The Ring

Ring news

Comment from the Editor

Sitting in Cambridge, it's often easy to forget (though not forgivable!) that many Ring members are now living and working overseas.

Many came to Cambridge as international students (about 10% of successful applications are from outside the UK), so it's perhaps understandable that they would want to return home on graduation. However, there are also many who were born and bred in the UK but decided to up sticks and leave.

In this edition of The Ring, I decided on focus on those Ring members no longer living on this small but crowded island. Why had they decided to leave? Would they ever return — at least for longer than a holiday or a pint of beer?

I started by asking them what was the most important factor in deciding where to work after graduation.

For 46%, career was the number one factor, closely followed by family (33%) and work experience (21%). Despite the widespread belief (or is it popular myth?) that money is a motivating factor in career choice, no respondents cited finances as the most important factor.

In response to being asked when they made the decision to leave the UK, 33% commented that they had always planned to leave. Admittedly, the majority of these were international students who had always intended to return home. However, 21% made the decision while they were still at Cambridge, while 29% decided to leave after working in the UK for several years.

The percentage of those who had secured a job overseas before leaving Cambridge versus those who hadn't was pretty evenly matched (33% versus 37%).

When asked about the primary factors that made them think about working outside the UK, respondents fell into two main categories: those who found opportunities overseas far more attractive than those at home, and those who wanted a different cultural experience.

"I would never have contemplated leaving home. But there was no opportunity in industry over here — certainly not to put my research into practice. And then the Americans explained the concept of equity!"

"The opportunity wasn't available in the UK. The start–up scene overseas (US) is the best place to be."

"Got 11 boring UK offers, and 2 interesting USA ones."

"Culture. Yes, sorry to say it — having lived a year in Tokyo, I returned to the UK and found that cappuccino came as powder mixed with hot water. My simple lifestyle in Tokyo had been so much more relaxing and elegant than working as a lecturer in Scotland… it was time to leave."

"I wanted to expand my cultural exposure beyond the narrow (and narrowing) confines of Little Britain, and also take on the personal challenge of a permanent move abroad while I was still sufficiently free of obligations that I could afford to fail. After working on a number of shorter assignments in various European countries, I decided to make the permanent move to France."

Surprisingly, 42% of respondents answered "not sure" to the question "Would you ever return to work in the UK?" However, perhaps less surprisingly, the requirements for return were numerous and challenging. One Ring member listed that the needs of "family, location, traffic/congestion, tax climate, political climate, economic climate, ease of running a business, business opportunity" would need to be met.

Looking to the future, let's hope that — for UK Plc's sake — the increase in university tuition fees doesn't prompt our brightest and best to graduate and then pursue their futures abroad.

Events calendar

2011

February

Tuesday 1st, 6.30pm
London Ringlet Bar

March

Monday 7th, 7pm
Annual Dinner
Queens' College
Master of Ceremonies: Professor
Andy Hopper CBE
Guest speaker: Dr Mike Lynch
OBE, co–founder and CEO of
Autonomy Corporation
Admission by ticket only

April

Wednesday 6th, 6.30pm
London Ringlet Bar

June

Tuesday 7th, 6.30pm
London Ringlet Bar

August

Wednesday 3rd, 6.30pm
London Ringlet Bar

October

Wednesday 5th, 6.30pm
London Ringlet Bar

Ring events

Guests attending October's London roundtable met to discuss the question "does private equity kill innovation?"

Stephen Allott reports.

All 18 places were sold out for Alex King's roundtable event, as people came to discuss the impact of private equity ("PE") ownership on a company. What is myth and what is reality?

After reading Social and Political Sciences at Fitzwilliam, Alex joined Spectrum Strategy Consultants where he worked in telecoms deregulation. In March 2000 he joined Kennet Capital, a venture investor, prior to joining Hg in 2005, where he has been head of its TMT practice for the past two years. Hg has invested £400m equity in the European TMT sector in the past 15 months, and has a large £2 billion fund to invest. Hg's equity cheques range from £50 million to £150 million and, depending on whether bank debt is used, Hg will make investments in companies with an enterprise value in the range of £50 million to £500+ million. Not only does Hg invest in private owner-operated businesses and buy publicly quoted businesses (and takes them private), it also buys corporate divisions and helps them to become independent businesses with owner-managers.

The most popular perception is that PE investors are cost-cutting capitalists who load up businesses with debt. However, as far as Hg is concerned, this is a myth. Alex explained that his goal as a PE investor is to accelerate growth in businesses that already have a strong market position.

Hg's style is to look for well-established businesses with a strong franchise. These are typically clear market leaders in a niche, run by an entrepreneurial CEO, which are stable, generate cash and typically have 10–20% annual growth. Hg avoids businesses with high levels of "contingent revenues", such as perpetual software licences, where sales begin again each year to achieve the revenue target. Every Hg investment has had accelerated growth since Hg made its investment. In the case of those owner-operator businesses in which it has invested, Hg has found that, while the successful entrepreneurs take huge risks when they start their businesses, they become more fearful of losing what they have created as the business grows. This loss aversion often makes them more cautious than necessary — it's hard to be brave when all your wealth is tied up in one company. Hg has completed a

Attendees clockwise from left: Alastair Gourlay, Nigel Horne, Nicholas Fox, Alex King (guest speaker), David Cummings, Charlie Abrahams, Mark Richer, Nic Brisbourne, David Colver, Michael Nabarro, Sean Mullaney, John Brimacombe, Stephen Allot (chair), Edward Wielechowski, John Wyllie, Liam Goddard, (not shown) Lorenzo Wood

years! Alex needs to trust the people he invests in, but is happy to pay a full price for a high quality company.

Hg's style means it has historically focused on businesses concentrated in one country (such as Epyx in the UK, TeamSystem in Italy, or Visma in the Nordics) as opposed to UK tech businesses looking to conquer the US and the global market. Latterly however there have been some exceptions. For instance Achilles is a global firm successfully building out from the UK, and Hg is assessing its investment style in the light of the massively reduced distribution costs offered by Internet–only business models.

Alex obviously doesn't want to invest if the CEO simply wants to cash out and work less hard (which has only happened to Hg once in 25 years). It's a bad sign if the CEO is unsure whether to sell out to a trade buyer or partner with Hg. In general, if it's the former, the CEO wants out, if it's the latter they are looking to de–risk and then keep going.

Although management innovation will increase to drive growth, what about technical innovation and new product development? Hg is focused on the strength of the existing product franchise and maxim-

ising it. It is very supportive of longer range new product development and technical innovation, and always encourages CEOs to re-invest profits in "venture capital" projects that may not be productive for 2—3 years. Hg works on cashflow projections. Pre-revenue new product projects will not have cash flows to value at the moment of investment, but projects which deliver growth will increase the overall value of the business by say an additional 1–2× cashflow when it comes to exit.

Another myth is that founders lose control when they accept PE investment, and are told what to do. Hg keeps the founder entrepreneur and works with her/him. Unlike VC firms or large PE firms, Hg doesn't change the company leader. Indeed, Alex would rather work with the entrepreneur to sell the business than change the CEO, and he has successfully achieved a good exit when doing this. When it invests, Hg looks for a CEO with at least three years potential. With software companies, it prefers CEOs who started as software developers, in part because they are better at scaling the development team. Alex commented that it's hard to find good software CEOs in Europe because the successful ones, rather than continuing as repeat CEOs, tend to retire from line management after their first success.

Hg's day-to-day involvement can vary from being hands off to helping with hiring and making acquisitions if needed. Alex explained that he does two types of deals: controlled deals and minority deals. With the former he buys full control of the business, and this is reflected in the legal documents. While the founder will still be left to run the company, Hg has the final say. This contrasts with the minority deal where the legal documents are focused on negative protections, such as who can force a sale and what happens to the founder's equity if they leave. In this case Hg usually does not have the final say.

Another myth of PE is that the companies drown in debt. Alex said debt can be useful (to increase returns to equity) but it should only be used cautiously. Hg has completed many equity-only investments.

A further myth is that the PE firm will force staff redundancies. While some PE firms look to cut costs by reducing staff, Hg's style is to grow its portfolio so that people don't get laid off. As soon as the investment is made, a company meeting is held to brief the staff, remove their fears for the future and explain the growth plans. Good performers in the staff actually like hearing that they can take the company further.

PE investment is different from venture investment. Alex is looking for secure safe bets which can grow faster, where there is little risk of revenues failing and for a good return on every investment. Venture investors expect their portfolio to contain a mixture of winners and losers, but they expect the winners to more than offset the risky businesses that go wrong.

UK tech industry performance will improve if the successful people stay in the game and repeat their successes.

So the myth is that PE stifles innovation: it doesn't, at least not in the way practised by Hg. In reality, it drives an already strong business to achieve its full potential in its niche.

NOTICE

of the Annual General Meeting of the Cambridge Computer Lab Ring

Monday 7th March 2011

In LT2, William Gates Building

at 6.00pm

AGENDA

1. Minutes of the 2010 AGM
2. To receive and approve the financial statements
3. Preparation of financial statements
4. Chairman's Report
5. Any other business

Who's who

Youssef Bouguerra (PEM Dip98) is working in Southern Brazil where his is a technology director at Acxiom Brazil.

Peter Dushkin (Q Dip03) is a software consultant at Robert Half Technologies in Connecticut.

Matthew Grounds (EM BA00 PhD07) is a senior coder at Headstrong Games.

Andrew Jefferson (G MA09) is doing a PhD in pharmaceutical research at Imperial College, London. Andrew won the European Institute of Innovation and Technology (EIT) Climate Business Competition 2010.

Simon Liu (R BA07) is a GIS developer at ESRI UK.

Ben Mansell (Q MA99) has left Zeus and is now concentrating his coding efforts on the development of algorithm based betting strategies.

Philip Moore (JN MA00) and his twin Russell (K BA00) both work at Great East London Software, a company that produces bespoke software for financial institutions which was founded by Philip in 2002.

Diarmuid Ó Séaghdha (CC PhD09) is a research associate at the University of Cambridge Computer Laboratory, where he is working on an EPSRC–funded project "Lexical Acquisition of the Biomedical Domain".

Umar Saif (T PhD02) is an associate professor at the Department of Computer Science at LUMS School of Science and Engineering in Lahore, Pakistan.

Dr Saif was selected as a Young Global Leader by the World Economic Forum in 2010. He received the MIT Technovator Award in 2008; Mark Weiser Award at IEEE Percom'08; a Digital Inclusion Award from Microsoft Research in 2006; and the IDG CIO Technology Pioneer Award in 2008.

Dr Saif has co-founded four technology start-ups and is the founder of one of the first start-up incubators in Lahore.

Christopher Salt (F MA02) is a technical lead in risk and finance technology at RBS Global Banking and Markets.

Sunil Shah (F BA09) is currently training for the 12th Safaricom Marathon which will take place at the Lewa Wildlife Conservancy in Kenya, in June 2011. This fundraising event will host 1,000 runners from 20 countries.

Tomaz Sesek (R MA96) is a managing director at Resolutia in Slovenia.

Bjarne Stroustrup (CHU PhD79) has received the University of Aarhus's Rigmor og Carl Holst-Knudsens Videnskapspris, the University of Aarhus's oldest and most prestigious honour for contributions to science by a person associated with the University.

Iain Tuddenham (TH Dip94) works for Sprite Systems as a software consultant.

Adam Wagner (PET BA04), joining the list of Lab grads who have kept to two wheels, sent a report on his Oxford to Cambridge bike ride.

"Having moved back to Cambridge for a post-doc, I began cycling again. Initially, this was just a means of getting to work in the most expedient fashion. However, in time, I wanted more of a challenge and considered longer jaunts. Following some training runs in the Cambridgeshire countryside, some friends and I entered the Cambridge to London bike ride. The next obvious thing was to enter the Oxford to Cambridge bike ride. Thus, on a cold and wet morning in early October, I — along with fellow Cambridge graduates Hester Wells and Niall Taylor — caught a painfully early bus to Oxford. Then a 90-mile trek ensued, the aim being to get home for dinner and some well-earned whisky. Near the beginning of the course, I was reminded frequently of my distaste for inclines. Sadly, Niall's bike suffered mechanical failure at the 50-mile mark. While he cadged a lift back on the "bone wagon", Hester and I carried on to the finish — though Hester's triathlon training shone through as, more often than not, she was a speck in the distance. We were back in time for dinner, having raised £270 for the British Heart Foundation. A big thank you to our many kind donors."

Living *la belle vie*

Ian Jones has been living and working in France for the last 18 years. While he spent a number of years working in the UK after graduation, the idea of living abroad had always appealed to him.

TR: Ian, can you tell me a bit about your career on graduating?

IJ: I worked at Racal for a year doing software development using C on Unix systems, a venerable VAX 780 running BSD 4.2, and Apollo workstations. Then I moved back to Cambridge working for Torch Computers, on the graphical interface on a Unix kernel, writing system libraries for copy and paste, graphical system utilities and a paint application. Then I had a chance to work for a start-up in Winchester, writing expert systems using a LISP machine from Symbolics to schedule a manufacturing line and schedule container ship loading/unloading for an international shipping company. Finally I worked in London for a software services company, providing developer technical support and writing and presenting training courses for Apple UK. Then one day I had a call about a job near Paris!

TR: You worked first in the UK; what factors influenced your decision to leave?

IJ: I have always been interested in linguistics and other languages, so part of the attraction was to learn a foreign language, to experience another culture and working environment, to live in another country. The job — managing European IT for a start-up — looked like a great challenge. The company (Cisco Systems) grew very quickly. It was an excellent learning experience — making sure the infrastructure kept pace with the explosive growth of computer networking.

TR: Learning about the cultural differences between countries is part of what makes one's new life abroad exciting. What were the main differences between living in the UK and living in France? Did you have any early frustrations?

IJ: Despite many differences, and discounting the language element, living in France was not as different from living in the UK as I would have imagined — a lot closer than living in the US for example. Initially it was a challenge to find a place to live (apartments in Paris are like gold dust!), get electricity and a phone line, but the hardest part by far was dealing with the French administration. Getting a "Carte de séjour" (Work Permit) was a painful process lasting a few months, and

it takes a while before French people will reply to you in their native tongue when you address them with an obvious English accent. But, if you persist, they are delighted you are making the effort!

Certain things were very manual compared with the UK (anything administrative!), while others were far more advanced, such as chips on bank cards, and an on-line system — Minitel, which came way before the public access to the Internet — with which you could do many things like order cinema and train tickets, or work with your bank. A few years later, I co–founded an Internet service provider, and found that starting a company is expensive, administratively complex and very time consuming compared with the UK. It's been streamlined since, but it's still easier in the UK. Learning the right protocols with French in–laws is also much more subtle than at first glance!

> *At the time when I left the UK in 1992, though I feel it is still true today, an engineer in the UK was not accorded the same level of respect as in continental Europe.*

TR: Can you tell me about your current job? Do you think you would have had the same career opportunities had you stayed in the UK?

IJ: I now work as a pre–sales consultant for the TippingPoint security division of HP, designing network security solutions for large enterprises and service providers. This entails working closely with customers to establish trust and good working relationships, using network knowledge from Cisco and other companies to design solutions that meet the security, performance and resiliency needs of customers, and convincing them that our solutions are better than any competitive offerings. Security is a vast subject — it combines networking, operating systems, servers, applications and software development, and it's constantly evolving, so it's a challenge to keep pace with the change — but always interesting! The role involves a lot of travel, human communication — in English with colleagues in the US and Europe, and in

French with customers — and is a constant technical challenge with the requirement to learn, which I enjoy. I think I could have found the same role in the UK, without the language element. However I was very fortunate to have worked for a networking startup such as Cisco, and to be in France early enough to have founded an ISP before the major carriers dominated this domain.

TR: You are critical of the UK's attitude towards engineers. Why do you think engineers in Europe are accorded with greater respect than in the UK? Do you think the UK attitude is the result of poor understanding and communication, or are there other forces at work?

IJ: At the time when I left the UK in 1992, though I feel it is still true today, an engineer in the UK was not accorded the same level of respect as in continental Europe. Here in France, an engineer is treated on a par with a doctor, architect or barrister, while in the UK the title is often applied to technicians, or people who maintain heating systems. I recall the use of the word "techie" as being somewhat derisive and looked down upon. Why follow such a career when you could be a banker in the city? The breadth and depth of knowledge, the continual training, and the level of professionalism required to succeed in our industry is every bit as demanding as any other profession, and I believe communication could help raise awareness among the UK population. I remember in a pre-university year that my manager invited Monty Finniston to the company. Sir Monty had recently published his eponymous report on the importance of engineering for the future of the United Kingdom. He saw the problem in 1979, and although things have improved, there is still progress to be made!

TR: Is there anything that would prompt you to return to the UK?

IJ: With the Eurostar, London is only just over two hours away, so I can return to visit family, friends and have a good pint whenever I wish. If I were to leave France, it would be to experience another language or culture, rather than to return to England, and I have family and friends here now.

TR: What advice would you give someone looking to move and work abroad?

IJ: Do it! It's an eye-opening experience, if for no other reason than to understand the world from the perspective of another culture. Learning another language is both interesting and enjoyable — particularly if your destination does not have English as a first language. You can then appreciate the cinema, theatre and literature of that country as it was intended to be enjoyed. Even a stay of a few months is enough to broaden your perspective, and the adventure never stops. I've been living in France for over 18 years now, and it still feels like I'm on vacation!

Annual dinner 2011

on Monday March 7th
Guest speaker: Dr Mike Lynch OBE, FREng

Dr Lynch is co-founder and CEO of Autonomy Corporation. He holds a number of advisory and board roles in the venture capital industry and is currently a non-executive director of the BBC. He was named the Confederation of British Industry's Entrepreneur of the Year, the European Business Leaders Awards Innovator of the Year for pioneering new approaches to search and information processing technology and Management Today's Entrepreneur of the Year 2009.

Dr Lynch won an IEE Award for Outstanding Achievement and was awarded an OBE for Services to Enterprise. He is also a fellow of the Royal Academy of Engineering, a Lady Margaret Beaufort Fellow of Christ's College, Cambridge and a patron of The Prince's Trust.

Programme for the evening:
5pm   Lecture, Computer Laboratory
7pm   Drinks reception, Queens' College
7.30pm   Dinner
*   Guest speaker*
*   Presentation of Hall of Fame Awards 2011*

Master of Ceremonies: Professor Andy Hopper CBE, FREng FRS

Tickets cost £57. Payment can be made by cheque or BACS. Please contact jan.samols@cl.cam.ac.uk for further details.

Jon Pawley

Jon Pawley's year out in New Zealand has turned into a lifetime.

TR: Jon, can you tell me how you found your first job? Did you know what you wanted to do when you graduated or did you just stumble into something you thought would be interesting?

JP: As I recall, a Graduate Recruitment Fair was held by the Careers Service. One of the companies represented there appealed to me, as they had a division specialising in telecommunications. It was more of a case of, "well, that sounds really interesting, challenging, and is surely going to be a growth area," rather than me having an idea of the career I wanted. I was fortunate enough to receive confirmation of a job offer before graduating, which meant I could really relax during May Week!

TR: It must have been exciting doing a job you enjoyed with so much international travel, and so somewhat brave to pack it all in and take a year off in New Zealand. Were you at all worried about taking a break so early in your career?

JP: I had a complete blast in those three years after graduating! Living in London for the first time, having cash in my pocket, and meeting some really great people. The overseas travel was the cherry on the top! There I was, a fresh faced and somewhat naïve graduate, being sent overseas as my employer's representative at client sites. Then, three years into my nascent career, I realised that, unlike others, I had not had the "gap year" experience. Weekends sightseeing southern India, Johannesburg, DC and Singapore had whetted my appetite for further exploration. I had some money saved up from overtime payments and on–site allowances from the previous three years' work, and my employer granted me one year's leave without pay. I felt young, free and single. I wanted to branch out on my own. Was that brave? No, I don't think so — I had the security of knowing I had a job to go back to. I intended to return the UK and to return to my job.

TR: Being on holiday in a place and living there are worlds apart. What was it about New Zealand that prompted you to look for work there rather than returning to the UK?

JP: You are so right, there is a vast difference between a short holiday and really exploring a different country, and that was part of my reason for wanting to spend a year in New Zealand. I knew that I wouldn't cope with the chaos of India for a whole year. I knew that, as a limited Anglophone, I would struggle with *lingua franca* for a year. New Zealand appeared suitably similar to England for comfort, but sufficiently distant to pique challenges.

> *While the Internet surely helps with finding out about the general condition of the job market, and for making initial contact with recruitment agents, nothing beats face-to-face contact, even in the ever–connected "now".*

After about ten months away, I realised that I had only scratched the surface of what New Zealand had to offer. The countryside was fabulous, and New Zealanders were warm and welcoming. Long grey weeks of winter in London had been swapped for crisply cold, but sunny, winter days. Tiresome daily commutes on the Underground had been swapped for bike rides to the office. Cramped flats had been swapped for colonial-style weatherboard villas, each with its own archetypical quarter acre. After about ten months away, I realised that I wasn't ready to go back home. Not quite yet.

TR: How difficult was it to find employment, and how have things changed over the last ten years for those coming from overseas?

JP: Well, getting that first job in Christchurch was a chance in a million! I happened to be snowboarding one spring weekend, when I had been careless in applying sunscreen. The guy next to me on the chairlift quickly pegged me as a Pom — what was it, the sunburn, or the plummy

English accent? — and started chatting to me. I mentioned that I was looking for some work so I could stay in the country. He asked me what I did, and surprised me by telling me he was the sales manager for an IT company in Christchurch. That, for me, was the beginning of my belief that finding work comes easiest when you start meeting and talking to people. In New Zealand, everyone knows somebody who knows someone. Everyone has a cousin who was a Hobbit in *The Lord of the Rings*. While the Internet surely helps with finding out about the general condition of the job market and for making initial contact with recruitment agents, nothing beats face-to-face contact, even in the ever–connected "now". The job market is very much dependent on local conditions, and can fluctuate pretty quickly. Thankfully, due to New Zealanders' habit of going overseas themselves, there is a general need for skilled and competent workers, and a particular need for IT specialists. My advice to anyone looking for IT work overseas is to get your feet on the ground over there and start knocking on doors.

TR: Are you working in the same company that you started with? How do you think your career path would have differed had you stayed in the UK?

JP: No, I am not with the same company. I think my three-year stint with my first post–university job has been the longest I have spent with one employer. I am currently a self-employed contractor, working indirectly for a government department. My next challenge is to see if I can find home-based telecommuting work, as my family and I are moving to a rural corner of the South Island to build a new house on a section of land we recently bought.

It's so hard to tell how my career would have developed had I stayed in the UK. Britain offers one set of opportunities, while New Zealand offers a similar but different set. Although being 19,000km apart, the business demands in New Zealand are the same as in the UK: successful software engineers, and successful businesses, need to balance the four demands of features, quality, time, and cost.

Possibly I wouldn't have made some riskier decisions, and possibly I'd still be struggling to get the work–life balance just right.

TR: Now that you have a family and are settled in New Zealand, it would obviously be a big leap to return to the UK. However, is there anything that would prompt you to return? Is there anything that you miss?

JP: There is heaps that I miss from home. Prawn cocktail crisps and Monster Munch. Oh, and Wispas. Nothing beats UK TV — the BBC truly is incomparable. I miss the weekend papers and a leisurely pub lunch. I miss pootling through local villages on a Bank Holiday weekend. I miss the common, and often overlooked, cultural anchor points that you share with friends as you grow up: *Blue Peter*, *Red Dwarf* and so on. At the moment, there doesn't honestly look like there is

much that would entice me back to the UK. The Tory/LibDem coalition seems pretty intent on polarising British society between the wealthy and the unemployed. Looks like you're going to have a tough few years ahead of you.

TR: What advice would you give other young graduates thinking of emigrating?

JP: My basic advice is: just do it. Realise what you'll be giving up, and be realistic about timescales. It can easily take a couple of years to feel at home in a new town, let alone in a new country. I truly do believe you stand a far greater chance of landing a job if you are actually there, in front of employers. Get yourself over there, any way you can, even if you go on a holiday visa. If you find work, you'll find a way to stay. Finally, enjoy it!

TR: And perhaps most important of all, who do you support when England are playing the All Blacks?

JP: Well, I was very pleased to be English when I was sitting in a packed Aussie pub in Melbourne back in 2003… but that's long in the past. The All Blacks were shown around the paddock recently by the English at Twickenham, certainly showing greater cohesion and stamina than in past years. Next year, with the 2011 Rugby World Cup, it's going to be very interesting!

John is currently living in Christchurch, but will soon be moving to a more rural location near Golden Bay.

California dreamin'

Jennie Lees left Edinburgh for Silicon Valley. For many it's the place to be, where you can share your passion for technology. How does it differ from the UK tech scene and will she return home?

Silicon Valley is a place with an almost fabled reputation among those of us who think in chips and code — a hallowed land where the rivers run with venture capital money, where every square inch of soil has WiFi coverage and where your taxi driver, barista and waitress are all working on start-up ideas.

So, how does this compare with the UK's own Silicon Fen, or indeed any of its tech hubs?

Having lived in the Valley for a year, I am only just beginning to scratch the surface of the sociological, cultural, corporate and atmospheric differences between the two lands. If it were that easy to define exactly what makes Silicon Valley so successful, the magic formula would have been bottled and reproduced worldwide. However, there are some clear differences — both good and bad — to those of us looking at the Valley with proudly foreign eyes.

One of the biggest contrasts I've observed is simply that of attitude. Back home, when meeting strangers for the first time, one asks "What do you do?" Here it's "What does your start-up do?" There is a can–do attitude in the air, balanced with the casual acceptance of failure that is still rare in Britain. Of course, this has its downside. The infamous echo chamber effect, where would-be entrepreneurs hear nothing but praise for their idea from other would-be entrepreneurs, is rife.

Another difference is in the definition of startup, the blurred boundaries between hobby, hack and business, and the casual ease with which one can print "CEO" on business cards. You don't need a financial director or lawyer on retainer, or even to have incorporated — you don't need secret sauce or complicated technology that's taken years to research. This is true in the UK to some extent, but a large number of "proper" UK start-ups are those backed by solid technology IP; the more agile Web–based breed of company is a newer and rarer beast. In California, IP is not the core issue of late, with investors focusing on more bottom-line concerns such as customer acquisition and reten-

tion. This is partly a result of the overall shift towards cheaper, bootstrappable businesses and the rise of incubators such as Y Combinator who support hacker-founders, not PhDs and MBAs.

Incubators, investors and access to capital are obviously big issues if you're running a company, but the UK isn't too shabby in this regard. What it lacks is "smart money", serial entrepreneurs or super angels who have been successful themselves and now plough the profits from that success into rising stars. However in the UK, there are plenty of companies getting funded, and it's easier to get attention with a great start-up than among the noise in Silicon Valley. There are also several companies starting to give back to the community — for example, Red Gate Software in Cambridge — which is a very positive trend.

I feel the most important contrast between a computer science graduate in the UK versus one living in San Francisco is that of viewpoint.

Talking of community, there is a marked difference between living in an area with multiple technology-focused events every single night of the week, and living somewhere where the main technology event was monthly (I was in Edinburgh). However, while it's easy to meet technology people here in Silicon Valley, it's harder to make real connections. Moreover, while recruiting engineers for an as-yet-unknown company is markedly easier when there are plenty of start-up veterans, there are also plenty of talented people with their own companies who try to recruit you in return. Unless you invest a lot of time in the right events and meetup groups — not always a simple task — it's not as easy to feel part of the community as it is in the UK's various cities. However, despite the size of the Bay Area, this community doesn't feel fragmented, unlike cities an hour apart in the UK.

I feel the most important contrast between a computer science graduate in the UK versus one living in San Francisco is that of viewpoint. The former is looking for a comfortable full-time job and the possi-

bility of being headhunted by blue-chip companies with attractive bonus schemes, while having some fun projects on the go as a sideline; the latter has a startup.

So what makes Silicon Valley successful and what can the UK learn?

It's all in the mind. Silicon Valley has patented the mindset that it's OK to try and fail, but learn from the experience; that it's possible to make money from something that's "just" a Web site; and that solving one of your own problems could mean solving other people's too. It's the core concept that entrepreneurship isn't a course, or a society, but something you're probably doing already.

Our up-coming graduates and future engineers are already becoming more comfortable with risk. Perhaps all they need is a final push to execute on a dream rather than work for someone else the rest of their lives — whether that comes from role models, sympathetic financing or simply the freedom to hack and fail. I'm delighted to see stirrings of an ecosystem afoot in Cambridge, and elsewhere in the UK, that is supporting this mindset, and look forward to starting my next company in the midst of it all.

Jennie (Trinity BA03, MPhil05, PhD dropout — her word not mine. Ed) is currently an Associate Product Manager at Google after her start-up, headquartered in Edinburgh, ran out of money. She has been living in the Bay Area for a year and is trying to decide which start-up idea to pursue next.

Job Bulletin Board

November

Acunu
- *Support engineer*
- *Software engineer*
- *UI developer*

Google
- *Associate product manager*

Arista Networks
- *Software engineer*

Red Gate Software
- *User experience specialist*
- *Software engineer*
- *Test engineer*

Dushkin Digital Media
- *Software consultant — information taxonomy*

October

Progress Software (Apama)
- *Senior software engineers*
- *Principal software engineers*

Zeus
- *Test manager*
- *Graduate software engineer*

Visit the Job Bulletin Board in the Business and Professional section of the Ring Web site.

Hall of fame news

blinkx

Reporting its results for the six months to September 30th 2010, blinkx, the world's largest video search engine, announced that it had achieved profitability and positive operating cash flow, doubling revenue year-on-year. Said Suranga Chandratillake, founder and CEO of blinkx, "Our video search offering continues to draw an ever-larger global audience, through an ever-increasing number of distribution points — video streams in the US grew by 107% over the past year. We established the foundation to take blinkx to mobile users on a variety of devices and saw continued growth in searches from desktop applications. At the same time, the unique value proposition of our on-line video advertising platform, AdHoc, has attracted larger budgets from a growing roster of brand advertisers with the average size of video advertising deals up by 40% from the previous half".

DisplayLink

DisplayLink has been ranked the second fastest growing technology business in the UK, according to a report compiled by Deloitte.

Over the last five years, the company has grown its revenue by 9.041%, to earn second position in the Deloitte 2010 Technology Fast 50.

Governor Technology

Governor Technology has been commissioned by MSN UK to build an app for the forthcoming Windows Phone 7 Series operating system. The free app will deliver celebrity news, pictures and videos to customers on the move from MSN's own content network.

Hubdub

Hubdub has closed its news site to focus on its more successful spin-off, FanDuel, the on-line fantasy sports site that allows enthusiasts to win cash prizes the same day they play. In August 2010, FanDuel opened its inaugural FanDuel Fantasy Football Championship that will send 10 people to Las Vegas to vie for a top prize of US$25,000.

Jagex

Jagex Games Studio, the UK's largest independent games developer and publisher, won the Golden Joystick Award for the UK Developer of the Year, for the second year in a row.

Jagex beat off competition from Codemasters, EA Bright Light, Lionhead, Media Molecule, Rare Rockstar North, Rocksteady Studios, SCE London Studio and Team 17 to win the award following a record-breaking public vote of over 1.5 million gamers.

Kavanagh

Kavanagh, a market-leading specialist provider of consultancy services and IT infrastructure solutions for the data centre, has been acquired by SCC, the technology solutions provider brand of Europe's largest independent technology group, SCH.

Masabi

Masabi, the developer of mobile ticketing technology for the transport sector, has secured US$2 million from m8 Capital, the specialist mobile technology venture capital fund. The investment will be used to support commercial deployments of Masabi's mobile ticketing systems with UK rail companies and to expand operations into other geographies.

Sophos

Sophos has been named a finalist across nine SC Magazine's 2011 Reader Trust Choice categories.

Sophos Endpoint Security and Data Protection, Sophos SafeGuard Enterprise, Sophos Web Security and Control and Sophos Email Security and Data Protection were all named as premiere solutions in the Reader Trust Award competition, which honours best–in–class security products and services.

TouchType

TouchType Ltd, the London–based developer of the Fluency™ language engine and SwiftKey™ keyboard for Android™, has announced the successful closure of a US$1.25 million investment round.

TouchType's latest funding comes from a combination of institutional and angel network investors and will finance growth over the next 12–18 months, as the company works to accelerate product development and enhance its commercial opportunities.

Ubisense

Ubisense has been included in the Deloitte Technology Fast 50 for the third year running, while the company's CEO, Richard Green, was named as Ernst and Young Science and Technology Entrepreneur of the Year.

Zeus

Zeus has been selected to present at UP 2010 Cloud Conference.

The Zeus session, titled "Optimizing Performance in the Cloud", will discuss ways to create, manage and deliver a reliable on-line presence in the cloud, making applications fast, secure and available through the use of software-based traffic management solutions.

Don's diary

Theo Hong reports on the "Future of Social Networking" workshop.

Research in academia and industry often works best when the two can work in partnership with each other. Results from academia can be incorporated into commercial products and help set a longer-term agenda, while industry can provide real-world information on users and deployments, as well as help frame important questions for academia to answer.

So it was with the recent Computer Laboratory workshop on the future of social networking, organised as part of the EU–funded SocialNets project. The event was held in the immaculate surroundings of the Møller Centre at Churchill College, and drew over 100 attendees from both academia and industry, as well as the non-profit and public sectors.

Professor Jon Crowcroft opened the proceedings by posing two questions from academia to industry. First, what are the things that academics should be looking at but aren't? Second, and perhaps more importantly, what are the things that academics should stop looking at because industry is already doing them?

To try to answer these questions, a pair of talks from corporate research labs looked at social recommendations. Sharad Goel from Yahoo! Research showed that information about your friends' shopping at a department store, or joining a fantasy football league, could help identify the people most likely to participate in these activities, while Jurgen Van Gael demonstrated Microsoft FUSE Lab's Project Emporia, a personalised news recommender that shows you current articles you might like, based on trending twitter topics.

Complementing the research labs were a trio of presentations from local startups. Andrea LaRocca spoke about Rafi.ki, a social network aimed at connecting schoolchildren around the world. Their students have an insatiable hunger for making friends internationally, with over half connecting to fellow students in multiple countries and nearly all continuing to use Rafi.ki even outside school. The killer application is chat: I guess children everywhere want to gossip away with their friends. It does have a strong effect in motivating the most disen-

gaged students to get involved in learning, however. Andrew Scott of Rummble decried the one-dimensional nature of rating systems — if one person gives a restaurant five stars for food, but another gives it one star for price, is that a three–star restaurant? He asserted that the best recommendations come from people who are similar to you, not necessarily from your friends. Finally, Richard Millington from FeverBee boldly stated that most online communities fail (and expensively, too). In short, throwing money at Web sites for Mercedes Benz owners or Walmart shoppers doesn't build actual communities. Instead, you need to develop a concept that people really care about, and have the patience to build slowly from a committed core group. Important unanswered questions are what the optimal size of an on-line community is and how to keep participation levels high as groups grow.

In keeping with the social networking theme of the workshop, the presentations were accompanied by a real-time Twitter stream under the hashtag #socialnets_ws, and a group liveblog. Tweets flowed freely: "Rafi.ki brings the social network into the classroom. I wonder whether kids will just prefer 'making dramas' on Facebook." "I'm considering making a fb account for my mum. Time to strengthen family links!" And: "Can I haz #dataware?"

Meanwhile, the organisers conducted their own social networking experiment by starting a rumour that Google was going to open a research facility in Cambridge. By logging Bluetooth connections between the attendees' phones, they hoped to track the spread of the rumour in the coffee break.

The most hotly-anticipated talk was given by Richard Allan, Facebook's Director of Policy in Europe (and incidentally Nick Clegg's predecessor as Liberal Democrat MP for Sheffield Hallam). Despite extreme technical difficulties which resulted in him having to read his notes from a slowly strobing laptop screen, he gave an assured, wide-ranging talk on the issues that Facebook needs to address for the future. The growing tendency to access the site through a mobile, especially in developing markets, makes it difficult to serve ads — new business models based on relationships with carriers may be needed.

Facebook's application platform has drawn huge audiences, particularly for games, but also sparked criticism for its terms of service. The site continues a drive for integration with other Web sites (the Like button), location services (Places), mobile apps, search, and just about everything else. But do we really want Facebook integrated into our TV sets? Allan spoke of the tension between asking for consent and not wanting the friction of constant explicit clicking to disrupt the user experience. Finally, enforcing real identities has always set Facebook apart, but users are constantly pushing the boundaries to express their own social identities. For example, users in the Middle East often have two profiles, one male and one female, in order to conform to religious norms on gender segregation. A trend among some children is to use family relationship tags like "mother" and "father" to reflect their friendships with each other. Like the politician he used to be, Allan deftly handled questions about privacy and cyber-bullying. He would have been a credit at Prime Minister's Questions.

Privacy was a theme that came out strongly in many of the questions throughout the day. One vigorous defender of privacy was Balach- ander Krishnamurthy from AT&T Research, a colourful figure known as "Bala" to all. Bala was certainly consistent in his views, adamantly refusing to sign up to any social networking sites. He sparked laughter when he noted that you had to have a Google account to post to the workshop's blog, and asked an intermediary to post his comments for him.

By the end of the day, we had all made a few more social links of our own, and retired to the roof terrace for a well–deserved glass of champagne. Congratulations to the organisers for a job well done!

Theodore Hong did his BA in physics at Harvard University, and his PhD in computer science at Imperial College London. He is currently working as a postdoc on the EU–funded SocialNets project.

You can contact him at theodore.hong@cl.cam.ac.uk

Computer Laboratory news

It was with great sadness that the Computer Laboratory announced the death of Sir Maurice Wilkes on November 29th 2010.

Sir Maurice, 97, one of the pioneers of British Computing, was Head of Department from 1946 until 1980.

His contributions have been immense and long-lasting, and he will be sorely missed.

Stan Kelly-Bootle (Dip 1954), a student of Sir Maurice, offers a tribute:

I was one of the fortunate first trio of Cambridge mathematics graduates to benefit from Maurice Wilkes' pioneering genius, not only in launching the EDSAC, but in devising the world's first postgraduate computer science diploma. Indeed, back in 1953 the term "computer science" had not yet emerged, and the course suffered from the rather arcane mouthful, "Diploma in Numerical Analysis and Automatic Computing".

The emphasis on Numerical Analysis was important. These days, many computer users will accept whatever numbers are churned out by their PCs without prior concern for estimated errors. We were equipped with heavy metal, multi–barrelled Brunsviga calculators, trained to be aware of what our sums were doing — close up — before we ran the program (or programme as it then was).

No obituary can capture the shock his students feel at his departure. His longevity somehow seemed inviolate as he continued so actively year after year, outliving whole generations of EDSAC alumni.

Nor is it easy to do justice to Maurice Wilkes, the man. He had a wry, restrained sense of humour that can only be described, inadequately, as English. It is present in his memoirs and even in his technical writings. Happily it also survives in videos of EDSAC reunions and anniversary celebrations. One example from many: he relates the story of an early EDSAC demonstration arranged at short notice. The program chosen to dazzle the non–technical ministerial visitors was a Random Number Generator, meaning, of course, that judging its accuracy and performance was far from trivial even for experts. Added insurance came from a generous wine service.

As the years rolled by, and the number of EDSAC alumni multiplied on the faces of the world's best campuses and IT corporations, Maurice Wilkes managed wonderfully to keep in touch with the diaspora, a veritable "Who's Who" of computerdom. In the late 70s, some thirty of us welcomed him to a reunion in Silicon Valley organized by Unix guru and EDSAC graduate Steve Bourne. The tradition continues with regular reunions of members of the Cambridge Computer Lab Ring via its own magazine, *The Ring*.

Parting glasses are being lifted worldwide. Bjarne Stroustrup (inventor of C++ and yet another of Wilkes' notable protégés) interrupted his lecture at Texas A&M University. His theme was "Giants walked in the world, then!"

The 50s were strange and heroic times at the Maths Lab, coaxing the huge, temperamental beast to produce results without any of the mollycoddling high-level programming aids available today. The main "fast" memory was ultrasonic waves traversing tanks of mercury. We had only 1K (1024) 18–bit words; at the time, that seemed plenty. Wilkes and his fine team, including David Wheeler and Sandy Douglas, worked miracles in squeezing performance from EDSAC's limited hardware, most notably by inventing the "floating" subroutine, whereby libraries of complex programs on pre–punched paper tapes could be spliced into our own program tapes.

Awards and honours

Lab PhD, Magnus Myreen, has won the BCS Distinguished Dissertation competition 2010 for *Formal verification of machine–code programs*.

Runners–up were Computer Lab PhDs Tom Cashman and Alexey Gotsman.

Needless to say, it is very unusual for one institution to have the three top–placed dissertations.

PhD student, Sherif Akoush, has won the best student paper award at the 18th Annual Meeting of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunications Systems.

Lab student, Peter Calvert, has won the BCS Award for the Best Information Technology Student at The Science, Engineering & Technology (SET) Student of the Year Awards.

Peter has now started a PhD at the Lab, supervised by Professor Alan Mycroft.

women@CL

Cecily Morrison (pictured with Shazia Afzal) reports on women@CL, the network for women in computing

women@CL, sponsored by Google and Microsoft Research, is a network of female computer scientists that supports talented women in computer science, and aims to help these women make informed decisions about their career paths in computer science at each major decision point. In my five years at the Computer Lab, women@CL has been both a group which enables us to learn the ropes, and a fertile ground on which to grow novel collaborations and projects.

I don't know my research topic, should I worry? What exams should I take? How can I learn all this stuff? I want to do something in the sensor systems, who's a good supervisor? Can I do meaningful research or should I start an NGO? These are just a few of the questions that I fielded at the recent women@CL event that welcomed new undergraduate and post-graduate students to the Lab. They were the same kind of questions that I asked when I started as a Diploma student, and then as a PhD student, and then again when I was deciding whether to do a postdoc, or go and live on a Greek island away from all the frustrations of trying to get one's ideas to take root. Fortunately, another women@CL member pointed out that good ideas can have an impact if you just stick with them. So, now I'm a postdoc researcher.

Many of these good ideas came from discussions over dinner or cake at a women@CL event. To address the low number of women entering undergraduate computer science, we decided to train ourselves in public communication and go to schools to engage women in computer science. Another conversation led to a joint research paper on new perspectives in affective computing. A recent dinner with this diverse group of women focused on the topic of health systems in different countries, and has sowed the seeds for developing a research project on health technologies in Asia.

Women entering computer science can find it difficult to find mentors who can encourage and provide examples of what is possible. Women@CL is a way that students can do this for themselves.

The purpose of the women@CL network is to put in place a positive action programme for women in computing research, with a particular focus on interdisciplinary research, leadership and enterprise. We focus on establishing a model that is sustainable and replicable in any department within a complex institution.

Our programme consists of a variety of local activities such as women@CL lunch talks that provide role models to our students and early career women, and the Big Sister Little Sister initiative which enables regular peer mentoring.

To find out more about women@CL, or for more information about how you can sponsor this network, please visit our Web site: http://www.cl.cam.ac.uk/women/ or contact Mateja Jamnik, mj201@cl.cam.ac.uk or Jennifer Underhill, jcu21@cl.cam.ac.uk.