

IAA Funding &  
Spin-out Formation

**scoop**

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(These notes roughly match what I said at the IAA Launch Event held on 30<sup>th</sup> May 2017. Please get in touch if you have any questions: james@scoopanalytics.com)

I'm James McMinn. I'm a PhD student in School of Computing Science, and one of the founders of spin-out called Scoop Analytics – and I'll explain what Scoop does in just a minute.

Scoop is the first spinout from the School of Computing Science in quite a number of years, and that's put us in a bit of a unique position, and it's been a enlightening couple of years.

I plan on talking about both the good, and the bad, what we got right and what we got wrong. It was really encouraging to hear about the changes to IAA because they look addresses many of the issues I'll speak about.



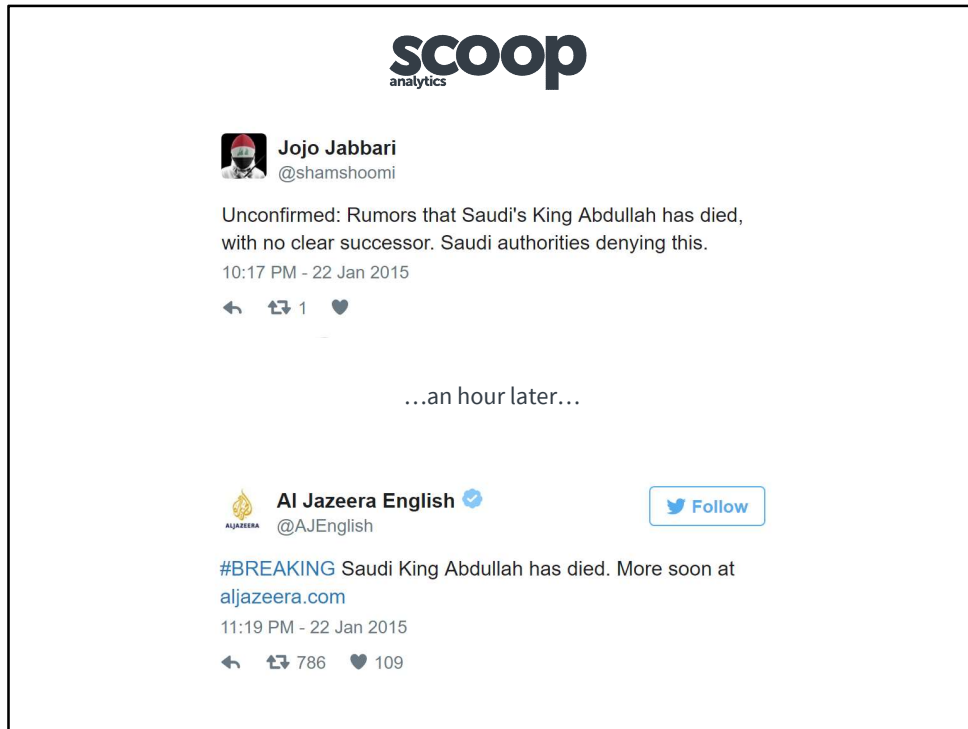
My PhD focused on real-time entity based event detection on social media.

What does that mean? Well, Twitter is famous for incidents like this.

Something unexpected happens – be in an earthquake, a terrorist attack, or in this case, a plane landing in the Hudson river.

The media don't expect it, and even though there are plenty of journalists in New York City, none of them could beat eye-witnesses with mobile phones who were sharing pictures in real-time on social media.

My research focused on developing machine learning techniques that can automatically detect and track breaking news just by what people post on social media.



At Scoop we use these machine learning algorithms, based on my research during my PhD, to find Tweets like this.

This is a Tweet by an Iraqi engineer reporting the unconfirmed death of the King of Saudi Arabia.

The first reports by the media of his death arrived over an hour after we'd picked up on it, and only after an official announcement on Saudi state TV.

Now, for a journalist or trader, this sort of lead is invaluable. The price of oil jumped by more than 2% when his death was announced, which doesn't happen often.

So at Scoop, we automatically alert journalists and traders to this sort of "pre-breaking" news.

# What did we use IAA for?

In total, we applied for 2 sets of funding, for a total of around £70,000, starting in January 2015, and that lasted for around 9 months.

What did we actually use the funding for?

We had an algorithm, and idea, and a lot of research experience that we could build it into something people could actually use – but how do we get there?

# What did we use IAA for?

People

What we didn't have was people.

People was the biggest expense by far – actually employing RAs and developers to build a system that was designed to work in a production environment.

Good technology is important, but actually building that into something that people can use, and they want to use, is just as important.

We had to build a UI, take several years of research and combine it into something that actually works – and taking academic code and turning it into something that's production ready is not an easy task.

As a startup with no funding, being able to do that base set of development and bring everything together through the University was invaluable, and it also meant that admin costs, office space, and things like pensions and insurance were taken care of – things that as an academic you don't really think too much about.

The funding also got us dedicated time from Jill Ramsay, the Schools' Business Development manager, and having someone available to us to offer advice, and who knows the different types of support available, and who has some experience outside of academia was so important, because as academics, we were in a bubble, and it's a lovely

bubble, but it's still a bubble – so that outside experience is simply invaluable.

# What did we use IAA for?

People

Travel / Conferences

Travel. We had an agreement with the Scotsman newspaper in place before we submitted the application, saying that we would work together and they would give us feedback and help us develop something that they would use. We eventually reached the same agreement with STV.

And whilst this was great, and it got us a lot of feedback and we could visit them often, the best feedback, and the most useful contacts were ones that we saw very rarely, but who worked on a much larger scale – and we had to travel quite some distance to meet them.

So, we managed to speak to people from the BBC, and Channel 4 news. I had a lovely, if a bit odd, meeting with the head of online at Channel 4 news, in John Snow's office while he was elsewhere getting makeup.

We went to the Global Editors Network, which is the largest news and media conference in the world, spoke to potential customers - made contacts - and showed them what we had. We still get a lot of feedback and have contacts that we speak to 2 years later.

Travelling, going to meet people, actually talking to the people who will use a bit of technology is probably the most important thing that we did with the funding. If you don't do that, what you're building quite possibly isn't what they need.

Obviously, there were other expenses, like hardware, but these were relatively small costs in comparison to people and travel.





What did we learn?

So, having done all that, what did we learn? Had we managed to build something that was useful?

## You *can* beat the bookies

I'm going to start this with, it's obviously not the only way we tested usefulness, but it's an interesting story, and no, we didn't use IAA money to place bets.

There's a famous phrase, "the bookies always win", and we decided to test that and prove to ourselves that we'd sufficiently developed the technology, and one way of beating the bookies is to know something before they do.

Every few months, a transfer window opens, and players can be transferred between football clubs, and it turns out you can place bets on who will move to which club.

So, Phil set up some alerts through the dashboard for anything about football players, and the results started flying in – everything from photos of players getting out of cars at another club's stadium, to accidental announcements by coaches.

But after a quite a few profitable bets for Phil...

But they'll still win.

BETVICTOR

Dear Mr Mcparlane,

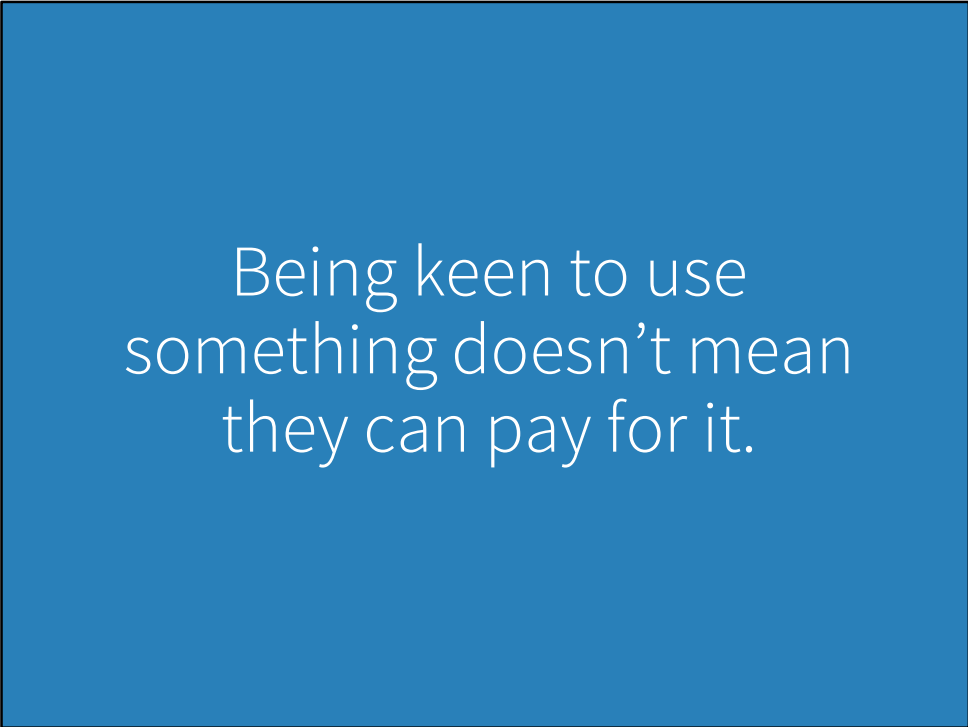
We are contacting you today to advise that a business decision has been taken by our Senior Traders and I must inform you that we will no longer accept sports bets from your account number:

Your account remains open and you can use the account for the Casino, Live Casino, Slots, Games and Poker. You are able to view all previous and outstanding sports bets.

Phil got this. He was banned. He'd won too much.

So, it turns out you can beat the bookies, but they'll still find a way to win.

What this really helped to do was show what we had built really did work, and could be used in an effective way, so the core technology was at a stage where it was "good enough" to go to market.



Being keen to use  
something doesn't mean  
they can pay for it.

We did get a lot, and I mean a lot, of interest for journalists.

There are plenty of smaller news organizations out there trying to report on global events, and they are really keen to get their hands on anything that gives them an advantage, but the fact is, they simply don't have money to pay for a service like Scoop.

To a significant degree, the big news organizations are the same. Money is very tight in journalism, and although we had a lot of people very keen to use it, getting them to actually pay for it is an entirely different matter.

This is fine if you're only focused on the academic side of things, and it was fantastic to work with them whilst developing the technology, because the technology is trying to beat them, but that doesn't work for a business.

So we had to move to finance and traders. We always knew that was where the real money was, and whilst it's a more difficult market to break into, they'll pay a lot for even a small advantage, and as a business, that's all that matters.



IP is super important.

Doing some of the development through the University has a lot of advantages, but it does complicate the IP assignment, and it's something that you have to be very careful of.

It was something that every investor we spoke to asked about, and it's almost certainly something that if we do go for investment, will have to be altered in some way.

But at the end of the day, actually coming to an agreement with the University on IP assignment and licencing was in everyone's interest, so it wasn't really a problem, but it is something that you have to try and stay on top of, because it will come up over, and over again.

## Follow up funding and support is available.

There is plenty of follow up funding and support available.

I already mentioned that, as a spinout, we can still draw down on people like Jill, but actually, there's tonnes of things like Converge Challenge, and Enterprise Campus that take nothing and give a lot of support.

They have pots of money you can use and apply for, and it makes life so much easier – you can avoid taking investment, especially if your costs are low, because a lot of the little things can be covered at effectively no cost to the business.

We applied for a Royal Society of Edinburgh fellowship for Phil, and he was awarded it.

That pays his wages for a year, and gives him a fairly large pot of money to use for effectively whatever the company needs.

Of course, there's always the option of going out and getting investment – the University has an agreement with the venture capitalists IP Group, and if the project fits, and they're always keen to at least talk to potential spinouts.

So, although it could become a full time job itself just applying for funding, there's good follow on funding and support available after IAA funding because it can be used to get

research into a state where it's ready to have an impact in the real world.



So, thanks for reading. I hope it was interesting and useful.

If you want to see Scoop in action, drop me an email and I can give you an account to play with: [james@scoopanalytics.com](mailto:james@scoopanalytics.com)