

NEWS FROM COMPUTER SCIENCE AND ENGINEERING

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BETA

Free as in speech and our awesome BBQs.

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ANNOUNCEMENT

What is β eta?

Welcome to our Open Day edition of β eta, the student-run newsletter by CSEsoc. This fortnightly newsletter contains reviews, opinions, and the general ramblings of our students. And

of course, as a newsletter, we also include upcoming events, summaries of news, and puzzles for your entertainment and pleasure. To give you a taste of what sorts of things we publish, here are some of the

best articles that have been published in β eta in 2013. We hope you enjoy them!

WEN DI LIM, BETA HEAD

OPINION

You know what really gets my bits in a bunch? Bad user interface design.

We've all seen it. We've all experienced it. But have you ever sat back and really thought about what it's done to you? Have you realised how much goddamn time you've wasted trying to wrestle with the mangled aftermath of an avid Java developer trying to write HTML and CSS? Have you noticed how much stress and frustration you've had to withstand because of a poorly thought out mess of buttons and text? If you haven't, allow me to enlighten you with a little taster.

Combo boxes without Autocomplete

"Please select your country". Thank the lord almighty that we live in Australia. I shed a tear for the poor bastards over in the US every time I have to fill one of these out. I imagine them giving their little index fingers a work-out as they race to the lower end of the list, only to find that they've overshot it because it scrolls 2.35 lines at a time, confusing their eyes by throwing letters everywhere.

Some websites "fix" this issue by having common countries at the top, but this is exactly why we have autocomplete - lots of options to choose from, why not take advantage of that big slab-like thing positioned just to the side of the mouse?

Rollover Menus

Edit -> Preferences -> Font S... - nope, rolled off the menu. Please try again.

Every time you have to navigate a drop down menu with more than one level of nesting it's like entering a little gauntlet. It's a sadistic game. Lead your mouse

through the maze of menu items to make your selection, but watch out, an endless abyss awaits you if you venture off the edge!

This is infamous in crappy websites and good websites alike, because it's oh so tempting and easy to implement this poorly. A common "fix" for this problem is to delay every roll-over/roll-out action by 1 second, giving you a chance to redeem yourself. But this wastes roughly 1 second of your precious time whenever you want to expand a menu. Every single time. Unless you click, but nobody does that.

The only place I've seen this done properly is in Amazon's department selector. Nested menus show up instantly on rollover, and as you move your mouse over to the next selection, it notices the direction your mouse is moving and keeps the menu open for you, even as you travel over no-man's land. I cried when I saw how beautiful a thing this was.

Download Time Estimations

So I'll admit that predicting the future often proves to be a difficult task. But I guess it's useful to know that this download will take about 30 minutes. No wait now an hour. Hang on, about 5 minutes. Wait no, 30 minutes again. I mean 10. I mean I give up, I'm going to have a nap and hope it's done when I awake.

The problem here is that the speed at which progress is made on your download or file copy or computation is jumping

all over the place, and practically every time estimator that I've ever seen makes an attempt to account for this that I can only describe as abysmal.

You know what Maths says when you want to make a useful statement about a randomly distributed variable? Maths says take a goddamn confidence interval. You can't be very sure that the download will take any time in particular, but you can make some assumptions and use some simple stats to say that you're about 90% sure your download will take between 15 minutes and 3 hours to finish. So you can have a 20 minute nap, wake up and see that it'll take another 5 - 10 minutes, and then eat some cheese while you patiently wait for the rest of your download. Bliss.

Conclusion

Maybe one day people will care about their user interfaces as much as they care about the efficiency of their backend C code or the beauty of their 4000 Java classes of 5 lines each. Maybe one day all forms will allow you to tab through them in a sensible order, all opening fields will autofocus, and hitting the enter key will always trigger the default action. Maybe one day. But until then we're going to have to suck it up and use interfaces that those selfish little developers made to be easier for themselves to create instead of easier for us to use.

TL;DR: Bad user interfaces are like Cityrail's trains. I only use them because I have to.

LUKE TSEKOURAS

TECH

Cubesats

When I say 'satellite', most people will think of a box in the sky sporting a large dish and a pair of photovoltaic wings. Others may think of the Hubble Space Telescope, Google Maps, or phone calls from boats. All will think of them as expensive - the domain of governments and large corporations. Historically, this has been the case, but within the past decade, things have started to change.

In the late 1990s, professors from Cal Poly and Stanford got together and came up with something amazing: a design containing all the subsystems of a satellite but small and cheap enough for a team of students to build, test, and operate. Of course, the technology of the time meant that they wouldn't be able to do much more than make a few basic measurements and beep but as they were teaching tools, this was OK.

The key to this breakthrough was standardisation. Each satellite would be shaped like a stack of at most three 10 by 10 by 10 centimetre cubes, weigh up to a kilogram, and be nestable into a P-POD, a tube with a spring in the bottom able to store these satellites during launch and spit them out afterward when in orbit.

The first six cubesats launched in 2003 aboard a reworked ICBM. More followed in 2005, and since then their relatively low cost and quick build times have led to ever increasing numbers taking to the skies. This year, 19 have already entered orbit with a further 62 planned for later in the year. In total, cubesats will make up nearly 25% of all satellites launched in 2013.

What makes cubesats marvellous is their versatility. Cubesat missions have

tracked ships, looked for earthquakes, hosted biological experiments, flown in formation, tested new technologies, broadcasted the Ecuadorian national anthem, and studied space weather. They have sported tethers, solar sails, and plasma thrusters. OSS-1 is an open-source artistic meditation on fantasy and reality, inviting ordinary people to connect with the heavens. STRaND-1 and PhoneSat 1.0 have Google Nexus Ones for brains.

Cubesats are even pioneering business models: ArduSat paid for itself through a Kickstarter campaign which gave pledgers the chance to take pictures using the onboard camera, broadcast messages, and run their own space-based experiments on the impressive range of system sensors. Future projects quite literally aim higher - there are plans to land cubesats on the moon and a plasma thruster capable of powering interplanetary, or even interstellar, missions is in the works.

Cubesats are creating an industry. GOMspace, Clyde Space, Pumpkin Inc, and Innovative Solutions in Space (ISIS) are all companies which sell cubesat structures, hardware and software to people who want to lighten their development load. Getting them to space is harder and more expensive, but ISIS, Nanosatellite Launch Services, and Spaceflight Services can arrange such things. Existing space institutions are getting into them in a big way. NASA in the USA and ESA in Europe both have programs through which universities can get their cubesats launched for free. Even UNSW is getting in on the action - we'll be launching UNSW-EC0 in 2015 as part of QB50; a mission which uses a cubesat constellation to study the lower

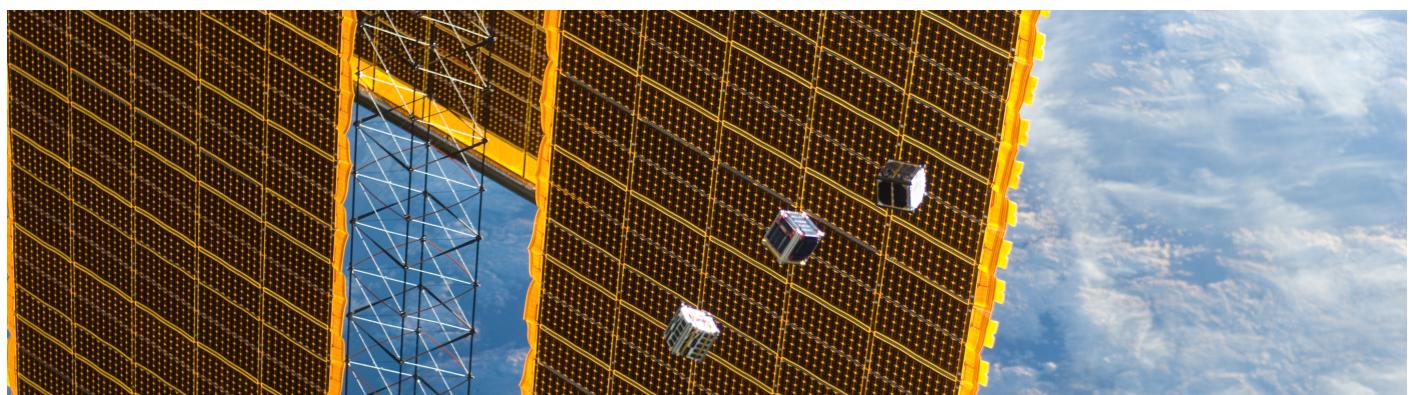
thermosphere.

Outside the box, Nanosatisfi, founded by the makers of ArduSat, hopes to put an entire constellation of satellites with a wide range of sensors into orbit, offering people outside of conventional space programs the chance to do anything their hardware can support in space. Skybox, a Silicon Valley based startup, plans to use a constellation of cheap, mass-produced nanosatellites to provide rapidly updated, high-quality satellite images. A space mining company, Deep Space Industries, is making extensive use of cubesats and their commercially available components in their planned missions. Their main competitor, Planetary Resources, whose Arkyd 100 space telescope was among the most successful projects in Kickstarter history, also plan to use cubesats as a way of testing their technology in space.

In ten years, these small boxes have gone from grad-student science projects to the cutting edge of the final frontier. They're spearheading a new age in space, where you don't have to be a major superpower or telecommunications powerhouse for the sky to no longer be your limit.

Incidentally, if you want to be part of the nanosatellite revolution, build your skills, get experience working on big projects, and have fun and make friends, come along to BLUEsat! We're a group of students who are building a satellite and are looking for new members. For more information, email info@bluesat.unsw.edu.au or drop by room 419 in the Electrical Engineering building after 10 am on Saturdays :)

ANNE GWYNNE-ROBSON



CSE SOCIETY & EVENTS

Message in a Bottle - First Year Camp

Once upon a time, in a land far away....

...there was a magical gathering of cartoon characters*. For hidden within a forest paradise, at the end of a misty not-so-yellow not-so-brick dirt road was a camp site known only as "Camp Wombaroo". Held within this camp was a weekend retreat that only those afflicted by the curse of the anti-social beast could attend. During that mystical weekend, the magical Gods of CSESoc would unite the accursed and smite their anti-social demons together. What follows is the account of one character from this magical weekend.

Day One.

I have been kidnapped. Whisked away from my safe, cosy, and dark basement to a place that can only be described as a primitive, technology-free hellhole. Trees, grass, dirt, sun, sky and wide open pastures, things I've only heard of in fairy tales, confront me wherever I turn. I may not survive this.

It seems my abduction was not unique. I was crammed into a room with 120 others, where our overlords thought it "fun" that we be forced to introduce ourselves to one another. It was as if they knew my aversion to, well people, and were actively trying to torment me.

At least we are fed. Dinner was infact quite devoid of poison. With ice cream included, it could almost be described as tasty.

This evening activity of trivia was far from trivial. Once again our overlords thought it "fun" to force us into teams with more strange people, only to barrage us with meaningless questions and a game that can only be described of as a concoction of Chinese Whispers and Charades. However, I did discover that if I laughed and acted as if I was having the "fun" they expected of me, it made them less interested in tormenting me more. Perhaps if I keep up this charade, I will secure an early release.

Our masters seek to assimilate us more. They "unveiled" the so-called CSESoc Camp T-Shirt for 2013.



Then took our photo to forever immortalise our torment on Facebook.

Reprise finally came in the early hours of the morning, but not after a round of "classical-good-aussie-culture-fun" sitting around a campfire and melting marshmallows. It's like I'm in a bad movie.

Day Two.

What creatures choose to be awake at this god-forsaken hour? Our masters of course. Not content by requiring consciousness at 8am, their method of invoking it with vuvuzelas is nothing short of cruel. Not even breakfast of bacon can make this hour sane.

I scarcely know what to think. Did I just enjoy myself? Was my last forced group, not a collection of people, but a "team" of "more-than-just-acquaintances"? There I was, once again in a tiny room, this time to be an architect of my very own Leaning Tower of Pisa constructed from newspaper. Yet by the end my "team" had constructed the tallest palace - one fit for a king. I had been a pirate, dueling on the high-seas with paper swords. I had been a pilot flying experimental aircraft. I even released a real laugh as our "masters" cheated with their tower, supporting it from the air vent of the same, now less prison-like, room I found myself in just hours before.

This afternoon I completed a noble quest - to rebuild my childhood friend SpongeBob

Squarepants. I scavenged for parts in a wild adventure. I traversed scorching minefield deserts. Discovered the lost babies of chocolate chickens. Solved mind-bewildering puzzles. I even suffered a sports injury in a fight with a broom (who was a more challenging opponent than it sounds). I carried the burden of my brethren as they fell under the weight of melted chocolate, or could no longer outrun the creepy blue smurf. This epic conquest was ultimately surmounted in deep, philosophical questions such as 'What should I glue where?', 'His tie isn't big enough' and 'WHY ARE THESE GOOGLY EYES SO DAMN SMALL?'.

Tonight there came forth such a gathering of magical cartoon characters, the likes of which have never been seen before. There was Mulan from China. Ash and Pikachu from Pallet Town. (*Editors note, this list goes on for a while*) ...The Little Mermaid from the depths of the freshest ocean. All took part in an evening full of dancing and singing that was, dare I say it, fun. We were even provided magical drinks spiced with the magical elixir ethanol. After many of these potions and much fun, I find it hard to write, so I shall retire this blog for the evening.

* By magical cartoon characters we actually mean CSE students in cunning disguises.

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CSE SOCIETY & EVENTS

Message in a Bottle - First Year Camp - contd.

Day Three.

I can hardly believe myself as I write this. But as I look around the campsite in the late morning hours, I see the faces to which I could attach the word “friend”. I feel almost sad to leave. Have I banished some anti-social demon that has plagued my life? I even happily partook in a final improvised Karaoke session in a vain attempt to portray the evidence of a weekend well spent by returning to civilisation with a croaky voice.

Perhaps something truly magical did happen here after all.

Editors Note: The following note was found scribbled on some paper during the final cleanup.

Thank you camp leaders for a truly awesome weekend which we will never forget. We lost our voices amongst screaming out the fun. The time and effort you put into this event is not unnoticed, and your aim to unite us succeeded. We

all have definitely met quite a few more people we would probably have never talked to otherwise. We took away a lot of experiences and lessons from the camp activities you have provided us. We will always wear your camp T-Shirts with pride and nostalgia. We will always be thankful! Stay fresh!

OLIVER TAN AND
LUCAS PICKUP

OPINION

Ubuntu for Tablet - More Nay than Yay

Fellow CSE student Damon Stacey got his hands on a release of Ubuntu for Tablet, but it did not go well...

Canonical has been working on developing a usable version of the Ubuntu Desktop OS for smart phones, tablets, the desktop and TVs.

And now, as of February 25th, Canonical have announced, and released what they call a “developer preview” specifically for the Google Galaxy Nexus, Nexus 4, Nexus 7 and Nexus 10. And honestly, this does not warrant the “developer preview” label. Here is what I have gleaned about the ‘best features of the OS’ after installing it on my Nexus 7.

Installation

I start here, because that’s where most will start from. Honestly, this was exceptionally easy. It only took me an hour or two, which was mostly just downloading the image and installer. It was really just a single command, assuming you have a full install of Ubuntu somewhere that has a USB port. The most complicated part is rooting your device, and if you’ve ever done this on android you know this isn’t a difficult task.

However, my story for installation didn’t end here.

On boot the user is taken to the lock screen. You can’t tap anything on the screen, and swiping around the screen does nothing.



You have 14 tweets (great, it’s somehow magically signed into somebody’s twitter account). It displays a correct battery level and that’s about it.

There is no hint as to what to do from here. I thought I had broken it during install at this point, and I reinstalled it twice before finding out how to even start using the device

I’m clearly biased now. I’ve spent an hour flashing my device again and again because the UI is so unintuitive (or perhaps I’m not smart enough). Which brings me to our first ‘feature’.

Use of screen edges for navigation between apps is inexplicably unintuitive.

Swiping in from the right is different to swiping to the left: swiping to the right cycles through the apps, but there is no way of cycling back. Sometimes it’s possible to swipe up from the bottom and reach a settings menu. The fact that this is advertised as a feature seems inappropriate given that this settings menu

only sometimes appears.

Swiping down from the top right brings up settings. However, this is dependant on where on the top right you swipe. The top left does nothing although it is labelled “search”.

Real Multitasking is not functional on the Nexus 7. Apparently it works on other devices, although from screenshots I’ve seen, it seems to work like Windows 8’s split programs in metro; that is to say: not very nicely.

Secure Multi-User Setup similarly does not work. Canonical claims it functions on non-Nexus 7 devices, but I cannot verify whether it is secure or if you can actually have multiple users, or if it’s like Android’s multi user setup, which is painful to setup and use.

Voice controlled HUD does not appear to be a feature at all. Canonical gives no indication that it shouldn’t work on the Nexus 7. I’d have to conclude that it probably hasn’t been implemented. Maybe we’ll see it in future releases...

Full Convergence is conspicuously absent...

Ubuntu uniquely supports a new category of convergence device - add a keyboard and mouse and your Ubuntu tablet becomes a full PC and thin client, with access to Windows apps over the

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OPINION

Ubuntu for Tablet - More Nay than Yay - contd.

standard protocols from Microsoft, Citrix, VMware and Wyse.”

This seems rather misleading. I still haven't seen an app for this at all, let alone a functional one.

Apps are non-functional.

Well, I will admit that after setting up the WiFi (a painful process during which the menu is inclined to disappear from time to time), the browser is capable of loading web pages in desktop view, though it lacks the ability to zoom. This also means that some browser based apps (Amazon, eBay, Facebook and Twitter) are functional. But beyond that we are left with apps that have no functionality whatsoever.

- Gmail opens what looks like the

browser but then redirects to the iTunes store to download the Gmail app and becomes completely unresponsive

- The calculator is an image of a calculator that doesn't even align with the screen.
- The music player app is also a picture, but it at least aligns with the screen
- The penguin ski game picture doesn't align with the screen.
- I haven't seen the weather app update - it is most likely also just a picture, though since I'm not familiar with the weather in LA it's possible that it's merely displaying

accurate, though incredibly static, weather conditions

Should I go on?

Conclusion All in all, I would consider giving Canonical praise for what was probably a lot of work...if the user interface didn't cause the screen to feel like it had a 500ms delay... and “swiping from the outside” was better thought through... and they had all the features they claim to have...and if I could browse the internet comfortably

For now, I think they were brave to release this at all. At best, I'd label it “early alpha”, or better yet, “proof of concept”.

DAMON STACEY

REVIEW

Bioshock Infinite Review [Spoilers!!!]

Firstly, major spoiler alert! DO NOT read the next page if you have not yet played the game all the way through.

It's been a long time since the August 2010 announcement of Bioshock Infinite, but it is finally here and playable!

Comparison with the original Bioshock

In terms of gameplay, one of the main differences is the combat system.

Instead of having multiple health packs and EVE Hypos, you now have a Halo-style shield and a single Vigor bar, meaning you have to really scrounge around the environment for recharges and to stay alive. This is not a game that rewards fast playthroughs.

The shield adds several interesting mechanics to the game, such as the increased need for cover (making the sniper rifle very useful). It also adds the rather unfortunate way that combat sometimes works - if a player has good cover, then they can win a fight without losing any health (due to the shield).

To fix this, and break the player's shield, the developers seem to have added a large number of enemies that appear right at the start of a fight. This can be overwhelming and chaotic, and while some people prefer this style of fighting, it has drawn criticism

from many players.

The “boss fights”, however, are exceedingly good and massively improved on the original Bioshock (which felt like the boss fight was blu-tacked on because they almost forgot). The variety of bosses is large, from the usual “man with an enormous gun” (Motorised Patriot) to enemies that require stealth and strategy (Boys of Silence).

Another rough parallel with the original game can be drawn between Gene Tonics and the new Infusions/Gear that can be found strewn around the map, in both obvious and hard-to-reach locations. One of the things different in Infinite is the choice you have - an Infusion can power up a shield, health or salt. There was more flexibility with gene tonics in the original game, but the gene tonics were less powerful than the gear in Bioshock Infinite. On balance, the new system is better, but making a larger variety of gear available would have been nice.

On the other hand, something completely unparalleled with the original game is the much-talked-about “Elizabeth” mechanism. That is, the idea of an AI that

can look after herself, and helps you out, is not something seen in the original game. That said, Irrational Games has done extremely well with this - Elizabeth is never annoying, the dialogue is believable, human and incredibly well voice-acted, and she adds another dimension to the game. A+++++ would buy again.

Travel is another improvement in Infinite - the original Bioshock had only walking as a mode of travel, excluding the train in between levels. The new sky-rails are enormously enjoyable and effective, and it is impossible to get tired of cavorting about on flying rails trying to head-shot people.

Hidden/cool stuff

No Bioshock Infinite rundown would be complete without a listing of the many easter eggs. There are some that almost everybody figured out, such as the band on the beach playing “Girls Just Wanna Have fun”, but there are also some really subtle easter eggs and nods to the original Bioshock Infinite, which will be listed here.

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REVIEW

Bioshock Infinite Review [Spoilers!!!] - contd.

One of the earliest is the radio in the food shop playing "Ain't She Sweet", released in 1927 (some 15 years after Bioshock Infinite is set). There are a host of other easter eggs in this vein, with random pieces of 1980s music like "Tainted Love", as well as some '60's Beach Boys. Possibly the most hidden of all the musical easter eggs is in the ambient noise - the low-pitched rumbling is actually a song, slowed down 10x, and overlaid over itself twice.

Out of all the easter eggs, the coolest is possibly not even in Infinite - in the original Bioshock, you can hear the Songbird die in the scene where Sander Cohen kills the person playing the piano. There is some speculation as to whether this one is real, but given Ken Levine's history with this sort of thing, it is unlikely to be an accident.

There are also a tonne of references to both the original game and real life, like the vending machines (listen closely to the things they say), and the characters at the start of the game talking about Saltonstall (a character in early previews who later got removed from the game). There is also a really neat reference to the game's IRL development, where you hear a lady talking about how "the latest version has been delayed three times!"

Plot explanation

People have been getting seriously confused by the plot, with questions like "Why do you have to drown?", "How can you also be Comstock?", and "Wtf just happened?". An explanation follows: in an alternate universe, Booker accepts the baptism at Wounded Knee and re-invents himself as Comstock. He meets Rosalind Lutece, and provides her with sufficient funds to continue her research into tears. Comstocks use of the tears leads to him seeing Columbia, and himself building it. However, he needs an heir to continue with his vision, but by this time his use of the tears has rendered him infertile.

So, he travels across to the universe where he refused the baptism, and finds a version of himself beleaguered by alcoholism and gambling debts. He offers for Booker to "bring us the girl and wipe away the debt", which Booker accepts. Booker immediately regrets his decision, and so the story begins (and ends).

As a result of all this, Booker agrees to let Elizabeth drown him before he can accept or reject the baptism, meaning he never turned into Comstock and Anna was never taken from him.

Criticisms

As much positive press and reviews as

the game has received, it is not perfect. Things that should have been improved include the AI's eyes, which are not even remotely realistic and always look around you rather than at you. The "audio log" idea is getting old as well, though it is still preferable to pausing the game to read some multi-page journal. It would be better if Irrational Games could find a more innovative way to convey the sub-stories in the game (Dishonored did this well with the heart).

Exploration punishes the player a bit too much - the likelihood of there being a bunch of enemies in, say, a public toilet is a bit too high and makes it feel like the player should not explore the world of Infinite, which is a shame given how richly detailed it is.

The game is also a bit too combat-heavy (not to mention the shield problem!), not leaving enough time for exploration and trying to understand the story - the player ends up missing some details because they were bookended by fights.

And in true Bioshock Infinite style, I'm going to leave the conclusion of this article to you, dear reader.

WILL KORTELAND

News in Brief

Not So Fast

The Victorian police have had to refund nearly 1000 drivers fined for speeding on Melbourne's Western Ring Road after a recent review found that signs indicating speed zone changes near a construction site were not adequately displayed. Perhaps the police should not be so quick to fine people in the future.

With a Bang

A Swedish father's inattention made the birth of his young daughter quite memorable. While rushing to the maternity ward, his wife in the passenger seat of their car started giving birth. Distracted, he drove his car into a ditch before rolling it four times. When the car came to rest, his wife and two other children were resting on the back seat

but he could not see his newborn child. Finally, he spotted her "under her mum" beneath the passenger seat. Emergency workers, alerted by passing motorists, drove the miraculously unhurt family to the hospital. He has since said he would just roll with the eventful birth.

Highwayman

A man has been arrested after stealing a road in northwestern Russia. He has confessed to using an industrial machine to dismantle the 82 reinforced concrete slabs which made up a road connecting the village of Parcheg to the Vychedga River. The slabs, worth a total of 200,000 rubles (\$6,100), were loaded onto three trucks which were later pulled over by police. The plan was solid, but the man is facing up to two years in jail for the crime.

Fruity Trademark

Apple Inc. is trying to trademark the term "startup" for a brand of services delivered through its retail stores. The chosen name suggests it is targeted towards novices but the trademark application also mentions data recovery and diagnostic services. This suggests the brand could be a label for all things delivered through the Genius Bar. Unsurprisingly, the startup industry isn't happy about this, with Australian site StartUpSmart labelling Apple as a "intellectual property bully". The application is in its early state so it will be a while before more juicy details will emerge.

PATRICK CHUNG

CSE SOCIETIES & EVENTS

CSESoc - Your Student Society

CSESoc is the principal representative body for computing students on campus - all CSE Students are automatically members. We're here to grow the school community and provide opportunities for all computing students to have fun and meet other students outside of your studies. To this end, we run weekly social and technical events throughout the year (and nearly all are free to attend!).

Our social events are an opportunity for you to meet other CSE students and take a break from studying. In the past we've run:

- Our famous free weekly BBQ
- Trivia Nights
- Poker Nights
- Movie Nights
- LAN Parties
- Cocktail Parties

Technical events allow you to learn about, practice and explore any technical interests outside of your studies with others who share them. These take the form of:

- Tech Talks (on anything from Google Maps to Tapit's NFC work to a Security Workshop from Deloitte)
- Android and iPhone Workshops



- Project teams (anyone can contribute to something CSESoc is working on)

We announce these events by email, so make sure you sign up to the 'soc-announce' mailing list during Lab 0 to receive them! Our events are open to all students, although if you're not a CSE student (enrolled in a CSE degree or course) and want the full benefits of membership, ask the exec about becoming an associate member.

There are plenty of opportunities to get involved with running events and activities; we're always looking for volunteers, and it's a great way to develop your leadership and teamwork skills.

There are a number of teams that you can volunteer for:

- Beta - Writes the publication you're reading now
- Publicity - Promotes our events by creating posters and running our social media

- Dev - Runs projects and code jams and maintains CSESoc's website/server
- Social - Organises and runs all of our social events
- Tech - Organises and runs the society's technical talks and workshops

Keep an eye out for our **First Year Camp (usually held in March, the 3rd week of semester)** - we encourage all new students (postgraduate coursework/research and undergraduate alike) to attend. First Year Camp is the best way to meet people in your courses (great for groupwork!) and the rest of CSE.

Most of all, we're here to help you settle in and have a great time at UNSW - we look forward to meeting all of you and helping you get the most out of this year!

CSESOC EXEC

This Edition of Beta is Sponsored By...

