



Felix

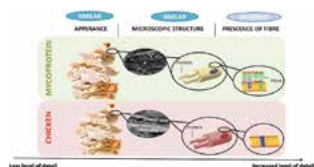
The Student Newspaper of Imperial College London

COMMENT



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SEX SURVEY

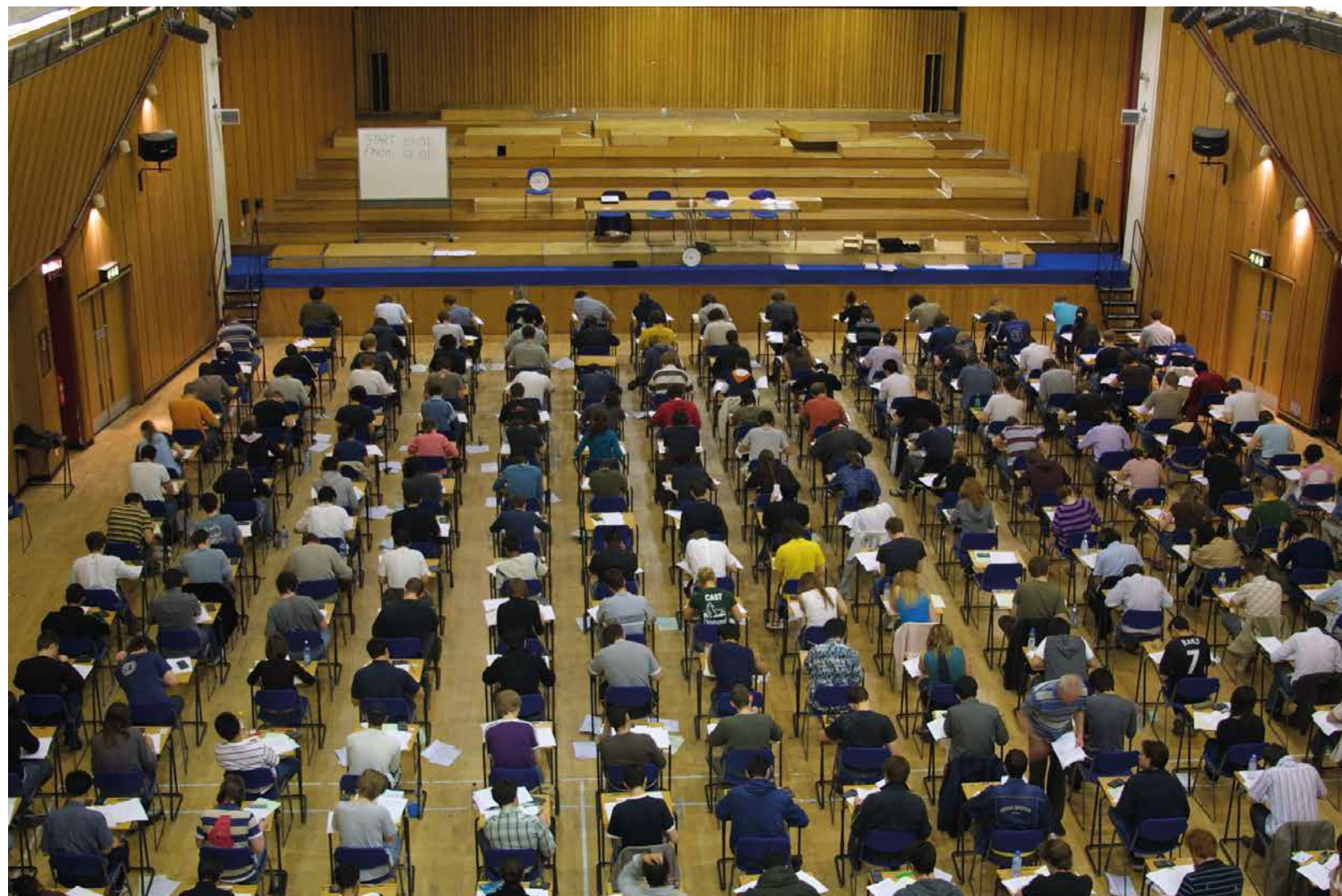


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SPORTS



Need for Speed at BUCS Outdoor Athletics Champs **PAGE 24**



"The students were forced to sit through the rest of the two hour exam for no apparent reason" // Imperial College London

Business School exam blunder

Business School students, who were given the wrong exam in error, have been told they are to resit the exam on 17th May

NEWS

Andy Djaba
Editor-in-Chief

Imperial College Business School students were left reeling when it was revealed to them that they would have to resit an exam due to an error.

The students, who originally sat the Corporate Finance exam in Spring, noticed a "huge mess up".

Speaking to *Felix*, an MSc Climate Change, Management and Finance student in the Business School, who has asked to remain anonymous, explained the situation:

"In our Corporate Finance exam given by [Associate Professor of Finance] Dr. Claudia Custodio, we were given the exact same paper as was previously released to us under the premise of a mock paper, prior to the exam. Firstly, the lecturer denied this and

said the exam we sat was completely deliberate and not a mistake. Then, when other colleagues got involved, they realised the greater issue at hand."

The mistake was immediately spotted by the cohort of students sitting the exam and it was allegedly reported to the invigilator within ten minutes of the exam starting. The invigilator is said to have then contacted the lecturer, who was abroad at the time, but was told that the exam

was fine. Subsequently, the students were forced to sit through the rest of the two hour exam for no apparent reason.

"We had a huge mess up and the department is getting away with it"

Within a week of the erroneous exam, students were contacted. In a statement released to the students by Sue Mossey (Assistant Director, Specialised Suite, Business School) and Dr. Mirabelle Muuls (Assistant Professor in Economics), students were told the following:

"Thank you for the opportunity to speak to you yesterday regarding the Corporate Finance exam. As we explained,

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EDITORIAL

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Mental Health Awareness Week



Andy Djaba - Felix Editor

This has not been a good week for the paper. The Summer term exam season has ravaged the *Felix* team and, unfortunately, left us with a second week of what can only be described as a somewhat streamlined issue of *Felix*. I have to apologise for dropping the ball - my lack of forward planning has finally caught up to me and, as a result, the News section has taken a serious hit. If it weren't for a late anonymous tip, we wouldn't even have a cover story this week. I had initially planned an in-depth follow-up to my predecessor, Fred's, report on the state of Imperial's Counselling Service. It would have been perfect timing, with this week being Mental Health Awareness Week and almost one year to the day since Fred's original article. However, largely due to my lack of foresight, it didn't occur to me that the Counselling Service might be overwhelmed at a time like this and

would be unable to speak to me. Apologies. My error does bring up an important point that I'd like to raise. When informing a member of the *Felix* team that this week is Mental Health Awareness Week, I was met with the response, "I thought that was every week", and it got me thinking. Although it is significant to have weeks like this to highlight an issue as important as mental health, it is also

important to remember that the work does not stop once this week is over. It is important for all of us to remain mindful of mental health - our own and that of others. It is especially important to continue to consider those struggling with mental health. Please bear that in mind when you eventually see my follow-up article (in two weeks or so). In other news, this week sees the much

anticipated return of the Felix Sex Survey - head to bit.ly/felixsexsurvey to complete it! This week's *Felix* issue also sees the resurgence of the Comment section and something of a take-over by Copy Editor Izzy Zhang, who has a double page Politics x Comment spread. A massive shout-out is in order! Section of the Week for this week is a tough one. Naturally, the Arts section has carried the paper once again. However, the Comment section deserves some accolades. Like a phoenix, it has risen from the ashes to swoop in and snatch section of the week. Congratulations! Finally, a reminder to vote in Thursday's EU elections. The importance of voting can't be stressed enough - the more young people vote, the better for democracy. This might be the first Editorial that I've actually said something meaningful and not waffled for a page - please give it a read.



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NEWS

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Imperial College Union holds 7th annual Student Academic Choice Awards

NEWS

Andy Djaba
Editor-in-Chief

The annual award ceremony to celebrate the achievements of academic and support staff took place on Monday evening

Monday evening saw Metric Transformed to host the

2019 Student Academic Choice Awards (SACAs). The award ceremony, which was first launched in 2012 to provide students the opportunity to recognise, reward and celebrate excellence amongst College staff, received over 1500 nominations. In February, student panels met to review the nominations, select a shortlist of 48 members of staff and, ultimately, choose the winners (a full list of which can be seen below). This year's ceremony saw changes to the usual proceedings, as three new categories were

introduced. These categories were: Diversity & Inclusion Champion - to reward "staff who go above and beyond what is expected by actively tackling any prejudice or barriers to give all students equal opportunities, ensuring that all students are engaged, represented and that their feedback is acted upon, and harnessing the diversity of the student body to create a better experience for everyone." Communities Champion - to reward "staff who are proactive in enhancing the experience of their students by establishing

creative ways of bringing together staff-student communities, organising initiatives, events or projects that enhance the community's experience, and creating opportunities for the community to collaborate." Student Wellbeing Champion - to reward "staff who are proactive in enhancing the wellbeing of their students by making student wellbeing a clear priority, being proactive in their approach to tackle wellbeing issues, and providing effective advice, support and guidance to help students take care of themselves."



Eyes on the prize! // Imperial College Union

"This year's ceremony saw changes to the usual proceedings, as three new categories were introduced"

Best Graduate Teaching Assistant	Dr Esma Koca, Business School
Best Tutoring	Dr Lucy Bingham, Faculty of Medicine
Communities Champion	Dr Colin McClure, Department of Life Sciences
Best Supervision	Prof Dominik Weiss, Department of Earth Science & Engineering
Diversity & Inclusion Champion	Mary Bown, Disability Advisory Service
Best Innovation	Dr Lucy Millar & Dr Lauren Misquita, Faculty of Medicine
Best Teaching for Undergraduates	Dr Eleanor Sein, Faculty of Medicine
Best Support Staff	Julia McShane, Business School
Best Teaching for Postgraduates	Dr James Rosindell, Department of Life Sciences
Best Feedback	Dr Thomas Clarke, Department of Electrical & Electronic Engineering
Student Wellbeing Champion	Dr Francesco Restuccia, Department of Mechanical Engineering

2019 SACAs Winners // Imperial College Union

research. The awards represent an opportunity for students to show staff that the work that is being done to improve the student experience is appreciated and is not going unnoticed. Each nominee is sent an invite to the ceremony, and a certificate. Perhaps more importantly, each nominee is sent a SACAs mug - famous and highly sought after by all. Congratulations to all nominated and shortlisted staff members.

The SACAs cover all faculties, departments and campuses, as well as all modes of study - undergraduate, taught postgraduate and doctoral

Imperial's magazine, formerly known as **PHOENIX**,

returns...with a twist!

If you are interested in Grime & Black British music, we want to hear from you!

What does Grime mean to you?

If you're interested, please email Felix@imperial.ac.uk



Business School exam blunder

NEWS

(cont.)

all questions and answers on the exam paper had been accidentally given to students prior to the exam. The Business School and Registry have taken this very seriously. Multiple options were considered to ensure that the learning outcomes of the module are assessed as intended. For this reason, a new exam has been set for 17th May, 10am - 12pm."

"This is simply unacceptable, none of the cohort like this option"

This decision has reportedly not gone down well with the cohort and has been described by some as "simply unacceptable". An anonymous student told *Felix*: "None

of the cohort like this option. Our voices are not being heard or considered and we are suffering for someone else's mistake." In response to this unfortunate situation, *Felix* approached College for comment. A statement given by a College spokesperson reads as follows: "A recent Corporate Finance exam paper was given to students in error ahead of the assessment instead of the planned sample questions. We

aspire to the highest academic standards for our students and, while errors like these are rare, we take them extremely seriously. To ensure that the learning outcomes of the module are assessed fairly and as intended, a new examination has been scheduled for all students for 17th May. This date was selected to minimise impact on students' other work and assessments. However we understand that the rescheduling of the exam is frustrating for

students and apologise for the disruption at what we know is already a stressful time. The Business School has been liaising closely with the cohort to assist any students experiencing difficulties and is reviewing its processes to ensure that this does not happen again. Anyone with concerns should contact Edgar Meyer, Associate Dean of UG Programmes and Education Quality: e.meyer@imperial.ac.uk" Students are said to have proposed a 24-hour

coursework as an alternative to resitting the exam, however this was to no avail. As of August 2019, the fees for the MSc Climate Change, Management and Finance course are £16,500 for EU students and £28,300 for overseas students.

POLITICS

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The Green New Deal: the less realistic the better

While the current plan has been defeated by the Republican controlled Senate, it is still very much needed in its current form to successfully tackle the worst aspects of climate change.

POLITICS

Isabelle Zhang
Politics Writer

A revolutionary set of policies called the New Deal was enacted by Franklin Roosevelt, in response to the Great Depression. The policies were incredibly successful in providing economic relief and financial reform through public work projects, laying the foundation for the upcoming era of Democratic Party majority in Congress; in essence, it upheld the idea that real freedom can only be achieved with economic security.

The Green New Deal (GND) is a 21st Century remake of these principles; it couples the aim of sweeping socioeconomic reform with the most urgent crisis of modern day: curbing our carbon footprint to avoid irreparable damage to the Earth.

The idea that these two aims could be tackled in a single effort was first conceived in 2007 in the UK, in customary British fashion – in a pub. It was around the time of the global financial crash, and economists Larry Elliot and Colin Hines conjectured that a set of trailblazing policies like the New Deal would be needed to fix the state of the world. It came close to entering mainstream politics in both the US and UK, supported by both Gordon Brown and Barack Obama, but did



Alexandria Ocasio-Cortez// Wikimedia

not gain enough traction for it to be officially supported by either establishment. Then, when Labour lost government in 2009 and when the Democrats lost hold of Congress in 2010, the discussion of it in politics virtually disappeared, especially for the UK, where a decade of austerity (which is the antithesis of what the GND stands for) would soon begin. Most recently it was brought back into public attention by US House Representative Alexandria Ocasio-Cortez (AOC) and Senator Ed Markey.

The GND Deal proposed by AOC and Markey, however, has evolved immeasurably from the original proposed in 2007. The document itself is a list of goals, collectively called the “Green New Deal”, that they hope the government will orient future policies towards. These goals includes:

- Reducing the net emission of greenhouse gas to zero;
- 100% reliance on clean, renewable energy to supply all of

US’ electricity;

- Switching the auto industry to zero-emission electric vehicles;

- Addressing historical and current oppression of indigenous communities, communities of color, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth;

- Guaranteeing employment with a family-sustaining wage, adequate family and medical leave, paid vacations, and retirement security

These goals, each already bold and colossal when viewed in isolation, were condensed into a single resolution, with an aim of achieving each one of them in 10 years’ time. It seemingly tried to encompass any imaginable problem that any imaginable US citizen may face; it looks and sounds like a theory of everything.

Unsurprisingly, it became a popular target for conservatives, who argue that the Green New Deal is more of a socialist project that wants to rid American capitalism disguised as a climate resolution. The GND proposed by AOC was a non-binding resolution, even if the resolution receives approval it does not legally commit them to these goals. But exactly

how the Deal should be interpreted, as a manifesto of what progressives hope to achieve or as a legitimate proposal for future legislation, seemed ambiguous to the public and even to politicians themselves.

“The idea that these two aims could be tackled in a single effort was first conceived in 2007 in the UK, in customary British fashion - in a pub”

Senator Mitch McConnell, the leader of Republicans in the Senate and a wily political operator, seized on this uncertainty and suggested that the Senate will settle the issue through a vote, which would force Democratic senators into a binary choice of ‘Yes’ or ‘No’ that do not consider the different ways the Deal can be interpreted. To avoid this, the leading Democratic Senator Chuck Schumer advised Democratic senators to abstain from voting, resulting in a 57-0 result (where 57 voted against the bill) from a house of 100 senators.

Despite the impression of failure the numbers may give, beneath the ostensible numbers the Green New Deal is considered as far from defeat as we are from Andromeda. The strategic logic of the GND reveals the hidden brilliance of it, and helps us understand the Senate vote, or any future vote on it, is not a proper measure of its success. It is the epitome of bad policy but good politics.

Its success can be seen through the rapid bandwagon effect of major 2020 Democratic presidential candidates endorsing, and some even co-sponsoring, the deal. It succeeded in bringing climate change to the political calculus, an issue that both parties will now consider as indispensable when trying to win over millennials.

The Democratic Party in past years has tried unsuccessfully to bring climate change to the table in an inside-out approach. Their attempt to spread the message through business leaders and centrists failed because of the diminishing existence of moderate Republicans, something that drove the Democratic Party to water down their proposals. The logic of the GND was to do the opposite, to break the gridlock from the outside in, and gain political attention through an unyielding grassroots movement run by the youth.

The American politi-

cal system has long been under gridlock – passing new legislation, no matter how incremental the change proposed, is challenging. Faced with a predicament where the default change is no change at all, and given the urgency and gravity of climate change, only a resolution as overambitious as the proposed GMZ can disrupt the current balance of power. The goals of the deal may be far-fetched and improbable, but there’s nothing to lose when the only alternative is nothing.

But the incorporation of socioeconomic reform for a movement focused primarily in climate change is not just for flair, it is necessary. When proposing a complete overhaul of industries and a thorough transformation of the energy economy, the financial securities and lifestyles of citizens must be guaranteed for them to trust the government enough to make the change.

Though the GND seems to have as many facets as there are 2020 Democratic presidential candidates, it can be invariably agreed that its overarching effect has been a delineation of what a modern progressive would likely demand. It seems to be more like a manifesto, a grand mission statement for what values the progressive left want to construct their society around.

COMMENT

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COMMENT

Isabelle Zhang

Comment Writer

Do you sometimes feel like you're in China? That's what Suburban Express, a bus company based in Illinois, promises their customers will *not* feel when on their buses. The Urbana-Champaign campus of the University of Illinois (UIUC) has drawn a surging population of Chinese students to the area, apparently too many for the liking of Suburban Express. They sent out a mass marketing email in December 2017 that had "Passengers like you. You won't feel like you're in China when you're on our buses."

The company shut down its operations last week (7th May); it has a long history of racist behaviour, and not just against Chinese people.

All the same, it made me want to reflect objectively on the general perceptions people have about overseas Chinese students, in and out of Imperial, and whether or not these views are justified. Mainly because, although I was born and raised in Hong Kong, my parents were born in China and so my personal culture and sense of identity has elements of both.

Chinese students are often seen as self-segregating, and not making an effort to intermingle with the rest of the student body. There is

Do you sometimes feel like you're in China?

If only I spent as much time revising as I do writing Felix articles



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- Passengers like you. You won't feel like you're in China when you're on our buses.
- Comfortable, Clean & Safe Coaches
- Most Frequent Daily Connections
- Snacks, Pillows and Fuzzy Slippers Allowed

"Passengers like you. You won't feel like you're in China..." // South China Morning Post

an element of truth in this, but it is certainly not a conscious effort by Chinese students to avoid other races. It is understandable for people to get along better with those similar to them. China is culturally and racially homogenous; Chinese children grow up around others like them, and the mixing of different foreign cultures is not as common as in Western countries. There are other cultural disparities to consider: socialising in Western culture often involves alcohol, but teenage culture in the East is overall more conservative, and involves much less casual consumption of alcohol, cigarettes, and drugs. It's probably easier to feel socially accepted around and easier to build trust with people from your country; there is solace in finding a group that you fit in with, and because, on first impression, it felt easiest to find things

in common with your co-nationals, you decide to stick with them. Especially when English is a second language; I can imagine what a relief it is to have conversations that do not require constant mental back-and-forth translating.

Of course, this behaviour of homophily (an internal preference for people like you, in terms of race or age or profession etc) doesn't apply solely to Chinese students. I find this to be the crux of having a diverse community. The value of diversity comes from having people with unique backgrounds and perspectives, and to take advantage of such a community would require intermingling of people who do not have much in common. However, without any homophilicity, there are fewer channels through which people can embrace their heritage, and ultimately there is a loss in the value of having an international

community to begin with.

Furthermore, while you want to encourage all students from all countries to socialise outside their co-national circles, students from countries with larger cultural barriers will inevitably be less willing. You cannot single out the students of one race as being more closed-off when they face a bigger challenge.

For a while, I assumed that all international students who decide to study overseas must want to experience living away from home, to meet people and visit places that you otherwise wouldn't be able to, and to learn from everything a diverse international community has to offer. I realise this isn't always true. You may come to Imperial with the sole intention of getting a degree, and therefore socialising is simply not as important. Imperial is, primarily, an institution built for academic purposes - its primary selling point is its academic rigour (if you wanted an easier ride you'd be at UCL).

"What makes diversity fulfilling and enriching is our cultural differences"

Even so, wouldn't it be better still if students came here with purposes beyond merely advancing career

prospects, and wouldn't it be even greater for our collective student experience if one of these other purposes were to meet new, interesting people from diverse backgrounds? Having a more cohesive student body would certainly make some decisions easier for the Union; how can they improve the experience of the typical Imperial student when... there isn't one? In that case, how do we bridge a cultural gap that intimidates most from even attempting to cross it? Is it even possible, or necessary, to force positive interracial relationships? Doesn't the individual have the freedom to interact and make friends with whoever they want?

What we see is a situation that the College cannot solely be relied upon to improve; effort from the student body is overwhelmingly the most effective solution.

Having different types of friendships for different functions is necessary for healthy social integration - a close group of co-national friends with whom you are culturally compatible; friends from the host country (UK) can ease the adjustment of international students to the host environment and culture; friends from abroad can increase cultural agility and awareness of global affairs of home students without them having to leave the country.

I read a study on how the social experience in a predominantly white US university is impacted by race, where non-white students described

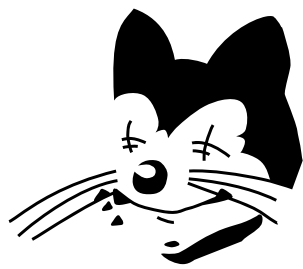
the challenge of "fitting in to a White campus and community without becoming "White". For Imperial, where no race majority exists (home students make up less than 50% of the student body) it's possible the challenge faced by students here is a fear of losing their sense of belonging to wherever they come from.

Naturally, over time, students will gradually adopt a sense of belonging at Imperial. It's possible that creating a non-judgemental, welcoming environment for students to step into on their first day will help. While I understand international students face many hurdles in struggling to find their place in a new environment (which also applies to home students), I do not think international students should feel that the language and cultural barriers they face are unbreakable; they do not need to be seen as unsurmountable.

Ultimately, there is no need to become less 'Chinese (or whatever race)' to build meaningful, wholesome relationships with people from elsewhere. There is no shame in speaking with an accent, or in taking a few more seconds to find the vocabulary you want to express yourself. There's no reason to feel like you can't integrate if you don't get dry British humour or western pop-culture; you shouldn't feel awkward asking what that strange slang word was. What makes diversity fulfilling and enriching is our cultural differences. Embrace and contribute to the vibrancy of this diversity, share with us the humour and slang of *your* culture.

COMMENT

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Ideological purity and the Randos

Challenging transphobia will need more than demanding the deletion of some tweets, argues Adam Kutnar.

COMMENT

Adam Kutnar

Comment Writer

So another student, perhaps a coworker (or if you can imagine it, maybe even your university's vice-provost of education) has shared some bigoted articles on their social media. They follow the twitter account of an organization that campaigns to take away support from trans children at school and frequently retweets Ray Blanchard, one of the world's best-known academic transphobes. Based on their social media, you might make some sensible inferences about what your friend thinks personally and that some of their worldview is not as woke as you have come to expect from your peers in 2019. The beliefs this person apparently holds are clearly retrograde and wrong, but they are not what I want to talk about.

Last week, Felix reprinted the public letter to a member of the university's senior management, asking them and the college to reiterate their support of trans people and to respond publicly to concerns regarding their social media sharing. Said person has since they were first approached deleted the objectionable tweets and unfollowed the mentioned accounts, but I do not know if this step is necessarily helpful towards LGBT+ liberation.

I am not saying that Imperial does not still have a long way to go



"We Won't be Erased" rally for trans rights in Washington D.C., USA //...

in terms of its treatment of trans people. As the letter itself cites, a significant proportion feels excluded and more help needs to be made available, but prescribing who to follow and not follow on social media will only alienate, perhaps even the specific person you are trying to convince to change their mind. Posts on social media are somewhere in the gray zone between public and private, but they are some of the primary ways we express ourselves today and so ought to be protected. Bringing in the college to enforce posting habits means we are making private support for trans rights the ideological litmus test for randos, or rather, people whose opinions on the matter do not really affect anything.

"Free speech on college campuses is already a talking point for people across the right and we should not be adding fuel to the fire"

There is the question of how visible and impactful a person must be before their thoughts and self-expression needs to be scrutinized, but in this case I would say the person is more in the let it go category. I doubt

most students or staff could name the college top administrative staff beyond a few people, so even at Imperial have limited social influence. Furthermore, it is not part of the professional obligations of the person involved to set the college's LGBT+ policies.

It is important to make the distinction here that these are personal tweets and not college endorsements and, while they are a part of a difficult trend among middle-aged people and some younger who do not have much of an excuse, it is not in our right to censor and limit them. Free speech on college campuses is already a talking point for people across the right and we should not be adding fuel to the fire and validating

their preconceptions. When it comes to asking others to take down tweets, especially when they were already more than 6 months old when found judging by the Felix photo, it sounds more like an exercise of power rather than a means social progress.

In the last paragraph of the Felix article, Josef Willsher, the author of the letter, says of the vice-provost using their "public Twitter account to engage with tweets and to share articles... we really didn't think it's the place to do that", which, while begging the question of what a twitter account is for in that case, is a sentiment I sympathize with. Some ideas are just awful and we need a way to get them out of people's heads. Both the letter's

author and recipient mention the opportunity for "debate" somewhere else, but, as Willsher correctly identifies, that can often be damaging to trans people as it makes their existence a point a discussion and something up for grabs. Social media is not the place for it, but neither is probably a South Kensington campus. Privately approaching someone is probably the best way to convince them, but that can take years and is often frankly just impossible. But you have to try to change minds, in a real long-lasting way, not just censor their tweets and bringing in the college.

SCIENCE

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Mycoprotein: a potential beneficial food for people with type 2 diabetes?

SCIENCE

Anna Cherta-Murillo

Science Editor

If I were to ask you the first thing that comes to mind when you think of fungi, you would probably say mouldy walls, gone-off food, or athlete's foot. The Fungi kingdom is often not viewed in a positive light. However, we owe a lot to fungi; they produce life-saving antibiotics, have allowed organ transplantations in humans and can recycle many types of waste. In the area of nutrition, some fungi also have the potential to affect human health in a beneficial way, although little research has been devoted to it compared to other foods. In the Nutrition Section of the Department of Medicine at Imperial College London, we are putting fungi into the limelight and studying the impact of a particular type of fungus on blood sugar levels and appetite in South Asian and European people with Type 2 Diabetes (T2D).

"1 out of 20 people worldwide has Type 2 Diabetes, with South Asians being more prone to the disease than Europeans"

The Problem

1 out of 20 people worldwide has T2D, with South Asians being more prone to the disease compared to Europeans. People with T2D have higher blood sugar levels than normal, which over time can increase the chances of developing long-term complications such as blindness, kidney disease and heart failure. It is therefore important to manage blood sugar levels in people with T2D in order to keep blood sugar in the normal range. The first-line strategy to achieve this is by improving dietary intake. Healthy, balanced diets are generally characterised as being high in dietary fibre and protein, which decrease both blood sugar levels and appetite. If blood sugar levels are reduced toward normal levels, the chances of having T2D-related complications are reduced. Likewise, if appetite is decreased, intake of energy-rich foods will likely also decrease, helping to reduce body weight, which is a key risk factor for T2D. However, an ongoing problem with healthy diets is that they are not suitable for all cultures and most of the research around them has been conducted in people of European origin, therefore not being applicable to South Asians. Furthermore, people often find it difficult to stick to these diets.

The Potential Solution

One food that is high in both dietary fibre and protein is mycoprotein. Mycoprotein is the name given to the biomass of a fungus called *Fusarium venenatum*. Mycoprotein

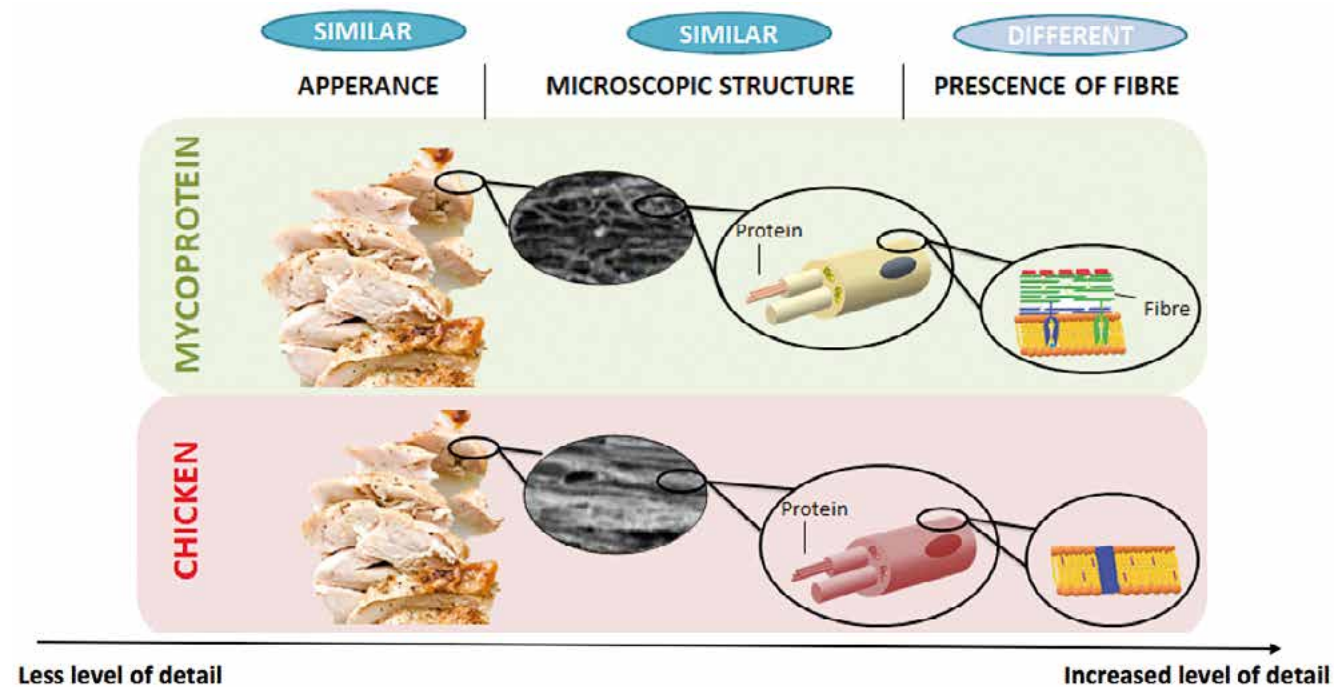


Figure 1: This figure illustrates the similarities and differences between mycoprotein (at the top) and chicken (at the bottom) when you zoom in at different levels of detail. // Anna Cherta-Murillo

is low in fat and calories and high in both dietary fibre and protein.

Mycoprotein is commercially available across Europe, North America and Asia under the brand name of "Quorn", which makes it suitable and accessible to many cultures. In addition, mycoprotein's appearance and texture has been shown to be very similar to animal-derived meat as both microscopic structures are very similar, with the exception that mycoprotein's structure is surrounded by fibre (Figure 1). Professor Gary Frost, head of the Nutrition Section at Imperial College London, said: "Mycoprotein has a unique food matrix, which may act as a barrier for sugar absorption during digestion, therefore improving sugar levels in blood."

Since mycoprotein is high in both dietary fibre and protein, suitable for all cultures, widely available and has a similar taste to meat, we believe that it could be an effective food for regulating blood

sugar levels and appetite in people with T2D.

The question

We have previously shown that mycoprotein has a positive effect on blood sugar levels and appetite in healthy people who do not have T2D, but little is known about this effect in people with T2D from South Asian and European ancestry. It is for this reason that we are investigating whether mycoprotein alone, or in combination with another fibre called guar gum, is able to reduce blood sugar levels and appetite in both ethnic groups. Professor Gary Frost added: "Instead of testing a sole food, we are testing what a usual meal would be, such as mince mycoprotein with rice accompanied by a chapatti bread. This bread has guar gum incorporated into the dough. We think that, by combining both types of fibre (mycoprotein and guar gum), an additive effect in lowering blood sugar levels could occur in people with T2D,

regardless of their ethnicity."

Why is this important?

This research will help us understand how blood sugar responses differ between South Asian and European people with T2D, and will also highlight the importance of tailoring diets according to cultural background. This is important because diet is a cheaper tool to manage blood sugar than diabetic drugs and could, therefore, be of great benefit to health care systems, especially those based in lower-income regions found in parts of South Asia.

"Diet is a cheaper tool to manage blood sugar than diabetic drugs"

Can you contribute to this research?

Yes you can! The Nutrition Section is currently looking for volunteers for a nutritional research study looking at the effect of mycoprotein on blood sugar levels and appetite in South Asian and European people with T2D. To be suitable to participate, you have to have T2D, not be taking insulin and be from either South Asian (Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, India, Iran, Pakistan, Sri Lanka) or European ancestry. Participants will be asked to attend the Imperial Clinical Research Facility at Hammersmith Hospital for six separate study visits, which are five hours long approximately, during which you will be asked to consume a meal within 15 minutes, have blood taken and consume a buffet meal. Expenses will be paid. If interested, please contact protein@imperial.ac.uk or call 07522887666.

Impromptu Part I - Getting the Basics Right

Founders of Impromptu share advice on creating a tech start up

TECH

Sahir Khurshid

Impromptu

Hello *Felix* readers! We are Sahir and Tom, and over the course of the next few weeks we will be writing regular articles about the trials and tribulations of creating a tech start-up.

You may ask why we are doing this. We currently have our own app, Impromptu, in development and we are really excited to be launching it to Imperial students in two months time. As Imperial alumni we seek to inspire you budding entrepreneurs to get your ideas off the ground, and we hope these articles may address some of your concerns.

We firmly believe that you too can develop an app if you put your mind to it, and in a cost effective manner. We'll cover subjects including initial brainstorming ideas, prototyping and subsequent development.

Following this first series of articles, we will then detail our own experiences and cover every element of our journey to date (as well as our future aims). This first article looks into setting the right framework. So, without further ado....

Idea

Your idea is crucial. It is important to think about its context: many people will probably have had your idea before you! The first step is what sets most people apart i.e. taking the initiative to realise

said idea. Walking away from regular income and giving up your free time is a bridge too far for the majority.

The most important thing, however, is execution. There is always an element of luck involved, but how well you put together your app (and the business framework that supports it) is ultimately what will separate your idea from others. Your idea should have a USP (Unique Selling Point), or better yet, multiple USPs. This does not mean that your idea has to be completely novel; it might for example involve a different business model to competitors or be more cost effective.

Also think about your idea's lifespan. Is it something you can envisage being around 5 years in the future? 10 years? Think about how many apps actually survive this long.

Think about how your app will have to evolve to remain popular. Is your target audience fickle? Do they chop and change the apps they use based on fads? The answer to this question will also help you frame your ambitions and decide whether you want

"Impromptu will be launching to Imperial students in two months time."

to persevere in building a user base for long term success or go for short term reward.

Team

Dealing with people who compliment each other's personalities is important. There is enough tension running a business without having to deal with massive clashes of character. Having defined roles is beneficial and provides a strong base for future growth. The practical reality however is that in a start up with only a few people, everyone will be doing a bit of everything unless they have relevant expertise. Differences of opinion are inevitable; however it is imperative to take stock of what your user base would want as opposed to your own desires.

In practical terms, the ideal team would probably comprise a few people of varying areas of expertise. Having a computer and a business/management specialist would prove

invaluable. There have been plenty of success stories to the contrary however and a grounding in an analytical discipline is hugely advantageous.

Structure

Apps being built in the UK can adopt an ltd (limited company) or llp (limited liability partnership) format. There are lengthy articles online which detail the differences between these and the format you choose will be dictated by the type of app you are building and your own personal criteria. If you endeavour to scale to a large organisation that will infuse additional managers and stakeholders, it would be better to form a limited company from the offset. Alternatively, if you foresee a smaller scale business catering to a select or niche area, llp would be a

better way to go. Getting your company registered is simple and there are plenty of online solutions. You can also employ an accountant to this end. It is unlikely that you will have your own offices to begin with, so have your accountant act as your registered postal address. It is important to have a formal address for third parties to verify you are a legitimate business. It is not possible to register for key components of your app build without this (SSL certificates for example).

We will be back next week to touch on the first steps required to get your idea off the ground.....

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GAMES

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Smash Corner: Weegee – wait no... it's Luigi!..

Welcome back to Smash Corner you all love and know, where today we have a very special manifesto, to commemorate a character with a sad portfolio. He is not loved enough by his father Nintendo.

Games

Michael Cognet

Games Writer

Constantly forgotten and left in his brother's shadow but still fighter #09 in Ultimate: green Mario. Enough poetry and jokes, let's tackle honestly one of my favourite fighters in Smash: Luigi!

This tall green plumber started off as the lesser known twin of the Mario Bros, originally appearing to assist his brother. It wasn't until 2001, 20 years after the birth of the Mario franchise that Luigi became the cowardly hero of his own game, Luigi's Mansion. And now, Nintendo may roast him all they want but he has won the love of the community with his infamous meme, Weegee.

There since the very start of the Smash Bros. franchise, Luigi's moveset has evolved with his reputation throughout the years. He started off as a mere echo fighter of Mario, but he is now so much more. Luigi has stayed a medium weight close-combat brawler with average speed, like his brother. However, his special attacks are what make him... well... special, by trading the many tools Mario had for actual attacks and unique abilities.

At his core, Luigi is very similar to Mario, with his normal attacks the heart of his kit. He throws some decently quick jabs and tilts, with some moderately powerful

smash attacks. And again the aerials are the most important parts of the moveset. All of them are extremely quick with minimal lag time, with the forward-air being the quickest. The up-air great for juggling, back-air for finishing, down-air for spiking and neutral-air for all-round attack. As Jumpman's brother, it's in the air where he shines.

“Nintendo may roast him all they want but he won some of the communities' love with his infamous meme, Weegee”

Luigi, however, diverges from the path set by Mario with his specials. The neutral B is not so unique, it is a simple Fireball that moves straight ahead and can stagger opponents. Luigi's side-special is his Green Missile, a charged attack that makes him dive forwards head-first into his enemies. This should be used mostly as a horizontal recovery; however, this attack also comes with a surprise. Indeed, at every use Green Missile has a 1 in 10 chance of exploding, propelling Luigi even further and faster. This is a nice finisher for any unsuspecting enemy, but one has to count on



A truly beautiful sky // Nintendo and Memes

their luck for this to be the case.

His up-special is the Super Jump Punch, a purely vertical recovery move with a twist: if Luigi hits the sweet spot at the very beginning of this move, it will hit the opponent critically and can kill an opponent who is at 60%! To do so Luigi must be facing the enemy fighter, stand as close as possible to them, as he does his Super Jump Punch. Beware, however, both his up- and side-special have a very long lag-time so are easily punished if you miss them. For a safer attack, you have his down-special, the Luigi Cyclone, a spinning attack with invincibility frames at the start and a generous hitbox and knockback as opponents get sucked in.

In addition to his already very quirky specials, Luigi has 2 other notable traits to top the icing on the cake. He is first of all the proud owner of a ghost-sucking vacuum cleaner, which he uses as a tether grab.

However ridiculous it may look, it is still an incredibly useful attribute to grab opponents from a safe distance.

And saving the best for last, Luigi has a forbidden technique call the Weegee kick. A move so good that it is banned from online play: his down-taunt. That's right, Luigi is the only character to have a taunt that actually does something; it does only 2.4% damage but it spikes! It is immensely difficult to pull off as the timing has to be just right but if you manage to 2-frame an enemy as they recover with the Weegee kick, you'll have an extremely satisfying kill. Sadly, Thanks to Nintendo's 'No Fun Allowed Online' rule, this secret technique is banned in quickplay as all taunts are disabled, so you'll have to invite your friends over or create an arena to humiliate them personally.

Despite all his funny moves and specials, it is crucial to keep in mind that Luigi is first and foremost a combo character. In

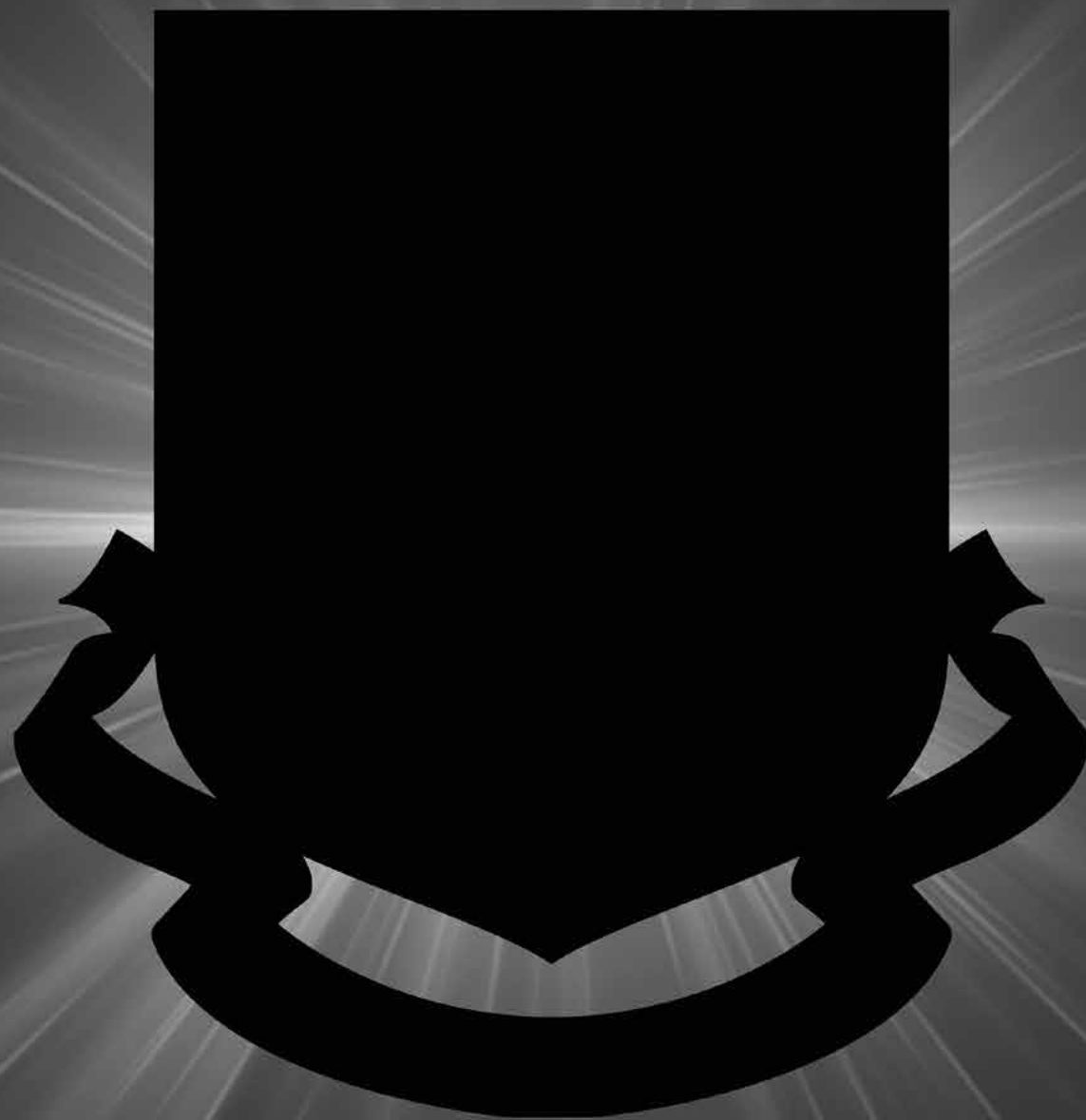
order to win, you will need to abuse the speed of your aerials to chain attacks on your opponent without allowing them to fight back in. In particular, the down-aerial should be used at the end of every aerial play to spike the enemy fighter on the stage, leaving you more time to land, follow up with another attack, to ultimately keep the combo going. Once they have enough percentage, you can finish them off with one of your specials, smash attacks, or throws. Once you have mastered the Weegee, you will be able to pull off some zero to death combos (check out the great video from Beefy Smash Doods for more details on "Luigi's Insane Combo Game").

Overall, Luigi is a mid-tier character because his attacks seem to be designed to be funny rather than reliable. This green plumber still poses a great threat thanks to his great combo potential, his quirky specials and techniques are just an added

“If Luigi hits the sweet spot at the very beginning of this move, it will hit the opponent critically and kill them at only 60%”

bonus to enjoy. So even if he sometimes feels like Nintendo's biggest joke, I highly suggest you try him out and give him the love he deserves. However, he might soon be dethroned as the king of memes in the Smash games by a rumoured DLC fighter also in the Mario Bros. franchise: Purple Luigi...

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ARTS

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Reclaiming The Frame

Musing on the recent Tate Britain exhibition of Sir Don McCullin's work, Arts Writer Rahul Mehta ponders the issues around photography of the disenfranchised and mentally ill

ARTS

Rahul Mehta

Arts Writer

There is the usual muttering of visitors who have brought the energy of the streets into the solemn exhibition. Long lines of guests shuffle their feet between photos, some craning their necks in myopic fascination at the monochrome photographs of Sir Don McCullin. Eventually, the crowds thin out as people gravitate towards the centre of the exhibition, pondering human barbarity and how many more photographs they can handle.

Behind the closed doors of the exhibition is a world apart, one littered with hauntingly graphic photos that tear each visitor from their comfort zone. Here, the famous image of an American soldier, stationed in Vietnam, staring out at the audience. Shell-shock, PTSD, whatever you want to call it - nothing does justice to the terrors that ripple across his jet-black pupils. Or the dead Congolese fighter, face torn apart by the path of a bullet. Almost more painful than the content is the knowledge that these conflicts, and the many others exhibited, are not just confined to history. Disfigured child victims of Agent Orange, a carcinogenic pesticide the Americans sprayed on Vietnam's leafy landscape, or the traumatised ex-child soldiers on the streets of Brazzaville,

Congo, are a stark reminder that suffering escapes the crystallised moment one finds within the frame.

Amongst the tropical warfare and devastation are close-up portraits of some residents of the East End. Homeless, dejectedly poor, often Irish, these were the people who lived on the streets of Shoreditch well before gentrification drove itinerants to other parts of the city. The subjects of the photographs include Jean, a woman of indeterminate age but all-too-familiar circumstance. It was in the pictures of her, as much as the ones of overseas conflict, that one can appreciate what French semiotician and theorist Roland Barthes described so accurately when he saw the camera as a potent tool in making the "invisible, visible". Her face, etched with the wrinkles and lines of a life of hardship, are more than physical signs of age. In another photo, she squats with her head in her hands. This is the existential paralysis of poverty in action, leaving the vulnerable to suffer their wretched plight. That this perennial problem exists in a frame in one of London's top galleries is testament to McCullin's ability to straddle aesthetics and empowerment. Whether the audience can only contemplate such injustice through art is a question that lingers well after you leave.

The intertwined history of photography and mental illness reaches far before McCullin took to the streets of the East End. During the mid-19th century, psychiatrist and

amateur photographer Dr Hugh Welch Diamond took to photographing the residents of the Surrey County Asylum. The photographs carry a consistent style: the subject is seated, wearing clean and formal clothing, face turned to the lens. While McCullin's photographs are intentionally monochromatic, Diamond was more restricted by the technology of the time. In fact, William Henry Fox Talbot had only introduced photography to British society 3 months prior to Diamond's first photograph. Whether through the sheer passage of time, or an indifference to the identity of the sitter, most of those in the frame remain anonymous. The sepia-toned portrait to the left shows one such nameless subject. Captured in 1855 (towards the end of Diamond's photography career), this simple photo bears a remarkable similarity to that of Jean, despite over a century separating these two women. The dishevelled hair, the head tilted knowingly, the weathered face. Yet the formal clothing of the anonymous lady, the drapes in the background, and the posture all betray any sense of authenticity. This woman's photograph was as much defined by what was being thought, and organised, behind the lens, as the mood captured by her expression. Jean, by comparison, casually holds a cigarette and seems mid-speech. But how did the mentally ill go from detained to destitute? To understand this, we have to briefly witness the death of one of England's most controversial



Jean, Whitechapel, London, c. 1980

// Don McCullin

institutions: the asylum.

In 1962, UK Health Secretary Enoch Powell (of 'Rivers of Blood' infamy) announced the Hospital Plan, an effort to move patients with mental health conditions from the confines of the asylum to the care of the community. Historians saw the move as a concession to increasing patient rights' advocacy, a pro-austerity government, and an attempt to redress the abuses which took place within the asylum walls. The latter reason stands out as a fascinating example of how British radicalism and reformism joined forces in the 18th and 19th century to counter the profiteering and widescale abuse of vulnerable patients. For some, the demise of the asylum was celebrated as an existential victory. Counter-culture theorists like Michel Foucault and Erving Goffman saw the asylum as a place of oppressive doctrine or identity-stripping, respectively. One Flew Over the Cuckoo's Nest, Ken Kesey's 1962 masterpiece novel, pitted the imprisoned and oppressed residents of an asylum against the authoritarian dictatorship of the medical establishment. In an effort to critique the carceral



Portrait of a mental health patient, Surrey County Asylum, c. 1855

// Dr Hugh Welch Diamond

nature of the asylum, the so-called anti-psychiatry movement of the 1960s and 70s hastened its overthrow, but with no safety net for transition into better mental healthcare services. This deinstitutionalisation, which ultimately led to the struggle that community mental health services continue with to this day, left many of the most vulnerable to the cruelty of the streets. In 2014, 45% of the homeless population of the UK had a diagnosed mental health condition. From the ruins of the asylum came a new era of suffering.

In examining the striking images of the mentally ill, viewers may wonder why the photographers reached for the lens in response to the suffering which they witnessed. Diamond sought to use photography for science, to bring madness within the realm of rationalism. A proponent of the pseudo-science of physiognomy, he believed that mental illnesses carried external, visible physical stigmata. Thus, a photograph was an important resource in diagnosis. Going further, Diamond also suggested that allowing a patient to

see their current disposition may spur them into recovery. Beliefs fit for his time, perhaps, but ones that haven't withstood the test of time. For McCullin, "the real truth of life is on the streets." He strived to "photograph the daily lives of people, and how they exist, and how they fight for space and time and pleasure." He was an advocate for the welfare of others, eager to bring the suffering of those abroad to the attention to Britain. Yet with this exposure to suffering and injustice came a sense of guilt. He has since turned to landscape art, "sentencing myself to peace". How much peace he'll find after years of covering atrocities, I do not know.

What of the subjects of the photos? Are they simply passive sitters (or squatters), to be stared at by Victorian medical staff or photography fans? The issue of consent, already fraught in the medical sphere, spills over into the arts. As controversial science writer Alice Dreger feared in her engagement with intersex persons, the act of photographing the Other risks 'othering' them further, even if the desire is to provide agency and empowerment to the disenfranchised. So, was Jean capable of understanding that her photo was being taken, that it had an agenda, and that people may pay up to £18 (eye-watering by her standards, I imagine) to navel-gaze before her photograph? From a history of oppression, exploitation, and stigma, do those with mental illness have a right to reclaim the frame, and thus their narrative?

ARTS

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Nahum McLean, Adelene Stanley and Jason Tucker in INALA //Johan Persson

INALA – Abundance of goodwill

Dance and song combine in this heart-warming homage to individuality.

ARTS



Where? Peacock Theatre
When? 18th May
How Much? From £18

Disha Bandyopadhyay
Arts Writer

INALA is a fusion dance performance of Zulu ballet set to Zulu songs sung by the Soweto Gospel Choir, accompanied by western instrumentation. It celebrates the value of community and even the most mundane activities from the passage of life. Choreographed by Mark Baldwin, the show is about unity in diversity, acceptance and the highs and lows of life. The show is performed by two distinct groups: the dancers and the choir, but throughout the show they interact and

share the space together. A life-affirming show, *INALA* transcends cultural boundaries, especially relevant to our uncertain future with Brexit.

If one word could describe the show, it would be heart-warming. But also uplifting. And hopeful. The choir and dancers all perform with wide, happy smiles, noticeably Ashley Wilson (dancer). The choir frequently breaks down into steps which looked like freestyle dancing, their movements seemingly effortless and enjoyable. The casts' enthusiasm is contagious, so much that I could see members of the audience tapping their knees with the beat, with me too wanted to get up and join the singing and dancing.

Despite all the songs sung in Zulu, the audience was able to connect with the themes by the exaggerated movements,

expressions, music and background. Homesickness, joy of coming back home and accepting those who've left were the subjects of the dance. Being an international student, I could relate to these sentiments (exam season being a particularly difficult time of the year for all of us).

"Life-affirming"

Other than the administrative announcements, the only other use of English was a line sung by the choir: *hello trouble, bye-bye trouble, I am going somewhere*. The resolve with which it was delivered made this a non-negotiable reality and was greatly inspiring. And believe me, the audience watched on silently with bated breath. Watching

the show in Holborn, it is safe to assume that the majority of the audience did not understand the Zulu lyrics, but nonetheless, the philosophy of cross-cultural collaboration through the arts, and unity was effectively delivered and appreciated by the viewers.

As the sun rose and set, and the city scape expanded, I was transported from urban London to the vast plateaus of South Africa closely bonded to nature. Natural sounds of crickets, wind and the typical drums helped this, the atmosphere seemed genuine. Costumes compounded the authenticity of the show, whether this be by the traditional kurtas of the choir or the tribal skirts with animalistic head gear worn by the dancers. The curled spines, stiff crawling movements coupled with elegant pirouettes came together in a beautiful

amalgamation of cultures and styles (in particular ballet and contemporary dance), making this show such a unique and beautiful sight.

What was especially beautiful about the show was how it celebrated non-conformity and diversity by incorporating a diverse cast. Each dancer is of different built and dancing background. Unlike the original Ladysmith Black Mambazo's music to *INALA*, the Soweto gospel choir adds female singers to the choir, expanding the vocal textures and bringing more breadth of newness. Coordination was inconsequential even in group numbers, evident from the aforementioned improvisations. Clearly set apart, the choir and dancers had their own numbers, but they shared the same space, one group setting up the scene for the next (dancers literally moving stumps for the choir to sit on and the choir in turn sharing umbrellas or seats with them). This co-existence was beautifully balanced with song and dance.

Although the show

honoured the free spirit and celebrated individuality, aspects of group performances lacked coordination, and were performed half-heartedly despite the otherwise aura of merriment. There was a certain disorganisation as dancers and the choir shuffled onto the stage towards the end of the first act, the artists seemed to tire. Nevertheless, the tirelessness was managed by the impetus of the second act, tugging at heartstrings.

"Celebrating non-conformity"

Despite the miniscule shortcomings of the performance I thoroughly enjoyed the show and highly recommend it to all. For all it's worth, *INALA* provides a much-needed break from the humdrum of daily life and brings a burst of cheerful (yet composed) energy. And its 100-minute run time is great for a quick exam distress session too!

ARTS

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Death of a Salesman

Intelligent reinvention strikes new chords.

ARTS



Where? Young Vic
When? 1st May - 13th July
How Much? From £10

Calvin Nesbitt
Arts Writer



Evoking the American Dream // Brinkhoff Mogenburg

Arthur Miller's *Death of a Salesman* holds a place in the western theatrical collective consciousness that is only occupied by a few other plays. It's eternally performed, eternally taught, eternally lauded. A play one has probably lied about seeing at some point, not out of some desire to impress, but a sincere sense that it's always been there and "of course I've seen it!". Such is its status that when it's listed to be performed again, one doesn't have a sense of excitement but rather a feeling we're going through the standard rituals of theatre watching. But now I should be emphatically clear, here at the Young Vic this feeling is completely blown away – this is a production of such power and talent that a genuine sense of gratitude and awe is being excreted from each pore as you stand to clap the cast come the end of the near three hour performance.

Wendell Pierce's performance as Willy Loman is one that spans time, we're in 1949 with him but also recognising deeply modern themes within ourselves. The sense of great change in the world around you that seeps from the play is transmitted wonderfully from Pierce's powerhouse of a performance. Pierce

sets a bar that is high but it is certainly met by his cast members with Arinze Kene as Biff Loman and Martins Imhangbe as Happy Loman also putting in performances of stupendous quality. Kene's writhing, seething and pained demeanour throughout conveys the torment that is the essence of Biff Loman's sense of wrong in the world. Whereas Imhangbe displays the dual consciousness, the smile on the troubled soul, the blissful ignorance and insidious committal to the American dream that underlines the Loman family fate wonderfully. The duo's chemistry and physicality mean you will be hard pushed to find a better pair of Loman brothers on stage.

"Layers of thematic depth"

The decision to cast the Loman family as an African-American one adds layers of thematic depth and evokes commentaries not found in Miller's original script. The play's historical setting means it is well suited to exploring assimilation after the Great Migration – the exodus of African-Americans

from the rural American south to the industrialised north. One can't help but having a nagging sense the Loman fate is as much a result of discrimination as of their naive committal to America. A feeling that is only exaggerated when the successes of the white Bernard (Ian Bonar) and Howard Wagner (Matthew Seadon-Young) are made clear.

"A shifting reality"

The sense of a shifting reality around you that underlies Miller's piece, is also nicely coupled with the experience of a great migration and you are invited to see the world through the eyes of those who were experiencing this new world. Beyond the thematic exploration, the other refreshing spin that sticks in the mind are the set pieces of physical movement that allow us to enter Willy Loman's troubled mind

Innovation is really at the heart of what makes this performance great. Even if you have seen Miller a dozen times before I can assure there is something here that you can not afford to miss: intelligent reinvention has made Miller strike new chords.

Class

Writer-director duo Iseult Golden and David Horan bring their sold-out Fringe show to the Bush Theatre.

ARTS



Where? Bush Theatre
When? Until 1st June
How Much? From £10

Shivani Gangadia
Arts Writer

What begins as a simple parent-teacher meeting between recently separated Brian (Stephen Jones) and Donna (Sarah Morris), and teacher Mr McAfferty (Will O'Connell), to talk about their son Jayden's literacy struggles in school, spirals quickly as tension bubbles about social and cultural divides within the classroom. Scenes flicker between the parent-teacher meeting, and also student-teacher after-school 'homework club', as Morris and Jones deftly switch between playing Brian and Donna to Jayden and classmate Kaylie. Morris does a particularly good job of switching to an energetic Kaylie at the drop of a hat, really capturing the playfulness of a nine-year-old. This play confidently

asks questions about the complexities of a failing education system. How does a difficult domestic situation affect important decision-making for your children? What decision is 'right' as a teacher when school rules conflict with personal ideologies of a course of action? How have both educators and parent alike been jaded by the education system? Is it the children who ultimately lose out amidst all this power play between parent and teacher? There are no conclusive answers, and we are left feeling emotionally sucker-punched by the end.

"This play confidently asks questions about the complexities of a failing education system"

Mr McAfferty hides behind fancy and unnecessary jargon, angering Brian as he feels spoken

down to, as well as reminding Donna of her own experiences being let down by the education system. They begin with the thought that they don't want their child "going through the rest of his life thinking something is wrong with him", and Mr McAfferty's superfluous, almost patronising, language only exacerbates their insecurities and uncertainties.

Time is split between moments of humour, moments of discomfort, and moments of hostility, but they all piece together well to tell an interesting story. We never leave the classroom, creating a confined environment for the escalating drama and shock ending. The characters are well-developed, particular Mr McAfferty, and O'Connell does a brilliant job switching between the soft-spoken personality we see initially, his enthusiastic interaction with the students, and his evolution to condescension towards the parents, then aggressive, then regretful. The scene switches between parent-teacher and student-teacher really highlight the juxtaposition between his two 'personalities' and how he changes as the play progresses.

My only criticism would be that 95-minutes seemed a little long, especially with no interval, and although it didn't struggle to capture my attention for the full length of the play, it did move a little slowly at points. But stellar performances and insightful subject matter still make this play well worth the watch.



Sarah Morris as Donna // Ross Kavanagh

ARTS

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Out of Water

Head over to Richmond to see a heartfelt, beautiful exploration gender identity and sexuality on the stage.

ARTS



Where? Orange Tree Theatre
When? 27th Apr - 1st June
How Much? From £12.50

Shivani Gangadia
Arts Writer



Lucy Briggs-Owen, Tilda Wickham and Zoe West // The Other Richard

Orange Tree Theatre, once again, has a stunning new production running. This touching play, written by the remarkable Zoe Cooper, spans themes of gender identity, sexuality, new environments, and hardship. A delicately written script, along with circular staging and a trio of talented performers, made this a show to remember.

The story follows middle-class Londoner Claire (Lucy Briggs-Owen) moving to her wife Kit's (Zoe West) north-eastern coastal hometown, South Shields, to have their baby. As she starts her new job in a school, she encounters Fish (Tilda Wickham), a gender-fluid pupil who she begins to mentor. The three actors undertake more roles than just this, and they succinctly switch between characters impressively. West stood out to me in this regard, slipping between the charming and confident Kit, curmudgeonly senior male teacher, and underachieving, chavvy teenage student, with ease. I wish we had seen more of Kit, and her interactions with Claire – it was quite focussed on Claire (despite a brilliant job by Briggs-Owen) and her struggling to adapt

to her new environment, but I'm guessing it was meant to be this way. I just really fell in love with Kit's boyish charm and affection and wish she'd been a bigger part of the storyline. Wickham really shone in their entrancing monologue, lip-syncing nature documentary excepts and utilising fluid hand movements to mimic fish the subject matter.

"They succinctly switch between characters impressively"

It was refreshing to see a play centred around queer characters, especially a femme/soft butch couple coping with soon-to-be parenthood and a new environment, which provoked many thoughts and insecurities in them. Kit is self-assured and has no qualms about being back in her old-fashioned, slightly backwards, hometown. However, Claire struggles both with people always assuming she's straight to the point

where she doesn't correct them anymore, and also with the disapproving sneers towards affection between her and her wife by people in her new environment, including Kit's own family.

"Refreshing"

Moments of comedy are well-timed and effective, and moments of tenderness or frustration are articulated, or not articulated perfectly. This is something Cooper does often – sentences are left unfinished, particularly if they refer to sexuality or violence, yet the audience knows exactly what to 'fill the blank' in with. The singing by West and Wickham between acts is evocative, almost melancholic.

I loved this, and simply put, we need more plays like this. With strong performances and a poignant script, you can't go wrong with this show, and you have until June to catch it at the Orange Tree Theatre.

Avalanche: A Love Story

Maxine Peake commands the stage in a one woman play about IVF.

ARTS



Where? Barbican
When? 27th Apr - 12th May
How Much? From £16

Indira Malik
Arts Writer

Hope springs eternal; that is both a blessing and curse for Julie Leigh's protagonist, the Woman (Maxine Peake), in *Avalanche: A Love Story*. We meet Peake's nameless character at a psychic's gathering, which is really something of a supernaturally tinged group therapy session. Everyone there is seeking to let go of a loved one; the Woman is too, only her loved one, a longed for child, has never existed.

Peake commands the vast Barbican stage masterfully as she unspools a winding, tragic tale of loves lost and found. Based on Leigh's best-selling memoirs, the story is of a woman in her late thirties who has found moderate professional success and is on the cusp of greater acclaim living a lonely existence in New York. By chance

she meets her high-school sweetheart; they rekindle their past affair with lustful passion, pledge to be together always and return home to Sydney to marry and raise a family.

The optimism of the couple's early reunion fizzles shortly and *The Woman's* life descends slowly into a carousel of clinic appointments, anger and hopelessness in which her world narrows to her overwhelming need for a child. If hope is the catalyst that sparks the story, power, or the lack of it is the fuel on which it propels itself. In one telling scene, the Woman's husband, angry that his wife has put their strict baby-making schedule on hold to direct a movie threatens to leave her, and propose they live in separate houses whilst staying married. She is humiliated, but returns to his bed that night to resume trying for a baby. Peake tells us of this episode with a wry smile, devastating her quiet sadness. Later, after her sixth or seventh cycle of IVF has failed, *The Woman* is persuaded by her doctor to return just one more time to a gruelling regime of daily hormone injections and endless visits to the gynaecologists in the face of ever lengthening odds

of success, it is a privilege for which she'll have to pay \$7000. As she leaves the appointment, she notices a Bentley in the doctors' parking space.

To hold an audience captive for more than an hour by oneself in a theatre as huge as the Barbican is no mean feat, but Peake, under the direction of Anne Louise Sarks manages it with ease. She is wholly naturalistic as she moves across the stage as we see her unravel from a woman sure of herself to one undone by wave after wave of loss. As the play progresses and the Woman comes to be at peace with her childlessness, the stark white walls of Marg Howell's set move in concert; deconstructing the austere confines of clinic to reveal a desolate, but beautiful wildness beyond.

"Leigh has created a tale of obsession and grief that is heartbreakingly universal"

The final scenes, set in a tundra that is both a snowy oceanscape and the rubble of the medical centre, will be most affecting for those with personal history of fertility issues, but still packs a punch for those who don't. In telling her own very personal journey with IVF, Leigh has created a tale of obsession and grief that is heartbreakingly universal.



Letting go // Barbican



Educational: Performing Absolute Evaluation

INVESTMENT

Alexander Koh

Head of Equities
Investment Society

Investors are typically faced with the question of how much a stock (equity) is worth. To answer this question, there are two ways to value equities. The first method involves the use of ratios and comparison with other equities – relative valuation and the second method involves the use of Discounted Cash Flow (DCF) valuation analysis to work out the exact fair value of a stock. In brief, absolute valuation anchors the evaluation of the fair value of a stock based on the earnings and financial statements of a corporation and utilises a systematic approach of DCF valuation based on assumptions of the future cash flow of a corporation. Nevertheless, the assumptions made for DCF valuation acts as a limiting factor in establishing truly accurate results – it demands clairvoyance to postulate future earnings.

In this article, we will be exploring the absolute valuation method via the means of DCF valuation to create a financial model to evaluate the fair value of a stock. There are five basic steps in creating a financial model for DCF valuations.

1. Estimating long-term unlevered future free cash flow based on historical performances

2. Estimating the discount rate – Weighted Average Cost of Capital (WACC)

3. Discounting the long-term future free cash flow using the WACC.

4. Finding out the market capitalisation of the corporation

by subtracting debt (outstanding liabilities) and adding cash (asset) on hand.

5. Dividing the market capitalisation by the number of outstanding shares to give the estimated fair value of the stock.

Now let us proceed with the step-by-step methodology.

Step 1. Estimating long-term future unlevered free cash flow based on historical performances

In this step, this typically requires an investor to make certain assumptions. For instance, to estimate future cash flow, we could assume that a corporation grows at a compounded annual growth rate (CAGR) or a perpetual growth rate of 3%. However, for a start-up, such an assumption may be inappropriate and the assumptions made by an analyst is highly subjective. Therein lies a caveat of a financial modelling, these assumptions undermine the accuracy of the financial models.

Suppose, however the estimated perpetual growth rate is accurate. Firstly, the cash flows we are using are unlevered Free Cash Flows (FCFF). FCFF refers to the amount of cash a company has to reinvest in other activities or the cash flow left-over after funding growth activities. Note: There are other CF analysis methods such as using levered FCF, but the FCFF method is more frequently used by analyst.

Using the balance sheet to calculate the FCFF:

Unlevered FCF = EBIT (Earnings before Interest & Taxes)*(1-Tax Rate) + Depreciation & Amortisation expense – Capital Expenditure – Increase in Non-Cash Working Capital (NWC)

Where NWC =

Accounts Receivable + Inventory – Accounts Payable = Current Assets (less cash) – Current Liabilities (less debt)

The FCFF projections are based on certain assumptions and FCFF projections in itself is a large topic. FCFF projection, in brief, includes identifying how the drivers of a business and thereby forecasting (typically 5 years into the future) the revenue, expenses, capital assets, capital structure and terminal value of the company. Revenue projections are typically based on either growth-based or driver based, typically growth-based models such as the perpetual growth rate of 3% is used for simplification. Terminal value projection is typically based on either perpetual growth rate approach (treating it as a perpetuity) or the exit multiple approach (using EV/EBIDTA). For the sake of simplification, we will assume that FCFF projections have been worked out as shown below, given the following assumptions.

We will now focus on the transactional CF line which highlights the FCFF for both the entry

Assumptions							
Tax Rate							25%
Discount Rate							12%
Perpetual Growth Rate							3%
EV/EBITDA Multiple							7.0x
Transaction Date	31/12/2017						
Fiscal Year End	30/6/2018						
Current Price							25.00
Shares Outstanding							20,000
Debt							30,000
Cash							239,550
Capex							15,000

Discounted Cash Flow	Entry	2018	2019	2020	2021	2022	Exit
Date	31/12/2017	30/6/2018	30/6/2019	30/6/2020	30/6/2021	30/6/2022	30/6/2022
Time Periods		0	1	2	3	4	
Year Fraction		0.50	1.00	1.00	1.00	1.00	
EBIT		47,814	51,095	55,861	58,693	63,039	
Less: Cash Taxes		11,954	12,774	13,965	14,673	15,760	
Plus: D&A		15,008	15,005	15,003	15,002	15,001	
Less: Capex		15,000	15,000	15,000	15,000	15,000	
Less: Changes in NWC		375	611	398	511	272	
Unlevered FCF (Entry)/Exit	(290,450)	35,494	37,715	41,501	43,510	47,008	534,295
Transaction CF	(290,450)	17,747	37,715	41,501	43,510	47,008	534,295

Cash Flow Statement

and exit (terminal value) and the other years of projections.

Note: In reality, FCFF projection is a complicated topic that requires another comprehensive article to explain how to come up with FCFF projections for companies. We will cover FCFF projections in future articles on DCF valuation. Moreover, you are able to attain FCFF projections via the Bloomberg Terminal function – EE (Earnings Estimate) & FA CF (Cash Flow Analysis). The Bloomberg Terminal is a paid subscription (available at ICL Central Library):

Step 2. Estimating the

discount rate – Weighted Average Cost of Capital (WACC)

The WACC is given by

“In this article, we will be exploring the absolute valuation method via the means of DCF”

the formula below – i.e. it is a weighted average between the cost of equity

$$WACC = \frac{E}{E + D} * Re + \frac{D}{E + D} * Rd * (1 - T)$$

Where:
 E = Equity (\$)
 D = Debt (\$)
 Re = Cost of equity (%)
 Rd = Cost of debt (%)
 T = Tax rate (%)

Weighted Average Cost of Capital



However, all the parameters for CAPM can be found via Yahoo! Finance or through the Bloomberg Terminal – Command Line: WACC.

The cost of equity (Re) can be found by using the Capital Asset Pricing Model (CAPM) – Formula shown below – where the cost of equity (Re) is equal to the required return for a security (kj). To minimise the confusion, the CAPM will not be covered in this article. However, all the parameters for CAPM can be found via Yahoo! Finance or through the Bloomberg Terminal – Command Line: WACC.

Step 3. Discounting the long-term future free cash flow using the WACC.

To understand the concept of discounting a cash flow, remember this phrase “A dollar today is worth more than a dollar tomorrow”. Let us illustrate this with an example. Tim is an investor who puts \$1 in his bank account with an annual interest rate of 5%, this implies that at the end of the 1st year, Tim has \$1.05 and at the end of the 2nd year, Tim has \$1.05 * 1.05 = \$1.1025. At the end of 2 years, the future value of his initial investment = \$1.1025, but his initial investment, termed as the present value (PV) still remains at \$1, where PV = \$1.1025/1.052 = \$1.

Similar to this idea, you cannot simply compare cash flows at a different points of a timeline. \$100 at the 0th year is worth more than \$100 in the 2nd year as you would be forgoing interest earned in 2 years. Hence, to compare cash flows at different point in time, you would have to discount the cash flow by the interest rate (the opportunity cost).

Hence, an extension of this to the DCF formula would be as follows, where CF refers to the free cash flow of the corporation in the future and r refers to the discount rate given by the WACC.:

Discounted Cash Flow (DCF) Formula

$$= \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

CF = Cash Flow

r = Discount Rate (WACC)

n = Time in Years

Discounted Cash Flow	Entry	2018	2019	2020	2021	2022	Exit
Date	31/12/2017	30/6/2018	30/6/2019	30/6/2020	30/6/2021	30/6/2022	30/6/2022
Time Periods		0	1	2	3	4	
Year Fraction		0.50	1.00	1.00	1.00	1.00	
EBIT		47,814	51,095	55,861	58,693	63,039	
Less: Cash Taxes		11,954	12,774	13,965	14,673	15,760	
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Transaction CF	(290,450)	17,747	37,715	41,501	43,510	47,008	534,295

Using the FCFF projections listed under the Transaction CF:

We can use excel to calculate the discounted cash flow, using the formula XPNV, which gives the discounted cash flow figure i.e. Net Present Value (NPV) of the overall FCFF projections:

The NPV of this cash flow figure would yield the Enterprise Value (EV) of the company.

Step 4. Finding out the market capitalisation of the corporation by subtracting debt and adding cash on hand.

Market Capitalisation = Enterprise Value + Cash & Cash Equivalents – Total Debt

Given that the DCF analysis yields the Enterprise Value of the company – measure of a company’s total value. To calculate the intrinsic value (based on the

company’s FCF), you would have to calculate the Market Capitalisation, from the Enterprise Value results from your DCF valuation of the projected FCF of the company.

After adding the Enterprise Value with the Cash & Cash Equivalents and subtracting total debt, the final value would yield the Equity Value/Market Capitalisation of the company.

Step 5. Dividing the market capitalisation by the number of outstanding shares to give the estimated fair value of the stock.

The intrinsic market capitalisation (the value derived after subtracting debt and cash from EV) divided by the total number of outstanding shares (20,000 in this example) would yield the intrinsic value of per share.

“Lies multiple disadvantages of DCF analysis. Firstly, share prices reflect the market’s sentiments towards the corporation”

Assuming the current market capitalisation of the share (valued by the market) is \$500,000 and the current price of the share is \$25.00, you can see that the intrinsic value of the equity value/share is greater than the current

share price i.e. The share is undervalued and may be a good purchase.

Conclusion: While DCF analysis may seem like a powerful tool (that can be easily relied upon with the use of the Bloomberg Terminal), there lies multiple disadvantages of DCF analysis. Firstly, share prices reflect the market’s sentiments towards the corporation. In times of low investor confidence – Global Financial Crisis 08, Dotcom Bubble 2000s – regardless of the intrinsic value of the corporation, investors would severely undervalue corporations in light of the poor market outlook. Moreover, DCF analysis is heavily influenced by the WACC – values which are subjective in nature – for instance, the systematic risk (beta) can easily be valued differently (e.g.

DCF Valuation

using a 5-year vs 10-year outlook or using different statistical approach).

Lastly, private equity and start-ups (with their financial statements being unattainable) is a problem which many analysts would face. Predicting the growth drivers and finding accurate estimates for FCFF is a Sisyphean task, given the dynamic nature of start-ups.

Nevertheless, DCF analysis allows an analyst to come up with a good yardstick and estimate of what a corporation is valued at. It is the tool of choice for both investment bankers and equity research analyst alike.



#icuElections

Summer Elections 19

imperialcollegeunion.org/elections

Get ready to vote

From noon on Friday 17 May, you can view all the candidates running in this year's Summer Elections and read their manifestos at imperialcollegeunion.org/manifestos. Get to know the candidates and their ideas so you can choose who you want to lead the Union and help shape life at Imperial next academic year.

By voting in these elections, you are using your voice to determine who will represent you in several aspects of Imperial student life. Elected reps will have the ability to influence College strategy, shape the direction of your Club, Society or Project, and lead your Constituent Union members. The Union is here for you so make sure you have your say over who leads it, and vote for the candidates you believe can make a difference.

Vote: noon, Wednesday 22 May to noon, Friday 24 May
imperialcollegeunion.org/vote



Watch the Emirates FA Cup Final live

All the action from Wembley Stadium will be live on the big screen on **Saturday 18 May in FiveSixEight!** In partnership with Carling, FiveSixEight will be transformed into the ultimate football fan zone.

Who will take home the title of the year: Manchester City or Watford? Kick off is at 5pm but you should arrive early to grab a seat and a free sample of Carling.

Come support your favourite team with us and enjoy the game day deals in FiveSixEight:

- Sharing nachos and 2 pints of Carling Cider or Beer for £10.50 (£8.00 if you swap the pints for soft drink)
- Burger and a drink from £6.30



It's Mental Health Awareness Week

13 - 19 May is Mental Health Awareness Week. College has been running activities to raise awareness and help improve mental health at Imperial.

The national theme for this week is 'Body Image - how we think and feel about our bodies,' so we have been focusing on how we can take care of our bodies and minds. Last year the Mental Health Foundation found that 30% of all adults have felt so stressed by body image and appearance that they felt overwhelmed or unable to cope. We can all have a role in shaping an inclusive culture where we help others feel comfortable in their own skin.

This week, if we can do one thing it's to say – it's ok to ask for help. The Union's Advice Centre has a dedicated team who are here to support and guide students on wellbeing issues, as well as academic issues. The service is free and confidential. To find out more about how the Advice Centre can help you, go to imperialcollegeunion.org/advice.



Apply to be a Student Trainer

The Union is looking for organised, reliable and confident communicators who like helping others. You will be running workshops and training sessions for Student Development programmes such as Imperial Plus, a new leadership development programme and Student Activities.

Previous training experience is welcome but not required as all Student Trainers will receive initial training and ongoing support from the Student Development Team. This is a paid opportunity.

Apply before 9 June 2019 at imperialcollegeunion.org/student-trainer

Wind Down Wednesdays
15:00 to 01:00 | in May & June
Beit Quad
Deck chairs Games
Drinks Tasty meals

Drink Outside The Box!
18:00 - 23:00 | Thursdays, in May & June
FiveSixEight & The Union Bar
2 cocktails for £7.90
and 1 mocktail for £4.70

Thank Goodness It's Friday
17:00 to 02:00 | Fridays, in May & June
Beit Quad
From 21:00 DJS in Metric £2.50 door charge
Submit your music requests on the event page

HEADLINING:

PINK RANDA

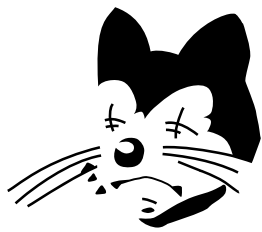
AND

JACK SAUNDERS

BOOK THE LAST FEW BALL TICKETS TODAY.

22 JUNE 2019
Summer Ball
RED CARPET

[f](#) beitbars [f](#) hbarpub [f](#) reynoldsbarcx



Hangman

IC Radio found to play same song for 12 years

HANGMAN

Negafelix
Editor-in-Chief

Students have risen up in arms against the Union after it was discovered that its flagship radio station played the same song on repeat for the past 12 years without detection.

Sources tell *NegaFelix* the scandal was uncovered by a final year Aeronautical Engineering student, Carlos Guantanamera,

during a late-night study session.

“I can only work to terrible music, so naturally I thought IC Radio would be the perfect choice,” he said, speaking to NegaFelix by e-mail, for fear of losing his seat in the library. “At first it worked, but after 30 mins of listening to Rihanna’s ‘Umbrella’ on repeat I almost lost the will to live. Not that I had that much to begin with anyway.”

Posting anonymously to Imperial College Overexposed, the online Facebook forum, it was

found that this trend had been ongoing for the past decade without any connection being made.

“Speaking by email, for fear of losing his seat in the library”

It is believed that the continuous loop was caused by a beer glass spilling over the mixing

desk in late 2007. Rather than raising the issue, the committee decided to simply profit off their allocated Union grant, spending the vast majority on curly fries.

“I don’t see what the problem is,” said Sandy Djembe, Head of Programming for IC Radio. “Everyone’s complaining now but it’s not like anyone actually ever listens in anyway.”

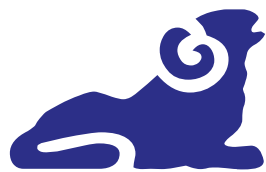
Monica Sarafellow, Deputy President (Sign Arts & Circuses), was enraged at the revelation. “For fuck’s sake, you



They actually have no idea what they’re doing // Imperial College

mean I didn’t have to write all those damn *Felix* articles? I could have just had my own air time all

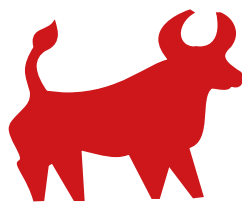
this time – it’s not like anyone would have cared either way!”



ARIES

This week you live in Alabama and are glad to see that children born of incest will now reach maturity

You don’t notice any difference.

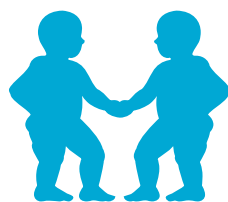


TAURUS

This week you experience an epiphany.

Your course makes sense and you’re going to ace you exams.

(famous last words)



GEMINI

This week you hear Jeremy Kyle has been cancelled. You now have to run your own paternity test.

Good thing you know where your dad keeps his cum rag.



CANCER

This week your friend told you she’s joining the sex strike.

Funny, your girlfriend said the same thing 3 weeks ago.



LEO

This week, you’re an angry vegan.

You feel like your identity is under attack with this new vegan café. Is this appropriation?



VIRGO

This week you get a visit from the police.

You haven’t called home in so long, Netflix has made a documentary about you.



LIBRA

This week the Hunger Games comes to Central Library.

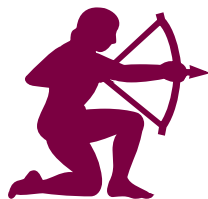
Last one standing gets the computer.



SCORPIO

This week you are the Deputy President (Finance & Services).

Good thing you came to Union Council this week - nothing quite like a midweek roast.



SAGITTARIUS

This week you’re James Charles.x

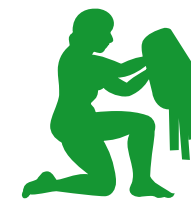
You overdose on vitamins but instead of feeling super fresh you lose 4 million subscribers



CAPRICORN

This week you’re Jeremy Kyle.

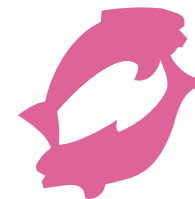
Following the cancellation of your show, you’re considering hosting Love Island



AQUARIUS

This week you lose your virginity.

You attempt the missionary position but accidentally convert your partner to Mormonism.



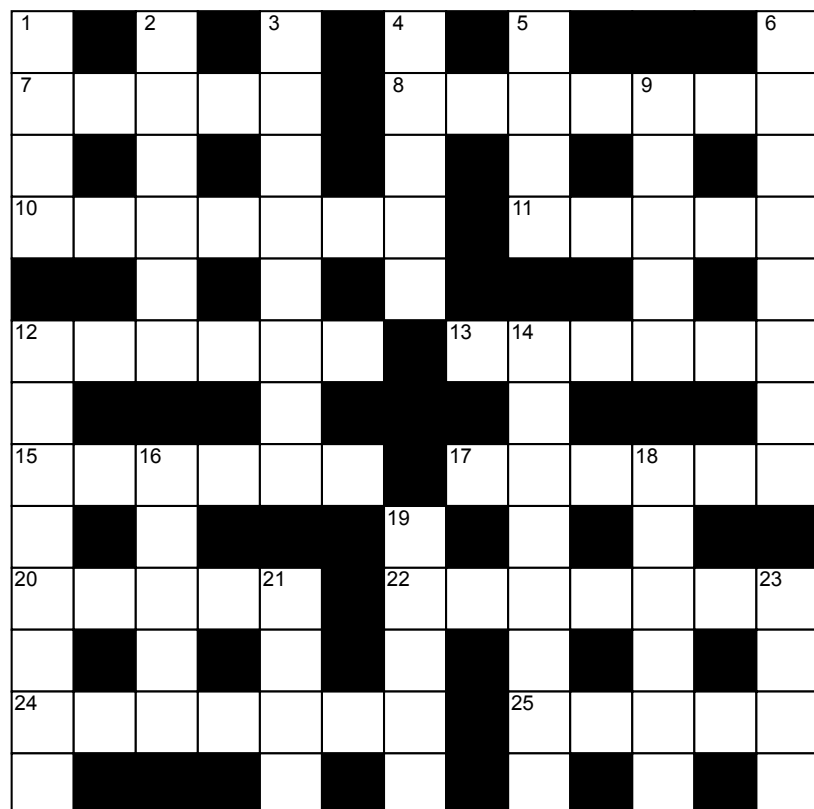
PISCES

This week your three flatmates ask you to join in a foursome.

How inconsiderate - you have an exam next week.

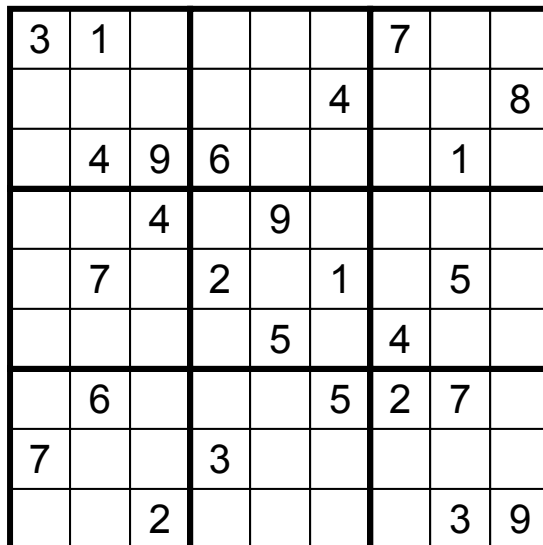
PUZZLES

fsudoku@imperial.ac.uk



SUDOKU

Fill all the boxes with a number between 1 and 9. A number can only appear once in a row/column, and only once in each sub-box.



FUCWIT

1	Trollheim	177
2	DQ	173
3	Yeet Infection	170
4	Maxiane	161
5	Wooloomooloo	148
6	O1G	143
7	Big H's Boys	126
8	Rock, Flag & Eagle	108
9	S. B. S.	95
10	Quizlamic extremists	87
11	KBLB	82
12	Fleesh and the tooters	80

Send your solutions to fsudoku@imperial.ac.uk before Wednesday midday to take part in the leaderboard!

Points available

Crossword	6
Minesweeper	4
Sudoku	3
Shikaku	3
Total	16

CROSSWORD

Across

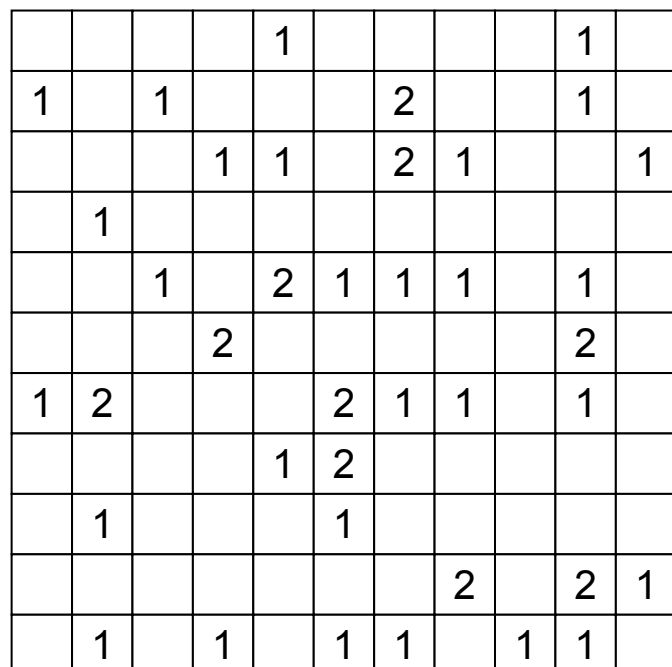
- 7. Be alive (5)
- 8. Not very conservative (7)
- 10. Lacks a decimal point (7)
- 11. Slope (5)
- 12. Teeny tree (6)
- 13. In short supply (6)
- 15. Just short of a century (6)
- 17. These TVs were really cool in the 00s (6)
- 20. They can be bent (5)
- 22. Cooked sugar (7)
- 24. You don't want to open her box (7)
- 25. Throw out (5)

Down

- 1. Half a Nando's (4)
- 2. Cute but scratchy (6)
- 3. The UK's economy after Brexit (8)
- 4. The back of a book (5)
- 5. Won Eurovision 45 years ago (4)
- 6. Sweet jelly substance (4,4)
- 9. Message received (5)
- 12. How my last Monopoly game went (8)
- 14. Tasty unit of energy (8)
- 16. Synthetic textile (5)
- 18. Warm months (6)
- 19. Very big pond (5)
- 21. Footwear (4)
- 23. Ancient string instrument (4)

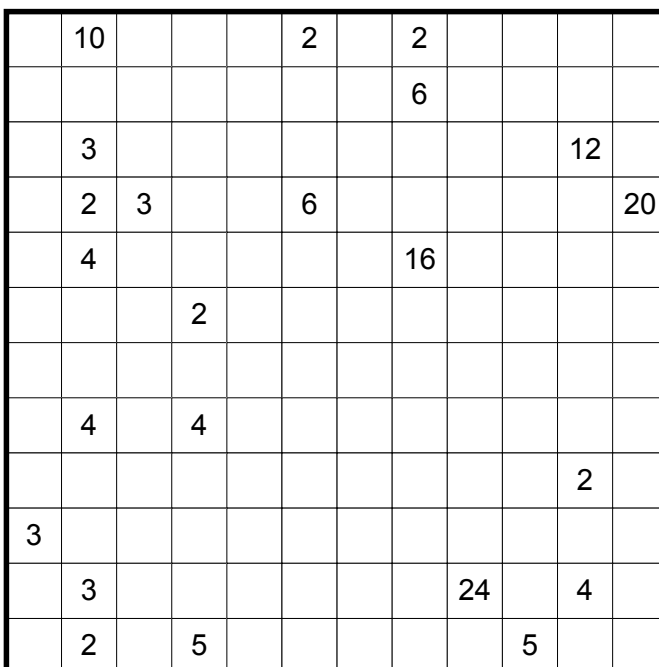
MINESWEEPER

The number in a cell represents the number of mines adjacent to that square (up/down, left/right, diagonal). Find and mark all of the mines to clear the board.

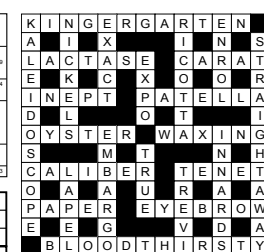
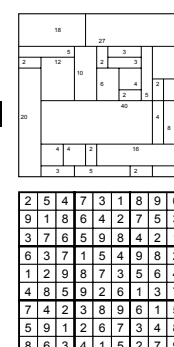


SHIKAKU

Divide the square into rectangles, such that each rectangle contains exactly one number. The numbers given represent the area of the containing rectangle.



Last week's solutions



FELIX PUZZLES ARE RECRUITING

Do you like a good Friday puzzles and chill?
 Is this page the highlight of your week?
 Want to get more involved?
 It's easy!
 Give us a shout on fsudoku@imperial.ac.uk

SPORTS

sport.felix@imperial.ac.uk



Leading the way: Mulryan takes to the front in the 5000m sporting his famous arm-warmers // @BUCSSport

Need for Speed at BUCS Outdoor Athletics Champs

SPORTS

Fergus Johnson
ICXCAC Chair

Over the Early May bank holiday weekend whilst students across the nation were locked indoors studying hard for exams, the country's finest student athletes gathered at Bedford's premium track for an ultimate athletics showdown.

The weekend began with heats on Saturday, with former-Club Captain Alex Mundell taking on the 800m. With the top 3 in each heat to qualify for the

semi-finals, Mundell battled her way to a comfortable qualification, finishing second in her heat with a time of 2:23.73.

In the 1500m, Niki Faulkner ran well in a tough heat finishing with 4:05.72. Two heats later, James Millett went a tad quicker at 4:05.08, and although the boys narrowly missed out on qualification, they still finished in the top 30.

In the spectator-favourite 3000m Steeplechase, Oliver Newton made it over the 37 hurdles and ran his first sub-10 to qualify as one of the "fastest losers" in a time of 9:55.60.

In Sunday's action, Idan Gal-Shoet was

up in the long jump, leaping to a respectable 22nd place with a best jump of 6.23m.

"Mundell battled her way to a comfortable qualification"

Back on the track, Mundell returned to race in the 800m semi-final, where she ran faster to post a season's best time of 2:21.04.

The final day of the championships saw some spectacular per-

formances in the men's 5000m with Daniel Mulryan finishing 13th in 14:51.24 after taking the lead early on, closely followed in 14th by fresher Oliver Barbaresi who ran a track personal best of 14:52.01, a fantastic run after coming back from injury.

Their times differed by less than a second despite running in different heats, with the second heat significantly faster than the first.

Club Captain-elect and lycra-lover Henry Hart also ran a promising time.

In the 3000m Steeplechase final, Oliver Newton returned to beat the personal best he set the day before to run

9:54.03 and finish 13th overall.

"Many club members were spectating back in London via the infamous livestream."

However, the main event of the day was always set to be the women's 5000m final, with Imperial's Dani Chattenton taking to the track, whilst many club members back in

London spectated via an infamous livestream. The race began tentatively before quickly picking up, spreading the field out into a lead group of 8. then 5. then 4...

Chattenton managed to keep the pace with the leaders right up to the final lap, finishing 4th in a huge personal best of 16:08.53, and a massive 13 seconds ahead of 5th place.

Overall the weekend was a roaring success, offering a taste of the sort of performances we can expect to see from Imperial's athletes later in the season.