ISSUE 1510

"Keep the Cat Free"

10.02.12

The student voice of Imperial College London since 1949

Felix Business talks to FT Science Editor Clive Cookson: Page 16



Felix Film meets actor Viggo Mortensen: Page 28



Holland Club change on the cards Jnion support postgraduate renovation as proposed Feasibility Study plans emerge for Holland Club. Committee concerned about College communication

Matthew Colvin

Potential plans for a proposed renovation of the Holland Club have been provided as part of the area's ongoing feasibility study this week. The Holland Club Committee has voiced its disapproval over what it considers to be a lack of communication from those in charge of the study, while Imperial College Union President Scott Heath has stated his desire to consider the views of students under any potential changes to the set-up and running of the establishment.

The plans, which have not yet been confirmed, propose a significant change in layout to the current Holland Club, with the plans documenting a transformation of the staff bar into a 'café bar', 'bar extension' and 'cellar pub'. According to the plans, this would allow for an increase in room space from the current 193.9m² of the Holland Club bar to 349.2m² for the three additions. There has not, however, been any indication as to whether the proposed spaces would

be exclusive to either staff or students.

The Holland Club committee met on Monday with Project Director Jane Neary, the project champion Stephen Richardson, Dan Curtis senior project manager, along with representatives from Imperial College Union where the plans were presented. Following the meeting, Manager of the Holland Club, Kevin Young told Felix that: "We could quite easily provide the services they are asking for with our present setup, we just need to invest in some paint and catering equipment,

furniture down stairs and a general tidy up and improved disabled access which I think could be done quite easily and a lot more cost effective."

The Committee has also expressed its dismay over the date of a meeting of the Portfolio Review Board (PRB) - which oversees projects in Buildings, ICT and Facilities Management - being brought forward from the second quarter of 2012 to February 24. At this meeting the results of the feasibility study will be reviewed.

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TEMPORARY HALLS IN WATERLOO AND **ELEPHANT & CASTLE CONSIDERED**

Refurbishment an option for Wilson House next year: Page 3

HIGHLIGHTS

What's on

Gas permeation in high flux membranes versus thick glassy polymer films

Professor Donald Paul, University of Texas at Austin, talks about his gas in this Chemical Engineering seminar. This lecture will be about making films that are "bare thin" (20nm!) and characterizing their behaviour by various spectroscopy. Don't worry, tea and coffee will be served from 15.30 in the walkway outside Lecture Theatre 1.

Lecture Theatre 1, Chemical Engineering, 15 February 16:00-17:00

Lunchtime Concert

Alvin (not a chipmunk) Molsey will be playing the piano like a full on badman/pianist. Clothes optional, enjoyment not. Contact a.robins@imperial.ac.uk for more information.



Read Theatre, level 5 Sherfield South Kensington Campus, 07 February 13:00-13:45

The Magic of Medicine

Speakers from Imperial, Warwick and industry talk about how close we are to personalised medicine that is linked to our genomes. They discuss how genetically modified humanised mice can help improve the drug making process (as in, by studying them, not that they've made Pinky and the Brain). Book a free place by calling the **Dana Centre.**

Dana Centre, Queen's Road South Kensington Campus, 07 February 19:00-21:00

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Editor

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Lolcat of teh week



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Wilson review could lead to rehousing

Alex Nowbar

There is uncertainty about the future of halls of residence, Wilson House, this week as it is scrutinized for feasibility. Due in the coming weeks, the report of an on-going feasibility study will help determine if and when Wilson House will be closed for refurbishment, potentially during the next academic year (2012-2013).

A College spokesperson commented that the feasibility study was commissioned by the College Portfolio Review Board to look at "the possibility of refurbishing Wilson House to improve fa-

cilities and the use of space, which will increase the number of bed spaces and improve the current ratio of kitchens and bathrooms to bedspaces." According to the College spokesperson, the timeline for the refurbishment will be finalised pending the results of the feasibility study. Some students, particularly current and previous inhabitants of Wilson House, have stated their belief that the hall is in dire need of refurbishment, with particular mention to the kitchens, bathrooms and common room, alongside motions to solve central heating break downs in winter and overheating in summer. Students have also concurred regarding the ratio of kitchens to bedspaces issue, claiming a lack of fridge and freezer space per student and a number of broken ovens.

However, refurbishment could potentially cause disruption to students. Among the options that have been considered in the case of temporary closure, it has been suggested that students could be rehoused in the Elephant & Castle or Waterloo area, with representatives from Imperial College Union having a visit to view accommodation in the area scheduled. The College spokesperson stated in response to the possibility of a move, "In the event that Wilson House

is closed for a period of refurbishment the College will need to find an additional 270 bedspaces to temporarily replace the Wilson House rooms and is looking for other suitable accommodation options to serve this purpose." Wilson House's warden, Dr Bluck comments, "Should closure of Wilson be required (whenever that may be), other halls would likely be needed temporarily, in order to meet the guarantee we make to 1st year undergraduates. In addition to the Wilson issue, there are other demands arising indirectly from the closure of Clayponds. In either case, appropriate replacement capacity would need to be found and the College is looking at a number of options."

The possible plans to temporarily close Wilson House, one of Imperial College's notoriously affordable halls (with fees currently from £104.08 per week for a single room), while works are carried out, come following a series of high-profile moves relating to Imperial College accommodation provision involving halls such as Griffon Studios (with fees from £235 per week for a single studio), Fisher Hall, and Clayponds

Considering the genuine need for refurbishment, one could speculate that the Wilson refurbishments are likely to take place, at the very least causing students to be temporarily displaced to alternative accommodation.





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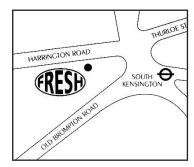
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NEWS

News Editors: **Sophia David Alex Nowbar**

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In Brief

Registration opens for TEDx

Ticket prices for TEDxImperialCollege have been revealed as registration opens today. Tickets for students will be £10, while all others will pay £25. It has also emerged that Google is to be the main sponsor of the event.

The organisers have stressed that registration doesn't guarantee a ticket. "Registering means you'll get advance notice of when ticket sales open. If you haven't registered, you won't be able to buy a ticket", said organiser Kadhim Shubber. He declined to specify when ticketing would open, but hinted it would be around the end of February, and beginning of March.

So far only 5 of the speakers have been revealed. These include John Graham-Cumming, the man behind Plan 28, a project to build Charles Babbage's Analytical Machine for the first time; and Andrew Shoben, founder of greyworld, a group of artists that create large-scale public art — most notably The Source at the London Stock Exchange. "We'll be revealing the other speakers one-by-one in the coming weeks," said Kadhim Shubber.

TEDxImperialCollege will be held on March 24 in the Great Hall.

Matthew Colvin

Holland Club panel to be held

'No guarantee' over proposed floor plans

...Continued from Front Page

Imperial College Union President Scott Heath emphasised that he was open to discuss the plans in whatever form they will eventually take, telling Felix that "there is no guarantee of what the space will become. If it ultimately becomes a postgraduate space, we will want to see that postgraduate students are represented."

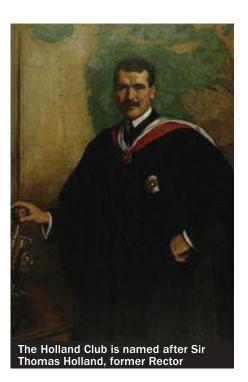
"There's no benefit to getting rid of a social facility and replacing it with nothing"

"I see lots of advantages with the proposed changes. One is disability access, and the second is huge flexibility with the room. In addition there is a potential for food service, which frees up the Queen's Tower Rooms, which in turn frees them up for club activity. The new space would fit one and a half times the Holland Club in its current layout."

Heath stated his hope that any new space would provide a "common room space for taught postgraduates, who are excluded from the Senior Common Room and may feel uncomfortable in the Holland Club."

"It's to everyone's benefit that we get [any change to the Holland Club] right. There's no benefit to getting rid of a social facility and replacing it with nothing."

The Graduate Students' Assocation will be holding an open panel next Thursday (February 16) at 6pm for a discussion on the future of both the Holland Club and Clayponds, where the Union President will be in attendance along with Mr Young. The proposed floor plans will be made available at the meeting, and Heath hopes to launch a survey to determine what students would like to space to become should changes come into action, including such choices as a café bar or a "common room space".



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Features Editors: **Katy Bettany Stephen Smith**

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FEATURE

Say hello to soya milk, we're Going Vegan

Clare Cheng and Hannah Cox on why animals are safe for a month thanks to the MS Trust

magine living life without the flavour of a juicy hamburger, a quick sushi snack, cheese grated on top of a big bowl of spaghetti bolognese or even milk in your coffee. Throughout our lives, we've boasted of loving the uninhibited taste of all foods. We love to challenge ourselves when it comes to our grub, eating basically anything that's put in front of us. But we think we're about to undertake the hardest challenge yet when it comes to food. We're taking the plunge and giving up all the foodstuffs we love so dearly for the Multiple Sclerosis Trust: we're going vegan.

Already as we write this we are regretting undertaking this challenge. It's now ten days until we will have to ditch the frozen prawns and pizza in the freezer and all we can think about is how we can fit in our last steak from Gauchos on Sloane Avenue. Tea for Hannah, will be

the biggest challenge; she's been banging on for weeks about how she can't stand the taste of soya milk in her tea and is actually considering abandoning her daily English Breakfasts all together.

"All we can think about is how we can fit in our last steak"

For Clare, news of the challenge has been met with incredulity, many disbelieving that she would make even a week. Reactions on Facebook have been mixed, with one friend threatening to "wave a juicy steak" in her face (good to know you can count on the support of friends in times of hardship!). But

for the two of us we know we can do it because it's not just for us; it's for the people out there who suffer from multiple sclerosis.

Multiple sclerosis (MS) is the most common neurological condition affecting people of our age. The neurons of the central nervous system are attacked by their own immune system, damaging the myelin and eventually the axons themselves. The effects are extensive and depend upon the degree of neuron damage, and include emotional effects, such as depression and anxiety; cognitive effects, such as forgetting recent events; and physical effects, which affect the entire body. Individuals with MS can have problems with their vision. balance, bladder control and movement, and in some cases they can become severely and rapidly disabled.

The cause is still unknown and there is no cure. The Multiple Sclerosis Trust

is a charity that provides information and education for the worried, training for professionals, and funding for research into new treatments. As we all know, funding is the key to any successful research – without the funding the research doesn't happen.

"This month of veganism won't have to be hell"

For Hannah, this is also a very personal challenge, having several family and personal friends who suffer with MS. We've raised £215 already and we haven't even started yet – proving that there are people out there who think we can do it!

But this month of veganism won't have to be hell. We're going to explore all the possibilities and make the meagre diet of a vegan into a delectable variety of satisfying meals – well we're going to have a good go at it anyway. As a good luck present Clare has been bought a vegan cookbook and we're really excited to open it up and get started.

So over the next month starting from the 20th of February to the 20th of March we're going to be writing weekly updates on our progress in Felix's Food Section. We'll be including our favourite recipes that we've tried and tested, where to get your best vegan groceries from, vegan restaurants that do some good nosh, and the latest activities we've been up to to raise awareness for our campaign. Please support the MS Trust and sponsor us on Virgin Money Giving at http://uk.virginmoneygiving.com/team/goingvegan.

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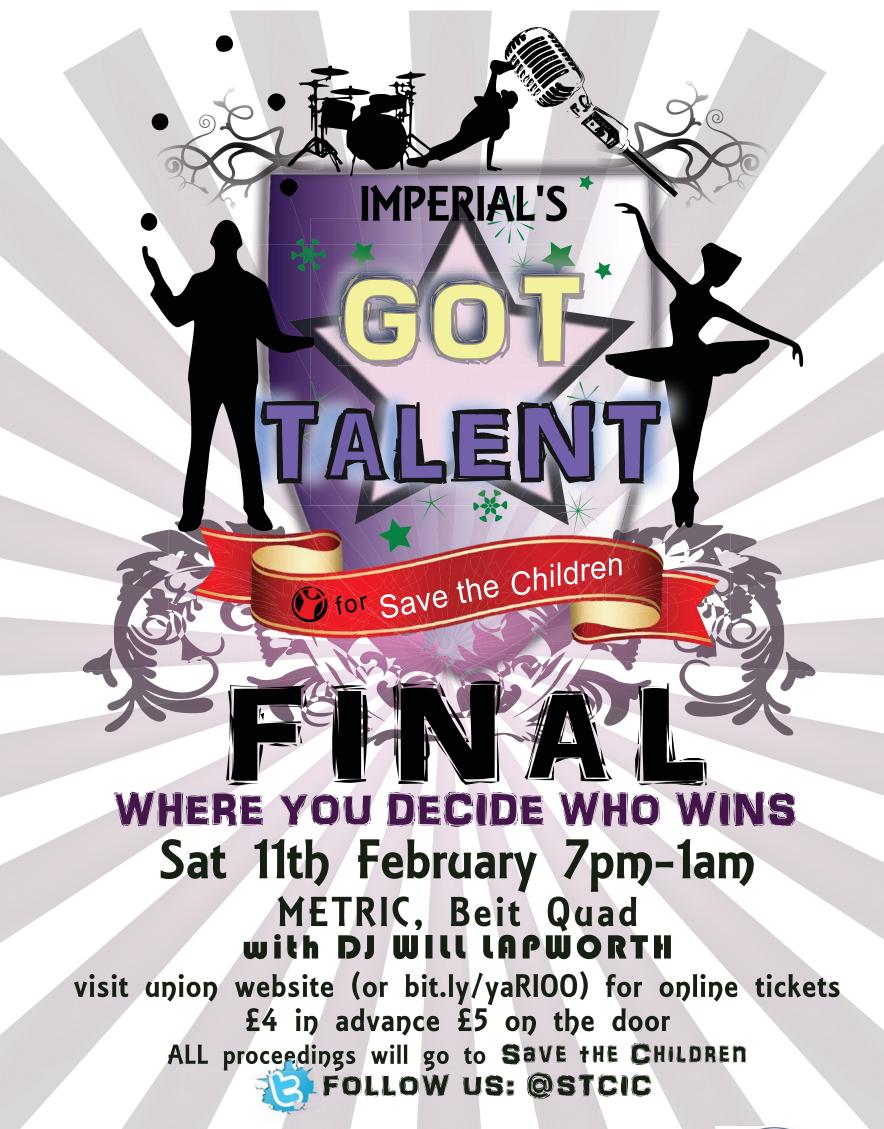
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Features Editors: **Katy Bettany Stephen Smith**

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FEATURE

Offermation for the nation

Tim Arbabzadah catches up with comedian Chris Ramsey about his latest tour, while giving you a master class in how to ask long, rambling and non-concise questions...

Tim: We're a student newspaper and you went to university as I infer from the fact that you were in the Chortle Student Comedian of the Year Awards 2008?

Chris: Yes, very well done, fucking Sherlock lives on. Yeah I was at Sunderland Uni, which is not really anything to brag about, but I was only doing Film and Media. But yeah I packed in half way through my final year and ended up doing stand up. I'd done the first paragraph of my dissertation and I went ah fuck this and just stopped.

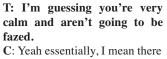
T: Now that your friends know that you're a stand-up comedian, do you feel pressured to be funny in normal conversations?

C: I'll tell you what, this is genuinely true, beware right, because if you end up doing a bit of stand up, once you are a stand up comic, you are no longer the funniest one in your group of mates. It's fucking weird. It's really bizarre. If you start being really funny with them, everyone just goes: "alright mate you're not on stage now". It's just really strange, I can't explain it.

With my friends when they're all taking the mick out of each other and having a laugh; I always come in far too strong and ruin it, like I come in with an awful, horrible insult. It's just really weird – your barometer totally changes.

T: Do you think that now that you're known, when people see you on stage they actively try to heckle as they think: "Right, I'm getting one over on him"?

C: They can try. I did Manchester Comedy Store on Saturday Night, I did the late show and it was just 20 minutes of heckles and 20 minutes of me just slamming into everyone who opened their fucking mouth, was good fun.



C: Yeah essentially, I meare still heckles that can throw you off, but you get to a point man where everything they can shout out is the same. There are only a few different angles you can go with a

le. No matter what the words are it can either be an insult, a funny comment, a comment on something you've done, or it can be sarcastic, or it can sometimes be complimentary, which is always weird.

T: I wouldn't know how to reply to that. I guess just thank you, okay, I'm going to get back to my material now.

C: Yeah a few times a girl's shouted "you're fit" and I've been like "that is not relevant at all, shut up, do you know what I mean? First of all, don't heckle compliments cause it just throws us off. I'd rather you called me a cunt, if you can believe that. It has got no relevance to the performance, just shut up.

T: (laughs) I don't know, to be honest, maybe you should have tried to get her number after that?

C: (laughs) Nah: they're normally nutters. If you're shouting out "you're fit" to a boy on stage at a comedy club you're not normal are you?

T: I think that's probably the female equivalent of beeping your horn when you see someone attractive walking across the road.

C: Exactly, or hanging out of a white van going "get your tits out love".

T: Do you have sort of set responses to them? As in, if someone says this about my hair I'm going to say this? C: Yeah well first of all it will depend

C: Yeah well first of all it will depend on what they look like. A lovely little trick I like to do, if I'm doing my own show and someone heckles from the back, I go: "Alright you're just heckling there from the back in the darkness and I want to see you... house lights

up" and then the sound man will put all the fucking lights on and they just sit there shitting their pants. They just didn't even think I had the power to do that. I love getting house lights on, it really levels the playing field – it's great.

T: Have you ever had a joke or routine that you've said that someone's either stolen, or someone's just thought of it independently, and you've thought: "ah no I can't use that C: Yeah, I thought of something when I was first starting out. I thought of like 3 heckle putdowns in a row that were about someone's mum that were this full little routine thing. I did it on stage and this guy came up and he went 'oh erm that's on Jimmy Carr's DVD". I was like ah shit. He said go on You-Tube and it was fucking word for word what I'd written – I was devastated.

I've never stolen material and I never would steal material. I think it's just the worst crime in comedy. There are some people who keep doing it as well. I know a comic who did a routine and you go "such and such has been doing that for years" and they go "yeah, well, I thought of it, I didn't copy off them, so I'll keep doing it" and it's like well you can't do that.

If you started writing a book and someone said: "oh by the way mate, Charles Dickens wrote that years ago about Christmas. It's exactly the same as the one you've written" and you go "well I thought of it, I'm going to keep writing it". No-one's going to fucking buy it are they. David Johnston's *A Christmas Carol*.

T: Have you got a writing process? Do you sit down at a laptop, or just randomly think of stuff?

C: No I haven't got one at all. Some comics can sit down and click away but I can't do it. If something tickles my fancy, I do it in sort of really short, sharp, bursts and then work most of it out while I'm on stage. So I just do it on the fly really. I can't sit and write a full routine; if I do I just end up not being able to remember it.

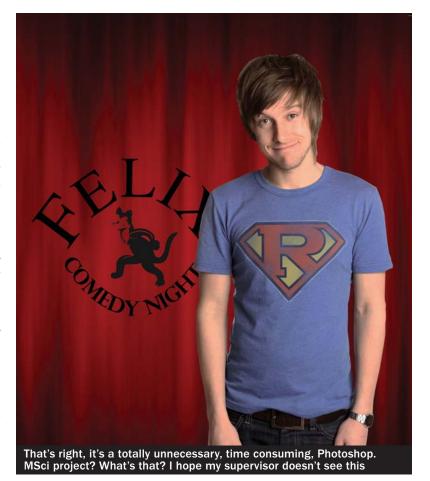
T: A lot of comedians nowadays go into acting. Are you thinking of doing that? Any TV shows you'd like to do?

C: Yeah, there's one on the horizon actually, but it hasn't been officially announced yet so I can't say anything.

T: Have you ever done any acting or is it just you're a comedian so you thought "meh, might as well give it a go"?

C: The particular thing in question, there was a thing in Manchester called the sitcom trial. We had to do a big live run through of the sitcom – like a play. We did it all in one go in front of a live audience and it was mad to do. That was my first proper foray into acting, unless you count playing Santa in a school nativity when I was 5.

T: (laughs) I don't know, you could



have had a starring role then.

C: Actually, don't think it was 5, think I was 7. It's not a very big point, but that's two years of serious maturity of my acting career from 5 to 7.

T: Those were your Brando years when you were getting your method acting on. Is acting weird compared to comedy because you're saying someone else's words?

C: Yeah, it's really weird. I'd never done it and I felt like I couldn't do it. Then people are going "no you're good at this" and I just thought they were lying. Every time they were saying you're good at this, I was holding eye contact for a bit too long to see if they looked away.

T: Do you think the state of comedy nowadays is healthy?

C: For someone at my level and upwards it's healthy. I think it's going to start getting harder for new people to start breaking through. I'm lucky that I broke through when I did. I hope the smaller clubs don't suffer, because you've just got to look in your local culture guide and there'll be about four fucking comedians there this month doing shows, which is brilliant,

but, what's that doing to the smaller clubs? A lot of people are saying that it happened in America: apparently the smaller clubs just died out and all the touring comics took over. I've got to say I'm glad I'm on tour, but really hope that doesn't happen.

T: When was your first show? Do you remember it?

C: Yeah it was mad actually. There was a ferry from Newcastle to Amsterdam. I was on it with my mates and there was an entertainer, like a comedian, on the stage and he was doing alright. It was a little bit sort of juggly and kind of stuff like that bit more family friendly. He had what was either some kind of stroke, or a heart attack, and he sort of keeled over. My mate was a medical student and looked after him for a bit. I picked up the mic to put it back in the stand and I ended up saying something to someone, and just started messing about, and before I knew it I'd done 40 minutes of this routine, just impromptu on this boat. The guy died and I got his

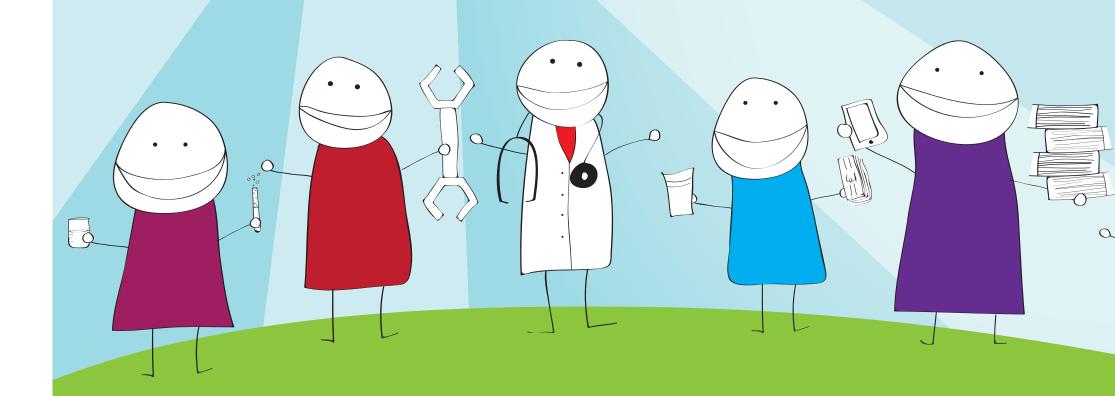
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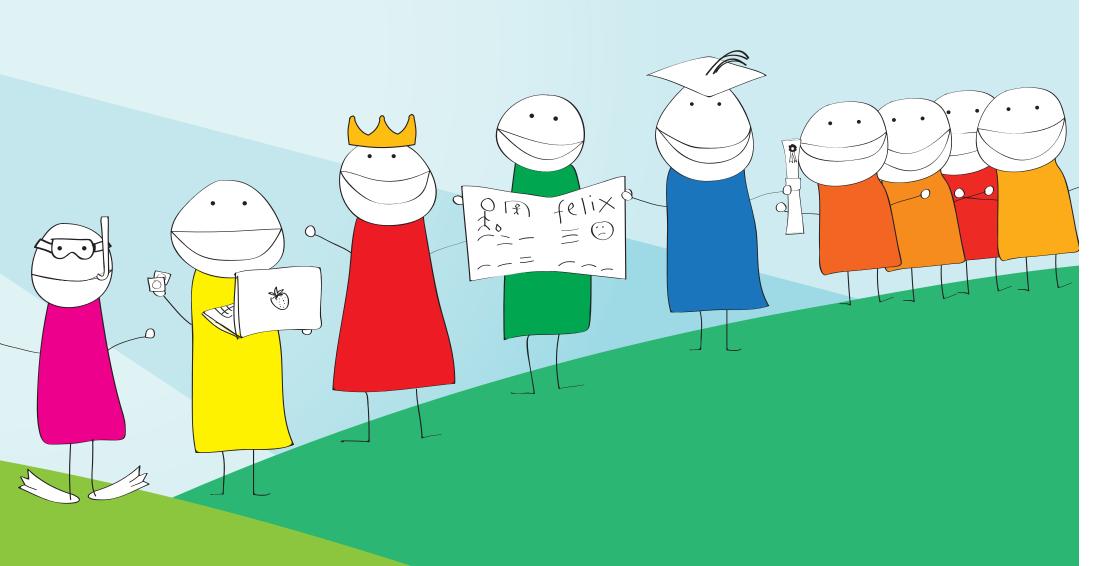


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Science Editors: **Kelly Oakes Alexander Karapetian**

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SCIENCE

In brief

Norway puts genome sequencing in national health system

Last year, at an intelligence squared event, James Watson stated that one of the biggest improvements in medicine would be personalised genome sequencing, whereby patients will have a personalised healthcare plan developed from their genome sequence. Personalised genome sequencing is now becoming a reality in Norway, less than a decade after the first human genome was fully sequenced.

Norway's plan is to focus on cancer care. Several phases have been outlined. Initially, in the pilot phase the Norwegian Cancer Genomics Consortium will look at 3,000 previous tumour biopsies to better understand how different cancer mutations respond to drugs. Furthermore, 1,000 patients will also have their genomes sequenced. The next phase will see specific clinical, computing and laboratory infrastructure being built.

Although, Norway is the first to incorporate genome sequencing into its national health system; it is not the first country to have personalised medicine. The UK and USA already have personalised medicine; just not on as large a scale as Norway's proposed plans. In the UK, the NHS is currently only conducting research, with DNA extraction, storage and testing of tumour genomes. In Boston, USA, researchers at Massachusetts general hospital have developed a test for 15 genes which are already targeted by current cancer drugs. Norway's plans differ to Boston's targeted testing, for within their healthcare system they plan to sequence entire genomes. It will be interesting to see which country's strategy is preferable. Norway could just be putting in place infrastructure for general personalised healthcare, which does not just focus on cancer treatment. Furthermore, who knows what the extra data could reveal, perhaps even mutations in other genes.

It is exciting to see how research and healthcare are merging together more and more. Who knows what could be revealed through using personalised genome sequencing and how the future of healthcare will be shaped.

Jula Humphries

Anxiety by Maria Veiga



North Star is shrinking

Arianna Sorba

According to new analysis of more than 160 years worth of data, the North Star may be wasting away, shedding an amount of gas equivalent to up to the mass of the Earth each year.

The North Star, also known as Polaris, has been used by navigators for centuries, as its alignment with the Earth's rotational axis means it always sits directly above the North Pole. It is also a 'Cepheid Variable' star, meaning it pulsates, getting dimmer and brighter as the conflicting forces of gravity inwards and radiation pressure outwards constantly tug the outer layers back and forth from its dense, burning core.

This 'pulse' of the star, with a period of around 4 days, has been observed by ancient astronomers for hundreds of years. In 2004, David Turner, of St. Mary's University in Halifax, Canada, compiled an archive of these measurements. His analysis, including data stretching back as long ago as 1844, showed that the North Star's pulse was slowing down. Turner justified this increase in the star's time period of around 4.5 seconds per year by concluding that the star was in the early stages of its evolution on its first crossing of the 'Cepheid instability strip', and still burning only hydrogen – a trademark of a young star.

However, Hilding Neilson of the University of Bonn, Germany, was not so sure. Combining his own recent observations with Turner's archived data, Neilson and colleagues compared the star's measured behaviour with state of the art models of stellar evolution. They didn't match up.

"Only if the star is losing a lot of mass can that [discrepancy] be resolved," says Neilson, referring to the North Star's mysteriously decreasing pulse. In a paper published recently in



the *Astrophysical Journal Letters*, he explains how the time period data is inconsistent with all regular phases of stellar evolution, and, in contradiction to Turner, he asserts that the star is old, having passed through the red giant stage and already burning Helium. In Neilson's model, as the star pulses, swathes of gas are pushed out from it in waves, as the pent-up light bursts through the star's outer layers. He concludes that the North Star must be losing mass, at the rate of around one Earth mass each year – equivalent to roughly a millionth of the mass of the star itself.

The result is particularly exciting because it's the first truly strong argument for such extreme mass loss in a Cepheid star. While most suspected examples of Cepheid stars losing mass

are uncertain, as they are based on shaky observations of the surrounding stellar material, this novel method employs the wealth of data already gathered about the North Star, to make actual quantifiable measurements of the rate at which it is wasting away.

The quest for understanding the mechanisms of the North Star is not over, however, and Turner is the first to admit that "there are many mysteries about Polaris that defy simple explanation." In the coming months and years, new data from the Hubble Space Telescope about its distance from Earth, and its luminosity, will hopefully help solve the mystery once and for all of what exactly is going on deep inside the star we thought we knew so well.

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Graphene oxide filters out water

Philip Kent

In a paper recently published in *Science*, a team from the University of Manchester has reported that graphene oxide is capable of selectively filtering water molecules, leaving all other types of molecule blocked. This is a particularly surprising result for the team, who, from previous research, expected the graphene derivative to be completely impermeable.

More surprising with this research is that water permeated through the membrane at a rate very similar to that of water permeating through a system with no membrane.

The team used a cylinder filled with water vapour to conduct the investigation. A seal made of porous copper plates coated with graphene oxide was used to cover the container, and then the loss of mass of the cylinder over time was measured.

Additionally, when the cylinder was filled with other gases (such as hexane, ethanol, and helium), there was almost no loss of mass over a 24-hour period. This shows that the mem-



brane prevented any gases other than water vapour from escaping.

This seems to be a property of graphene oxide, rather than graphene itself – when the film was made of chemically derived graphene, permeability dropped again.

Producing substances capable of blocking helium is a non-trivial task, with even glass allowing some to permeate through. The fact that graphene oxide allows water to pass through almost unimpeded, yet completely blocks other gases, surprised scientists.

Under normal conditions, graphene oxide would have water molecules in capillaries located within the layers (where the other gaseous particles would otherwise travel), and it is these molecules that prevent the flow of other gases. Water can still flow through, as the water at the top of the layer evaporates off leaving

In low humidity (i.e. when there is not much water vapour in the cylinder), the water within the layers is not replenished when it evaporates from the top, causing the capillaries to shrink. This also prevents water molecules escaping.

Applications for this could include filtration and separation, and could find use in situations where it is desired to remove just water from a sample. In a more humorous test, the team sealed a bottle of vodka using the same mechanism, and found that the vodka became stronger over time as the water vapour evaporated through the seal.

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FELIX FRIDAY 10 FEBRUARY 2012

SCIENCE

Life on Mars? Not likely

Annina Sartor explains how an analysis of Martian soil shows it is not suitable for life

hile May 25, 2008 the date of the Phoenix lander's descent onto Mars' surface - may be a day long forgotten for most, the same cannot be said of Dr Tom Pike of the Department of Electrical and Electronic Engineering at Imperial College London and his team, who, for the last three years, have been analysing data provided by the lander, along with colleagues. The results of their work were discussed at a European Space Agency meeting last Tuesday.

The team of researchers analysed soil samples using optical and atomic force microscopes, allowing them to resolve particles with diameters of as little as 100 microns. They have since been diligently cataloguing the particle sizes present in the sample. The particles' make-up and distribution reveals key information about the formation of Martian soil and its interaction with liquid water.

The researchers searched for clay particles formed by the chemical process of water breaking down rock. No evidence of such microscopic particles was found. Even when making the assumption that all particles within the size range comparable to analogous particles in Earth's soil were clay, these would only make up about 0.1% of Martian soil. Comparing this to Earth's soil, where clay content can be as high as 5%, suggests that Mars' surface has



a very arid history, unfavourable for the development of life.

The particle size distribution (PSD) of soil being studied can be used to draw conclusions about its exposure to liquid water because the proportion of clays depends mostly on length of water exposure and the conditions thereof. In the case of the samples of Martian soil studied, this analysis revealed that the soil could not have been in contact with liquid water for a total of any more than 5000 years throughout the planet's 4.6 billion years of history. This window of time, even when assuming that the 5000 years occurred in one continuous

period, is too short to reasonably expect life to have formed.

In fact, the PSD of Martian soil matches that of the Moon more closely than that of Earth; it shows signs of extreme physical weathering during its formation. While on the Moon, which is not protected by an atmosphere, this is likely due to frequent collisions with meteorites, Martian soil is weathered mostly by strong winds, again suggesting a very hostile environment.

While this study examined only samples from Phoenix's landing site, close to the northern polar cap, satellite images suggest that there is little variation

in the soil's consistency between different areas of the globe. The same conclusion may thus be drawn for the planet as a whole.

However, all hope is not yet lost. Previous research showed that Mars likely had a warmer, wetter period earlier in its history. This would have been more suited for the development of life. To find out more, scientists must dig deeper and look beyond the surface – literally. Life may still be "taking refuge underground," Pike says. More research is necessary before the idea of life on Mars can be dismissed entirely.

DOI:10.1029/2011GL049896

Laurence Pope You might not immediately DNA sequencing technolog man medicine go hand in you'd be wrong. Research being carried out by scie.

Modern

You might not immediately assume DNA sequencing technology and human medicine go hand in hand, but you'd be wrong. Research currently being carried out by scientists involved in the Human Genome Project is having a huge impact on 21st century medicine.

In a lecture on February 2, organised by the Friends of Imperial College, Imperial Professor Timothy Aitman talked about human genomics and its influence on 21st century medicine. The professor, currently a member of quango 'the Human Genetics Commission', discussed the advances made in the identification of genes involved in both rare and common genetic disorders, as well as a brief history of how geneticists have gotten to where they are today. Professor Aitman claimed that "the tipping point is very close now," in reference to the fact that genome sequencing is now so cheap that the 'thousand-dollar genome' is likely to be made possible by the end of 2012. if not sooner. He spoke only briefly about the ethical issues that surround genetic testing, though with only an hour at his disposal the professor was hard-pressed to do anything more than scratch the surface of the vast topic.

Professor Aitman spoke both enthusiastically and knowledgeably over the course of his hour-long talk. He explained otherwise complicated technologies very succinctly and presented information in a clear, concise way that did not leave people with limited biochemical knowledge in the dark.

Though this member of the audience is well acquainted with the biochemical principles underlying DNA sequencing and the Human Genome Project it was nevertheless a very engaging talk that prompted one to think about both the near and far-future. Professor Aitman neatly brought together scientific research and its practical applications in personalised drug therapy and preventative medicine. Whilst ethical issues must be faced it is clear that 21st century medicine has a bright future ahead of it.

The Friends of Imperial College is dedicated to spreading enthusiasm and knowledge of science, technology and medicine. It is independent of, but linked to, one of the premier scientific establishments on the globe and organises lectures and events to spread knowledge and stimulate attention to up-and-coming scientific developments. It can be contacted via www.friendsofimperial.org.uk.

Wall Street Journal denies climate change

Carys Cook

With the 2012 US election fast approaching, the politicisation of climate change is something that many Americans can look forward to. It would be foolish to assume that US media is also immune from political influence in a system as pervasive as the USA's - most media corporations fly their blue or red flags willingly. One such media outlet that has come under repeated criticism for its editorial board's willingness to publish factually incorrect and misleading opinions about climate change science is the News Corp Wall Street Journal, the most widely circulated newspaper in the Western world. On January 27, it published a letter from 16 scientists claiming climate alarmism is a ploy by scientists to maintain funding, for governments to raise taxes and for charities to trick people into donating money to them. Paranoid conspiracy, anyone? They also claimed there is doubt in the scientific community on the relationship between carbon dioxide and temperature, that global temperatures have not increased in the last 10 years and that there is disagreement in the climate science community that climate change is even happening (97% do, actually, agree). In fact, combined land and ocean surface temperature measurements reveal that eight of the warmest years on record have occurred in the last ten years, with 2005 and 2010 being the warmest ever recorded, 0.64°C warmer than the 20th Century average (source: NOAA).

It is important to note that the *Wall Street Journal* had previously refused to publish a comparable but accurate letter written by 255 members of the US National Academy of Sciences that highlighted the scientific consensus that humans are having a very serious and dangerous impact on our climate,

and called for an improved and serious public debate to deal with this problem. Despite claims of openness and independence, it appears as though the editorial board of the *Wall Street Journal* is rather eager to fuel the public's unfounded confusion and doubt about climate science, and play them right into the hands of the conservative candidates they support.

In all fairness, the Wall Street Journal did publish a rebuttal letter in its online version on February 1, penned by 38 eminent climate scientists and experts from all over the globe, including Sir Bob Watson, climate change advisor to the UK government, and Chris Rapley, former head of the British Antarctic Survey, who criticised the fact that many of the authors of the previous letter were not climate scientists, and those that were, were known for their extreme views in the climate science community. They likened these outliers to the few retrovirus experts that do not except that

HIV causes AIDS, and the few medical experts who claim smoking does not cause cancer. The letter highlighted that every authoritative body of scientists in climate science globally have stated repeatedly that the science is clear – in fact, reports commissioned by the US congress concluded unanimously that climate change is happening and that it is largely caused by human activity, the same conclusions held by NASA, the Environmental Agency and the US Departments of State, Defence, Agriculture, Energy, and Health.

The science is real, the consensus is huge and the concern is massive – it would be severely foolish for any political leader, American or otherwise, to disregard that evidence and ignore the colossal risk that inaction poses, even if it means coming under criticism from right-wing media, whose motivations may often not be as clear-cut as they appear...

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TECHNOLOGY

Tips & Hacks

Etymotic MC2 headset review



The Etymotic MC2 headset is an in-ear, noise isolating headphone and microphone combination promising high-quality sound. It also has a single button that can be used for tasks such as answering calls or pausing what's playing. I've been using them for the last week, and I have to say I'm finding them pretty good. Of course, compared to a particular known-brand of white earphones (don't ask – my old earphones broke), most headphones are going to be a decent improvement. However, I also have a separate pair of over-the-ear 'phones, so they'll be my point of reference instead.

Let's first look at what you get for your £75. Etymotic supply four different pairs of eartips, so you can choose the style most suited to your ear. There's also a custom ear-mould service available, but at another £75 I decided not to try it. You are additionally given a spare pair of filters, and a zipper pouch to store the headset in. While it's no metal box, it gives more protection than nothing. The cable is meant to be reinforced with Kevlar too, which can't be a bad thing for durability.

So how good are those supplied eartips at shutting out the distracting sounds of the outside world? It depends on what eartip you prefer. I use the foam ones, which are great. My experiences with the two sizes of three-flange variety show they perform well also. The 'glider' tips don't stay in my ear however, so I can't really comment but I assume they're not as great, as otherwise they'd fit better. My tips are comfortable too, with prolonged use causing no discomfort whatsoever. Now for the important part - the sound quality. While not the most expensive headset/earphones on the market, you'd expect good results for your money with the MC2s. I've listened to a range of music genres as well as spoken voice, and I can safely say the earphones don't disappoint. While they're not the 'bassiest' headphones in the world, you can hear each note of bass, and the overall sound they deliver is full and rich. Those little nuances in the music that you don't notice in cheaper headphones are audible, and you can hear all the parts of a given track. Overall, I've been impressed with the quality of audio that the earphones put out.

The microphone part of the headset worked well for a long telephone conversation I had while indoors, but apparently when outside there was a fair bit of ambient noise that made it difficult to hear me. Other than that though, the Etymotic MC2 is a good quality headset that delivers on the sound front.

Chris Bowers

A Prime tablet specimen

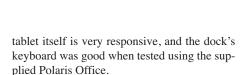
Chris Bowers

I have to say, I'm not much of a tablet man. If I really must surf on the move I'm perfectly happy with my BlackBerry, and my laptop satisfies all my mobile computing needs. However, when a friend of mine bought the new Asus Transformer Prime tablet, I had to give it a go – so I borrowed it.

The tablet's predecessor – the Transformer – was a good tablet according to its reviews. Perhaps its most distinguishing feature was the keyboard dock, which makes its return with the Prime. This fully integrates with the tablet to give you what is basically a netbook – it features a trackpad and a full keyboard with all the important Android keys, so you won't be switching between typing and touching the screen. It also has a USB port, SD card slot and an in-built battery pack, which boosts the tablet's in-use battery life from 12 hours to 18.

The Prime however, has more than just its dock to its name. It's one of the first major tablet to feature Ice Cream Sandwich (which is lovely on it), and indeed to use nVidia's quadcore Tegra 3 chip. All cutting edge so far, I'm sure you'll agree. The rest of the hardware doesn't let down either, with a 10.1" Super IPS+, Gorilla Glass screen, 32/64GB of internal storage and an eight-megapixel camera on the rear with flash, to name just some.

Of course, statistics and specifications only say so much about a product – you have to use it to really know how good it is. However, with the Transformer Prime, it doesn't take you very long to reach your decision – this tablet is really nice to use, with or without the dock. The



In fact, there are occasions when using the tablet that really make you enjoy using it. For example, closing a background task/application sounds boring, but swiping its tile off to the side of the screen is so satisfying when everything flows in the way it does. A software feature, yes, but one that does need responsiveness to pull off well.

That isn't the best test of the powerhouse sitting under the bonnet though. In fact, there didn't seem to be much that would strain the quad-core chip. While perhaps not a world-respected benchmark, Angry Birds was as smooth as could be, as was pretty much everything else.

The only time I encountered any issues was during web browsing. This was rare, and only with heavily media-based desktop sites (there's an option to always load the desktop version of a website). It's probably more likely that this was a by-product of the browser's rendering

engine, as opposed to the processor. The rest of the time the browsing was good – and it even supports Flash, so there are pretty much no limitations on what you can access.

For me, the only gripe I had with the tablet is the balance of the unit when using it with the dock. It felt as though it could be dislodged and fall backwards too easily. While it may not be in the mentality of this light, thin tablet, I think the unit as a whole would benefit if the dock had a bit more weight in it, so as to distribute the balance a little better.

However, other people have reported issues with both the wireless and GPS in the tablet. Asus have actually confirmed this is an issue with the (pretty) metal back on the tablet. There are rumours that a follow-up with a full 1080p screen will appear soon, that also fixes these issues – so if you're considering buying this, it might be worth waiting for more details.

All in all though, I was very impressed with the Transformer Prime. If I were ever to buy a tablet, it would be one of these, or one of its successors



Zuckerberg bored; enter Timeline

Jason Ye

Tell your life story with a new kind of profile. Or so the marketing material goes. The latest revamp of the Facebook profile page has divided opinion among many people and it has not been embraced by as many people or as widely as Mark Zuckerberg would have wanted. These changes are possibly more far-reaching than any single modification to our favourite social network in its entire history. Like it or not, they will be made compulsory for everyone within the next month.

In case you've blocked yourself from online procrastination for the last three months, the Facebook Timeline is a new way of presenting your photos, status updates and all the other great things that adorn what is currently your Wall.

Possibly the first new feature of the Timeline that you'll notice is the Cover Photo – a banner which stretches across the top of your profile and dominates what visitors to your profile will see when they first visit it. Profile pictures have now been relegated to a small square displayed on the bottom left corner of the Cover Photo, and are still used throughout the site and displayed next to your name in all

facebook

Facebook: bringing you a sudden influx of misused memes

your posts scattered across your friends' virtual lives

There is also an increased amount of customisation that is given to users – every time someone tags you in a photo, or a comment, it goes straight to the 'Activity Log'. This is a brand new view of all our activity since joining Facebook. From here, we can see absolutely everything that we have done on the network, and it is possible to manually hide things or set Facebook to prod you via a notification to get you to approve new posts onto your Timeline before it shows up. This is a great way to ensure that those embarrassing banterful photos of your Sports Night antics don't end up as a

banner on your profile page.

The downsides however are numerous, and mainly revolve around privacy issues; yet again a thorny issue which has cropped up throughout Facebook's history. Firstly, the default privacy options for new Timeline posts are actually set to 'Public', which means that what is likely your entire life will be available for all, including Google and your potential employers to see. In addition you will be dragged kicking and screaming to the new format, and you will need to prepare yourself. It is currently possible to conduct a seven-day trial of the new Timeline feature where you can purge everything that you don't want others to see.

FELIX FRIDAY 10 FEBRUARY 2012

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POLITICS

Bringing down the Bankers

Joseph Letts looks at the future of performance-related pay in the City

n the wake of last week's pay scandal concerning RBS CEO Stephen Hester, a lot has been said in regards to the opulence of bankers' bonuses. In fact, in the private student accommodation in which I live we even held a debate at the weekend, with a slim majority voting for motion which stated that the government should prevent excessive pay. Since the recession and our slow economic recovery, the public has been baying for blood at the mere mention of a large bonus, with heads of public bodies afraid of the public backlash of receiving a bonus, no matter how well deserved. Over the last two weeks, the Chairman and CEO of RBS (83% state owned) both declined to take a bonus, followed by several directors of Network Rail. Now, while these companies are both controlled by the state that, as majority shareholder, has the right to veto executive pay packages, some people are starting to call for the government to cast its net wider and consider banning bankers' bonuses in the general financial industry.



The general consensus is that the Global Financial Crisis of 2007-8 was caused by the financial services industry using risky sub-prime mortgages sold to a low-income section of society with a high risk of default. Some believe that the banking bonus culture propagated the system failure, arguing that mortgage sellers aimed to sell large numbers of adjustable rate mortgages to customers with a high risk of default because they were more concerned about shortterm achievements such as hitting targets and getting bigger bonuses than about the long-term risk of their investments. A main criticism of bonuses is that they encourage the purchase of riskier debt by bankers, the pay of whom is only related to short-term performance and not the long term performance of the deals they make. This behaviour lumbers the bank with toxic assets, which can turn bad at short notice that, as was seen at the time, puts the customers of the bank at risk and can lead to bailouts by governments

Too much money?

Another argument for banning or capping the bonuses of bankers is that they are simply given too much money. Banking bonuses can range from tens of thousands given to graduates in their first to the odd million pounds given to a bank's top performers and



executive staff. This is in a stark contrast to the median American annual salary of \$26,364 in 2011 or a mean UK household income of £26,000. Many say it is negligent to allow bankers and CEOs of top companies to be allowed to propagate income inequality by being paid many times the amount of an average employee in their company (or in the case of banks, an average person).

Since banks handle such large sums of money and gain astronomical revenues, it is fairly accepted that banks have a lot of money available, however they seem to distribute a large amount of this to their employees instead of giving some benefit to their customers or investing in community programs. Banks pays their employees a lot of money simply because they can, not necessarily because it is deserved.

Performance related pay or just extra pay?

People do also wonder if the amount given can be in any way related to the extra value an employee has brought to a company. Certainly there are the odd few stories of hedge fund managers having being paid 50% of the returns made by their funds in recent years. Similarly for CEOs, do million pound bonuses (like the one offered to Stephen Hester) accurately reflect the ex-

tra work and results that the payee has given? Surely they, and other employees are already compensated enough by 100,000 or million pound base packages for salaries? In fact many people believe that bonuses given to bankers are not performance related at all but are in fact an way to give their employees more money, whether earned or not.

Government Intervention

The aforementioned points are a few of the reasons that people have raised their spears in the direction of bankers' bonuses. Why doesn't the government do something, like tax bankers or even ban bonuses? Indeed who else can effectively regulate the financial services industry to reduce the kind of risky behaviour that can lead to another financial crash? But what should the government do? There are already some regulatory bodies like the Financial Services Authority in the UK and Federal Reserve Board of Governors and the Securities Exchange Commission in the US, however they are not always able to keep abreast of the latest developments in the financial sector and so at times they can only offer a knee-jerk reaction to negative practices which are eventually brought to light. Increasing the awareness of such bodies and tightening regulations would be a good start to make the financial services industry more transparent. The government also has the option of increasing the rate of tax paid by bankers, however this is not so easy in practice. Since they cannot single out employees from a single industry for tax purposes they would have to either increase the top rate of tax for high earners, introduce a new higher rate tax band or increase taxes on financial institutions. There are, of course, problems associated with each of these approaches, the most obvious being that an increase in tax paid by wealthy individuals or companies will lead to a 'talent drain' where these individuals will simply move to a different country where they can enjoy a larger disposable income. Also this may encourage such entities to use tax avoidance or evasion techniques to hide their earnings from the state. This can be a problem, especially in countries like the UK where the financial services industry is a major part of the economy and large companies pay around 60% of all taxes received by the government.

The long arm of the law

Another problem we face is determining how involved the government should be in the affairs of private sector companies. In the western world the capitalist system is generally embraced and the ideal of the free market is roughly adhered to, excusing some interventions by the government like competition regulations and the minimum wage. With

this system in place it seems impossible for a government like that of the UK to credibly place restraints on the behaviour of companies in the private sector yet some still call for the government to set a maximum salary or to ban bonuses altogether. Taking the UK government as an example, with their reluctance to employ a financial tax on banks without a similar effort being made globally it seems unrealistic to believe they would take a more hands on approach. Aside from the fact that enforcing such measures in the UK would wound our competitiveness internationally it is easy to imagine that the unease caused by the government micromanagement could send companies running to the arms of a much friendlier ruling body. Not to mention the legality of such actions. In a democratic country the government simply does not have to right to influence or penalise what they consider bad management decisions made by private companies.

But what could the government do instead? One suggestion is to give more power to shareholders, an idea already being considered by the Con-Lib coalition. Giving shareholders more control over executive pay and allowing ordinary employees to sit on the pay committees in companies are two ways in which the government can give more power to the stakeholders of a business.

Another idea being floated by David Cameron is a proposal to cap the ratio of executive to average employee salaries, a policy designed to even pay inequality in companies and keep rising executive pay in check.

People are of two minds considering bankers' bonuses, some consider bankers to be a necessary evil and a less than savoury consequence of the capitalist system while others believe them to be lawless rogues who need to be reined in and forced back in line with the rest of society. And of course many of the bankers themselves aren't about to look a gift horse in the mouth. It will be interesting to see how the bonus culture weathers the next few years and if public condemnation will bring a change to current banking practices.

Got something to say? Email articles to: politics.felix@ic.ac.uk

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BUSINESS

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Reporting Science in Financial Times

Felix Business Editors **Benat Gurrutxaga-Lerma** and **Nina Kearsey** talk to **Clive Cookson**, Science Editor at the *Financial Times*, about the argument for business involvement in science, and about the challenges and changes facing science journalism

o begin, as interviews commonly do, with some scene-setting by way of a weather report, it was a cold albeit sunny morning (one of those ironies so common to the English winter) when we met with the Financial Times' Clive Cookson to talk science and business. Both a scientist and journalist by training, Cookson's work for the FT has involved writing everything from blogs and podcasts to teeline shorthand. Thus embodying both the new- and old-schools of journalism, he is well placed to share his thoughts on the changing status of science and science reporting. Retreating from the unremitting cold of the winter anticyclone to RCS1, and with coats still drawn around us against its lasting chill and the capricious air-con, we began the following conversation.

Felix Business: The *Financial Times* is a specialist, financially oriented newspaper. Having established itself as the friend of "The Honest Financier and the Respectable Broker", with a strong focus on business and economics, why does it need a science editor?

Clive Cookson: Well, the narrow answer is because so much business is science based. Everything from the pharmaceuticals and biotech industries through to materials, chemistry and electronics; computers, IT; all those have, ultimately, a base in science so that's the answer to why a business newspaper needs a science correspondent. But the broader answer is that the FT is not any longer just a business newspaper. We also have Arts sections. and we write about science as science: I write about cosmology and the origins and future of the universe - that has no immediate business applications. So in summary, a business newspaper would need a science correspondent, but we also cover non-business topics.

FB: That begins to answer our second question, which was that the general public has this view of science as connected to the manufacturing industry and high-tech companies. But does it still carry the same relevance as the economy shifts from products

towards services?

CC: Well the government of course would like to base future economic growth on science based companies – the famous "rebalancing" phrase. Too much has been tilted towards particularly financial services, and they want to put some back. Not into old-style dinosaur manufacturing industries, but into the new-style science based companies.

FB: Would you then agree that manufacturing and R&D should carry a more prominent role in the UK economy?

CC: I think so. Given that we have a highly-skilled, highly-educated workforce and a good science base, and excellent universities like this one producing people who could do this, and considering companies based on science have a much higher value added per-person than others, it makes sense to base the future on it, yes.

FB: On that point, what do you think of City firms poaching science graduates away from engineering and hightech firms? Do you think that the lure of the high salaries these have to offer is distorting the UK economy?

CC: I think it was doing so, but that now there is going to be much less of that because City firms are not growing to the same extent - some of them are laying off people. So I think that's a problem of the last decade: it's less of a problem for future decades, or this decade. But I actually think it hasn't been bad for the whole field because there is an uplift: if physicists and engineers and mathematicians can get vast salaries in the financial industry, that forces other employers, like old-style technological industries such as Rolls-Royce, to pay more than they otherwise would. I would say that it has been good for science and engineering because it has produced an uplift for salaries throughout, which would be even lower other-

FB: Concurrent to this change in economic landscape here though, there seems to have been a change in the time-scales associated with investments. Speculative trading is a noto-

rious example of short-termist thinking, and this is in stark contrast with the returns on R&D expenditure: for instance, the return time on a jet engine is 25 years. How can investment in R&D, being so long-term, be encouraged in an environment where you can make money in seconds?

CC: Well, I would put it a different way, because although the trading itself is very short-term, remember there's R&D behind that as well. The trading algorithms and so on are not thought up in seconds; they take years of underlying research, and scientists who went into the City have contributed to that. So I think it is a mistake to look at everything in financial trading as being short-term, when the underlying strategies have probably been thought up over several years – not as many years as a jet engine or a pharmaceutical product, but they are not as short-term as it might seem. In terms of what you can do about it, there's nothing you can do about it in a capitalist, free-market economy, absolutely nothing. You can juggle with the tax system so that, as they do in America, you pay more capital gains tax on an asset you have held for less than a year than for more than a year. You can try and fight shorttermism in that way, but fundamentally it is just part of the system we live in.

FB: Do you think the different timescale associated with investments for a company like Rolls-Royce hampers the way it spreads its finances – having to set aside large amounts of capital that aren't going mature for decades?

CC: I don't think so. Remember that Rolls-Royce and the big pharmaceutical companies have, for the last few years, been very profitable. I think that there's a very good cash flow in these companies; for example in Rolls-Royce's case from maintenance, or more importantly selling spares for their engines. And the whole thing is geared up for the long-term. They are making money now out of investments they made 25 years ago; the cash is coming in.

FB: Doesn't that create a barrier for new businesses to start up in those kinds of industry? CC: Oh yes, it's a huge barrier. In the aerospace industry, for example, it's a very big barrier to starting up, which is why there haven't been any successful start-ups in that particular field. At least not in Europe.

FB: What about the political timetable? Because that's also quite short-term. Do you think scientific development requires more constancy than it gets in terms of government policy?

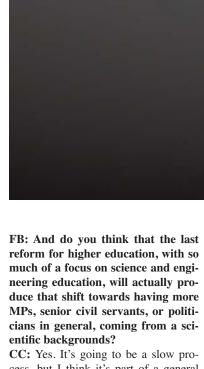
CC: Yes, I do. Though there's more continuity in government policy, I would say, in science than in many other areas. In this country there is not a big party-political difference: Labour science policy and Conservative science policy are, broadly speaking, very similar. I don't think there are big ideological differences. Yes politics thinks in the short-term, but it's not a case where one government will tear up what the other one has done.

FB: Would you agree that there is a bias against strong scientific policy due to the backgrounds of government ministers, which are overwhelmingly humanities and social sciences?

CC: Yes. And that's true more generally of politics and the civil service. Obviously the backgrounds of government ministers reflect the backgrounds of members of parliament in this country, and there are far too few MPs with any sort of science, medical or engineering backgrounds. The same applies to senior civil servants in government departments – there are some, but there aren't very many. I wish more scientists would go into politics, and non-scientific administration.

FB: So does talk of revitalising the UK's manufacturing sector require a technocrat minister – someone with a PhD in some scientific discipline?

CC: It doesn't *require* it. It would probably be helped, but I don't think we should despair because these people aren't around. It's going to take a generation, if it happens at all, to get more scientifically trained people into these senior government leadership jobs. No, I don't think it requires that. It would be nice, but not essential.



cians in general, coming from a scientific backgrounds?

CC: Yes. It's going to be a slow process, but I think it's part of a general trend – yes. But it's clearly going to take decades. I think it's going in the right direction.

On Science Journalism

FB: We now have some more general questions on science journalism. One of the challenges of reporting science, it seems, is to avoid being reductionist in your efforts to communicate technical information to a non-scientific audience; is this necessary, do you think, or should you demand more from your readers? Does it detract in

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BUSINESS



any way from the science itself?

CC: Personally, I think that if you're writing a science story in a newspaper like the FT for example, for an intelligent but generally non-scientific readership, you should be able to include some details which will not be understood by everyone, and will be understood, and illuminate the piece, say, for scientists. It shouldn't put off non-scientists. In other words, the piece should be comprehensible to any intelligent reader, but that does not mean that any intelligent reader should be able to understand every detail in the piece. You'd never get anywhere if you had to spell out all the details. I am a great believer in pieces that can be read by everyone, but will not be so over-simplified for the scientist.

FB: What of the different vocabularies used? The scientific training provides a very different working vocabulary – for example those cases in which journalists ask astronomers

whether there is a chance of a meteorite hitting the Earth, and the scientist would say, "Well there is a 99% chance that it won't hit the earth, but..." and immediately the journalist asks, "But is there a chance?" – "Well, I can't assure it won't happen...". Obviously, when that word is said in a scientific context it would denote that the chances are it will never happen. But said in a general context, without the implied scientific caution, it may give the impression to the general public that there is a fair chance of a meteorite hitting the Earth.

CC: I agree there is a different vocabulary, not just in terms of technical terms, but even just the way everyday words are used, which journalists sometimes don't get. I've learnt to interpret this for the public in a way that will not embarrass the scientists. But some scientists do take it too much to extreme, like quantum physicists, who will say "there is a chance that this chair will levitate

itself". They say that, but in fact there's zero chance. I would say it's impossible, but quantum physicists would say it's not impossible. It depends what you mean by impossible.

FB: Related to that it seems, especially in the US media, that there's a tendency amongst the public to consider expert opinions merely as opinions and so, for example the educated opinions of climate scientists about global warming is sometimes put on the same level as general opinion leaders with no particular expertise – is this a problem when it comes to science journalism? Is it right that non-experts be given equal platform to experts?

CC: No, it's very wrong, and certainly at the *FT* the policy of our editor – all *FT* editors in my memory – has been that if it's a science-based issue, the voice of scientists is paramount. If the vast majority of scientists are saying one thing, well, you should reflect that

opinion, even if there's a small number of scientists saying something different. Obviously on climate change there are some scientists, even a few who know quite a lot about climatology, who challenge the orthodoxy. But when the vast majority of scientists say one thing, we follow them. Likewise on the safety of genetically modified foods and other issues.

FB: The BBC tends to take a different opinion, in that it will try and present all views - to not really side with anyone. And there are these Newsnight style panel debates where you'll have the creationist sitting opposite the expert in evolution. Do you think that's damaging to the scientific message, having these very polarised debates? CC: Yes, I think it is damaging. For example, on the issue of climate change, climate sceptics regard the BBC as being very much against them, very much the voice of scientific orthodoxy. Whereas from the point of view of most scientists, the BBC gives too much weight to the skeptics. The BBC is particularly exposed, and on this sort of debate it just can't win. I rather sympathise with them on this. Yes, they give probably too much voice to very minority views, but in their position they have to really.

FB: Do you think the social media and the blogosphere are, in part, responsible for the laudation of nonexpert opinions? Are they affecting science journalism?

CC: I think they are affecting science journalism, but I think things are getting better. When blogs were quite new, a lot of weird stuff was going out there. Now that it's so easy, there are more scientists in the blogosphere, so there's more of a weight of sensible scientific views than there used to be. I think that balance is tilting back towards science. There's just so much there! So many scientists are taking part I think things have got better.

FB: Most of the science journalism news are reports about scientific discoveries. I wonder if you'd agree that engineering as a discipline doesn't get that much of a covering in general?

CC: Yes I agree.

FB: For example a mobile phone is something that people take for granted, but when you actually study what's inside them, you find something preposterously complicated and sophisticated. It seems that that people do not get to appreciate, in the same way as with science in general, how much work and how many breakthrough discoveries are involved engineering as a field.

CC: What you have said is very true. I would say there are two field which are under-reported: engineering's probably the biggest one, but also the whole of chemistry is very under-reported. It's difficult to know how to report ei-

ther of those. I do try. But it's difficult compared to discoveries in biomedical research or even physics, where there's more of a sort of gee-whiz factor, a wow factor – particles going faster than the speed of light, or some new step towards curing cancer. Yes it is a fault in the whole system; I think it always has been probably.

FB: But, for instance, in the 19th century writers seemed very excited about new machines that were invented. I don't know whether we have already taken for granted that technological progress is going to keep happening on an everyday basis, so that now we are not surprised by the amazing feats engineering offers continuously.

CC: Well I think one of the things is that now a lot of the engineering - the basic engineering breakthroughs - are made in companies that don't want to talk about it; whereas in the 19th century it was more open. Mobile phone companies don't want to give away secrets really. If you look at the science and engineering that's reported in the media, the vast majority comes out of universities and public research labs because they want to talk about it whereas the companies only want to talk about it in terms of selling their product, rather than talking about their underlying science and technology. And then also what engineering needs is a sort of Brian Cox equivalent, who can really win over hundreds of thousands, millions of people by popularising it. There isn't anyone like that in engineering as far as I know. Or chemistry.

FB: Each year there's a Royal College of Science Union 'Science Challenge', which is an essay competition for students here at the college, and one of the questions this year was set by Pallab Ghosh, science correspondent at the BBC. How would you begin to answer his question "What is the role of science journalism in the 21st century?"

CC: That's a very good question! I suppose the simple answer to Pallab's question is that science journalism is the medium by which scientists communicate with the general public. So looking at it from the scientist's point of view, even with the latest technology, very few scientists can get through to very many people. For most scientists, if they want the world to know about their research - and more and more of them do - then science journalists are the best medium, the best means of communication. And you can look at it from the other way around, from the point of view of the general interested reader or viewer or listener. Then you would like to find out about what's going on through science journalism because the average person is not going to read Nature or Science or any other primary journal, so you're going to have to use a secondary or tertiary source. For most people, that's going to be science iournalism and the mass media.

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Comment Editors: **Tim Arbabzadah Sam Horti**

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COMMENT

FELIX

Have your say on the Holland Club and Clayponds

The stage has been set for a discussion on the future of both the Holland Club and Clayponds. Next Thursday (February 16) will see Imperial College's Graduate Students' Association host a panel on the potential changes to the status of both the Holland Club and Clayponds, both without a doubt the most contentious issues affecting both staff and students at Imperial currently. If you have any interest whatsoever in the ongoing situation, then it is crucial you attend.

Online discussion, such as that demonstrated by the 'Save the Holland Club' Facebook campaign has been notable for highlighting those who have strong feelings regarding the situation (not to mention a genuine form of respite from the sudden and 'dramatic' influx of 'Imperial Memes'), and is indeed impressive by the amount of support that there has been from staff and students across college. There is only so far that this can go, however. At its heart, the vast majority of those belonging to the campaign group have their own reasoning for the Holland Club remaining unchanged by the feasibility study and will ultimately voice their opinion in line with this. The arena for opposition, for whatever reason, is restricted, especially in lieu of actual confirmation by Commercial Services as to their plans. Until now, opinions have been posted on the campaign group, with no official statement being made by Commercial Services with respect to any form of new layout, and with Commercial Services informing people that no firm decision has been made, something that the campaign group strongly suggests that in their view, is false.

Where better to instead fully clarify the entire situation than with a panel free from the confines of internet debate? This is a place where full and frank discussion can be held between attending parties, and where individuals can be questioned in the flesh, allowing for greater accountability and understanding behind the situation.

So whether you have concerns about the immediate future of Clayponds or the potential changes to the layout of the Holland Club, now is the time to take your points to those who have the power to represent your views and gain a deeper understanding of the entire situation from those who directly at the centre of any potential changes. There is no choice but to attend the meeting and make your voice heard, and to listen to all the evidence (or lack thereof) on offer in a hope for transparency, rather than alleged truths.

Sexism at Imperial College



Stephen Smith

ot here, surely? Sexism is everywhere: in the media, in politics, in the arts, but at universities? The centres of liberal thought and tolerance? Where everyone is open-minded and friendly and – above all – extremely egalitarian? If there were ever a place where sexism shouldn't exist, it is here. And yet it persists like an ugly, cunning mouse peskily dodging the hungry cat of equality.

In lectures, (in most of them, in fact) I listen to the irritating chorus of male voices in the rows behind me discussing the sexual attractiveness of the women in the audience. Life for these boys (they can hardly be called men) is black and white: the girls are divided neatly into fuckable and unfuckable, hot and ugly, those who are "fit" and those who are "wastegash". And all of this within earshot of the very same women they are "classifying".

To point out a particularly attractive person to a friend is normal; to classify a whole cohort of humans by their looks – dismissing the majority with the awful term "wastegash" – is slightly worse than unpleasant. Perhaps these boys should be reminded that fourteen Oxford students were suspended for identical behaviour two years ago.

In a slightly less provocative example earlier this year, a mathematics professor instructed his male students to get girlfriends. His hope was that their newfound loves could write up their coursework for them, while the boys got on with the serious business of mathematical study. For most of the boys in the lecture this was understood to be banter; but for the girls it set up an unnecessary divide, ostracising them from the overwhelming male majority: science is for men, typing is for women.

But these are just stupid boys being boorish with friends and an old professor out of touch with modern social norms, sexism is to be expected; surely we can find more rounded views from the mature, creative students who write for the student newspaper? But no. Felix, too, has a healthy dose of misogyny in its pages.

You will, perhaps, remember the satirical character "Gurl with Opinions". To the writer of these dreadful and un-

funny articles, girls' opinions involve how they look, animal welfare, and... nothing else. Combining the usual straw-feminist non-arguments ("this guy held a door open for me and I was like, I can open doors, you know!") and typical women-should-care-only-about-looks sexual stereotyping ("depressed girls just give up on themselves and let their hair go all frizzy and start wearing baggy jeans") these columns served no purpose but self-gratifying sexism. Hahaha, imagine girls having opinions. Hahaha, their opinions are all so trivial and unimportant. Hahaha...

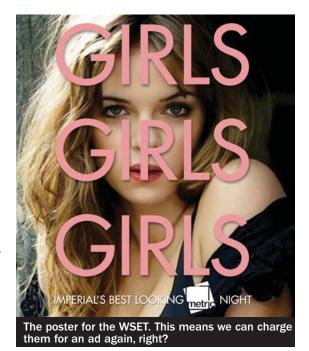
On top of this, the usually amusing Hangman regularly leaves the realm of humour to enter the wonderful world of misogyny. This year, the infamous section of the paper described successful businesswoman Deborah Meaden as "a grumpy bitch" and told her "you sacrifice your entire life... to the detriment of your children's happiness, any respect from the male species, and any form of femininity (like you had that anyway)."

Discussing female Imperial students, it divided them into those who are "actually pretty fit" and those who could be described as "some dumpy short bitch who wouldn't even get a second look if she went to UCL." On top of this, three weeks ago Hangman said of female readers, "God knows, it's hard thinking down to your level", and last week said that misogyny was "not a viewpoint [but] a default". Hopefully I don't need to explain what is so very sexist about these comments. If I were female, these examples alone would be enough to put me off working for the newspaper.

Admittedly, Hangman is a section that explicitly aims to be offensive, and I wouldn't begrudge Felix the right to print "humorous" sexist comments if there are people willing to write them. But the fact that there are students who write these articles – and who presumably find them funny – suggests that feminism still has a lot of work to do: if some of the most intelligent, openminded people in the country find sexism and misogyny amusing, what hope is there for everyone else?

All of this takes place against the background of what – for the students at least – defines Imperial: the gender ratio. Imperial College, the country's top science and technology university, constantly admits twice as many male applicants as female ones. Although this is certainly not a conscious bias by admissions tutors, to an outsider it implicitly suggests that, in the world of Imperial, men are considered better at science and engineering than women. This is clearly something likely to make a potential female applicant decide against applying to the university.

All this (you would think) should be fertile ground for a student society



like Women in Science, Engineering and Technology (WSET) to challenge perceptions and make a difference. Although I have great respect for their excellent breast cancer fund-raising activities, in the area of female empowerment they appear to have done more to entrench stereotypes than to challenge them.

You may recall a particularly alluring advert for their club night called "Girls Girls" described as "Imperial's best looking Metric night". It was set to feature "jugglers, belly dancers, and lots of sexy scientists!" and attempted to lure people along with the promise that "Our sexy ladies will be taking down your bets throughout the night". Undoubtedly, the night was just intended to be light-hearted fun (what better way to attract Imperial students than with the promise of girls, girls, girls?), but when the closest thing our university has to a feminist society seems to encourage the lazy perception of women as tools for sexual gratification, something is clearly wrong.

Obviously, this is not just a problem at Imperial. At least we have not reached the level of *The Beaver* (the student newspaper of the LSE) whose editor faced calls to stand down after printing jokes about rape. Moreover, by the standards of the outside world – where sexism pervades every part of life from *The Sun* to the billboards on Cromwell Road – Imperial is positively progressive.

But we really need to aim higher. As students we should be leading the fight against sexism, not helping to perpetuate discrimination. If you care – and I hope you do – then read a book, write an article, go on a protest, maybe even start the Imperial Feminist Society. And, most importantly, get angry. Sexism: it's everywhere and it's worth getting really fucking annoyed about.

Are you a multi platinum selling rap artist and think misogyny is a way of life? Why not tell everyone at: felixonline.

COMMENT

Abandon all hope all ye who neglect your community



Philip Kent

Motivated and happy staff provide a better level of service to the customer... whose patronage is actually valued by the company

ack home in the Midlands, there is an extremely popular bus company known as Trent Barton. Like just about every other bus company in the world, you get on the bus, you pay some money, and they drive you to where you want to go. Some of their competitors are faster at getting to some destinations, and are sometimes cheaper too. So why do they remain much loved and admired throughout the East Midlands? The reason for this is clear: they value the community they created around their products.

If you have a product, there is a massive amount of potential to tap into the community you have. If you have users, they are there for your use. Thinking of bringing out a new brand? Ask them for their opinion. Need a new advertising campaign? Run a promotion with your customers. This increases customer satisfaction, makes them feel appreciated, and can even be good PR for the company.

Indeed, it just goes to show that a company is not just about making money, at least not in the current day and age. It's about looking after your community and making them feel appreciated and part of the family – the success of Trent Barton is testament to this!

So why is it, then, that some companies and organizations treat their community badly, if not ignoring them? As we have seen on Felix Online, when postgraduates heard of the potential closure of the Holland Club, they were up in arms! Having been left completely out of the loop, the postgraduates, the

community in this case, became angry and even felt neglected (as Thomas Phillip's recent Comment article suggested).

Simply looking after the people whose patronage you rely upon could have prevented a lot of this from happening. A lack of communication leaves the community out of the loop and disconnected – ruining the potentially excellent relationship that an organization could have with its community.

College is not the only one guilty of this. We can look at Elsevier, for example. Controversial business practices alienated the community – causing them to revolt, as we saw with the recent boycott. By treating them in a way that they could not agree with, their community turned against the company, which did not aid them; and the bad press worsened their reputation. Again, by simply working with the community, such as by holding discussions to see if what they were doing was popular, this whole disaster could have been averted.

And why is it that organizations such as John Lewis are often more trusted and liked than competitors such as House of Fraser (according to a You-Gov study)? It's a well-known fact that John Lewis is a partnership of which all staff has a stake in, and it's this fair treatment that looks good in the eyes of the community, and increases perception of the brand. Motivated and happy staff provide a better level of service to the customer, who feel that they are being treated well and whose patronage is actually valued by the company.

Some would argue that a public body



has a duty to look after the community. and that for a private organization this is not necessary. And it is true, public bodies should - one can consider it a responsibility of using funds provided by taxpayers (and is also why it is so sad that many establishments are seeming to become increasingly more commercially focused - run as companies and not institutions). And it is true, public bodies should: one can consider it a responsibility of using funds provided by taxpayers. This is why it is so sad that many establishments seem to become increasingly more commercially focused, run as companies and not institutions. But private companies should take heed too – just because the public doesn't run the company doesn't mean they don't have a view over how they are run and how they interact.

Ruining this relationship helps no-

body. The company or organization in question loses trust, and as a result, custom and reputation. It becomes less likely that people recommend friends to their services, and they can even become labelled as 'nasty people' or 'bullies' – we just have to look at the recent outrage over the bonus of RBS boss Stephen Heston for an example of the ill-feeling that can result from such a disconnect. In my eyes, it would not be unfair to call it commercial suicide.

Luckily for employees everywhere, dressing up in a giant mango costume (as Trent Barton has its staff do) is not a necessary part of nurturing the relationship a company or organization has with its community. But if trust and custom is wanted, respecting the community is a necessary part, and is one that must not be forgotten in the urge to make money and boost profits.

New library door, satisfaction skyrockets?



Laurence de Lussy Kubisa

he new Library entrance was today unveiled in what is already being called a stunning coup for students. The entrance, which whilst still in the same place, now encompasses an incredible 3.75m², will provide untold numbers with easier access to Imperial's coveted study areas.

It will certainly be a relief to many students to find that the outrageous 'face-on' style previously employed has been scrapped in favour of two, more acceptable, side entrances. "Frankly, I was this close to writing a letter of complaint about the positioning of the entrance – it was really dangerous and offensive" said one student who wished to remain anonymous.

As well as its clear benefits to students' comfort and safety, the entrance will also encourage more students to use the facilities contained within. "I never used the library before, but I'll certainly consider it now," said another student before adding, "although I'm not sure what I'd do once inside".

Not only does the new entrance represent an unheralded show of good will by Imperial College towards its students, but the building work was impeccably timed. The decision to

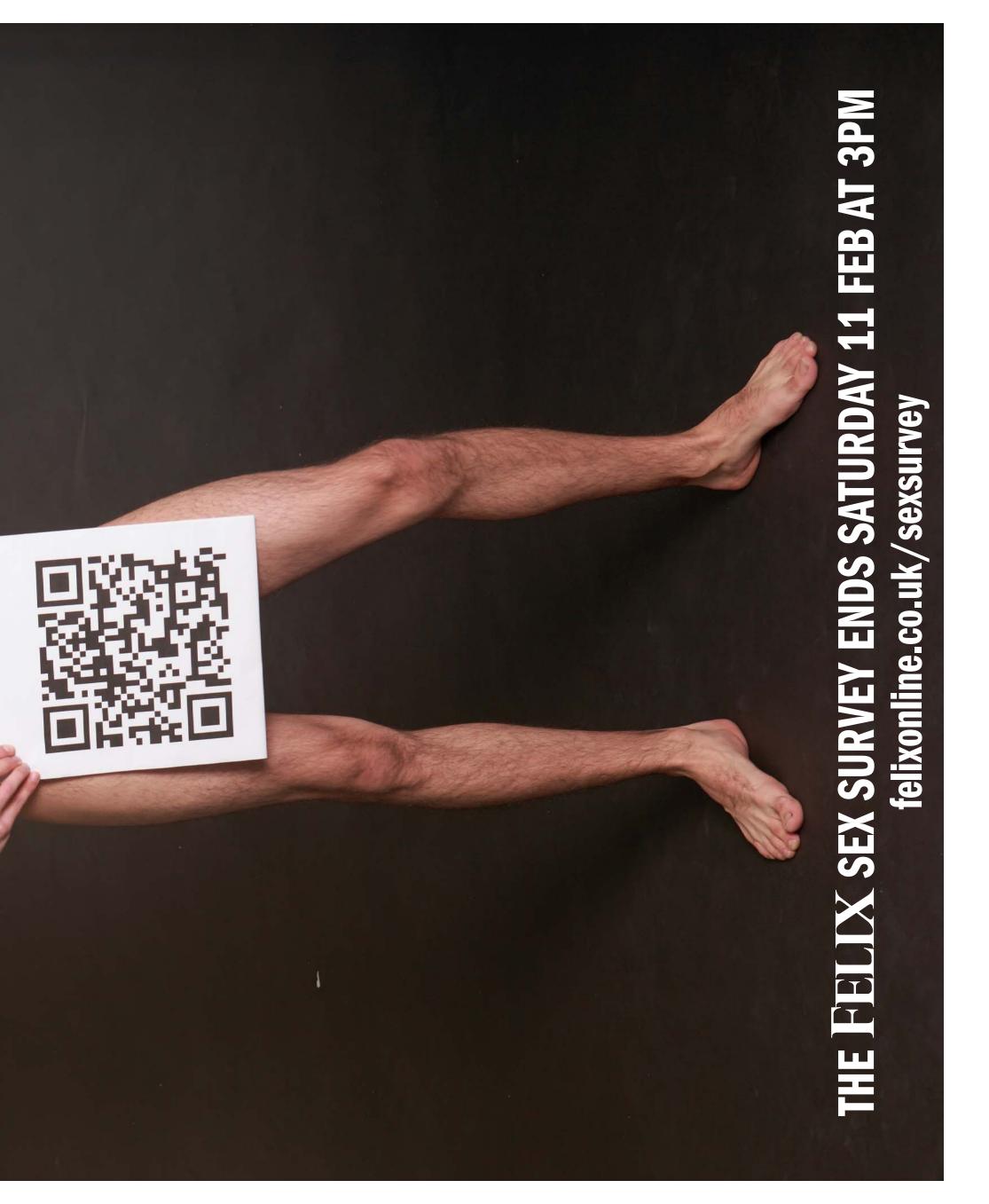
start building in the winter months during term time was, without a doubt, not straightforward. However it was entirely vindicated as students were finally able to appreciate some of the behind-the-scenes work that goes into making Imperial tick. Sure, the library café was cold enough to make the crew of *Frozen Planet* think twice about eating there and more crowded than most places are legally allowed to be, but there was strong positive feedback from interviewed students indicating that the timing of construction really made them feel looked after.

Students from the Life Sciences appeared to be amongst the happiest at

the sight of the entrance. The department underwent serious perestroika last year resulting in excellent lecturers losing their jobs and many students feeling betrayed by their university; however, reaction has been overwhelmingly positive. "At first I was doubtful that a new entrance could repair the cracks created by the restructuring process, but now I've seen the entrance myself, it's certainly worth three or four good lecturers" said 2nd year biochemist Lee Sewell.

With this kind of investment in students, Imperial will surely look forward to rocketing up the student satisfaction rankings for 2012.





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ARTS

The Poets are on holiday: Fusion



What do Lady Gaga, *Made in Chelsea*, and Chicago have in common? A high level of entertainment. Sex Appeal. Great hair. And Fusion@London.

You've probably heard of Fusion@London. But you might be wondering what it is and why you should care. Fusion brings together music, dance, and fashion. All four headliners are ones to watch in 2012. Clement Marfo & The FrontLine (rap meets rock meets dubstep), Angel (R&B's best kept secret), Charli XCX (80's pop, but better), and Sunday Girl (synth-pop, but melancholic) have all been featured on MTV's Brand New Artists.

On the fashion front, the designers are just as cool as the headliners – Central St. Martin's graduate Ara Jo has dressed the likes of Lady Gaga and Jamelia; designs by LCF's Jenny Morris can be seen gracing the shoulders of Girls Aloud star Nicola Roberts; and Viven of Holloway's fifties style dresses can be spotted all over the red carpet. Fusion can boast even bigger street cred with names like Jaeger and Hugo Boss – also providing looks.

So who has put this all together? Well, the committee and cast are drawn from all over London. That hot girl in your engineering lecture? She's probably modelling lingerie. The guy from the gym in those ridiculously cool high tops and hipster glasses? One of the choreographers. Your housemate's boyfriend's friend? Chances are he's in it too.

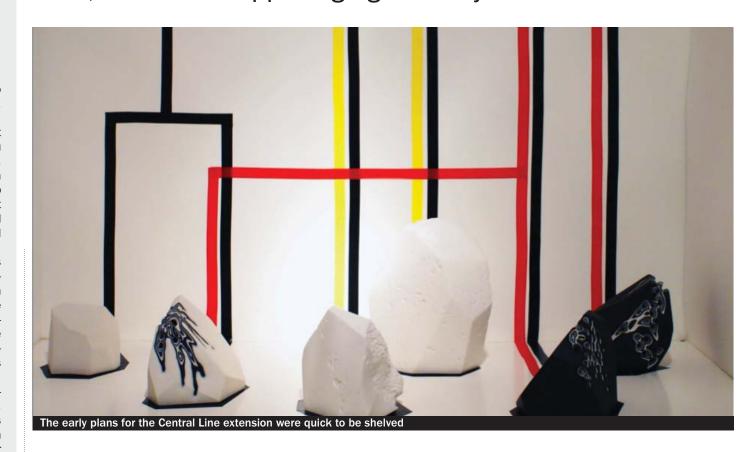
Presented by Binky, Hugo, and Spenser from *Made in Chelsea*, Fusion@London is a collective effort by students from all cultures, all universities, and all disciplines to raise as much money as possible for Cancer Research UK. And it's no bake sale (those rock though). It's twelve months of hard work. Money invested on lights, music, choreography, costumes, and venues (plus all the stuff they got for free). And two hundred brains and bodies working day in, day out, to put this thing together.

Fusion takes places on the 25th & 26th February at **Troxy**, Limehouse. Tickets are £15, Visit www. fusionatlondon.com for more info.



A step towards cross-f***ing

IC joined forces with the RCA to create art inspired by science; Artifact is happening again this year



Meredith Thomas

It is very difficult to retain a historical perspective of the present. Artistic movements only acquire recognition and an associated nomenclature once they are well established, or in many cases once they have peaked. However, I am going to stick my neck out to predict that art histories yet to be written will refer to 'Sciencism' or 'Technophilism' originating in our time. Perhaps some other silly name will be used, but I stand by my hunch. A term will be required to collect the current dearth of art/science collaborations.

Art has always drawn inspiration from scientific advance and vice versa. One could point to the Renaissance or Futurism in the early 20th Century as a precedent but at no time in history has this truly cross-disciplinary conduit been more alive with crackling, electric energy.

"Welcome to the world, Sciencism. I hope someone finds a better name for you"

We currently live in a society saturated with technology to an extent never seen before. The fruits of nanotechnology, genetic engineering, and quantum physics are no longer confined to the space program and international research establishments. These developments are present in our pockets, on our plates and in our hospitals.

Popular culture, and the arts in particular, has been very slow to come to terms with this reality but a new generation of artists is finally beginning to tackle the reality of our age. An age best described as scientifically enlightened but socially and politically backwards world. One sees evidence of this slow shift everywhere. Rambert Dance School now has a scientist in residence and Imperial College Physics Department has an artist in residence. David Hockney paints with an iPad and our own Computing Department programs computers to paint. There are now galleries and arts fairs in London entirely dedicated to technological new media art. I could, as you might guess, list examples of projects and artists working in this arena for pages, but I will refrain.

The truly exciting thing is that this movement is happening now, today, in this city. What is more, you have a chance to contribute. It was my own interest and enthusiasm for art/science collaborations which lead me to chair Artifact last vear. For those of you who have not heard of the project, the basic premise was to pair scientists from Imperial College with artists and designers from the Royal College of Art. We sought to provide a central forum where people could exchange ideas and inspire each other's work. very different from the ad-hoc collaborations I had seen to date. The enthusiasm was palpable. Almost two hundred people signed up for our initial speed-dating just under a year ago. There were talks from speakers and lots of ideas buzzing around during an extremely fun and lively

So, after the hangovers had dissipated, what actually materialised from the hours of talking and the brainstorming? Quite a lot, rather to my

surprise. The exhibition was held last September at Imperial College's **Blyth Gallery.** For those who missed it, we had seven exhibits, each with their own imaginative take on the theme. These pieces included ceramics, glassware and bookbindings on themes as diverse as viral evolution, environmentalism and MRI tomography. I observed a real curiosity on the part of the artists to understand the work of the various scientists involved but more importantly an eagerness to express a meaningful response.

"Art has always been an inspiration for science and vice versa"

This meaningfulness is important. It is not enough for art to simply draw on the imagery of science nor to simply exploit new methods of producing work. Art is important because it can react and respond in a considered yet emotive way to its influences. If science reflects society's rational, analytical aspect, then art is the exhibition of its spiritual and sensitive side. As anyone who has ever been a human will testify, an individual will suffer if these two elements are not in phase. The same is true for a culture. Welcome to the world Sciencism. I hope someone finds a better name for you.

Speed dating will take place on Feb 23. Please email **artifact@imperial.ac.uk** for more information

ARTS

Veni, Vidi, Vinci

Deepka Rana and George Howard came to the Leonardo exhibition, had a look around then, err, wrote a review, unearthing a few conspiracy theories along the way

e would never claim to have an impressive bank of knowledge of the arts, however this did not reduce the sheer excitement felt when, against all odds, we secured a set of, now hallowed, tickets to the Leonardo da Vinci exhibition.

Since November, more than half of the Old Master's existing paintings and a multitude of his drawings have been hanging within the halls of the **National Gallery**'s Sainsbury Wing. Insured for a breathtaking £1.5bn, the collection was remarkable for its unprecedented scale, displaying paintings and drawings never before seen together. In fact, this was an exhibition of many firsts – notably, the two versions of the 'Virgin of the Rocks' could be seen facing each other - and certainly did not disappoint as a once-in-a-lifetime show.

The selected works, shown under the title of *Painter at the Court of Milan* chronicled the time Leonardo spent in the employment of Ludovico Sforza, the Duke of Milan, during the late 15th Century. It was this partnership that was responsible for the remarkable metamorphosis of the art of painting that took place during his 18-year residency; although Leonardo did not complete a great number paintings in his lifetime, this particular period was responsible for some of his most revered work.

"This was an exhibition of many firsts – a once-in-a-lifetime show"

It was almost reassuring to find that, even for a master craftsman like Da Vinci, the mantra of 'practice makes perfect' still holds. Adorning many walls was a wide selection of comparatively small sketches or 'studies', most of which are part of the Royal Collection, on loan from Her Majesty the Queen. Leonardo used these to practice the many intricate details of his paintings before beginning the actual piece. The importance of these studies can truly be appreciated as the exhibition continues from room to room. Rough sketches such as those



of human hands, a woman's head from varying angles and the paws of an animal are just a few examples; placed later into a final painting, the sketches give a sense of déjà vu when viewing the final piece for the first time. These paintings were not created in flashes of inspiration, but were the product of years of study in the pursuit of perfection.

In fact perfection, and in particular idealised beauty, was another theme that ran throughout this particular selection of pieces, and indeed through all of da Vinci's work. In his portrayal of women, such as Cecilia (Sforza's

He knows

long term mistress) in 'Lady with an Ermine', da Vinci gives the subjects such perfect features that it was often questionable whether he actually paid much heed to the sitter's true form. This idealisation was fuelled in part by the belief that outer beauty reflected the virtue within a person. In fact the portrait of Cecilia was deemed so beautiful that it moved Bellincinio, a court poet, to write a poem about it, displayed in the exhibition adjacent to the painting itself.

This review could not pass without a mention of the extraordinary agreement with the **Louvre** that allowed for the remarkable sight of both versions of the 'Virgin of the Rocks' hanging side by side. This was a juxtaposition never seen during Leonardo's lifetime, or ever since, and is unlikely to be repeated. Although superficially similar, the subtle intricacies of the two works revealed how Da Vinci's technique and style changed over his time in Milan. They also served to emphasise the attention to detail that Leonardo

poured into each of his works, with some elements so similar that it was hard to imagine that they were painted independently of each other. To be able to stand in the centre of a room with these two masterpieces on either side for comparison was a truly amazing experience.

"Idealised beauty was a theme that ran throughout this selection of pieces"

The final 'pièce de résistance', reached by a short detour into the bowels of the main gallery, was most definitely worth the suspense. Entering the second part of the Da Vinci exhibit, and turning the corner, one was greeted by the awe inspiring Last Supper, reproduced by one of Leon-

ardo's students on canvas. Leonardo's original, painted on the wall of the Santa Maria delle Grazie monastery in Milan, has sadly hugely deteriorated since his time, partly due to the experimental materials the artist used to seal the wall after painting. However, two contemporary copies do luckily exist which provide a valuable record of the original.

This scene has been subject to many a conspiracy theory in its time; ranging from the presence of a pregnant Mary Magdalene to stories of the chalice and the Knights Templar. Some have even gone to such lengths as to superimpose a mirror image of the painting, and 'see' a Templar Knight and a baby pictured, raising many questions as to Leonardo's true intentions in his portrayal of biblical scenes. Unable to obtain any comment from His Holiness the Pope, the authors can neither deny nor confirm such theories...

Unfortunately, Leonardo at the National Gallery has since finished

CLUBS & SOCIETIES

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Picocon returns to Imperial College

Annual Science Fiction convention celebrates 2012 with apocalypse theme

Maciej Matuszewski

The Science Fiction, Fantasy and Gothic Horror Society is preparing for its annual convention, Picocon, due to take place on Saturday 18 February at the Imperial College Union. Picocon has gone from strength to strength since it started in 1984 and this year's event has all the makings of being one the best ones yet.

Given the theories relating to the end of the world in 2012 the theme this time is "Apocalypses". Upon arrival guests will be sorted into three teams, each based on a different type of apocalypse – nuclear, zombies, and giant Elder God tentacles from the sky. A scavenger hunt for items such as "a non-euclidean triangle" and "happiness of greater than or equal to 0.1M concentration" will allow people to earn points for their team.

Other planned activities include a quiz, silly games, and the 'Destruction

of Dodgy Merchandise'. The latter is a long held tradition Picocon and often involves liquid nitrogen and large sledgehammers. Guests are encouraged to bring their own contributions to destroyed. In addition, there will be stalls selling books and official Picocon T-shirt as well as all day LAN gaming featuring Unreal Tournament 2003 and the theme-appropriate DEFCON, produced by Introversion – a company set up by former Imperial students.

"The Destruction of Dodgy Merchandise"

The highlight of the day looks set to be the three guests of honour, who will be giving individual talks as well as participating in a group panel. Adrian Tchaikovsky is a fantasy author well liked for his long running *Shadows of*

the Apt series, set in a world populated by races of people having the characteristics of different insects. Justina Robson is the author of the *Quantum* Gravity series and the highly acclaimed Natural History, which explores the conflict between normal and genetically engineered humans in the far future. The Guardian has called her "one of the very best of the new British hard SF writers". Tricia Sullivan writes mainly science fiction, with a fantasy trilogy written under the pseudonym of Valery Leith. Her novel Dreaming in Smoke won the prestigious Arthur C. Clarke award - often considered as the science fiction equivalent of the Booker Prize.

All are welcome to attend with entry £8 for students, £5 for society members and £10 for others. Doors open at 10am for what promises to be an exciting day, and not just for fans of fantasy and science fiction. More information can be found at www.icsf.org/picocon.





FELIX FRIDAY 10 FEBRUARY 2012

Music Editors: Simon Hunter Iñigo Martínez de Rituerto **Alex Ramadan** Mark England

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Kadhim's totally hot album of the week



Django Django Django Django Because Music 2012

I'm bAAAAAck! Terribly sorry about last week; unfortunately my ghostwriter was on holiday, so doing my column was a bit trickier than expected. But now that he's taken his leave for the next 12 years, we can continue on as normal. Django Django's Django Django is this week's Totally Hot Album of the Week (try saying that while covered in cheese, hanging upside down from a monkey's uncle). The 1st class students amongst you may have noticed that, that sentence didn't make sense; this album is just as awesomely weird.

There comes a point in a lecture, just moments before the end of a long and complex derivation, when your higher brain functions collapse. 30 minutes of barely comprehensible lecturing lead you to the end of the Yellow Brick Road when out of nowhere your brain says, "Fuck this"

At those times, you need something different, something to cleanse the mental palate; maybe something a bit 60s; maybe something a bit psychedelic rock; maybe something Paul Simon-esque? Ahhh, Django Django, you are the perfect cure to a hectic week.

Like a crisp, chilly lemon sorbet, Django Django isn't for large-scale consumption. But if you feel like heavy weights are pressing into your temples, this album could be your sav-

If you feel irreconciably aggrieved by this column's absence last week, tweet me @kadhimshubber and call me "a swine!" Alternatively go post some Imperial-related memes on ${\it facebook.com/Imperial Memes}$

Be sure not to miss... The White Lions

The Dublin Castle **Camden Town** Saturday 11, Feburary

Don't miss this Imperial band's spirited takeover of the Camden night light. Lying somewhere between sleepy psychedelia and alternative rock, their songs let shine a gentle crafting of riffery and intimacy.

Heartthrob vocals colour the crooning instrumentation, bearing a likeness to British Sea Power. Reminding of The Durutti Column, guitars echo past, wrapping you in a fuzzy blanket of distortion while the sparse low end sway lulls you along.

Íñigo Martínez de Rituerto

Jaar does the rounds

Ross Gray on Nicolas Jaar at the Roundhouse



n Thursday the 3rd of February, my flatmate and I decided to take a risk. We decided to pay for a gig that cost more than £15 and wasn't run by ATP a risk we would come to bitterly regret. The gig in question was Nicolas Jaar's Clown & Sunset showcase at Roundhouse, a pretty large venue. As far as we had gathered from all of the promotional material, more than just a Nicolas Jaar show, this was an opportunity for him to showcase the talent from his new label. Disappointingly, the gurned up north London hipsters, with too much money to piss away on gigs they seemingly don't even care about, apparently didn't agree.

Soul Keita, an extremely talented 18-yearold from Ethiopia, was performing his first ever live show. A fantastic blend of minimal beats, jazz and soul samples, and at times odd drum patterns and vocal samples was accompanied by a massive screen filled with mind boggling visuals and quotes from Guy Debord's The Society of the Spectacle. We struggled to listen over the incessant talking from everybody around us - there was no way to shush as everyone around us was talking. Not only did it completely ruin the (as far as I could tell) promising performance, I felt it was incredibly disrespectful to a man who has just travelled all the way from Ethiopia to give his live debut. We hoped that the actions of the audience would be a one-off, but sadly they were a sign of things to come.

Soul Keita's brilliant live set was followed by one and a half hours of average DJing from Acid Pauli. Apparently this was when the drugs kicked in for the rest of the mugs as they felt a DJ set of tracks pretty similar to what Soul Keita was doing live was more silence and dance-worthy than the interesting live set that had come before. As if a higher power was just trying to anger me more, on top of the extreme irritation caused by the idiocy surrounding me, the set was ended with remixes of Radiohead's 'Creep' and Joy Division's 'Love Will Tear us Apart' songs I found interesting when I was 11. Obviously these tracks were met with great joy by the rest of the audience.

Everything implied that the rest of the audience was pumped for an upbeat, dancey set from Nicolas Jaar. We derided their idiocy. assuming that his live set would be similar to his studio work – quiet, subtle, beautiful – but we received a slap in the face when it turned out the idiots were right. He opened with an ambient number, which was met by repeated whopping and yelling by the audience. I tried to get some sense of respect by shouting "shut the fuck up" at a particularly loud guy, but sadly this just fuelled him on further. Apparently bored by the only track bearing much resemblance to Jaar's studio work, he shouted "drop a bassline Nico!! YEAAAAHHHH!!!" I remained silent this time, hoping that Jaar would come through for me and provide a set full of minimal beats, subdued piano and hushed vocals. He then proceeded to destroy all of my dreams by launching a huge beat, destroying the nuance that makes his tracks so different.

Eventually I managed to get into this style of presenting his material (although my flatmate was so sickened he had to move out of the centre to the edges) and did have a good time dancing. I couldn't help but feel, however, that if I wanted to dance about to some thumping 4/4 bass with a bunch of pilled-up morons I could have just gone to a club night, which these days I try my best to avoid. Luckily, toward the end of the set, and much to the dismay of everyone else, Dave Harrington came on and performed the Darkside EP in its entirety, with some lovely pedal work on the guitar and a little more subtlety to the music.

We left during the second encore as it was starting to get a little needy, and generally I appreciate some modesty from artists. Also, one hour and forty minutes of being surrounded by people doused in sweat and smashing into me constantly was beginning to get a little tiresome. I would surmise that if you like Nicolas Jaar's music for everything that makes it good, and wouldn't say while listening to his albums "GOD I wish this had more bass on it", you should probably never see him live; especially not for £22 a ticket at the Roundhouse.

George Jeffery's A beginner's guide to post-hardcore

Lesson 5: The Fall of Troy



This week's band have arguably had the most mainstream success out of all the bands that will feature in this series and prove that post-hardcore music, while perhaps a relatively niche genre, comes in various shapes and sizes.

The Fall of Troy split recently after their brief but fruitful career. They released their first full-length album when they were just 17-years-old, to vast underground success. This then led to them being asked to return to the studio to record their second release Doppelgänger and boy did they deliver. This album is a milestone in the history of posthardcore and rock music in general. I truly can't stress enough how much of a masterpiece this record is, and if you like any type of heavy rock then you have to listen to it at least once. When you listen to Doppelgänger, or any of their albums for that matter, you realise that The Fall of Troy don't mess about. On putting the CD into the player, you're ears are immediately graced with a wailing tapping riff from guitarist and singer Thomas Erak (who most fans consider something of a deity) and this opening explosion of noise seems to just continue for the duration of the album.

The band is known for Erak's immense guitar playing skill with every lick being something special, whether it's a heavy breakdown or intricate math-style piece. For this reason, the band is widely loved by guitar players of all musical preference. Doppelgänger brought The Fall of Troy (relatively minor) mainstream success, mainly from the track 'F.C.P.R.E.M.I.X' which was featured in several video games including Guitar Hero III. Although this track is not one of their best, if you are new to hardcore then I would definitely recommend it to 'break you in' so to speak.

Their subsequent albums saw them drop such an aggressive line in the song-writing procedure, although they continued to show great musical skill. If you like your hardcore hard then stick to the older stuff and check out the recommendation below, if not then what the fuck are you doing here anyway you pansyman!? Nah, just kidding, try 'F.C.P.R.E.M.I.X' for something a bit softer and remember to come back next week when I'll be cracking into the UK underground scene; it's going

Writer's Recommendation

Listen to 'Laces Out, Dan!' - a personal favourite of mine, although a bit heavier than some of their other tracks.

Film Editors: **John Park Lucy Wiles**

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FILM

Top 10 Box Office films in the UK this week



- **1) Chronicle** 12A Dane DeHaan, Alex Russell, Michael B. Jordan
- 2) Journey 2: The Mysterious Island PG Josh Hutcherson, Dwayne "The Rock" Johnson, Michael Caine
- **3) The Descendants** 15 George Clooney, Shailene Woodley, Amara Miller
- **4) War Horse** 12A Jeremy Irvine, Emily Watson, Tom Hiddleston
- **5) Jack and Jill** PG Adam Sandler, Katie Holmes, Al Pacino
- **6) Man on a Ledge** 12A Sam Worthington, Elizabeth Banks, Jamie Bell, Ed Harris
- **7) The Grey** 15 Liam Neeson, Dermot Mulroney, Frank Grillo
- **8) A Monster in Paris** U Adam Goldberg, Bob Balaban, Catherine O'Hara
- 9) The Artist PG Jean Dujardin, Bérénice Bejo, John Goodman, James Cromwell
- **10) Carnage** 15 Jodie Foster, Kate Winslet, John C. Reilly, Christoph Waltz

Are 3D films worth it?

Matthew Colvin is not convinced by the latest Hollywood invention



long time ago, in a multiplex not so far away, Star Wars: Episode *I – The Phantom Menace* was released to a baying public, hungry for the most hyped film of the millennium. As parents accompanying their children fell asleep and grown adults cried out in horror at their collective childhood being destroyed by what they were watching on screen, the eight-year-old me sat there, dazzled by the then groundbreaking special effects and Liam Neeson. Watching it today, of course, I note the many, many obvious flaws and its entire existence as a merchandising opportunity, but it still holds a special place in my cinematic memory. A special place that is in the process of being tainted by a 3D re-release this week.

3D and me? We don't really get along. The proliferation of inter-dimensional spectacles has joined food and drink as one of my (pretentious) pet hates of the cinema. I've managed to put up with it over its various novelty resurgences over the years. Heck, I even enjoyed the experience the first time I saw it, used for an educational film in the Science Museum when I was a young'un.

And then along came *Avatar* in 2009. I could accept this. What appeared to be an ambitious film (at least visually) by an accomplished director who clearly wanted to push the format, despite its lingering limitations, was to be praised. Hey, at least we were out of the red and cyan flimsy plastic glasses phase. No, it was the consequence of *Avatar*'s success that offended me. The complete saturation of cinemas with 3D films, turning the multiplexes into fairground rides rather than, well, cinemas.

The ten-a-penny 3D cash-ins that emerged from the shadow of Avatar were relegated to

slashers (*The Final Destination*, *Final Destination 5*), bog-standard action films (*Clash of the Titans*, anyone?) and animated films, returning to the concept of *Episode I*'s original release and becoming a way of drawing youngsters in, at now exorbitant costs.

Under normal circumstances, and with such a bevy of not-so-great films under its belt, I would argue against the format entirely, citing its very existence as a demonstration of the worst Hollywood excess; a vehicle for visual spectacle over any semblance of emotional resonance. Cheap thrills dressed up as expensive entertainment. In short, a gimmick. I would gladly side with the most stringent of naysayers, arguing against the dimness that 3D glasses over, sucking the colour from even the most vibrant of films. I would argue that the practise of 3D films are a means of studios squeezing extra cash from its audiences. I realised this most of all with Tron: Legacy. If ever there was a film most 'suited' to the format, it was this video-game based fantasy. Unfortunately the best part of it was the Daft Punk soundtrack. A feast for the ears rather than the eyes, especially since the 3D glasses dimmed out the already dark imagery.

And yet, here comes Martin Scorsese, fresh from pitting Marky Mark against Jason Bourne in one of his many Very Serious Adult Films (read: *The Departed*) with *Hugo*, filmed with 3D firmly in mind. An acclaimed director, winner of countless awards, taking the format and running with it. Creating what I thought never possible, a 3D film with heart, a 3D film that wows the critics with its heart and well as spectacle, where 3D is no longer a gimmick, but is used to draw the viewer into an emotional journey. A film that is nominated for

no less than Best Film at the Academy Awards.

And 3D shows no signs of slowing down at the multiplexes. Other big-hitters scheduled for this year include Marc Webb's reboot of the *Spider-Man* franchise with *The Amazing Spider-Man* and not forgetting Peter Jackson's return to Middle Earth with the first of his two-parted adaption of *The Hobbit*.

These are big blockbusters, however. And I'm wary as to the exact input the directors have had behind the scenes. J.J. Abrams, director of the upcoming *Star Trek* sequel, has stated in an interview that he didn't "fight" for the use of 3D in the sequel, heralding its use as a studio decision over anything else. Peter Jackson, on the other hand, remains full of admiration for the concept of using 3D to shoot films.

It's not going anywhere fast – not as long as it remains the industry's biggest money spinner outside of Christopher Nolan. I still remain to be convinced, given Hollywood's unlearning focus on profit and keeping shareholders happy. Just look at sequels and, well, George I ucas

At the end of the day, 3D is an elaborate magician's trick. But it's a noticeable one. Give me a couple of auteurs ready to take the format in a new direction, akin to Nolan and IMAX, or Scorsese with his Oscar-nominated antics, and I'll start to pay more attention.

Until then, it's 2D for me. That is, after I've queued up first in line for *Star Wars: Episode I – The Phantom Menace 3D*. Sorry, but I really do have to see intergalactic trade disputes in a whole new dimension.

Star Wars: Episode I - The Phantom Menace 3D is out now

FELIX FRIDAY 10 FEBRUARY 2012

FILM

Witness the birth of psychoanalysis



A Dangerous Method

Director David Cronenberg **Screenwriters** Christopher Hampton (play), John Kerr (novel) **Cast** Viggo Mortensen, Michael Fassbender, Keira Knightley

Lucy Wiles

A bit of an intense film, this one – a very starkly constructed look at a few strained relationships, most notably that of Carl Jung and Sigmund Freud. Having enrolled a few big names in Fassbender, Mortensen and Knightley, Cronenberg does a very good job here, despite this film not being his usual cup of tea (his previous works include *Crash* and *A History of Violence*). *A Dangerous Method* is a clear, clever account of the overwrought relationships between top Swiss psychiatrist Carl

Jung (Fassbender) and his patient – and later lover – Sabina Spielrein (Knightley) and Jung and his better-known Austrian colleague Sigmund Freud (Mortensen). The script is very carefully written by Christopher Hampton (*Atonement, Cheri*) based on his critically-acclaimed 2002 play *The Talking Cure*, and this combined with Cronenberg's plain, understated filming makes for a very interesting movie.

The story is told over a short timeline from 1904 to 1913 – the period in his life when Jung seems to develop most as a professional psychiatrist. Though settled with his wife and children in Zurich, he takes on the unsettling case of a young, beautiful, disturbed Russian, Sabina Spielrein. Though highly intelligent, Spielrein is haunted by a troubled family past, and there is a strong suggested link between this uneasy history

and her subsequent distress, and her sexual needs and preferences; she has a desperate desire for sado-masochistic sex, and has done from an early age. Around the same time, Jung strikes up an intellectual relationship with Freud, who is practicing in Vienna. Although the two men share some ideas, they differ greatly in some aspects, causing clashes over cigars and brandy. Alongside this turbulent friendship, Jung's relationship with Spielrein crosses a very dangerous line as the boundary between patient and doctor crumbles.

As a good introduction to Freud and Jung's ideas and their psychoanalytic revolution, the film makes for very good viewing. Knightley's creepy portrayal of her character's wild hysteria and maniacal moments is very convincing - "I should be put away forever," she spits – and as Spielrein begins to recover and

develop, so does Knightley's performance – culminating in a very complex character who is displayed beautifully; a far cry from the film's opening scene of her kicking and screaming as she is forcibly carried into a mental hospital. The majority of the scenes between Fassbender and Mortensen are information-heavy and very rigorous - and by that I also mean a little bit wordy - but they add a few good pieces of meat to the film's occasionally rattling bones. Vincent Cassel's somewhat brief (somewhat unnecessary) appearance as the psychiatrist Otto Gross is clever, with Gross acting as the devil whispering in Jung's left ear, encouraging him to let his instincts have control and resulting in Jung starting up a sado-masochistic affair with Spielrein (cue nipples on display and excessive spanking).

It cannot be denied that this is a con-

servative experience, visually, although it doesn't suffer from the stuffiness of historical reconstruction that can so often occur, especially when so much of the drama is filmed inside. It has to be noted that the actors all speak in fluent English with varying European accents, which was really quite annoying, even if Knightley's attempt at a Russian accent was quite impressive. The strength of the film, and of Hampton's script, lies in the fact that the film's two main stories, Jung's friendship with Freud and his romance with Spielrein, are totally complementary and each cleverly sheds light on the other. By the time the film leaps forward for a final epilogue in 1934, you feel that Cronenberg and Hampton have succeeded in a full and all-too-telling professional and personal portrait of Jung, which has drawn you in to the end.

A film about freeing three Free Willies

Big Miracle

Director Ken Kwapis Screenwriters Jack Amiel, Michael Begler, Thomas Rose (novel) Cast Drew Barrymore, John Krasinski

John Park

Whales... gotta love them; and this is exactly the kind of emotional response *Big Miracle* is counting on. Even for those who couldn't care less about animals or the environment, Kwapis' pleasant enough family picture where we see a group of brave scientists, environmental activists, reporters, native Alaskans, and Russians (??), trying to rescue three trapped California Grey Whales will have enough emotional impact to tug at the heart strings.

Inspired by true events of 1988, we

start off almost straightaway seeing the poor three whales trapped under the thick ice of Alaska with only a small opening providing room for breathing. Their only way to escape is five miles away, the kind of distance they cannot swim for without coming out of the water to breathe; and because of Alaska's harsh climate, the only air-hole that is keeping them alive is starting to close up.

Their struggle for survival is unintentionally discovered by Adam Carlson (Krasinski), a news anchor dispatched to Alaska who is looking to make a name for himself despite being in a place that hardly generates any substantial news for the rest of the world to see. What starts off as a local sensation turns into a national news topic, where even people in sunny California are captivated by the news. Reporters from all

around the States, and later the world, flock to Alaska in the hopes of getting a glimpse of the whales. Adam is particularly glad to see Jill Jerard (Kristen Bell), a talented, ambitious young anchor he has fancied for a long time.

A rescue mission is put together to free these whales – a process that does not come about easily. But it's thanks to Greenpeace worker Rachel Kramer (Barrymore) who relentlessly goes after Mayors and Congressmen, that after a while, her efforts pay off and even The White House gets involved in the effort. It's not initially easy trying to get high political staff interested in a few whales struggling to survive, but Barrymore speaks with humour, heart and conviction. Her endless passion on this subject matter may be hard to comprehend at first, or even particularly like, but the actress' consistent effort mirrors that

of her character, and at some point, she does win people over. Her performance feels genuine, and it's with her kind of likability that *Big Miracle* soars past the usual sugary sweet animal drama.

Clearly aimed for families, and therefore children, Big Miracle does not hover over the serious aspects of its plot for long. With every difficulty comes an immediate, back-up, almost too convenient answer, without ever exploring to much depth the more realistic, pessimistic side of events. At times it becomes too simplistic and refuses to look at the big picture. What about the massive financial cost this must have had? Surely not everyone was up for spending tax dollars rescuing some animals? Perhaps I'm over-thinking this, but when a film moves this comfortably, without much fuss, it is only natural to wonder whether the true events on which this is based

was really this tame.

That said, the delightful, uplifting moments are an absolute joy to watch. The beautifully designed whales, which look incredibly realistic, were in fact, puppets, controlled by hydraulics and robotic technology. Even the small, minute details are paid attention to, most notably on the youngest whale that becomes severely injured. His scarring, as well as his weakened movement are captured so well that you would mistake it for being a reallife animal. Barrymore and the highly reliable Krasinski make a nice couple. with supporting players Ted Danson, Dermot Mulroney and Bell all chipping in to complete a more than watchable ensemble. Big Miracle is sweet, often funny and touching: a trifecta needed for every family film to entertain the parents as well as the kids.

Film Editors: John Park **Lucy Wiles**

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Felix Film talks to Aragorn

Lucy Wiles interviews Viggo Mortensen, the star of A Dangerous Method

ast week, Felix Film was lucky enough to wangle a seat in a round-table interview with Viggo Mortensen - yes, an actual real actor - who played Freud quite brilliantly in A Dangerous Method. The interview took place at Freud's old London house (which is now the quaint and interesting Freud Museum, hidden in a residential area of North London) in Freud's drawing room, around Freud's table... it was all rather strange, actually. You feel a little bit intrusive - Mortensen describes our ability to wander round Freud's house and touch his things as "perhaps wrong... maybe tacky," although he later laughs that he got over it when researching his character. It is clear that Viggo Mortensen is a very polite, very considered man, who has clearly spent a great deal of time studying Freud for this role, and seemed happy to have a conversation with us about it all.

Having visited the Freud museums in both London and Vienna, Mortensen tells us how he enjoyed getting a real feel for the places - Freud's home in Vienna was temporarily ransacked by the film crew for props and artifacts, so the London home actually gave him the best idea of what Freud's home looked like. "I liked thinking of him in the garden, seeing the images of him back there," he says, while wandering around the room and looking interestedly into the garden, "That always helps me as an actor." The film itself was mostly filmed in a studio in Cologne, Germany, where the interiors of Jung's house and Freud's office were copied down to the very last possible detail - Mortensen tells us that the film's director David Cronenberg even had the blueprints of both houses so that the sets were really perfect. The exterior for Jung's house was filmed in southern Germany, as well as a few other little scenes in various places.

It's well known that Mortensen is keen on researching his roles, immersing themselves in their lives as much as he can. When asked whether there was simply too much to absorb with as complex a character as Freud, he spoke about the impossibility to absorb a person's whole life in such a short time frame. "If I had a choice, I'd always ask for more time," he shrugs. In his short period of preparation however, it seems Mortensen managed a great deal. amassing vast quantities of articles, papers and descriptions of Freud, as well as reading through some of Freud's own work. He assures us that understanding Freud's behaviour and mannerisms is more important for an actor to grasp the character than simply learning about



Dear Mr Mortensen, will you be my Valentine

Freud's academic ideas. Mortensen studied Freud's posture, the way he sat, how he held his cigars, and how he composed himself in order to get a clear picture to represent - quite a feat for Mortensen to have accomplished from the limited descriptions of his character. He adds that he had to smoke a lot of cigars on set - "He [Freud] smoked twenty-two [a day], but I had to smoke many more parts of cigars!" he laughs, adding that it was hard to get used to, as well as being hard to recover from. However, it wasn't all bad as the cigars hold happy childhood memories for Mortensen, whose grandfather (who was a farmer in Denmark) smoked them, and his grandparents house smelled like it. "The sense of smell is definitely underrated," he says.

It was mentioned in the interview that Freud's witty side is not so well known, and it was asked whether Mortensen was keen to show this side of him. He spoke about his initial worry that Freud was just a 'stern academic type', and that his portrayal would be hugely difficult – especially as his part in this film involves long stints of intellectual dialogue. On discovering his love of jokes and humour, however, Mortensen was less concerned, and found out more about this side of Freud. "He even supposedly once met up with Mark Twain. and they sat and smoked cigars and told jokes for hours," he smiled. Unlike his academic peers, Freud chose to spurn Latin and Greek vocabulary, and spoke in what Mortensen describes as 'good, clear German'. He didn't always take himself too seriously, and made many jokes and witty asides - untroubled as to whether they were recognised or not. "He was very English, I think, in that way - had a very English sense of humour," remarked Mortensen, even going as far as to likening Freud's sharp, dry sense of humour to his director's: "It maybe helped make it a such a good

Talk moved onto David Cronenberg, the director of A Dangerous Method. When asked if Cronenberg told his the reason for his casting, Mortensen says, modestly, "He never came right out and said it... I guess there was something right." He remembers how much fun it is working on set with Cronenberg, and cites this as one of the main reasons he decided to take on the role, alongside Cronenberg's interesting ideas and attention to detail. "Its' fun working with David... he's excited, running around," grins Mortensen. "David remembers that, after all, it is play. It's make-believe. It's a game which he enjoys playing." Despite many critics saying that this is a departure from Cronenberg's usual type of movie. Mortensen insists that it's not so strange. "I thought Eastern Promises was quite different from A History of Violence, and this film was quite different from those two." He goes on to praise his director: "I don't think he imitates himself... he's not at a lack for good ideas. Some living directors who've been making movies for forty years like he has... become less interesting as directors, and seem trapped by peoples perceptions of them."

Having discussed the idea of directors becoming less interesting because of 'staying safe' strategies, it was wondered aloud whether some actors might have the same problem. "As you get older you get tired and it takes a lot to challenge yourself. But then it can be invigorating, probably rejuvenating," says Mortensen, enthusiastically. He clearly feels strongly about this point, and it's safe to say he doesn't shy away from a different kind of role. "But you

do have to face it - with fears of 'am I going to fail this time' 'I haven't tried this before'... some actors get tired and they get lazy. And it's safer to repeat something you know works, and that you have a target audience for. Some actors perfect [their repeated role] in a 'zen fashion', some challenge themselves to new roles. "Actors who like myself are terrified of doing a bad job... you don't want to let anyone down, don't want to let yourself down," he tell us. "And it takes a lot of work to do it, so you want to do it right... Life is short, why not try and do the best you

Mortensen clearly prefers to take a risk once in a while and work hard to perfect a role - he clearly is unhappy with the idea of 'staling' and being the same kind of character over and over. "It's approaching new things that makes me afraid." He is happy to take a gamble on a role, providing a good director he can trust feels he's up to the part. "Although I don't think any other director in the world except Cronenberg would have thought that I was right for Freud!" he chuckles. Having just finished a run of the theatre production 'Purgatorio' in Spain, which involved just two actors (Mortensen and an actress) on stage for almost two hours, with no interval and no scene changes, Mortensen knows about a challenge. "It was terrifying," he remembers, "Those first performances I was thinking 'what have I done?', but by the end I loved it." He adds that he felt he owed it to the people who wanted to see the play and owed it to himself to step up to the challenge of intense theatre, and he will always be glad that he did, as he should the play was a resounding success with very good reviews. "I learned more about acting and thinking on your feet in that play than in my last ten or fifteen years in filming," he says, seriously. "There's no saying cut, you just figure it out; it's like an hour and forty minutes long take. I really loved it, loved the connection with the audience." Mortensen speaks about how he likes hearing how the audience truly reacts to a film, and admits that he has been to see his movies aside from premieres. "It's more interesting to see them with a regular paying audience because there's no favouritism, just people reacting honestly... that's probably the best way to see it," he muses.

Moving back onto the subject of Freud, Mortensen is asked what scene he would have liked to have elaborated on in A Dangerous Method, given the opportunity.

'I don't think anything was missing from the slice of time that we were dealing with," he says, "But it might have been interesting to see Freud in the United States in 1909 lecturing and interacting with Americans, not just American academics, but American audiences. [A brief scene in the movie shows Freud and Jung getting onto the boat to go to America for a conference.] He had a lot of preconceived ideas not all good, mostly not good - about Americans!" Talking about a very wellacted (not that Mortensen mentioned that himself!) scene where Jung has a first class ticket on the boat, and Freud doesn't react to it although clearly put out, Mortensen says, "I think he [Freud] was a natural gentleman, and although the Jungians or anti-Freudians might disagree, I would say that he was essentially a modest person and a generous person... But he could also be very cutting, he didn't take well to being contradicted... He was insecure - like we all are." Which again brings to light just how much work Mortensen put into the

We idly discuss how much we enjoyed the film, even though a few of us had very little knowledge of Freud or Jung. "I don't think you have to know anything about psychoanalysis, or the history of psychoanalysis, to enjoy this movie," says Mortensen, "Because it's essentially about people who are interesting, who are intelligent, who are very ambitious and keen to make their mark in their field, but who are also very competitive, jealous insecure and behave often as childishly as the people they are supposed to be helping.

And with that, and a brief handshake, he was ushered from the room to other duties. And I didn't shriek "Aragorn!" at him once.

A Dangerous Method is out today

FELIX FRIDAY 10 FEBRUARY 2012

Fashion Editors: Saskia Verhagen **Alice Yang**

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FASHION

The forgotten designer

As the luxury market continues to profit, Alice Yang questions what lies beneath the consumer's desire for labels

s unlikely as it may seem, I have found myself swapping the glossy pages of Vogue for the less conveniently sized Financial Times this week as the recently realised flurry of financial figures drag my attention away from the conventional pre-fashion-week buzz.

Instead of delighting in the prospect of seeing Michael Kors' first post-IPO collection of luxe loungewear in New York next week, or eagerly awaiting to be swept away by Sarah Burton's lace and leather embellished goddesses at Alexander McQueen later in Paris; I find myself, rather uncharacteristically, poring over Christian Dior's annual earnings re-

Similar to an oblivious fat seal skimming the turbulent waters of the melting Arctic oceans, not only has the luxury market continued to plump out its profits in such harsh economic times, with multinational luxury goods conglomerate LVMH's sales up 14% from last year on a like-to-like basis, the rumourenshrouded house of Christian Dior has managed to ride out the storm with increased sales of 21% over the last three quarters of 2011.

Instead of joining the shareholders of said companies in celebrating such figures as we count down the days until the catwalks kick in. I find myself agonizing over the future of high-end fashion and grieving for one of the industry's most talented creative geniuses.

The scandal that erupted just under a year ago concerning anti-Semitic remarks made by John Galliano (former Creative Director at Christian Dior) sent a tornado through the industry and has since become a story deeply carved into the gilt-edged history books of

Following Galliano's dismissal just days before Dior's A/W 2011-12 show, the whirlwind of rumours about who would take his place of 14 years, leading one of fashion's most monumental houses has continued to distract from the fashions on the catwalk, replacing the fantasy with flurries of intrigue. Who would be able to fill these prodigious shoes? No viable options have presented themselves, with all prime candidates seemingly content in the positions they currently hold. From Louis Vuitton's alluringly versatile Marc Jacobs, Givenchy's prince of darkness Riccardo Tisci, the young and rebellious Haider Ackermann, Jil Sander's modern man Raf Simons, and even the designer of perfect dresses Azzedine Alaïa, the position remains unfilled three seasons later.

Nevertheless, the house of Dior has continued to fill its slot at Paris fashion week under the undeniably weaker hand of Bill Gaytten who spent 15 years as the right-hand man of Galliano. Gone are Galliano's dramatic tales of dark glamour, and never again will our hearts flutter at the sight of a tulip dress or yearn to go riding sidesaddle in masterfully tailored jackets before being swept away to a ball swathed in layers

This is not to say that Gaytten hasn't made a fair attempt at trying to fill the position unceremoniously laid at his door, but given 15 years of working under the promiscuous visionary of design that Galliano undoubtedly was, you might have suspected a somewhat stronger desire to show the world his own well of pent up talent. Alas, that has not been

> restrained, safe designs and far too heavy a reliance on Christian legendarchives, ary resulting crafts man shipof John Galliano by continuing to buy, and hence support, the house that so quickly turned on its own saviour? Indisputably, what Galliano was inexcusable.

but do buyers not realise that the items they now purchase no longer hold that enchanting feel that Galliano breathed into his every design, and the clear love and understanding he had of the legend of Dior? It is a prerequisite that a designer taking the reins of a

does not bear their own not only have a definite name must knowledge of the history and culture of the brand, but also their own vision which must inspire and convince consumers of the next generation that their designs will endure, just like the illustrious name of Christian Dior.

The despairing answer that I must postulate is that the majority of customers who fund these labels no longer care about the designers behind the house's name. Rather than relish in the artistic talent and craftsmanship of the garment they don, they care only that its price tag is beyond what their dry cleaner earns in half a year and that upon removing their plush coat, their contemporaries' butlers will see a famous brand name sewn into the nape of the silk-satin lining.

"The majority of customers who fund these labels no longer care about the designers behind the house's name"

As far as I'm concerned, this must be considered to be fashion sacrilege. Though it seems that the opinion of the nouveau riche with their glimmering Chanel sunglasses, monogrammed Louis Vuitton bags and jewel coloured Gucci fur coats couldn't care less about Karl Lagerfeld, Marc Jacobs or Frida Giannini and co, let alone the disgraced and fallen John Galliano. As long as they feel that what they're wearing is distinctively covetable, to them, nothing else matters. And that, my dearest fashion lovers, is most definitely something to grieve about.

Wanted: Fashionistas with a penchant for art and design

Love to sketch and stitch? Fashion Society tells you why you should join them

Are you enthused by cuttingedge design, exquisite detail and the sheer extravagance of the fashion world? Are you looking for an outlet to express your own creativity? Do you consider yourself to be as 'chic and fabulous' as Coco Chanel? Even if not, FashionSoc is definitely the society for you to kick start the fashionable chapter of



For many, fashion may

seem like a waste of space: Why spend your energy, time and money on buying or designing innovative exciting creations for them just to be considered blasé in a few months time? Although in the eyes of most, it would be a complete fabrication to say that high-end fashion is practical, let alone an indispensable component of our everyday lives, the intrinsic worth of fabulous clothing, however, lies in the pleasure of the aesthetics and

the persona they create. In fact the power of clothing far greater than your average person could ever imagine because if correctly composed, one outfit can change who you are to the world. As Adam Gallagher (blogger, stylist) put it, "What you wear is how you present yourself to the world, especially today, when human contacts are so quick. Fashion is instant language."

This month will mark the rebirth of FashionSoc. A new enthusiastic committee has formed, and we are working hard to restore the society and save it from dormancy. To make up for lost time, we are organising as many workshops, events and socials as possible, so the rest of this term is jam-packed with creative activities. On top of this we are giving our members the opportunity to experience the fashion world through trips to exhibitions and shows, because the best way to learn to is be well-informed in the work of others.

Our aim for FashionSoc is to provide members with the opportunity to learn a variety of design and making techniques in our weekly workshops that will run from February 14 where we will be decorating masks in RSM G1, (and will occur every Tuesday evening 6:30-8:30 henceforth). We are also looking to put on our own fashion show in May and are looking for creative talent and enthusiasm to fuel it. So. regardless of if your style is flamboyant and wacky or classic and under-stated, as long as you're passionate, then we would love to have you on board.

If interested, join our Facebook group and mailing lists for regular updates.

Spring Term Dates

14/02: Mask Workshop (RSM G1) 17/02: Masquerade Bar Crawl

25/02, 26/02: Fusion 04/03: Fashion Museum Trip 11/03: Day trip to Bath

18/03: Vintage Fashion Fair (Hammersmith)

Workshops every **Tuesday 6:30-8:30** at Imperial College



Games Editor: Laurence Pope

GAMES

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Free Web Games

Well would you look at that? Two web games again. Aren't you all amazingly lucky? So here we are, two (not one!) totally awesome web 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/

Closure

http://www.closuregame.com/closure.php

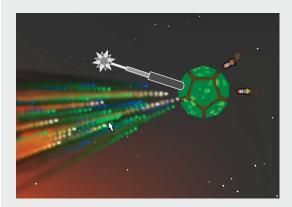


For a Flash game *Closure* is pretty scary. Well, maybe not that scary, but certainly sinister.

The game is built on the basis of orbs of light that, when held, light up the level. Drop it, and you're just going to fall into the black abyss. You have to manoeuvre your way around the level by manipulating the glowing orbs to create paths to the exit door. Things only get more difficult when you have to pick up keys and deal with multiple orbs. A worthy, if somewhat creepy, challenge.

Tetraform

http://armorgames.com/play/5062/tetraform



How do you go about terraforming a planet? Obviously you smash together attacking spacecraft and absorb their energy. Wait what.

Tetraform is all about growing your planet from a barren lump of rock to a flourishing green wonderland, achieved by colliding together the spaceship surrounding your little world. They don't take it quietly though – they buzz around, go invisible or just plain pelt you with rockets. It's incredibly addicting; in fact, you could go so far as calling it smashing fun (badum-tish).

Total Annihilation totally annihilates boredom

"This is a fight to the death. For each side the only acceptable outcome is the complete elimination of the other"

Laurence Pope

Oh, so you were expecting a review on a new game? What new game? January and February are hell for game reviews; nothing's being churned out by the video game companies. So instead, I'm going to take the time to wind the clock back and review a game I played when I was eleven. It was brilliant then and it's still a masterpiece today. I'm talking about Cavedog Entertainment's real-time strategy game *Total Annihilation*.

Total Annihilation was a standout game for many reasons, and whilst over 14 years have passed since it was originally released in 1997 it has secured a comfortable place in the hall of video gaming honours. The story is explained in an introductory scene few can forget, the final sentences clearly laying out your aim — "This is a fight to the death. For each side, the only acceptable outcome is the complete elimination of the other." Very few games since have captured such badassery in less than 35 seconds.

"Despite the game's brutish title *Total*Annihilation requires more than just slinging your units across the map"

Despite this basic goal and the game's brutish title *T.A.* required more than just grouping a bunch of units and slinging them across the map. Unlike other RTS games at the time T.A. utilized a multitude of different environments, requiring you to plan out your strategies beforehand and scouting ahead to see what fortifications lay ahead. Some planets were large open waterworlds, others filled with lava lakes and meteor storms.

The goals too changed level to level. Whilst some did require you to hunt down everything in sight others required more tactical planning, SHARING CHRIS TAYLOR

CAY E A S

A GENERALIZATION CERTIS

CANADARIAN SERVICE

CANADARI

be it capturing an important target, stopping and enemy rush or in one case simply sending a defenseless target through a well-defended passage.

TA featured a 2D environment but utilized a 3D height variation, meaning artillery fire was blocked in certain cases, whilst units on higher ground had an advantage over those stuck below. Gravity values too changed depending on the planet you were situated on, which in turn affected how far projectiles flew and whether or not you could fly aircraft.

The crowing piece though was its music, composed by Jeremy Soule, featuring a 96-piece orchestra. Depending on events it changed from slow and quiet to fast and fierce, and managed, quite successfully, to get you in the fighting mood.

In the current gaming era *Total Annihilation's* graphics may appear a little dated, but they've aged far better than most other games of its era. Getting a copy of the game now may be a little difficult, but if you do you've obtained some of gaming history's gold dust.

Can you write better than me? Prove your worth in the arena of battle (i.e. this page) and write in to games.felix@imperial.ac.uk!



GAMES

Link's latest epic escapade

Not the best, but certainly not the worst. **Rhys Davies** embarks on Link's most recent epic, *The Legend of Zelda: Skyward Sword*

o I finally completed *The Legend of Zelda: Skyward Sword* last night.

Zelda has always been a passion for me, even within my geeky realm of video games. I was blown away by the beauty of *Ocarina of Time* when I first saw it and with each new game, a new fix for my addiction. So when I heard *Skyward Sword* was on the way, I started salivating. Quite Pavlovian. Even more exciting were the reviews I was heard second-hand through my housemate. The greatest Zelda ever?

Uh, no. Not really.

It's by no means a bad game but it just doesn't hit the high notes I've come to expect.

"One of Zelda's greatest strengths is is the expansive, filled-in worlds. Not in this game"

In the confusing, timey-wimey in-game history of Zelda, this slots in right at the beginning. Link quests to prove himself the hero spoken of in legend and to power up the Master Sword, as it is to become. That second point is remarkably similar to the second half of The Wind Waker so already it isn't winning on originality. The Big Bad in this game is Demise, a demon so powerful that the Goddess Hylia lifted humanity into the skies and sealed his ass in the ground. However, in the game, after three attempts to leave his seal as The Imprisoned, he is finally revived by his follower, Ghirahim. Ghirahim has much more presence as the bad guy but even he only shows up a few times. As a villain, he's quite fun, mincing camply across the stage, but for the majority of the game, there's no palpable threat. After the time-skip in Ocarina of Time, Ganondorf's presence as the evil master of Hyrule is absolute (feeding Gorons to Volvagia, freezing Lake Hylia, putting Ingo in charge of Lon Lon Ranch, etc.) That darkness vis-



ible just isn't present in Skyward Sword.

Graphically, it's quite pretty. Cel-shading makes a return from *The Wind Waker* but with a more realistic feel. The forests feel luscious, the volcano is sweltering, the sky is so expansive. Nintendo's hallmark is to continue experimenting with their franchises and here it pays off.

But it feels small. This is the cardinal sin of *Skyward Sword*. One of Zelda's greatest's strengths is the expansive, filled-in worlds. You always feel like there is something going on and everywhere is connected. Not in this game. On the surface, there are three designated areas (Forest, Volcano and Desert) which you have to visit at least three times within the main plot. Sometimes, different

"A rewarding retrospective for experienced Zelda aficionados and highly accessible for anyone picking it up for the first time"

parts become accessible or sometimes, the way to handle the area changes (at one point, the forest floods) but there are still just these areas, which can only be reached from the sky above. And the sky! Fairly big, sure, but with no point. There are hundreds of little islands dotted about but apart from Skyloft, where everybody lives, and the one with the pub on it, there is nothing to do anywhere. Compare with *The Wind Waker* which had 49 squares of massive ocean and in each one, there was an island with something to do on it (and I'd be lying if all the adventure happened on the islands).

The characters, true to Zelda form, are quite personable and full of charm. If only there were more of them. My favourite game in the series to date is *Majora's Mask* for the sheer amount of characters, each with their own unfolding and intercrossing dramas. With such a small cast, there is only so much you can do here.

Skyward Sword was released last year, during the 25th anniversary for Zelda. You can tell. The game works very well as a Zelda retrospective.

The weapons have all been seen before, from the double clawshot (Twilight Princess, a welcome return) to the bellows (Which I'm sure I saw in The Minish Cap). Familiar names and faces crop up continually. The three provinces, and their guardian spirits, share the names (and rough locations) with those of Twilight Princess. There are a few gorons about, who evolution seems to bounce off like rubber, and amazingly Beedle. That travelling salesman has some very, very strong genes. Aspects of gameplay also resurfaced, most notably the spirit trials, which Nintendo loved so much in Twilight Princess, they've apparently lifted them wholesale from that game. Another trope I was pleased to see return was "Let's put Link in a cannon!"

A less welcome return is the annoying helper. This time, it comes in the guise of Fi, the spirit of the Master Sword. She's butts in constantly, to point out the most obvious of facts, in an oddly technical language. "There is a 60% chance that...", "I have calculated that...", "My records indicate..." This is the earliest Zelda game and you're accompanied by a computer devoid of personality. In fact, after struggling up to the first dungeon with her, I saved, turned off, and then didn't play the game for two weeks. That is how grating she is. (Also, the start of the game is slow. Paint-drying slow.)

However, I returned, stuck with it and finally completed it. I'm glad I did. Nothing about it makes it the best Zelda game ever but it is still a good game. A rewarding retrospective for experienced Zelda aficionados and highly accessible for anyone picking it up for the first time.



Travel Editors: **Dushi Arumuganesan Chris Richardson**

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Things to do in Saariselkä

Veli Akiner ventures to northern Finland in search of snow, and finds braised reindeer, dubiously advertised toys, and long nights along the way

aariselkä is a small tourist village in mountainous northern Finland which offers a beautiful landscape, various snow-based activities to get involved in and, of course, an opportunity to see the Northern Lights.

TRAVFI

1. Freeze to death

This is the Arctic Circle, which means temperatures that will probably freeze urine in your urethra if you ever found yourself unable to find a toilet. Temperatures are typically about -15°C, regularly dipping below -20°C without including wind chill. There's not much difference between day and night because, let's face it. Saariselkä's feeble winter sun is nothing more than a symbolic gesture. As long as you're dressed in warm water and windproof clothes, you'll barely feel the elements, especially when you're working up a sweat climbing up hills or racing through (and inevitably followed by tripping into) foot-thick snow. Unfortunately, I cannot guarantee you'll stay warm if, say, when opening the door to your cabin the key breaks inside the lock and you have to wait an hour outside for some guys to jimmy the door open with a crowbar. Making things worse is imagining the sauna that you could've been in all this time rather than staving off frostbite while you try to pry the key out with a Swiss

"The winter sun is nothing more than a symbolic gesture"

2. Toboggan down a slope

Making gravity do all the hard work for you has always been entertaining. The problem arises when you're careering down a slope at ridiculous speeds but you suddenly need to steer to avoid an impromptu meeting with a tree, which is a lot less trivial for a beginner than those little Finnish kids whizzing past you make it seem. Or more awkwardly, you could be on a collision course with someone walking up the slope who dodges left and right to avoid you, much like trying not to walk into someone in a street, except at much higher speed. You use your legs to dig into the snow, which works rather well except it then throws





a load of snow straight into your face, a st blinding you and making you feel like you've just been socked in the face by

3. Go snowmobiling

a snowman.

Riding machines with motors not much smaller than themselves is always a laugh tinged with the risk of forcing you to ride a wheelchair forever after. Several companies offer snowmobile trips outside town to get a better glimpse of the Northern Lights that are pretty safe since you're stuck behind whoever's behind you and no room to overtake. It's a bit like being in traffic but with better scenery. Except you can just slow right down, build up a bit of distance between the vehicle in front and then slam on the accelerator if you feel like the ride is too pedestrian for you. Just keep your eyes peeled for the stop signs where roads cross the path, because if you're crossing those at 60 kilometres an hour when a car is coming down the road like I did, there's no chance in hell either of you are going to brake in time on snow and ice. There is also the hazard of doing this down a stretch that isn't quite as flat as you thought, which results in the snowmobile rocking side-to-side momentarily losing contact with the ground, making you shit bricks for a few seconds as you prepare to flip over. Apart from that though, it's perfectly safe, I swear.

4. Eat reindeer

Yeah, they're cute; get over it and tuck in. You'd expect it to taste a bit like venison but instead has a mild beef flavour, which isn't that exciting but beef is just as expensive there so why not? Besides, you can sing Jingle Bells in a maniacal voice between mouthfuls of braised reindeer, pretending you're eating Rudolph or Blitzen. If that doesn't take your fancy, you can get it in pretty much any other form: smoked (utterly delicious with sautéed potatoes and cheese), thinly sliced and cured (or eaten frozen) - even canned.

5. Burn money

It seems like a common theme among Nordic countries that the price of everything is as if they're using the notes to fuel a smelter to melt the coins into model reindeer. A simple reindeer burger will set you back €5, while a proper meal is a "good deal" at about €13. You may want to pack your suitcase with food to make things more affordable, which has surprisingly little shame to it given how much you'll save. Oh, and if you want to get festive bring a bottle - there's a monopoly on the Finnish spirit industry pushing a litre of vodka up to about £40.

6. See the Northern Lights

Strictly speaking, you don't need to go to Finland, or even Northern Europe for this. On occasion there's enough solar activity to make the Aurora Borealis visible as far south as Newcastle, which is somewhat galling for anyone who travelled specifically to see them. Nevertheless, they are pretty much what you expect them to be: green, wispy cloud-like formations that dance across the sky that take your breath away if the -20°C air doesn't do that already. If you book more than a week in advance it suddenly becomes a bit of a lottery whether you see them ow-

ing to weather conditions. Thankfully, Saariselkä has enough to offer to make the trip worth it in the event clouds do ruin your day, as if they've sensed that you've come from England.



Good luck working out what emotion that facial expression (bottom right image) is meant to convey. The racism isn't immediately evident until you notice the chain round his neck which either implies he's too poor to afford even a gold-plated one (damn you, Finnish income tax!) or that he's meant to be a slave. What we can definitely infer though is that Finnish children get mad amounts of pocket money: you need at least €20 to get all ten grills.



nightmare in a future where we've

It's like Lil Jon and Arnold Schwarzenegger had a kid in a bizarre sequel to *Junior*

"You have yourself the perfect setting for a sci-fi flick"

lose all sense of time.

red to yellow. The result is looking up

at the sky and having no idea whether

it's sunrise or sunset, and when you're

out hiking in the wilderness constantly

wondering whether you've wandered

past the border into Russia, it's easy to

9. Pretend you're on an alien planet.

First, you have the Finnish language: it's hopelessly unlike any European one apart from some in the Baltic countries, but nobody cares about those. It can be rather frustrating being unable to make heads or tails of it if you have a general knowledge of a wide range of European languages, but in practice you'll have no trouble because everyone speaks English there. Throw in the clouds that glow orange from the lights below, tree lines in the horizon that look like cloud cover at night and everything on the ground glazed with snow and you have yourself the perfect setting for a sci-fi flick

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Bake some romance

Heat up the kitchen this Valentine's Day with these decadent treats

Twix Cheesecake Bites by Carol Ann Cheah

These are seriously decadent crowdpleasers. I've made them twice for two group gatherings of different sizes – we're talking at least 15 people, and they get snapped up quite nicely (the latter actually had 30-odd people!) They need a little bit of pre-planning and forethought, though; because making them is a two-stage process that includes baking and overnight chilling (or at least 6 hours if you make them in the morning for a dinner treat); but they're very well worth the wait so they'll make a great do-ahead dessert.

I used Philadelphia Light to make these cakes; but any mild-flavored cream cheese will do - it can even be supermarket own brand cheese! You can use brown or caster sugar for these cheesecakes – personally I prefer using soft dark brown sugar, because you'll get a lovely rich color that visually complements how indulgent these are.

If you opt for caster sugar, you'll get a lovely contrast between the very pale cheesecake batter and the dark pieces of Twix. Taste-wise the difference is so mild; so your choice of sugar just boils down to what your visual preferences are

Also, if you really want to cut a few corners, use Sainsbury's own brand chocolate toffee biscuit fingers as dupes for Twix

Crust:

- 20 Oreos (a typical 154g package contains about 14)
- 50g unsalted butter, melted

Cheesecake batter:

- 450g cream cheese, softened (leave it out at room temp for 1-2 hours before using.)
- 100g caster/brown sugar
- − 1/2 tsp vanilla extract
- 2 large eggs, lightly beaten
- 125ml sour cream
- 12 mini/fun size Twix bars

Preheat oven to 135°C. Prepare either a 12-hole muffin case (line it with paper cases) or a square/rectangular baking tin/brownie tray lined with greaseproof

paper (I had a 10"x7" one.)

Either chuck the Oreos in a food bag and bash into fine crumbs with a rolling pin, or do the same thing to them in a food processor. Mix in the melted butter thoroughly until it all comes together.

If you're using the 12-hole muffin case, divvy up the cookie crumbs between the 12 paper cases and press down with your fingers. Otherwise, chuck all the crumbs on the lined baking tin/brownie tray and press down with the back of a spoon/your hands.

That's your base(s) done – set it aside (you could even pop it in the fridge for a little while) while you work on the batter.

Tip your cream cheese in a mixing bowl and get out your torture implement – I mean, mixer of choice. You can use a hand/stand mixer or a bog standard wire whisk; I opt for the latter because the workout keeps bingo wings from forming (girls, take heed!) Beat the cream cheese until it's smooth, then slowly beat in your sugar.

Thoroughly mix in the vanilla, and



beat in the already-lightly-beaten eggs (at low speed if using electric beaters.) Then add in your sour cream and mix until fully incorporated. Batter consistency should be somewhere in between single and double cream.

Set the bowl aside and get your Twix/biscuit fingers into small chunks – I usually chop it in half lengthways, then proceed to chop as normal in the other direction. Chuck the chunks into the bowl of cheesecake batter and fold them in well.

Pour the whole lot into the baking tin/

brownie tray and smooth out; or if using the muffin tray, use an ice-cream scoop to divvy up the batter into the cases.

Bake the lot for 30-40 minutes at 135°C (if using the muffin tray); or for 45-50 minutes if you're using an oblong/square tin. They're done baking when they still wobble a lil' bit in the center. Let cool, and then pop them in the fridge overnight/for at least six

After chilling, take them out and cut them up using a knife moistened with hot water.

Classic Apple Pie by Yiango Mavrocostanti

This recipe was taken from the book Vegan Pie In The Sky by Isa Chandra Moskowitz

The great thing about this recipe is that you use olive oil instead of butter and this makes your apple pie much healthier. The olive oil makes the crust extremely flaky and you cannot taste it! This recipe makes a 9 inch pie.

For the crust:

- 2.5 cups all purpose flour
- 3/4 tsp salt
- 2/3 cup olive oil

- 4-8 tbsp ice water
- 1 tbsp apple cider vinegar

For the filling:

- 6 cups Granny Smith Apples cut in slices
- 1/3 cup brown sugar
- 1/2 cup white sugar
- 1 teaspoon cinnamon
- 1/2 teaspoon ground ginger
 1/8 teaspoon ground cloves
- 3 tablespoons all purpose flourPinch of salt

For the topping:

- − 1/2 teaspoon cinnamon
- 2 tablespoons sugar
- 2 tablespoons soy milk or any milk of your choice

One hour before making the crust place the olive oil in the refrigerator until it becomes like a sorbet. In a mixing bowl combine the flour with the olive oil and the salt. Then add the ice water and vinegar slowly until you can shape the dough into a ball. Do not overmix.

Divide the ball into two equal discs

and place each one of them between two sheets of wax paper. Roll each disc into a circle.

Preheat your oven at 218°C. Fit half the pie dough into a 9-inch pie pan. In a bowl combine all the filling ingredients and add them to the prepared pie shell. Place on top the rest of the dough and brush it with the milk.

Then sprinkle with the cinnamon and sugar. Bake the pie for 25 minutes at 218°C and then lower the heat and bake for another half an hour.

Let it cool before serving.



Geography Cake by Anastasia Eleftheriou

Ingredients

- 3 eggs
- 3 glasses of self raising flour
- 3/4 glass of sugar 3/4 glass of oil
- 1 glass of milk
- 3 tsp of Baking Powder
- 1 tbsp of cognac
- 2 tbsp of Drinking Chocolate

Preheat the oven to $180^{\circ}\text{C}/350^{\circ}\text{F}$. Beat the oil and the sugar together until smooth. Whisk the eggs and add them to the previous mixture. Add the milk,

the baking powder and the cognac and keep whisking. Once the mixture is ready, add the flour and stir until fully combined. Grease a baking tin with butter or oil and pour half of the mixture in it. Pour the drinking chocolate in the other half and stir. Add it in the bak-

ing tin on top of the previous mixture and bake for almost 45 minutes. Leave the cake to cool before you remove it from the tin.

Top tip: Do not open the oven before the first 20 minutes, if you want your cake to rise properly.



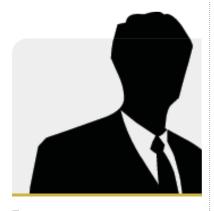
HANGMAN 2.0 P







HANGMAN.FELIX@IMPERIAL.AC.UK



HANGMAN REPORTING FROM IN YOUR MUM

Valentine's Day: one of those days that I hate with a passion. The outside world looks like the inside of a vagina. Pink and moist. Everywhere.

The good thing about Valentine's is that it's the one day when paying for sex is acceptable. For a box of chocolates and a of couple flowers. you get a blow job. Pretty decent deal in my opinion. I can feel like Berlusconi and not spend thousands of euros. Lad dolce vita.

It's four in the morning, and you've awaken from a drunken stupor to find banana skins all over your bed and a now revolting scene of hentai on your laptop screen. Banana wanking, really? You drain the life out of me. Your "wild night out" consisted of your questionably hotter friend fingering a blonde on the dance floor and your quiet flatmate in Computing awkwardly raising one arm and looking scared as fuck.while Your initially successful contact with a "fit" girl leads only to puke all over your shoes and an unsatisfied boner for the rest of the night. All for the reasonable price of an empty wallet and a hangover. You're wondering whether one's virginity can actually grow back. The reflection in the mirror only shows a pathetic, dangly thing and no trace of the biceps you set out to get that one time in November you decided to work out. You little sod, take this shit in hand and deal with it. FYI your spouse in Skyrim does not count you sad, sad fuck.



"HEY I MADE A GREAT MEME MAN IT'S ALL LIKE ... It's not funny anymore, it's Valentine's day. Shouldn't you be getting rejected by someone who's out of your league (i.e. everyone).

SNOW LEAVES IMPERIAL CHINESE STUDENTS STRANDED IN LIBRARY - CHILEANS EMPATHISE

ROSS GOLDBERG JR WANNABE BADMAN

Hundreds of eager students were left isolated in dark, humid conditions, while snow poured down upon the South Kensington campus. The recent bout of weather spelled disaster as the new library entrance (costing £7 billion) failed to open Saturday afternoon. The door failure, which has since been attributed to a simple electronic malfunction, left a contingent of extremely diligent undergraduates and some less than diligent postgraduates to fend for themselves. As the snow fall on Queen's lawn rose to a staggering 3 inches, the 27 hour ordeal reached a climatic turn for the worse when one student sadly passed away after he was unable to receive medical treatment for his caffeine overdose. Several legions were found on the body, suggesting that other victims resorted to feeding off the corpse.

The predominantly Chinese group of library enthusiasts were finally saved after a relief effort sent by the



CAUCASIAN-LOOKING CHINESE JUBILANT IN REUNION THE NEW ENTRANCE IS MEANT PURELY FOR DISPLAY; IT'S ACTUALLY MALFUNCTIONING WHEN THE DOORS OPEN

Chinese embassy successfully replaced the faulty electronics; using superior components made in China. After speaking to the survivors, Hangman discovered that emergency food provisions were extremely low, and highly inadequate. The Dinner lady (responsible for all food related queries) has launched a formal enquiry into the matter, claiming that the Library Cafe should have been fully stocked at all times for desperate students to purchase "Wraps" at the slightly inflated price of £99.99.

A formal statement from the college rector, Sweet Potatoes, read "We at the College are deeply sad-

dened by the incident that occurred over the weekend. It just goes to show that no matter how much money we waste, college facilities will inevitably fail in certain conditions. As for the poor student who sadly passed away, our condolences go to his family. We at Imperial understand that the one child policy proves to be a risky strategy for Chinese parents, and should they have a second child we would welcome them to Imperial on a conditional visa

Another survivor described the incident as "..traumatic, I didn't know if I was going to survive. One good thing that came out of it was the journey of self discovery I departed on." While a further survivor said "I didn't even know it snowed." One of Imperial's Black minority students was happily relieved to "make it out alive! I thought I was a gonner for sure. Have you not seen all horror films?" Hangman had to promptly remind him that this wasn't scary movie.

Many have likened this ordeal to the Chilean miner incident, just a lot less dramatic or interesting. However a strong network of Chilean empathisers were at the scene, cheering the survivors as they emerged.

NEW IMPERIAL HALLS TO BE £1000 A WEEK FOR A TRIPLE AND MOVED TO BRIXTON

ROSS GOLDBERG III REPORTS ON THE NEWS AND TING BLAD. WHILE TRYING TO FIT IN AT THE NEW HALLS

It was found out that some freshers at Imperial have enough money left over for having fun. Therefore, halls are to be immediately shut down. The more affordable halls will stay open for the next month. Rather than using the rare chance to be the last group of freshers to not have to work as a rent boy to survive, the students used this opportunity to sit at home and set up a meme group on Facebook. One fresher said: "Imao this is so funny!" as he is a massive cuntbag.

To help students blend in to the surroundings they will be given an ounce of marijuana so they can start their inevitable career as a drug dealer. They will also be given lessons in street speak. "Dis lecturer iz a wasteman blud, u get me" is expected to be heard around campus next year.

The students will also be given stab proof vests to ensure their safety. FI Presidente said of the move: "I have no strong feelings either way and have no opinion that might alienate one group of people"

Imperial Training Academy did a quick Q&A session in which they found out that when asked, people want really nice halls. They unfortunately neglected to mention that it wasn't just better halls, but better halls at a massively inflated prices.

The halls will feature or be "pimped out" with five TVs in each kitchen that will vary between 50 and 100 inches. They will also vary between used once and used twice, as no one is brave enough to publicly show what they like to watch in case it makes them look weird. If you're wondering if it does,

NEWS IN BRIEF — LIKE A NEWS STORY FOR LAZY PEOPLE

Old jokes regurgitated and played off as novel in meme craze, everyone now on comedown realising they're lame

Imperial makes £600 million profit. Library worker drops and loses 1p, is immediately fired and sued for losses

Last week's centrefold results in 20% spike in Kleenex sales

Superbowl means Union crowded and attractive, friendly American girls are everywhere. Men confused

Deputy President of Education reinstated after week long absence - nobody notices, no different amount of work gets

"I KNEW IT" shouts Thatcher after Falklands oil discovery

Europe continues hints to Greece that they are not welcome - Greece ignores hints like "that guy" at the party



HOROSCOPES - WARNING! MAY CONTAIN TRACES OF MEMES





Obviously it's bad when your

deputy editor walks out on



You'll wake up this week with

a splitting head in to the edi-

tor's sex lair. You don't realize

this immediately, but deduce

it from the selection of silly

hats and the post-it notes

reminding him to print Felix.

As an act of defiance you

evacuate your bowels onto

his shag pile rug and leave





After spending the previ-

ous two and a half years of

your PhD on Spotify, you mi-

raculously discover a cure

for AIDS. Irritatingly, its side

effects include causing un-

controllable sexual lust in

the mothers of test subjects.

The Swedish take an hour

out of fucking their mothers

to award you the Nobel Prize



In a sad moment of des-

peration, this week you find

yourself sitting in the lab on

Valentine's Day watching An-

tiques Roadshow on iPlayer.

Even after knocking one out

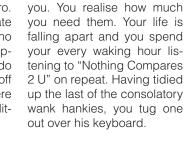
to Fiona Bruce you still feel

hollow, empty and unfulfilled. You hear about this new

AIDS cure. You pop a hand-

ful of pills and call home.

This week you finally discover your calling at Imperial College as a meme maestro. Unfortunately you're too late to join the fad, and get no likes on your Facebook upload. Only one thing to do now, drop out and fuck off to UCL. We heard over there memes are the only creditable part of every course.





SAGITTARI

in shit. You argue with him for a bit saying that its beyond cleaning, but the shag pile rug business isn't what it used to be, so you begrudgingly accept to clean it. Life's Shit.

Your job at a shag pile rug

cleaners gets weird when

some mentalist comes in

wearing a silly hat carrying a

rug that looks like it's caked





This week, vour arch-nemesis cures AIDS. Not one to be bettered, you put on your Ed Sheeran play list and set about discovering something. By track 5 all you've managed is to create milky white substance that smells like gash. You sell it to Danone as a pro biotic yoghurt drink and make millions.



a crippling accident that occurred months ago, you finally think you're in the all clear. Unfortunately you get pushed down the stairs for being a bitch and end up eating your food through a straw. No one cares, or even visits you. To be honest You had it coming.

Can you believe that this week your "friends" kidnap you and decide to take you on a lads holiday. Unfortunately you're too much of a post anorexic girl and start crying like you've just been buttfucked, staring at your abductors with those soulless eyes. They feel bad and take you home. You then catch up on your masturbation.

Normally when your "friend" tells you a predictably boring story about what he did last night, you stand there nodding your head, entertaining his life. However this week you casually blurt out "Cool story bro." It doesn't end well. Your friend feeling dejected breaks down sobbing. You offer to suck him off. but even he thinks it weird.

This week, in the run up to Valentine's, you discover that you can save yourself a lot of embarrassment by just getting touchy-feely with yourself at the end of a night. That way you can both get your mitts on something that's warmer than room temperature whilst also being hugged and caressed yourself. You realize that...

To Aquarius: "Cool story bro." This week you'll build a wall out of the snow you piled up from last weekend. Thinking it'll save you from mothra's laser eyes, to sleep comfortable at night. Idiot! Lasers + Snow = Bad. Inevitably she breaks in like a rapist and rants at you about this year's club budgeting.

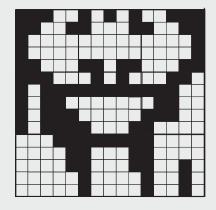
Puzzles Editor: James Hook

PUZZLES

puzzles.felix@imperial.ac.uk

Last Week's Solutions

Nonogram



Crosswords

QUICK(ish) - Across 1. Marathon 5. Status 10. Niche 11. Pied Piper 12. Odd Couple 13. Flake 14. Spanner 16. Behead 18. Europe 20. Chicago 22. Steam 23. Grapevine 25. Ayers Rock 26. Eidos 27. Detect 28. Pregnant **Down** 1. Mongoose 2. Raced 3. The Sound of Music 4. On paper 6. Tip of the iceberg 7. Top banana 8. Series 9. Reverb 15. Amusement 17. Somerset 19. Eggs on 20. Cracker 21. Island 24. India

CRYPTIC - Across 1. David Cameron 9. Nerds 10. Mark Twain 11. Moulding 12. Diesel 13. Calendar 15. Shiner 17. Sienna 18. Massacre 20. Relate 21. Academia 24. Bitter End 25. Steel 26. Sharpshooter **Down** 1. Dynamic 2. Virtual Reality 3. Dosed 4. Armenian 5. Earn 6. Ostriches 7. Passing Comment 8. Antler 14. Ninetieth 16. Cascades 17. Scrubs 19. Enabler 22. Disco 23. Bear

Chess

"The correct idea is to march the king to b6 and so white should begin with Ka5! (but not Kb5 because 1. Kb5 Rg8 2. Kb6 Rc8 3. Ne7+ Rc6+ 4. Bxc6# is only mate in 4) now if black has two serious options to consider:

1...kb7 2. Ne7+ Ka7 3. Nc8# 1...e1=Q 2. Kb6 Rg1 3. Nc7# Note that also Rg8 doesn't work in the 1. Ka5 line because of 2. Nd4!+ Ka7 3. Nb5#. Quite a tough puzzle."

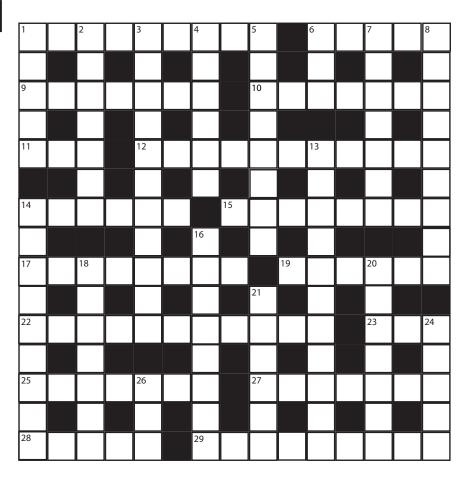
Quick(ish) Crossword

Across

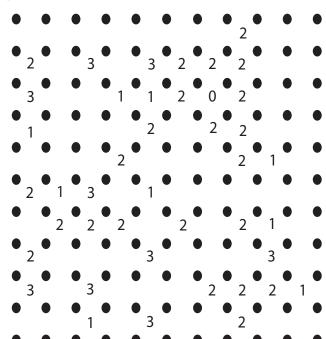
- Relating to old people (9)
 Copy (5)
- 9. Caused someone to be unable to see; impaired someone's iudgment (7)
- 10. Gaseous, pressuried suspension or container of such (7)
- 11. File; paddle (3)
- 12. Substantial, satisying and balanced dinners (6,5)
- 14. The human soul or spirit (6)15. 19th century steel magnate
- 15. 19th century steel magnate and philanthropist (8)
- 17. Game of chance (8)
- 19. Public lecture/concert hall; Aristotle's philosophy (6)
- 22. 19th century Anna Sewell novel, the main cast of which are horses (5.6)
- 23. Not shining brightly; stupid(3)
- 25. Described e.g. plans (4,3) 27. Of Chad or Algeria, for instance (7)
- 28. Examples include Halley,Giacobini-Zinner (5)29. A person who relies on

another (9)

- Down
- 1. Imperial Nobel prize winner (5)
- 2. Track (7)
- 3. Recent retrospective Tour de France winner (4,7)
- 4. Straight line from circumference to centre (6)
- 5. Head of a committee (8)
- 6. Impair or corrupt (3)
- 7. Small American horse (7)
- 8. 80AD construction, originally the Flavian amphitheatre (9)
- 13. Seekers of the Holy Grail
- and Spam (5,6) 14. Describing path of a projectile (9)
- 16. Served as clear evidence of; declared that something is the case (8)
- 18. The 235 type can sustain chain reactions (7)
- 20. Give name to (7)
- 21. Accumulates e.g. debt (4,2)
- 24. Painter famous for Haystacks, Bridge Over a Pond of Waterlilies (5)
- 26. Choose (3)



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 recieves one internship rejection per correct solution.

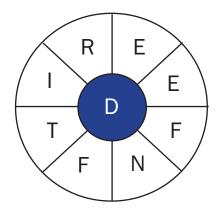
Contributions wanted!

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: 26

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

Nonogram - Both Barrels

	4	2	3 1 4 1	2 1 2 4	2 1 2 2	1 1 1 2	1 1 1 1	1 2 1 3	1 3 1 2	1 1 1 1	1 2 1	3 3 1 1	1 5 3	3	4
2 2															
10															
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8 3															
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4 1 2															
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1 2															
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League Leader Board	The Felix University/College-			
Teams:		Wide Invitational Tournament		
Elbowfart	104	League is both new and improved, with prizes for both		
The Jailbaits	91	the winning team and the win- ning individual.		
Pegasus & Parrots	79	Points are awarded for each		
Paddy Got Bummed	55	puzzle solved, double if you're the first correct solution.		
Cum Puzzling Sluts	40	The competition is hotting up, each wave of solutions more		
Team Nuclear	20	climactic than the last. Can you really afford to miss out?		
Ludibrium Lads	14			
Individuals:		Send your solutions to puzzles.		
Jeremy Neale	109	felix@imperial.ac.uk!		
Wael Aljeshi	37			

Cryptic Crosswords? No Thanks!

FUCWIT

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.

rejections











tumblr: multipleimproperintegrals.tumblr.

twitter: @miicomic

The cells in a grid have to be coloured or left blank according to numbers at

the side of the grid. The numbers measure how many unbroken lines of filled-in squares there are in any given row or column. Look at last week's solution to see what a typical solution looks like.

The overall solution should yield some sort of picture, or as good as a picture can look in monochrome on a 15x15 grid.

As usual, answers to puzzles.felix@imperial.ac.uk.

WorDUOku

What's better than one fulfilling existence? TWO wordokus, you say? Well, in that case you're in for a treat!

Tell you what, in addition, every row, column and 3x3 box must contain the letters in the grid once and once only. Along one of the rows or columns, a very special word or phrase will appear. More often than not, I've been told that these phrases yield great advice to be applied to almost any situation.

The headings above reflect the childishness of the word or phrase. The more childish the word, the more difficult the wordoku.

Pleasant

		Р		М			
	S				М		
	Ε	—	Α	Т	0		
Α	Р	M		0	L		
L						S	0
	Α		Ι		Т		
S	Т				Α	Ε	Р
Р						M	
	L	A P A A S T	S I I I I I I I I I	S	S	S I	S I

Creepy

		Υ				S	В	
			Μ		Р			
		Р	В		S	Α		Ε
M		S				Р		D
			Υ		Ε			
	Α		D	S	Ι		М	
						D		



Sport Editor: **Indy Leclercq**

sport.felix@imperial.ac.uk

SPORT

Snooker: warm-up tournament success

Elwin Carlos

Snooker

ICU Snooker enjoyed their best ever performance at the Midlands Universities Snooker Championships, which included top-four finishes for both a new look second team in the Team Trophy and first team captain Bilal Nasim in the Individual Championship.

After an early 9am arrival at Rileys in Coventry last Saturday, the action kicked off immediately with the first round matches of the Individual Championship and Trophy.

Thanks to a combination of some well-crafted breaks, the highest an impressive 58 by ex-under-19 Romanian Champion Bogdan Cozmaciuc, and some good fortune in the form of byes for Elwin Carlos, Bo Tan and Grace Yip, only two of the ten Imperial representatives failed to make it past the first round in either competition; Shengyang Cheng was beaten 2-0 by Cardiff's David Sattaur in the Trophy and, despite a courageous break of 32, Julius Guth lost his Championship match against Nottingham's Tom Laycock.

Later, second round wins for Nasim, Nitesh Mehta and second team captain, Yip, meant Imperial had three players through to the following day's round of 16 matches.

In the evening the team events, with Davis Cup-style rubbers matches, got underway and neither the first nor second teams started particularly well.

The first team, consisting of Messrs Nasim, Cozmaciuc, Carlos, Mehta and Guth, fell behind 3-1 to Oxford 1s while

the second team faced a 4-1 deficit in their match against Warwick 3s.

However, a fantastic fight back in which Yip, Cheng, Tan, Edward Graham and Jonathan Hoong all won their final frames completed a 6-4 victory for the second team.

Furthermore, a gripping re-spotted black ball finish involving Mehta helped the first team on their way to claiming a 5-5 draw.

The drama continued late into the night as Imperial 1s then defeated Kent 1s 6-3 while their second team counterparts fought out a 5-5 draw, culminating in an epic final frame re-spotted black defeat for Yip and a 1am finish.

Dispelling the rumours that snooker players are not physically fit, all ten Imperial cueists then undertook an arduous twenty minute trek through the thick Coventry snow to reach the teams' hotel and eight hours later all were back in the confines of Rileys in an effort to replicate the previous day's unbeaten run.

The first major setback of the weekend involved Imperial 1s, who held hosts Warwick to a 5-5 stalemate before a crushing 6-1 defeat to Manchester 1s ended hopes of a Championship semifinal place, losing out only on frame difference to Warwick.

York 3s then threatened to spoil things for the second team by producing an Imperial-style comeback at 5-1 behind but the cool (and shaved) head of Cheng secured a 6-4 victory and second spot behind Trophy Group B winners Southampton 2s, to whom they lost 6-1.

The following 6-0 whitewash in the

semi-final at the hands of eventual Trophy winners Warwick 2s did nothing to detract from a great display by the second team during the weekend.

Yet even after over 26 hours of competitive snooker, the tournament was still not over for Imperial.

Step up, Bilal (the Prince) Nasim, who won his third round match to become the last remaining team member in the individual competition after Yip and Mehta bowed out in the last 16 and quarter finals respectively.

Arguably the underdog, Nasim looked to be heading out, too, as he fell 1-0 behind to the formidable Rhys Carpenter of Cardiff in their quarter final contest.

However, after nicking the second frame on the final black, breaks of 20 and 24 helped earn Nasim a last four match-up against double BUCS Champion Mark Green.

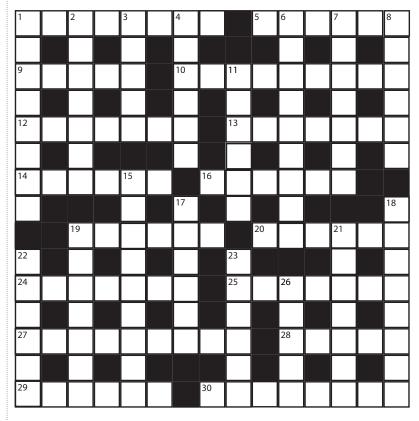
Although Nasim went on to lose to Green, who later claimed victory in the final, such was the nature of his achievement that six other team members missed the last train back to London in order to watch the semi final clash.

Many thanks should go to Warwick University Snooker Club for organising such a great tournament.

Moreover, after some fantastic performances, especially from Nasim and a second team fielding three debutants, hopes of further success at the seasonending BUCS Snooker Championships are sky-high. Can Imperial defend their Team Trophy and complete a hat-trick of titles?

On this evidence, why not?

Cryptic Crossword 1,510



Across

- 1. Criticise strongly. Alternatively, I am a spectacle! (8)
- 5. Old person accommodating female boarder (6)
- 9. Mountain laugh at letter (5)
- 10. Weight first and a smash gets four tournament wins (5,4)
- 12. Guardian with time is inexperienced, it is said (7)
- 13. Wasted, tabled a cocktail (7)
- 14. Conceive I would swallow key (6)16. Quick chat with unknown attendant
- 19. Pure light speed with pace (6)
- 20. Want for a tower (6)
- 24. Enchantment of ancient empire after the time of Christ (7)
- 25. Earth that's definitely unrefined rock a blot on the landscape (7)
- 27. Unsound sentient robot gave false information about blood (4-5)
- 28. Village port authority next to area of Zagreb (5)
- 29. Betray woman that's pretty (6)30. Declare again with animated real glee (8)

- Down
- 1. Banana eating insect in vast wilderness (8)
- 2. Write up musical melody for God (7)
- 3. Ridicule dinner (5)
- 4. Something that attracts weekly profit (6)
- 6. Goat punches, used to handle with care (3,6)
- 7. One concerned with war and peace to groove about with game (7)
- 8. Relief in deep sleep as vortex lacks power (6)
- 11. A person capturing ox in jungle (6)
- 15. Willingness to learn compendium interrupted by bad weather (9)
- 17. Vein runs through slab of meat (6)
- 18. Representative of romantic dinner: filled with endless, mortifying music! (8)
- 19. 22 arrived frequently here? (7)
- 21. I huff about, forward and backward in time (4,3)
- 22. Ben for example, putting skill first, becomes King (6)
- 23. Require the French to harass (6) 26. Force someone to leave, former
- painful, early lesson initially (5)

Riding 1st team grab league top spot

Sinead Connelly

The first riding team have moved into first place in their league after an impressive win in Buckinghamshire on Wednesday. Picking up individual 1st 3rd and 7th places, Rachel Gregory, Ilse daly, Sinead Conneely and Mikaela Bryant-Meisner are now in a favourable position with two competitions left, one being their home event at Trent Park in Oakwood.

The morning got off to a cold start with snow still on the ground at Snowball Park when the show jumping started. After 16 rounds on some horses who weren't so keen on keeping the fences up Imperial college had a 30 point lead, with Gregory and



Daly holding joint first individually.

The dressage horses proved to be

even more difficult to handle than the showjumpers but the team held their

own, extending their lead to 49 points at the end of the day. Gregory finished up with zero penalties to take the overall win, an impressive result as today's judge noted that this year the competition showcased some of the highest standard of riding she's seen at University level.

For more information about the riding club email **riding@ic.ac.uk**.



ISSUE 1510 10.02.12



Kirstin Hay

Women's 1s Royal Holloway 1s

Undefeated so far this season (with only one draw to compliment our string of wins), we arrived at the Staines pitch in high spirits, despite the freezing temperatures and re-

mains of snow on the sidelines. One

rapid warm-up later, and we were un-

The standard was slightly different from the team we had beaten 15-0 the week before. We started slowly, waiting a whole ten minutes before the first goal – Kirstin lifting the ball over the keeper's stick from a scrappy rebound. Teddy secured our second goal, with some great work from Gigi, before hearts were once again racing as Holloway piled on the pressure in our defending half. Some strong defence from Ash and Celia soon saw them off, allowing Teddy the chance to score our third, grabbing the opportunity after a serious of rebounded attempts in the attacking 'D'.

The second half started with us fired up, ready to expand our lead; we had to keep moving to avoid the ever colder conditions, and our confidence didn't wane. Our continued attacks finally bore fruit as Jill, our captain, fired one past the keeper from the top of the 'D'. Emma and Maria in defence with Jess in goal had a little more to do this half, but Holloway never looked like scoring, and we continued our pressure on their defence. Harry's work with help from Nora in midfield soon took our fifth goal, shooting the ball past a static defence.

The final whistle couldn't come soon enough after that, and we piled back into the warm of the mini-bus back to Imperial for a well-deserved

Netball 3s prevail in icy conditions

Feroza Kassam Netball

46 Women's 3s University of West London

Despite the sub-zero temperatures for this outdoor fixture in Chiswick, both teams came out ready for a fight and the match started off as an end-to-end struggle. UWL opened the scoring; a clinical finish despite some sloppy play around the D.

Predictably, the first IC goal came from Tsang, followed in quick succession by a beauty from Batchelor - hardly surprising given the top form both the shooters have been on this season.

IC were a constant threat in front of goal and UWL failed to show any resilience - with the home side unable to produce any game-changing play, IC stormed ahead in spectacular fashion, closing up the first half comfortably 30-11.

As UWL returned after the halftime break it was clear that their fighting spirit had been entirely consumed by the icy conditions. IC made UWL's miserable afternoon a whole lot worse by scoring 20 goals in the second half, with little difficulty. UWL tried some interesting tactics, like removing Club Captain Hazell's shoe in a desperate attempt to prevent her assisting a goal, but to no avail. Trainerless, and with nothing but a surprised squeal, she calmly set Batchelor up for a clean finish. Tsang's superb shots throughout the game earned her player of the match, in the coldest game anyone can ever remember playing, IC 3s maintained their unbeaten record this term and moved up into 2nd place in the ULU league. With a game in hand, a fully fit squad and another team added to the long list of victims, life is looking pretty sweet for IC Netball 3s right now.

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