestnuts (nut-lovers you'll love this), mulled wine, Hungarian Langos and goulash. But the real highlight of the winter night? Hot dogs. They're literally everywhere, and for good reason: the authentic German Weisswurst, grilled to perfection, tastes heavenly and can't be missed out on. By far the greatest German invention, the Münchener Currywurst is a one-of-a-kind sausage that experts unanimously agree to be the long reigning king of the Wurst arena. A range of beers are served too and are best enjoyed at the Bavarian beer hut, where dance beats of the 80s and 90s liven up the atmosphere.

While the foods are delicious, the prices are a shocker. All foods are expensive and I've come to discover that hot dog prices vary from stand to stand. So watch out folks. Also, there are no free cash machines (there's no such thing as a free lunch, after all), so make sure you have cash at hand when you visit.

Finally, Winter Wonderland offers an ice skating rink too, for those who want to work off the delicious drinks and food with some exercise.

Enjoy!



You might not find a free lunch within Hyde Park this winter, but headaches are a real possibility

TRAVEL

Cannabis Cup Highlights



Pot smoke and phallic objects: two favourite things

Cannabis Cup winners



Warning: may contain THC?

As you'd expect, competition at this year's Cannabis Cup was fiercer than ever, as companies far and wide competed for that most coveted of trophies. This year's lucky winners are:

The Cannabis Cup
Barney's Coffeeshop:

Liberty Haze

Indica Cup
Reserva Privada:

Kosher Kush

Sativa Cup
Rare Darkness Seed Co:

Moonshine Haze

Imported Hash
The Green House:

Exodus Green Cheese

Dutch Hash
Barney's Coffeeshop:

Liberty Hash

Want free press tickets to awesome events like the Cannabis Cup? Well why not drop us a hearty email at travel.felix@imperial.ac.uk?

Travel Editors: **Dushi Arumuganesan**
Chris Richardson

travel.felix@imperial.ac.uk

Friends in high places

Felix Travel competition winners **Charlie, Mandy and Bobby**

As a kid, Usain Bolt probably dreamt of the Olympics while he was outstripping all his mates on the running track. Neil Armstrong probably gazed at the Moon and wondered "what if?" Charlie, Mandy and Bobby Brown almost certainly sat munged in the wee hours of the morning and all agreed they really fucking wanted to go to the Cannabis Cup.

I doubt many stoners have bucket lists. They're kind of reserved for unfulfilled old men and the terminally ill, and arguably require a degree of focus and ambition that tends to evade the habitual recreational smoker. Nevertheless, if they did the High Times Cannabis Cup would definitely feature. In truth, it might be the only thing to feature. It's the Valhalla of ganja, marijuana's answer to Davos, the meeting place for all that is great and good in the world of green – it's the Cannabis Cup.

In spite of everyone's best efforts to get out of bed and check in at Gatwick for stupid o'clock, the trusty pilot at RyanJet decided to fuck up our day and show up late. I wish I could recollect a riot scene à la August in Croydon, but that's far from a stoner's nature. Instead there were a few apathetic sniffs and whimpers, as most would-be Cup-goers sat with lips pursed, longing for the sweet scent of THC and greasy fried chicken chaser.

The delayed flight gave plentiful time and an adequate sample size to give us a good idea as to the demographic of Cup-goers. An entire spectrum of people was present: everything from investment wankers right up to hoodie-sporting CoD aficionados. Men and women, of all ages, shapes and classes – it seems there is some truth in Everyone-DoesIt.com's beloved domain name. After a few rounds of *Angry Birds EasyAir* finally got their shit together and we were off on our merry way.

We decamped at the hostel, breakfasted like champions on some chicken strips and, buoyed by a sense of adventure, hit the atmospheric Hill Street Blues coffee shop to warm up. As the saying goes, when in Amsterdam, do as the tourists do.

HSB is your classic coffeeshop, dark, hazy and frequented by people who look like they popped in for a doob in 1992 and just never really got around to leaving. For someone who ordinarily finds dreadlocks repulsive, to say I was impressed by some of the examples on show so says a lot. Anyone who can grow it out and backcomb enough to look like *Star Wars*' Bib Fortuna deserves credit.

A couple of drinks and a zoot of Hill Street's finest later and we were probably about as outwardly lethargic as we were at the start, but inside we were pumped. We shot each other the kind of look that gladiators give one another in the tunnel waiting to face the lions. We knew why we were here, so we trundled out to the bus stop.

Thankfully the good folks at *High Times* provided us with the perfect means of transport to get to and from the event. A far cry from the bog standard buses of London town, the 'cannabus' was kitted out with comfy chairs, strobe lights and – of course – ashtrays. We rumbled through to the misty outskirts of town as the reggae blared and conversations flowed, as the residents of Amsterdam gawked at the big metal box of lunatics that



zoomed by.

To be blunt (pun intended), the journey was tip-top-terrific. We aggressively worked our way through the rest of our spliff and spoke endless codshite to our fellow Cup-goers, at least until the fumes got the better of us and we were forced into a silent submission. Before the haze and glaze, we did manage to muster up some top quality investigative journalism.

"it was Willy Wonka's weed wet dream"

Among the humble critters we encountered was Dale, a sixty-something PhD (Doctor of Philosophy? Pretty huge dick? You decide.) hailing from – where else – Southern California. Dale has lived a pretty interesting life, setting up growers "for private use and on a commercial scale". His clients include doctors and lawyers, and despite run-ins with the law and the burden of repeated heart attacks, Dale insists that he loves his work and loves his pot.

As the bus pulls in to the foggy car park Dale tells us "everybody is programmed to be on a leash, our entire society. You don't realise what's

important in life until you almost don't have it, and I'm glad I've found it". With a puff on his pipe and a tip of the hat, he wishes us a good Cup and enters the madness.

It was now that shit got real. As if a converted, graffitied bus with strobe lights and ashtrays hadn't hit it home enough, the arrival at the Borchland provided the finish. None of us had any idea of what lay in wait for us through the double doors of this unassuming out-of-town conference centre. Naturally our minds had run wild over the past weeks, but we knew nothing, the whole affair was shrouded in myth and mystery.

Picture a careers fair, except instead of rows of banks lining up to hand out boiled sweets and pens, you have stall after stall offering everything a stoner could desire. Oh, and also the 30ft high conference hall is dense with the fruitiest smoke that ever washed over your olfactory receptors. The *High Times* employees made us feel immediately welcome with their Southern Californian warmth and candour, as they handed out our judges passes and a bunch of free stuff. I couldn't help but pinch myself when, confused by who wanted what t-shirt, the assistant serving us let slip, "man, I'm too high for this shit." You certainly wouldn't get it in Starbucks (or at least they wouldn't admit to it).

Without many other similar events anywhere else in the world, the Cannabis Cup commands global



Knocking shoulders with self-proclaimed LSD experts The Brotherhood of Eternal Love

TRAVEL

s: a Cannabis Cup special

Brown re-live whatever they can remember of this year's *High Times* Cannabis Cup



attention. Whilst exhibitors tend to come from the small clutch of countries in which cannabis cultivation is legal (the homespun Dutch growers dominate the line-up), the attendees predominantly come from the States. Naturally there are stereotypes of those who smoke cannabis and each was ably represented at the Borchland. From the Lil Jon lookalike West Coast gangsters to the hippies still committed to the cause, from the nerdy hobbyists who do the science on their laptops to the well-to-do liberal thinkers who've retained their taste for green. However, common to them all is an easy-going outlook, perhaps unlocked by the safe environment that Amsterdam offers.

Having sampled the strains and products on offer, we eventually plucked up the courage to venture backstage and put the press passes to good use. It was at this point that we had a meet and greet with The Brotherhood of Eternal Love, the infamous group of psychedelic drug enthusiasts and dealers that formed in sunny California in the late 60's, under a mutual love for LSD and (amongst other things) vegetarianism. After witnessing their outstanding musical performance and poetry recital we were eager to find out more about this curious bunch.

One Brotherhood veteran, who wished to remain anonymous, gave us an insight into his early life: attentive Imperialites could learn a thing or two. "We used to surf all day, then spend our weekends crashing other schools' parties and stealing their girls. And then

we discovered psychedelics and, it was like, uh-oh!" Uh-oh indeed: the group rose to notoriety and unfortunately attracted the attention of the authorities, and as such many members were arrested while the rest scattered around the globe.

When questioned about the use of drugs by younger people, the Brotherhood spokesperson went on to describe an alternative solution based on personal anecdote: "the best time to get them [children] started is very young. If you catch them doing them alone, simply take them by the hand and show them the path. My daughter and I are now closer than ever: after taking LSD and gazing into each other's eyes for hours, she took me to new levels that I didn't think were possible." Rather than turning a blind eye to drug consumption, perhaps UK authorities could instead see the obvious benefits to the Brotherhood's approach.

I would liken us to children in a sweetshop, except I imagine in the sweetshop they weren't handing free samples of everything. Seeds here, bong-hits there, buds the size of your fist – it was Willy Wonka's weed wet dream. Who knew there was so much pioneering research in the field of vaporizers, so much innovative engineering applied to grinders? Sadly, rather than be conscientious Charlie Buckets and resist the temptation before our slightly pink eyes, we dived lungs first into the occasion.

Two hours later, we were flat on our backs in a quiet corner of the convention centre, each us having

retreated, stupefied, to some dark recess at the back of our minds. Either watching the passersby with vacant eyes or locked into the mellowest game of *Angry Birds* we've ever played. After the umpteenth, we resolved to scrape ourselves off the floor and embark on the journey back.

Having lost all inhibitions, it took a little while to rationalise the difficult concepts of roads and traffic. After what felt like an eternity we hobbled from the bus into Amsterdam traffic, crossed the road unscathed and clambered into chilly hostel beds, where we remained unconscious for several hours.

We awoke on day two refreshed and ready to face a solid day of investigative journalism. Instead of reiterating the wake and bake of the first day, we focused our attention on attending the countless sessions on offer at the expo. From a presentation on how to properly utilise fertiliser, to a hash making class, to jolly sing-alongs – *High Times'* expo managed to encompass the sublime, the ridiculous and everything in between. After attending a presentation on the endless benefits of hemp, followed up by checking out the cracking rack on Miss *High Times* 2011, we proceeded to track down some of the big names in the industry.

We took our seats at the front of a hash making class led by the legendary hash professor Mila Jansen, who spent 14 years living in India learning the ways of the locals. In 1995, she came to fame for developing the Pollinator, a device described as "a personal solution

for hand turning leaf material to separate the resin from the plant material", that is effectively only useful in hash-making. Resembling a washing machine on its back, you place dry ice and your 'leaf material' into the drum and allow to spin before removing the mixture and shaking out the powdery precipitate. Cue wide-eyed gasps of awe as Mila's assistant sprinkled light green snow over a glass-top coffee table and biblical scenes as the crowd swarmed to the front to collect a free sample. Speaking to Mila after the class, she shared with us a few croaky anecdotes of her time travelling Asia, perfecting the art of hashish. "I love Afghani hash! I love Afghani!"

With the Dutch government's recent aborted attempt to tighten cannabis laws, the future of legislation was a hot topic on the convention floor. Dale was convinced that our generation would see the widespread decriminalization of cannabis, Dan Skye, *High Times* editor, was hopeful but tempered his optimism. Casually dressed and well spoken, Skye, who initially donated the press prizes to the Felix Travel competition, had a good chat with us about his views. Unsurprisingly, these mostly echoed Imperial's very own Council Chairman Baroness Manningham-Buller and Professor David Nutt.

"Current drug policy needs some serious re-thinking, and as long as people aren't harming anyone they should be allowed to use any substance they like," said Dan. "We have to overcome this illogical drug war and put aside the rhetoric and propaganda." Cutting through the hysteria – the proposed restrictions on cannabis tourism were dropped a few weeks before our visit – Dan was confident that the Cannabis Cup would go on for years to come in the Netherlands, regardless of what happens in his less liberal home in the States.

Danny Danko, senior cultivation editor approaching his tenth year at *High Times*, painted a less rosy picture, telling us of his torment growing cannabis in the face of draconian US laws. "I found it very stressful, very hard on the psyche. All the secrecy and being in fear all the time, its not always a very natural way to live." With unnerving undertones of a man oppressed, he explained how every time he leaves Amsterdam, he feels he is making a mistake but is too rooted to his life in his homeland. In the case of Danko, who grows reasonably large quantities at his home in New York, proposed that much of the paranoia they say comes from marijuana actually comes from marijuana prohibition. Resigned, he concluded, "after all, it's just nutrients and fertilizer."

Even though we were strictly in Amsterdam on business, no trip would be complete without the mandatory victory lap through the red light district. Stoned as a rock and floppy as a 3 1/2 inch floppy disk, Charlie, Mandy and Meow-Meow parted ways and rendezvoused at Central Station a good 20 minutes later.

The flight home was somewhat less problematic as the outward journey, and we sat in silence, struggling to compile our thoughts under the comfort of blankets. We staggered to our lectures feeling brighter and warmer than ever. To say that we are now richer for the experience would be an understatement. The combination of enlightened minds and magical herbs has made us all better people, and the wise words of the Brotherhood will stay with us for many reincarnations yet to come.



In spite of it being switched off, the visuals were still incredible...



GREEN powder? That I CAN'T snort? Well, that makes a change...

Travel Editors: **Dushi Arumuganesan**
Chris Richardson

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TRAVEL

Christmas in the capital

Dushi Arumuganesan's guide to London's most festive frolics this winter

With just over two weeks left to go, the capital has been transformed into a beautifully illuminated, life-sized snow globe (minus the snow) in the countdown to Christmas day. So here's your guide to enjoying the best of London's Christmas highlights this year.

As far as traditional Christmas fairs go, Hyde Park's Winter Wonderland may seem an obvious first choice, and yes, there's nothing to get you in the mood quite like mulled wine, German bratwurst and knitted woollies. However, for those of you who'd prefer to feast on your Bavarian bangers without feeling as though you've been packed into a tin of sardines, the Southbank Centre's Winter Festival presents a good alternative to Hyde Park. Over sixty market chalets spaced out along the south bank of the Thames offer festive fare, both edible and otherwise, more or less identical to that of Winter Wonderland, but with the advantage of fewer tourists, toddlers and Evel Knievel wannabes armed with perambulators waiting to knock it all out of your hands.

Naturally no festival would be complete without its own carousel, and while Winter Wonderland's may be set against a background of the beautifully lit-up Observation Wheel, the Southbank's slightly smaller merry-go-round is dwarfed by the London Eye, no less. Admittedly there are no other rides, let alone an ice rink, available at Southbank, but who needs that artificial rush when you've got the entirety of London's skyline from the vantage point of Embankment pier instead? The view is better, the sausages

are juicier and there's even a book market to boot – the Southbank Centre's Winter Festival is a must-do this year.

If however you feel that Christmas wouldn't be the same without a session on ice, then why not skate against some of London's most striking backdrops on the temporary ice rinks being constructed all over the city? The open-air rink at Westfield Stratford City provides views of the new Olympic park, and Canary Wharf's rink offers an equally imposing setting of the city's most dizzying towers. Those after more picturesque landscapes should head to the Tower of London, Somerset House, the National History Museum or Hyde Park where the rinks are all set in the midst of London's famous landmarks.

"you cannot go wrong with a Christmas spent in London"

More and more of us are resorting to online shopping each year in a bid to avoid the frenzied crowds of shoppers at Oxford Street. For those of you who haven't given in yet, your best bet when hunting for those quirky one-of-a-kind Christmas gifts is to avoid more commercial shopping centres and districts, and instead trek it around some of London's markets. Of course, there's Portobello Road and Spitalfields markets on either side of London, each overflowing with vintage clothes, books and ornaments. But there's more of the same at Columbia



For best results, drop a couple of tabs of acid before hitting the rink: you'll skate like a pro. Or perhaps not

Road market (open late every Wednesday until Christmas day) in the East End and the twice weekly Camden Passage market in Islington.

Finally, if you just want to spend time walking around London, soaking in the city's Yuletide spirit, there is no shortage of places to go. Covent Garden has been revamped on all sides: in addition to the bewitching Christmas lights, there has been a visual display installed on the North East piazza in the form of a digital painting that shifts between nativity scenes throughout the day. On Saturdays reindeer-petting is an activity on offer alongside all the market stalls. Meanwhile, a 32 foot tall topiary reindeer watches over the East piazza: an oddly frightening sight

from afar after dusk, but impressive nonetheless.

And of course, because it's that time of year again, minor celebrities have been resurfacing all over the country, with D-list stars and reality show remnants everywhere being recruited for the action. London's Christmas lights have been switched on, and there are few surprises in the best of this year's bunch. If you begin your evening at Trafalgar Square's giant Norwegian Christmas tree, making your way down the very festive Regent Street and under the dazzling snowflakes of Oxford Street before ending your night at St. Christopher's Place surrounded by floating baubles you would have covered those of the capital's lights

most worth seeing.

However, there are some equally exceptional lighting displays off the beaten path such as in the Angel, Islington and on South Molton Street, where you can walk through incandescent arches as you shop. Carnaby Street is an especially good spot for a romantic walk for two, beneath lit up sprigs of mistletoe and holly garlands of gargantuan proportions.

Whichever of the above you choose to indulge in, you cannot go wrong with a Christmas spent in London – this is one time when quantity and quality both compete with each other to provide one of the best cities in the world in which to live come winter-time.



Tourists stop and gawk at Covent Garden's big, red, throbbing balls. Aw, yeah...



Generic Imperial student: "RUUUUN! It's Godzillaaaaa!"

Volunteer in West Africa with



Summer Serve and Learn 2012:

Girls' Empowerment

(June 4 -20, 2012)

Read and Play

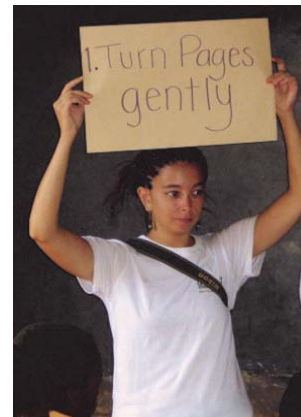
(June 22 – July 8, 2012)

Kickin' It in Ghana

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Malaria Prevention

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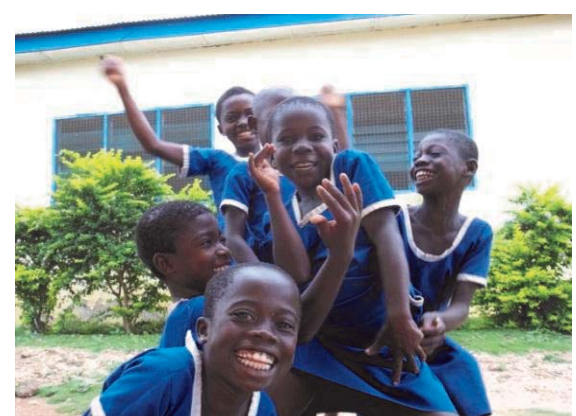
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Applications will be reviewed on January 15, 2012

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H

HANGMAN



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On the twelfth day of Christmas my tutor gave to me...

- 12 Horoscopes a scopin'
- 11 Twats twattering
- 10 Editors editing
- 9(000) guys
- 8 Medics drinking
- 7 Coursework deadlines
- 6 Geeks a standing (in a corner in Metric)
- 5 O'nion rings
- 4 Chemists reacting
- 3 All-nighters
- 2 Lezzers lezzing
- And a drunk mate (or two) in a pear tree...

Merry Christmas from Hangman. Now, start revising for your exams you shit-bags. Oh, and no, he/she next to you doesn't want to hear your 'witty remark' about their work. I don't care that you've been perfecting the wording for the last hour and coming up with follow up conversation. You are not 'in there'. You weren't going to say hi anyway. I know that you said "When the time on the clock is half past that's my deadline to open" but we both know the truth. Back to library toilet masturbation for you then.

Don't forget to catch your friends making dicks out of themselves on New Year's Eve. Then get permission and send the evidence in for a Drunken Mate of the Week to: felix@imperial.ac.uk

The contents of Hangman's fridge

OH MY GOD EVERYTHING IS EXPIRED

6-pint carton of milk

You were mildly drunk shopping in Sainsbury's one night and set about finding one with the earliest expiry date, giving yourself the challenge of finishing it before it goes bad. You could do as the Mongolians and make some sort of moonshine out of it, but you end up turning it into cheese instead. You cut the container open, let the congealed mass slide out onto the floor and shrug.

Loaf of bread (six months old)

Everyone in the house assumed it was someone else's, so it sits there unloved, untouched, unused. Rather like your penis. When this anomaly finally comes to your attention you open it, only to be showered in mold spores. Your loaf of bread looks like a giant blue Lego, except no toddler or sane human being is putting it in its mouth any time soon. Much like your penis.



You wanted snow? Look, there's snow. Merry fucking Christmas. This image now contains something our Editor wants. Food. We starve him to keep him delirious enough to allow some leeway with Hangman



You have no idea how big our problem is. They exhausted the beer so they moved on to the harder stuff

Several bottles of beer

The only things in the fridge that can be counted on not to send alarm bells ringing at the Centre for Disease Control, and that's only because the micro-organisms already in it were like "fuck this" and died from alcohol poisoning. While chugging the bottle you contemplate how great life as a yeast is, provided it's inside a barrel and not the type between some skank's legs. Wait, both are actually pluses, damn yeast.

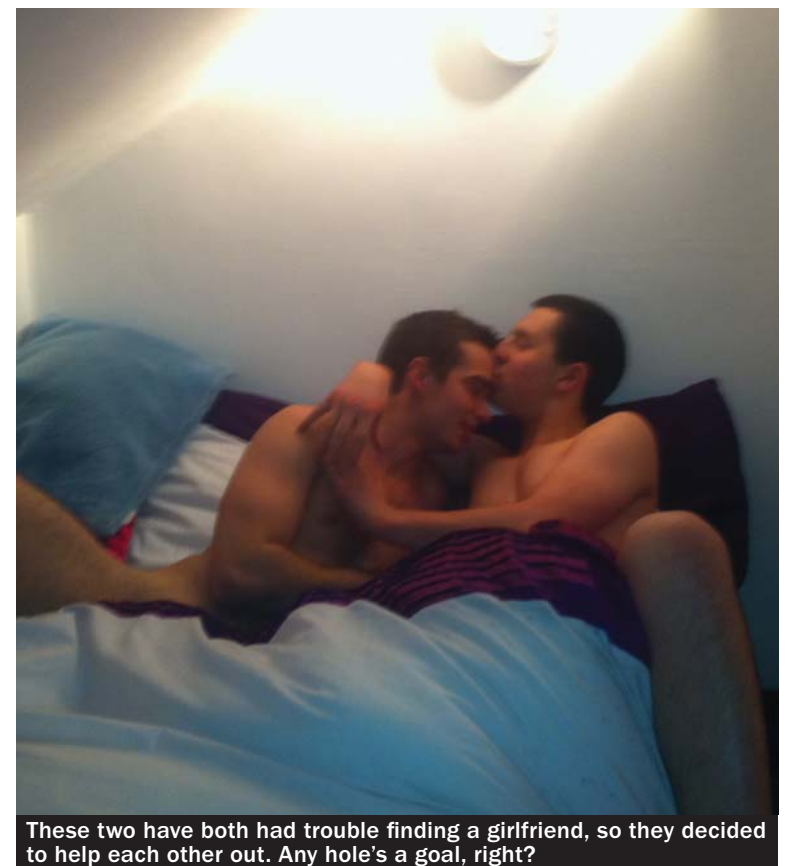
Mousetrap

The rodent problem in your house is so bad that the buggers have succeeded in gnawing through the back. On the upside, at least now you can eat your housemates' leftovers without retribution since you can blame the mice. Mice with huge teeth and jaws, you tell them. Blaming them on the "droppings" you leave in there is a whole different kettle of fish, though – just use the toilet.

DRUNKEN MATES OF THE WEEK



He must've felt a bit dirty after hitting on that Oompa-Lumpa at 568 and needed a shower. He forgot the undressing part, though



These two have both had trouble finding a girlfriend, so they decided to help each other out. Any hole's a goal, right?

HANGMAN

the turnip

Hangman's Finest College News Source



Library Café sells responsibly sourced dolphin

Little girls across world horrified

In an attempt to become more environmentally aware, catering at the Library Café has moved towards serving food that has less impact on the environment, including dolphin curry once a week, starting from next month.

What makes the controversial menu option green is that it comes from fisheries that make sure they only catch dolphins, either returning other species into the water or using special nets that let smaller species through, like tuna. Tuna bycatches in dolphin fishing have been the cause of a great deal of protest by Greenpeace, and also PETA, an activist of which was

tracked down for an interview and asked why the animal rights group appeared to have no problem with the dolphin catch.

"Dolphins are clever enough to fend for themselves, fuck them. Tuna, on the other hand, are rather defenceless. Did you know that tuna are warm-blooded? We're warm-blooded as well. They don't deserve this treatment. I'm glad fishermen have begun adopting tuna-friendly catching methods." The interview ended abruptly when the beef burgers were brought in. The representative gave no explanation as to why he refused to answer any further questions.



Turns out their blowholes aren't meant for THAT. Come on, why are they that shape? Screw PETA

Horoscopes*

* This caption was the same as last week. Go on, check if you don't believe me.

Aries

This week you are at a Christmas party when Mariah Carey's 'All I want for Christmas is you' comes on. This is totally your song. You go mental and start throwing shapes on the floor while singing at the top of your voice. Could be worse, you could be writing about how amazing your phone is in a newspaper.

Taurus

This week you go ice skating at the Natural History museum Ice Rink. Tired of being out-done by the flocks of irritatingly talented 5 year olds, you try to show off by skating backwards and doing a spin. You wake up 4 hours later in Chelsea and Westminster hospital with an IQ of 52. You become a politician.

Gemini

This week you are at a Christmas party when a 'girl' starts going mental to Mariah Carey's 'All I want for Christmas is you', she knocks your bottle of Peroni from your hand with one of her 'dance moves'. You decide there and then that you hate Christmas and decide to do something about it. It is going to massive.

Cancer

This week it's intensely cold. Like seriously really cold. As your aching bones protest when you try and get out of your sleeping bag, you realise occupy LSX is a complete waste of time, pack up your stuff, go home and become a normal, functioning member of society. Was that so hard? You chuckle about hard meaning erect.

Leo

This week you are Mariah Carey. As with every week in December for the last 17 years, a massive royalties cheque lands on your door mat. Just when you start thinking what you're going to do with the money, you notice an enraged geek shuffling up your driveway holding what looks like a Bunsen burner. You scream for 1 minute, ranging 3 octaves.

Virgo

This week your parents ring you up and ask what you want for Christmas. "Damn it guys you know I became a Wicca New Age Vampire when I came to uni" you shout down the line and hang up. On December 25th your mum hands you a Christmas card with "You were always a disappointment" scrawled on Baby Jesus's face.

Libra

This week you find yourself still hungover from last night's Christmas party and jet lagged from your flight to LA, stood in Mariah Carey's front room with her lifeless body in front of you and a blood splattered Bunsen burner in hand. This could yet turn out to be the best Christmas ever.

Scorpio

This week your flatmates are decorating the Christmas tree in the living room. You don't help, but instead play Deus Ex. You come downstairs 4 hours later to find that the mixture of mulled wine and tinsel made the whole affair descend into a mass-festive-sex-orgy. You hate it when you miss your flatmates sex orgies.

Sagittarius

This week you're Noddy Holder, sat inside your reinforced concrete panic room. You can't be too careful with the Christmas Number 1 serial killer, known in tabloids as "The Grinch" still on the prowl. You hear a rattling in your air duct. No. He's found you! You, like everyone else, had hoped that he'd only go for X-Factor winners.

Capricorn

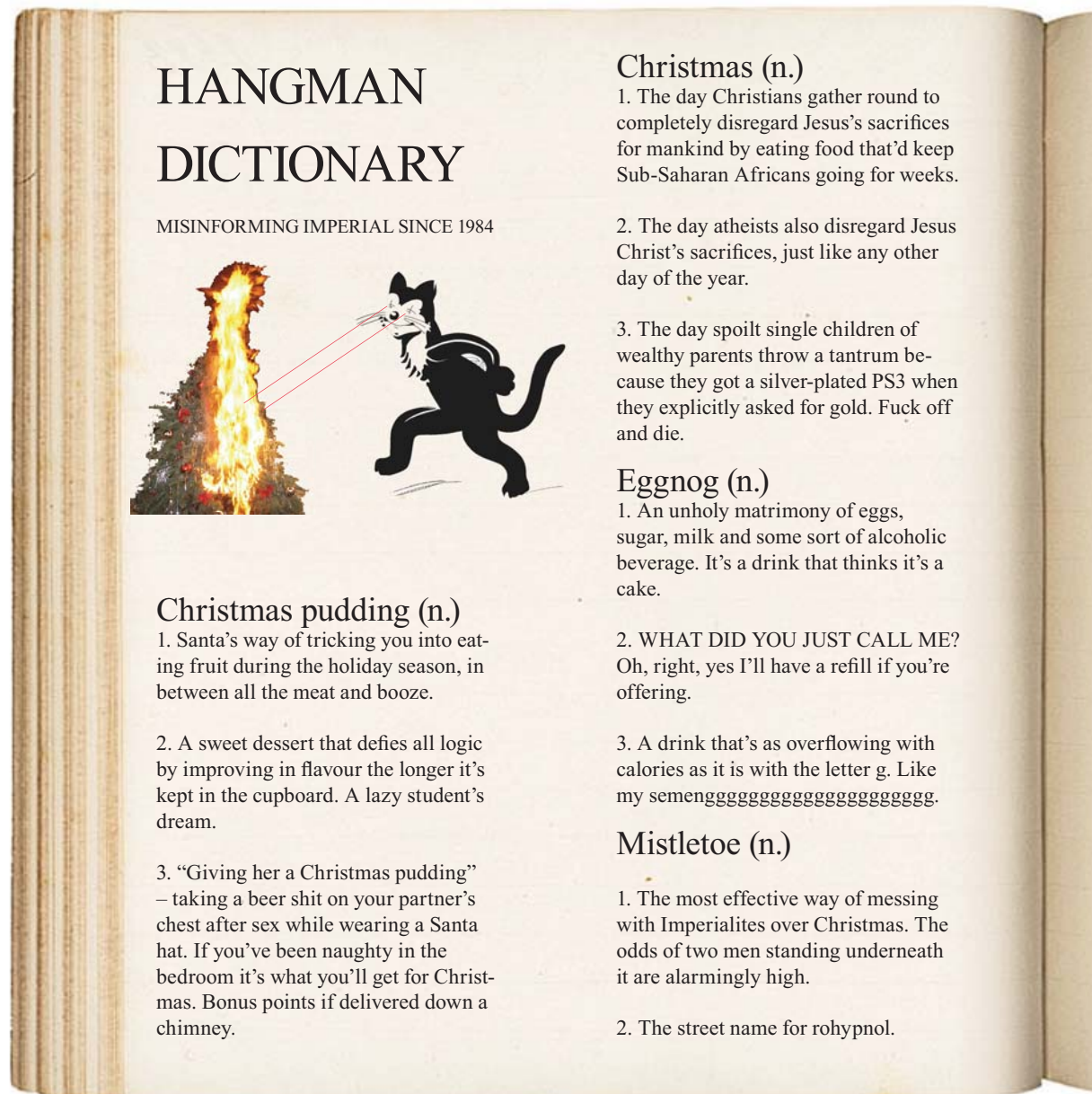
This week you wonder why a leading institute full of people who spend their entire lives being analytical get excited about a day commemorating the intense labour pains of a woman that got knocked up by an imaginary bird-man working for an invisible being. Pushing the thoughts to one side, you tuck into a Lindt Reindeer.

Aquarius

This week you burst out of the air vent into Noddy Holder's panic room, screaming "IT'S CHRIIIISTMAAASSS MOTHERFUCKER!" you pick up the nearest platform shoe and bring it smashing down onto his head. "Bah, Humbug" you mutter, crossing the last name off your list.

Pisces

This week you are still the brunette in the yellow jumper with gold studded black gloves smoking in the entrance to Sheffield last Wednesday, you still haven't called. 07515789751, don't keep me waiting baby. I've got something big in my stocking for you... (it's my penis).



HANGMAN DICTIONARY

MISINFORMING IMPERIAL SINCE 1984



Christmas pudding (n.)

1. Santa's way of tricking you into eating fruit during the holiday season, in between all the meat and booze.
2. A sweet dessert that defies all logic by improving in flavour the longer it's kept in the cupboard. A lazy student's dream.
3. "Giving her a Christmas pudding" – taking a beer shit on your partner's chest after sex while wearing a Santa hat. If you've been naughty in the bedroom it's what you'll get for Christmas. Bonus points if delivered down a chimney.

Christmas (n.)

1. The day Christians gather round to completely disregard Jesus's sacrifices for mankind by eating food that'd keep Sub-Saharan Africans going for weeks.
2. The day atheists also disregard Jesus Christ's sacrifices, just like any other day of the year.
3. The day spoilt single children of wealthy parents throw a tantrum because they got a silver-plated PS3 when they explicitly asked for gold. Fuck off and die.

Egnog (n.)

1. An unholy matrimony of eggs, sugar, milk and some sort of alcoholic beverage. It's a drink that thinks it's a cake.
2. WHAT DID YOU JUST CALL ME? Oh, right, yes I'll have a refill if you're offering.
3. A drink that's as overflowing with calories as it is with the letter g. Like my semengggggggggggggggggggggg.

Mistletoe (n.)

1. The most effective way of messing with Imperialites over Christmas. The odds of two men standing underneath it are alarmingly high.
2. The street name for rohypnol.

PUZZLES

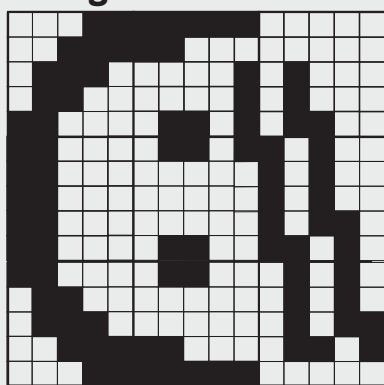
puzzles.felix@imperial.ac.uk

Last Week's Solutions

Synonymous Songs

1. Smells like teen spirit
2. Like a rolling stone
3. Jailhouse Rock
4. Walking in a winter wonderland
5. Saturday night fever
6. Circle of life
7. Chelsea dagger
8. DJ got us falling in love
9. Man in the mirror
10. Every rose has its thorn

Nonogram



Crosswords

QUICK(ish) - Across 1. Arch 3. Freed 6. Cast 11. Diamond 12. Erotica 13. Ratty 14. Motorcade 15. Armaments 18. Leafy 20. Mango 21. Sandstorm 23. Iron Cross 26. Petal 27. Beetles 28. Open air 29. X-ray 30. Yemen 31. Beta **Down:** 1. Andorra 2. Craftsman 4. Rudiments 5. Erect 7. Anita 8. Tragedy 10. No frills 16. Mooncalf 17. Sandstone 19. About face 20. Mailbox 22. Malaria 24. Opera 25. Ossie 26. Poem

CRYPTIC - Across 1. Godfather 6. Kebab 9. Adverse 10. Missive 11. End 12. Crackerjack 14. Peddle 15. Anaconda 17. Nocturne 19. Strict 22. Loose change 23. Lob 25. Inducer 27. Thought 28. Scrap 29. Decathlon **Down:** 1. Glade 2. Divided 3. Agriculture 4. Haemal 5. Remaking 6. Kos 7. Britain 8. Breakfast 13. Rock the boat 14. Penalties 16. Anchored 18. Chowder 20. Illegal 21. Enatic 24. Baton 26. Cop

Chess

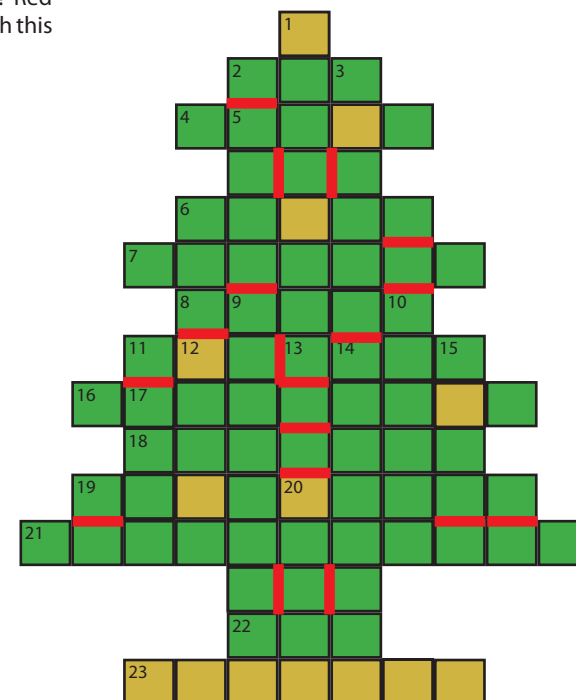
A beautiful finish from black follows after the surprising 1...Rd5!! with the idea of 2...Rh5+ and 3...g5 which is pretty much unstoppable

Crossword

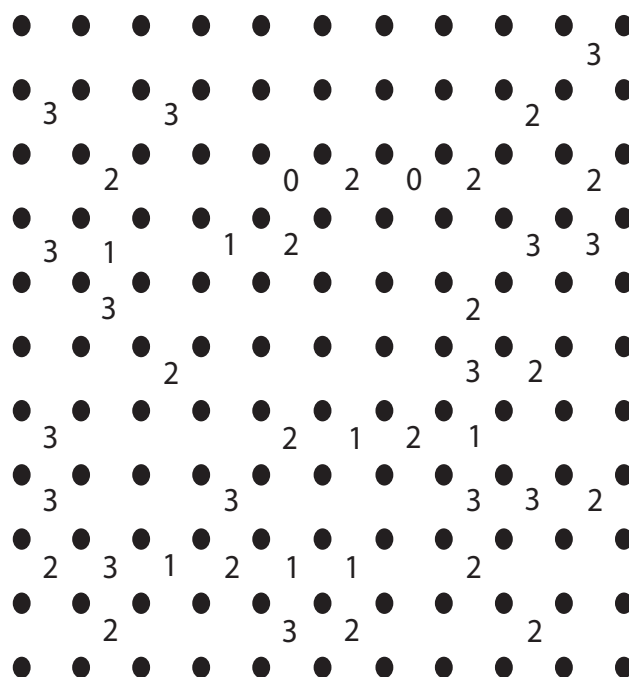
It's that time of year when I unveil my Christmas tree! As you can see, it is stylishly decorated with red and gold, but it looks a bit bare without some clue answers, don't you agree? Red tinsel indicates clue ends and gold baubles spell out something that may be found beneath this tree at this time of year from top to bottom, which can be written at 23 across.

Merry Christmas everyone!

- | | |
|--|--|
| <p>Across</p> <p>2. Extended period of time (3)</p> <p>4. Number of points; 20 (5)</p> <p>6. Ideal goal (5)</p> <p>7. e.g. 27th December 2011 (7)</p> <p>8. Base 8 (5)</p> <p>11. Remains; with 14d, 70s rock band (3)</p> <p>13. Exchange (4)</p> <p>16. Praises formally and eloquently (9)</p> <p>18. Artist - works include Guernica and The Old Guitarist (7)</p> <p>19. Characterised by unwillingness or inability to take action (2-7)</p> <p>21. Christmas song by James Lord Pierpont (6,5)</p> <p>23. Yellowish-brown colour (3)</p> | <p>Down</p> <p>1. Students have performed these in response to tuition fee rises (8)</p> <p>3. Fleet of warships (6)</p> <p>5. Feel concern or interest (4)</p> <p>6. Two people doing things, esp. in entertainment (3)</p> <p>9. Treat made from roasted seeds commonly consumed at Easter (9)</p> <p>10. Fictional dog created by Eric Knight (6)</p> <p>12. Throw; strap (5)</p> <p>14. Commonly broken after eating Turkey; see 11a (8)</p> <p>15. Unskilled worker (4)</p> <p>17. Positioned above; imminent (4)</p> <p>20. 2nd largest US state by area and population (5)</p> |
|--|--|



SLITHERLINK



The aim with Slitherlink is to make one continuous closed loop by connecting the dots. The numbers in each square indicate how many edges of the square are part of the loop, so if it contains a "2", you know that two and only two out of

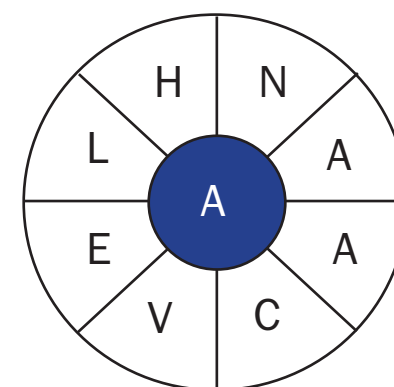
four edges have lines. That's all the info you need to get the one logical answer (though waiting a week to see the solution will also do). Answers to puzzles.felix@imperial.ac.uk, as the puzzles team receives one hour off for Christmas per correct solution.

Contributions wanted!

If you'd like to contribute by sending in puzzles, comics or even some editing, e-mail puzzles.felix@imperial.ac.uk. Be they horrendously complicated things or funky picture puzzles you think readers would like, do get in touch. General suggestions are also welcome.

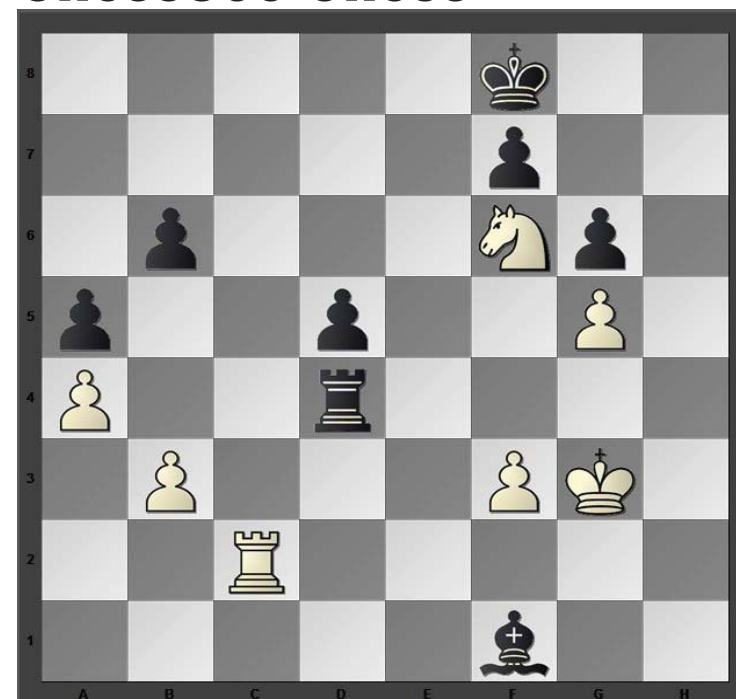
Word Wheel

TARGET: 25



Make as many words of at least 4 letters as you can, always using the central one. **NO** plurals, conjugated verbs, comparatives or superlatives, because I said so.. There is always at least one 9 letter word.

ChessSoc Chess



White to play and win

PUZZLES

X								R
E	C							M
E			M	E	A			
			A		C			
	E	X	E			A	H	C
			E	X				E
		S				X		M
R	E			S				E
A			H	M	E			S

Wordoku

YES, THE WORDOKU IS BACK WITH A CHRISTMAS BANG!

The traditional wordoku has every row, column and 3x3 box containing one letter each. the edn result is arather useless word or phrase that appears in one of the rows or columns.

This time, however, one letter appears twice and only twice in each row, column and 3x3 box. Little curve ball for you there...

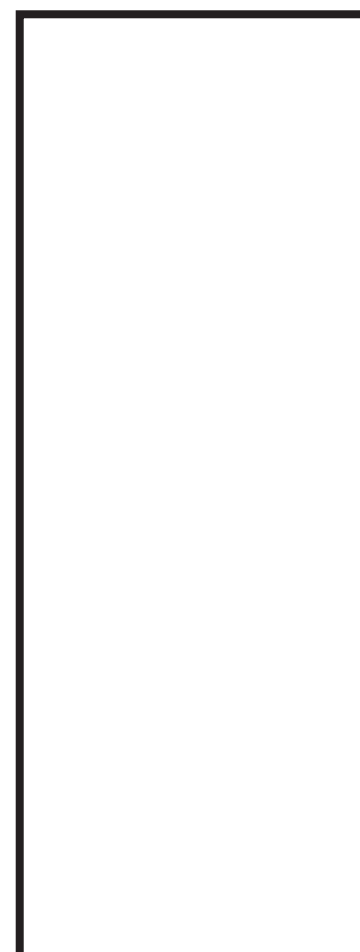
As usual, answers to puzzles.felix@imperial.ac.uk



mariah carey

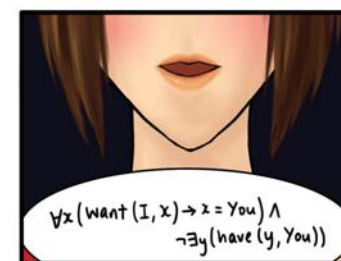
MERRY CHRISTMAS EVERYONE!

It's been a pleasure doing the puzzles and seeing everyone send in solutions every week (especially the cryptic crosswords, which I struggle to solve despite creating them!) and the banter that comes with it. And a Christmas present to you all from puzzles as a reward... a scribble space??? YES! We'll call it a create-your-own puzzles section.



Cryptic Crosswords? No Thanks!

Having trouble with the Felix cryptic crosswords in the sports section? No idea what it all means or would like to know why some answers are as they are? Contact puzzles.felix@imperial.ac.uk with the subject line "Cryptic Help". You'll be sent an introduction to how cryptic crosswords work and what to look out for. Each week you'll also receive complete explanations to the answers in the previous week's Felix cryptic crossword.



FUCWIT League Leader Board		
Teams:		
Elbowfart	64	<p>The Felix University/College-Wide Invitational Tournament League is new and improved, with prizes for both the winning team and the winning individual. Points are awarded for each puzzle solved, double if you're the first correct solution.</p> <p>Send your solutions to: puzzles.felix@imperial.ac.uk for points galore!</p>
The Jailbaits	61	
Pegasus & Parrots	52	
Paddy Got Bummed	42	
Cum Puzzling Sluts	26	
Ludibrium Lads	14	
Team Nuclear	8	
Individuals:		
Jeremy Neale	73	
Wael Aljeshi	26	

QFDROIMFWZ CRYPTOGRAMS

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Welcome to another round of cryptograms. Each letter has been encoded so it stands for a different letter. In the end, a poignant quote and the person who said it will appear.

N L O D L

G V L W N

Z L N

D Z Y

I B Q Z D

B P Y L

M B N B D

E Y S E V Y

S O G Y

L

H Y L I

M B G D S I

T S I Q Y

Many thanks to the over 200 individuals who have helped to make Felix this term.

We'll still be kicking around online over the break, though.

If you haven't got involved yet, why not now?

FELIX

The student voice of Imperial College London since 1949

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Sport Editors: **Indy Leclercq**
David Wilson

sport.felix@imperial.ac.uk

SPORT

Silverware galore for ICBC in first term

...Continued from Back Page
second places behind strong crews in the elite quad (Laura Greenhalgh/Mel Wilson/Mathilde Pauls/Klara Weaver) and Intermediate 1 coxed four (Rosa Atkinson/Louise Connell/Hannah Patterson/Chloe Symmonds/cox: Libby Richards). Further top three places were taken in the Intermediate 1 quad (Tim Richards/Tom Pearson/Mark Patterson/Alex Gillies), the Intermediate 1 coxed four, in spite of only having had 3 outings together before the race (Jack Cadman/Will Todd/Pierre Thomas/Leo Carrington/cox: Connie Pidoux), and the women's elite four (Lucinda Gooderham/Amy Propsting/Lizzie Cottrell/Cloudy Carnegie).

It is not just the senior squad that have been out defending IC's honour on the river. This year, the boat club has had a good intake of novices of both guys and girls. With the new experiences of sitting in "tubs", learning to row and how to erg properly, the novices have come on leaps and bounds since starting in October and at the end of November were given their first true taste of rowing – racing! A coach of rowers, coxes and coaches made their way to Cambridge early one morning. In between the getting lost in Cambridgeshire, boat-stopping crabs, rushed boating, blade clashing and unexpected bank landings, the novices coped brilliantly and made the most of the day with a

trip to Belushi's in the evening.

The final race of the season, Scullers' Head, was held on Saturday and once again ICBC performed spectacularly with five of the top ten places taken by Imperial athletes. Adam Freeman-Pask won the event, despite receiving a penalty for "unsportsmanly behaviour". Adam is now officially Tideway king, having also won the Wingfield Sculls race when he smashed an "unbeatable" record by 17s. Sam Scrimgeour took 5th place overall while racing with someone else's blades after his broke on the journey up to the start. Intra-club rivalry was rife as Wilf Kimberley, Hal Bradbury and Josh Butler came 8th, 9th and 10th overall, with less than 5s separating them. Tim Richards continued to build on earlier form in the season and won the Novice category (15th overall).

As well as cracking results through the autumn, ICBC have played as hard as they've trained with after-race parties galore. The infamous toga party continues to draw a big crowd and this year saw the first annual ICBC vs. ICSMBC pub crawl with "boat races" between men's 1st, women's 1st, men's novices and women's novices (some serious practise may be required in this area...). Preparation for next term is already in full swing as the focus moves to bigger boats, BUCS, Eights Heads of the River and the Henley Regattas.

Men's and Women's fencers make progress in BUCS knockouts



Apparently no-one told them you're supposed to hit with the tip of the blade

Indy Leclercq Fencing

Imperial's fencing teams produced a solid set of results last week in the BUCS knockout championships to ensure their progress to the quarter-finals. Only the Men's Seconds suffered an unfortunate loss at the hands of Aberys-

twyth, having made the somewhat epic journey all the way to the West coast of Wales. The Men's Firsts and Women's Seconds were both hosting matches at Ethos, against Keele Firsts and Oxford seconds respectively.

The Women's Firsts were away to UCL – not a huge distance to travel. In the event they won the match, 133-96, and

now face Bristol in the quarters of the Championship.

In Prince's gardens, the men made short work of Keele, coming out 135-81 victors and booking a place versus Durham in the next stage of the competition.

The Women's Seconds had the easiest win of all, though, as their opponents failed to send a team. Bring on the rest!.

Selected results



Results are taken from the BUCS website and no responsibility is taken for any inaccuracies.

RUGBY UNION		
Wednesday 7th December	Men's 1st	41
	Kent 1st	15
BASKETBALL		
	Men's 2nd	24
Men's 2nd	135 Kent 2nd	26
Essex 3rd	41	
SQUASH		
	Men's 1st	0
	Essex 1st	5
Mixed 1st	0	
Kingston 2nd	0 Men's 2nd	2
	UCL 2nd	3
LACROSSE		
Women's 1st	7 Men's 2nd	14
UCL 1st	8 Brunel 1st	3
NETBALL		
Women's 3rd	10 Women's 1st	12
Westminster 1st	25 Essex 1st	0
TABLE TENNIS		
TENNIS		

Christmas

Sport

Photo of the Week

(Don't worry, this only happens once a year)

The Orange County Register

Sport Editors: **Indy Leclercq**
David Wilson

sport.felix@imperial.ac.uk

SPORT

Felix Sports League

...where do you stand?



Team	P	W	D	L	F	A	Diff	Index
1 Fencing W1	5	5	0	0	403	233	170	5.00
2 ICSM Football M2	3	3	0	0	11	6	5	5.00
3 ICSM Hockey W2	2	2	0	0	10	1	9	5.00
4 Lacrosse W2	1	1	0	0	7	2	5	5.00
5 Tennis M1	4	4	0	0	38	10	28	5.00
6 Tennis W1	5	5	0	0	56	4	52	5.00
7 Ultimate Frisbee 1st	3	3	0	0	45	9	36	5.00
8 Hockey W1	6	5	1	0	15	3	12	4.50
9 Rugby M1	8	7	0	1	242	149	93	3.88
10 Badminton W1	5	3	2	0	25	15	10	3.80
11 Fencing M1	5	4	0	1	585	460	125	3.20
12 Hockey M2	5	4	0	1	23	10	13	3.20
13 Table Tennis W1	5	4	0	1	19	6	13	3.20
14 Basketball M1	7	4	0	0	465	380	85	2.86
15 ICSM Badminton W1	4	3	0	1	18	14	4	2.75
16 Badminton M1	5	3	1	1	27	13	14	2.60
17 Squash W1	5	3	1	1	11	9	2	2.60
18 Tennis M2	6	3	2	1	40	32	8	2.50
19 Fencing W2	6	4	0	2	564	585	-21	2.00
20 ICSM Hockey W1	4	2	1	1	23	9	14	2.00
21 Lacrosse W1	6	4	0	2	85	36	49	2.00
22 Netball W1	6	4	0	2	240	195	45	2.00
23 Football M1	7	3	2	2	12	10	2	1.57
24 Badminton M2	5	3	0	2	13	19	-6	1.40
25 Basketball W1	5	3	0	2	278	223	55	1.40
26 Lacrosse M1	5	3	0	2	51	27	24	1.40
27 ICSM Badminton M2	4	1	2	1	15	17	-2	1.25
28 Football M3	7	4	0	3	13	14	-1	1.14
29 Hockey W2	6	3	1	3	6	26	-20	0.83
30 Football M2	7	3	1	3	17	19	-2	0.71
31 Fencing M2	6	3	0	3	697	683	14	0.50
32 Futsal M1	4	2	0	2	18	27	-9	0.50
33 ICSM Football M1	2	1	0	1	4	6	-2	0.50
34 ICSM Netball W1	2	1	0	1	82	72	10	0.50
35 ICSM Netball W2	2	1	0	1	52	50	2	0.50
36 ICSM Netball W4	2	1	0	1	47	50	-3	0.50
37 ICSM Rugby M3	4	2	0	2	88	90	-2	0.50
38 Squash M3	6	3	0	3	10	19	-9	0.50
39 Table Tennis M2	6	3	0	3	53	49	4	0.50
40 Rugby M2	7	3	0	4	92	132	-40	-0.14
41 Golf Mixed 1st	4	1	1	2	7	10	-3	-0.25
42 Table Tennis M1	5	2	0	3	38	47	-9	-0.40
43 Basketball M2	3	1	0	2	225	195	30	-1.00
44 ICSM Badminton M1	3	1	0	2	10	14	-4	-1.00
45 ICSM Rugby M1	3	1	0	2	52	104	-52	-1.00
46 ICSM Rugby M2	3	1	0	2	32	135	-103	-1.00
47 Netball W3	6	2	0	4	109	100	9	-1.00
48 Rugby M3	7	2	0	5	100	120	-20	-1.43
49 Hockey M1	7	1	0	4	9	30	-21	-1.57
50 Football W1	4	1	0	3	4	35	-31	-1.75
51 Netball W2	5	1	0	4	95	164	-69	-2.20
52 Squash M1	5	1	0	4	3	22	-19	-2.20
53 Hockey M3	6	1	0	5	7	18	-11	-2.50
54 ICSM Netball W5	4	0	1	3	25	185	-160	-2.50
55 Squash M2	6	1	0	5	11	18	-7	-2.50
56 Squash M4	6	1	0	5	3	15	-12	-2.50
57 Fencing M3	4	0	0	4	437	521	-84	-4.00
58 Hockey M4	5	0	0	5	3	38	-35	-4.00
59 ICSM Basketball M1	1	0	0	1	46	64	-18	-4.00
60 ICSM Hockey M1	3	0	0	3	6	26	-20	-4.00
61 ICSM Hockey M2	3	0	0	3	3	19	-16	-4.00
62 ICSM Hockey M3	1	0	0	1	0	3	-3	-4.00
63 ICSM Hockey W3	1	0	0	1	0	7	-7	-4.00
64 ICSM Netball W3	3	0	0	3	26	106	-80	-4.00

5 points for a win | 2 points for a draw | -4 points for a loss

Coming soon to a pavement near you: Imperial SB

Ed Brial



The sign clearly states pedestrians should walk to the left of the rider. What do you mean I get a £50 fine?

Dan Hyde Skateboarding/BMX

Imperial finally has (or at least very shortly will have) an official Union sanctioned BMX and Skateboard Society, so we introduce to you, Imperial SB!

We meet up every Wednesday, Friday and Sunday for park and street sessions. Wednesday and Sunday sessions tend to be held at skateparks and Friday sessions reserved for street, but this depends on the weather forecast and prevailing mood gauged by the Facebook group. Just Facebook "SB Imperial" to find the

group and join. It provides a forum for news, photos, videos and most importantly details of upcoming sessions! If you don't have Facebook contact Ed Brial (eb1409@ic.ac.uk) and we'll add you to the mailing list (when it goes live). Newcomers and experienced skaters/riders are welcome, so if you put up your board or

Dan Hyde



Busting an ollie while the camera looks the other way. Smart

“claw yourself from the morass of coursework...and enjoy some fast, simple fun”

bike when you came to Imperial, claw yourself from the morass of coursework and lab reports and enjoy some fast, simple fun.

We aim to build a non-competitive group of riders to enjoy London's plethora of skateparks and spots. The group will also have media tentacles and travelling legs, photographing and filming whatever goes down, whilst planning some National and International trips in the future. Watch out for our pub skate-crawl at the start of next term, where we'll aim to get everyone together and kickstart Imperial's BMX and skateboard community.

So if you're interested, Facebook "SB Imperial" and join, or email Ed, turn up to one of the sessions (we'll share our boards and bikes if you don't have one yet) and we'll help film/photo/ride/skate with you.

SPORT

Fives: much more than just a prime number

Abhishek Bhattacharya



So that's what they're using the decommissioned nuclear bunkers for

Abhishek Bhattacharya Fives

What is fives? Read on to the very end, and you could get involved and start your beautiful career.

Imperial College Fives society kicked off a promising start to the season after representing at the Universities Eton Fives Championships at Eton College on 12th November and in the BUCS Rugby Fives Championships at Marlborough College.

In fives, a ball is propelled against the walls of a special court using gloved or bare hands as though they were a racquet. Basically, you could say it was squash's naughty ambidextrous stepsibling.

Rugby fives is very much that, a fast and furious game played with hands and can be played in doubles or singles. Eton Fives is a solely doubles game, and was modelled on the walls of Eton Chapel, and involves playing in a 3 walled court with a buttress on the left, and many ledges to render the game fast, furious and very unpredictable!

So, first off, with the Eton Fives Championships, this year, as we had so many players, we are able to represent prestigious institution and form an autonomous Imperial College team. There

was blood, sweat and many a tear shed for University bragging rights as we took down 5 players, 3 of whom, in the form of Christopher Clarke, Mitul Palan and George Shillam were complete fresh faces to the Universities tournament circuit. Their progressive game-play was very impressive, which meant they were truly ambidextrous by the end of the day, and striking hard cross court shots any professional would be proud of.

Our first pair, Abhishek Bhattacharya and Alun Meredith battled hard after missing out on the group stages to beat Manchester and Exeter and progress into the Plate Finals, where they persevered but had to settle for runner-up against a strong Queen Mary's pair, sadly losing 15-8.

The BUCS Rugby Fives Championships a fortnight later saw 3 players in the form of Michael Squire, Abhishek Bhattacharya and our resident expert Christopher Burrows (currently rated 13th nationally) locking horns against the other Universities, representing in both the singles and doubles tournaments.

They all fought with a determined attitude with Michael and Abhishek, first timers on the BUCS circuit, unable to pass through the group stages, but suc-

cessfully staying determined enough to progress into the quarter-finals of the plate.

Christopher in his own inimitable style eased into the semi-finals, taking no mercy on his opponents, crushing Cambridge, Oxford and Durham, but encountered difficult opposition in the semi-finals against a Loughborough player, who went on to take the title.

Michael and Christopher also represented the doubles tournament, and played impressively to reach the Plate quarters! In all, Imperial reached an impressive 5th place out of 10.

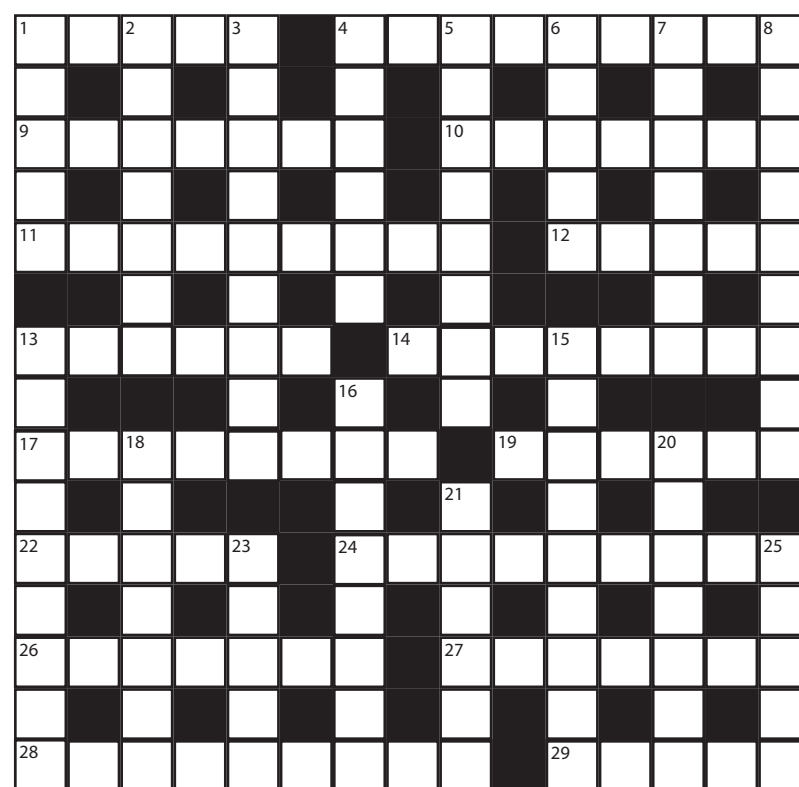
Massive thanks for all the members taking part so far in Fives Society, but of course, we are on the lookout for more!

If you're looking for a sport to do on Wednesday afternoons, that is mega cheap and cheerful (we won't bite!), then do contact us at fives@imperial.ac.uk.

We are lucky to have expert coaches amongst our members so there is no prior experience needed – indeed 2 of our players in our tournaments have started from scratch! Our membership at a recession busting £2 a year, and our sessions are currently free to all members!

We look forward to seeing you in the court!

Cryptic Crossword 1,505



Across

1. Snare girl for love (5)
4. Furry critter cut back with trim to start with dull pain afterwards. This? (9)
9. Lawless bro met gang member (7)
10. Listen to three points by dead messengers (7)
11. Shoot a holy man who's inside TV drama (4,5)
12. One having fabrication about space being (5)
13. Beached remains of unrefined rock (6)
14. Drink a right one after generating a quid (8)
17. Type of copper may be top high-ranking officer (5,3)
19. Person writing letters to criminal outside prison at first (3,3)
22. Apathetic, backwards animal to identify (5)
24. The Spanish may not turn up for Gospel by singer (5,4)
26. Winning consistently, as you may find bacon? (2,1,4)
27. Green with envy at first before period of time in 1450 (7)
28. Extra work teams split up by rule (9)
29. I interrupted major degree (5)

Down

1. Myths surrounding a thousand fruits (5)
2. Nic Massie maybe needs cleansing on holy day (7)
3. Motors' components too absurd! (9)
4. Register and French exchange (6)
5. Finished man above molten lava. Disaster! (8)
6. On head, this is a ring-like accessory! (5)
7. Astronomer looking up in one's bag (7)
8. Necessary new lateness I introduced (9)
13. Smack right into a debt with flier (9)
15. Leaders of drones been jittery amidst rows without Union (5,4)
16. Turkey preparation strategy (4,4)
18. Recommend application overturned for both (7)
20. Relatively expert informant, one (3,4)
21. One subsequently head of Sparta, the Greek city (6)
23. Doctor brought up toilet water (5)
25. Lowest point in fortunes with no room surrounding defence (5)

Merry Christmas from the Felix Sport editors!

We hope you've enjoyed the pages of Felix Sport this term, from the interviews to the match reports to the not-always-accurate league table (we do our best!) Next term, more interviews are planned as well as possibly the odd com-

petition or two, so keep reading! We were told to inject some Christmas cheer into the section but thought that photoshopping red hats and snowflakes into every picture would be a bit heavy-handed (so we just did it on the back page). Anyway, don't completely forget to train over the holidays, so you can come back to London in January and WIN! Cheers!

Jet Photographic

Blades of glory: a successful term for IC rowers

Elizabeth Richards reports on the winning performances of the Boat Club so far



Imperial College Boat Club has started the academic year with some incredible results. From the outset, Imperial students, both past and present, have shown strength in depth across the men's and women's squads and brought home the silverware to prove it.

The first race of the season was Pairs' Head of the River in early October. ICBC began as they meant to

go on, with six category wins as well as the fastest overall time of the day from alumnus and GB rower, Adam Freeman-Pask, and his doubles partner Jamie Kirkwood. Imperial crews were also the second, third and fifth fastest pairs overall with three more category wins provided by Josh Butler and Mark Patterson, Danny Bellion and Matt Monteith, and Ali Hudson and Leo Carrington respectively. The women's

squad also set the standard high for this year. Two further pots were brought back to the boathouse as Hester Goodsell took half the win for Imperial in the elite mixed doubles and Chloe Symmonds and Helen Wood won their category, only being beaten by elite pairs.

At BUCS Small Boats Head in Boston, Lincolnshire, athletes were hoping to shine in front of the GB selectors and did not fail to disappoint. Ergo personal

bests were beaten by several club members and, despite the usual tough conditions on the water, more medals were won. Cloudy Carnegie and Hannah Patterson brought home the gold in the women's pair, while Tim Richards and Tom Pearson took silver in the lightweight double and Hal Bradbury and Ben Spencer Jones took bronze in the double, between them accumulating 26 BUCS points in the process.

Despite an incredibly tough field in the Fours' Head of the River on bonfire night, with many past and future Olympians racing, Imperial still managed to make their mark. The Intermediate 2 coxed four (Jonny Rankin/Rory Sullivan/Ben Spencer Jones/Ali Hudson/cox: Jess Johnson) demolished their competition by a country mile while the women's squad took two

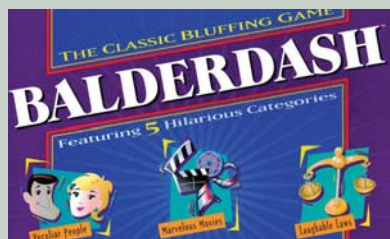
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A study of snowflakes
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COMMENT



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ARTS



A mature yet cringeworthy play
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GAMES



The best games of the year
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FOOD



Currywurst in Hyde Park
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