The Ring

Ring news

Annual dinner

We are delighted to announce that Professor Sir Maurice Wilkes will be the guest speaker at this year's annual dinner.

We hope you'll be able to join us at The Ring's annual dinner on March 31st 2008.

To celebrate the 70th anniversary of the Lab's foundation, in 1937, as the Mathematical Laboratory, the Ring is delighted to have Sir Maurice Wilkes as guest speaker.

The dinner will also serve as a fitting occasion on which to celebrate Sir Maurice's receipt of the IEEE Computer Society 60th Anniversary award for seminal contributions to the discipline of computing. The one-time award honours an individual or individuals who have been responsible for one of the most fundamental and important computer science and engineering contributions over the past century.

So, please do join us at Queens' College on March 31st. The reception and dinner will be preceded by a lecture in the Computer Laboratory at 5pm.

Tickets for the dinner cost £53 and can be obtained from the Ring office or by returning the invitation form included with your copy of the *The Ring*.

Events calendar

2008

January

Wednesday 23rd, 18:30
Cambridge Ringlet bar
The Eagle pub, 8 Bene't Street

February

Thursday 7th, 18:30
London Ringlet Bar

March

Monday 31st, 19:00
Ring annual dinner
Queens' College, Cambridge
Guest: Sir Maurice Wilkes
Reception 19:00; dinner 19:30
Admission by ticket only

April

Thursday 3rd, 18:30
London Ringlet Bar

May

Date TBA
Roundtable discussion event
Admission by ticket only

June

Thursday 5th, 18:30
London Ringlet Bar

NOTICE
of the Annual General Meeting of the Cambridge Computer Lab Ring

Monday 31st March 2008
In LT1, William Gates Building
at 6.00 pm

AGENDA

1. Minutes of 2007 AGM
2. To receive and approve the audited financial statements
3. Council Membership
    • Retirements of appointed members
    • Nominations for Council membership
    • Elections to the Council
4. Re-appointment of Auditors
5. Chairman's Report
6. Any other business

Hall of Fame Awards 2008: final call for nominations

Let us have your nominations by January 31st 2008.

The 2008 Hall of Fame Awards, honouring the achievements of Ring members, will be announced at the annual dinner on March 31st.

The date for final submissions is January 31st so don't forget to submit your entries.

There are three categories for the 2008 Awards:

- **Company of the Year**, open to all Hall of Fame companies.

- **New Product of the Year**, open to all Hall of Fame companies

- **Publication of the Year**, awarded to the most significant peer-reviewed paper by a Ring member or Lab member published in calendar year 2007.

For the first two awards, please note that the company must be a member of the Ring Hall of Fame, as shown on the Lab Ring Web site. If a company is eligible for the Hall of Fame but not currently listed, please contact the Ring office to ensure that it is added.

For the New Product of the Year award, the product concerned must have been (or is planned to be) released commercially in the calendar year 2007, and principally developed by the company itself. The product must be hardware, software, licensable technology, or a service.

Please send all nominations to jan. samols@cl.cam.ac.uk. Please give reasons for your nominations.

The schools visit programme needs you

You can help to boost applications to read computer science at Cambridge.

The success of the Computer Laboratory's November recruitment fair clearly demonstrated the huge demand for the Lab's Computer Science students. 55 companies, including some of the top names in the IT, communications and financial worlds took part, and several companies were turned away due to lack of space. However, demand for Cambridge's Computer Scientists far exceeds supply and the Lab desperately needs more applicants for its courses.

Applications have fallen dramatically since the start of the decade. In 2000, 500 students applied and 100 were accepted. Last year, 210 applied and 70 were accepted.

The Computer Lab is launching a campaign to encourage more bright pupils to consider

Computer Science and, in this vein, would be delighted if Ring members were to visit their old schools, or local schools, to talk to pupils about the opportunity to read Computer Science at Cambridge.

To help you, Dr Neil Dodgson has produced a number of slides so you can cover Cambridge as well as talk about your own experiences. The slides are on the Ring's Web site. Just go to the Volunteering link and click on Schools Visit Programme. If you would like a hard copy, please contact the Ring office.

Please also let us know which school you are visiting so that we can report back to the Computer Laboratory.

Leaders sought for seats on the Ring Governing Council

Members seeking a leadership role in the Association are invited to stand for election to the one place on the Ring Governing Council which will become vacant at the forthcoming AGM.

If you would like to be part of the leadership team building the Ring and have a particular area where you feel you could contribute, this is an ideal opportunity to get involved.

The Ring Governing Council is chaired by Professor Andy Hopper and meets four times per year. Individual Council Members can chair Council sub-committees in their areas of interest.

Candidates for election may wish to submit their names to the Governing Council for consideration as recommended candidates. Please include a statement to support your candidacy. Applications for recommended candidate places must be received by the Director General by 31st January 2008 to allow consideration of the applications by the Council and subsequent circulation of the details of the recommended candidates to the membership.

Alternatively, candidates for election may be proposed and seconded at the AGM itself.

All candidates, recommended and otherwise, are then voted on at the AGM which this year takes place on 31st March 2008 in Cambridge.

Elected Council Members serve a three-year term.

To put yourself forward for the Ring Governing Council, please contact Jan Samols.

Who's who

Boris Dragovic (JN PhD06) is Area Head, ICT Security R&D at CREATE-NET in Trento, Italy.

Peter Dushkin (Q Dip03) is Custom Applications Engineer at VBrick Systems, Inc in Connecticut, USA.

Stephen Felderhof (CL BA98 Dip99) gained his PhD from Edinburgh University in 2003. He is now a Director at Lehman Brothers in London.

Samir Feroze (GIR Dip01) has had a busy year. He has celebrated the birth of his second son, his company VeriQual won contracts in South Africa and his Pakistan-based company launched a health information portal which is accessible at www.shifaa.pk. SHIFAA Pakistan will provide health care information freely to the public via the Web and a toll-free number. At present, the live part of the portal helps connect blood donors with those who need blood.

Paul Fellows (EM Dip82) is Chief Technology Officer at AlertMe.Com Ltd in Cambridge.

Ashish Gupta (CL Dip98) is a Senior Engineering Manager at iPolicy Networks in Noida, India.

Alistair Hancock (JN MA90) is CEO of Rubicon Software Group Plc, a company he founded in 1989, at the end of his second year at St. John's. Rubicon is a provider of smart decisioning and workflow automation software to niche markets within the UK financial services sector.

Mark Howard (CHU BA04) is a Senior Software Engineer at 1Spatial.

Xiaofeng Jiang (W BA06) is an Assistant Manager at Infocomm Development Authority of Singapore.

Adam Kirtley (CAI BA04) is working as an Analyst Programmer at KBC Financial Products.

Stuart McLellan (EM MPhil01) is Lead Software Architect at Spurkle Ltd, which provides online recruitment.

John O'Keeffe (GIR BA95) works at JP Morgan where he is a Vice President. John manages the development of JP Morgan's global trade processing system.

Andy Rawson (Q MA79) is a Director at First DBS Ltd, a company he founded in 1985.

Damian Reeves (CHU BA96) is still in the US but has moved from Zeus to Quantcast. Quantcast is the only open Internet ratings service. They provide advertisers with audience profiles for millions of Web sites and services.

Keith van Rijsbergen (PhD72) is Professor and leader of the Information Retrieval Group at the University of Glasgow.

Matthew Seigel (ED MPhil07) is working as a Project Engineer at Mecalc in South Africa.

Marc Sutton (JE BA01) is Managing Director at Codev Ltd, a software consultancy specialising in 3D graphics and data-driven Web sites.

Richard Watts (SE BA95 PhD01) is Managing Director of In-Silica, a company he founded in 2007. As well as doing design work and software consulting, In-Silica is developing a Web-based collaboration product.

Matthew Wiseman (T BA97 MPhil02) is now working at Google.

Citrix and XenSource

Hall of fame company XenSource, the leading provider of enterprise-class virtual infrastructure solutions built on the open-source Xen® hypervisor, was recently acquired by Citrix for $500 million in cash and stock.

The Ring spoke to key players on both sides of the deal, starting with Keith Turnbull, VP Citrix Systems. Keith is a graduate of Trinity College.

TR: Keith, for those readers who are not familiar with Citrix, can you tell me a bit about the company and its services?

KT: Citrix is the leader in application virtualisation and the only company to offer a comprehensive end-to-end infrastructure for application delivery that leverages server, application and desktop virtualisation to make the entire IT infrastructure far more flexible and dynamic.

Most IT organisations have taken an incremental approach to application delivery. There is widespread agreement that traditional approaches to application deployment are too static, too complex, and cost too much to maintain. This becomes painfully clear when businesses are faced with change. Citrix offers a new and different approach — Application Delivery Infrastructure — which gives IT a pragmatic, strategic solution to become an enabler of business change rather than a road block.

More than 200,000 organisations worldwide rely on Citrix to deliver any application to users anywhere with the best performance, highest security and lowest cost. Customers include 100% of the Fortune 100 companies and 99% of the Fortune Global 500, as well as hundreds of thousands of small businesses.

TR: What makes XenSource such an interesting business for Citrix?

KT: As a pioneer in the application virtualisation space, the acquisition moves Citrix into adjacent server and desktop virtualisation markets — expected by us to grow to nearly $5 billion over the next four years. By acquiring XenSource, Citrix is now the only company to offer organisations end-to-end application delivery infrastructure that leverages the method of application, desktop and service virtualisation best suited to the delivery of applications to any user. If we look at only the XenServer product, the opportunity is vast. In 2007, only 9% of new servers were virtualised according to IDC so it's clear that while it is a compelling technology, it's still very early days for the market and we're coming into it at the right time.

TR: On what basis do you target companies for acquisition?

KT: We've been on a mission to build the complete picture for an application delivery infrastructure, from the data centre to the desktop. We continually evaluate and identify the companies and technologies which can extend and improve our comprehensive solutions to match the needs of our customers. As a result, our customers' entire IT infrastructures are more flexible and dynamic. Of course in such a creative area such as Cambridge there are all sorts of interesting technologies being created and pioneered. So it is important to have very strong links through the Ring and other Computer Lab contacts so we can track these. One of the most important aspects we look for in any target company is not just great technology and terrific products but also excellent people and strong and visionary leadership. XenSource had all of the above.

> *In any target company we look not just for great technology but for excellent people and strong and visionary leadership*

TR: What are the risks associated with an acquisition? How has Citrix created a balance between acquisition and organic growth?

KT: In the case of XenSource, it presented an early emerging market opportunity. When we see a deal as highly strategic, the short team financial metrics tend to take a backseat to strategic importance. While we've gained valuable technology, XenSource has gained immediate access to Citrix's 5,000 channel partners. We're getting XenSource to market faster than it could do alone. By buying XenSource, Citrix has become the only vendor offering both data centre and desktop virtualisation software.

Our average growth over the past 4 years has been 24.4% each year — outstripping that of the rest of the market. 18% of that growth is organic. Our acquisition strategy has strengthened our application

delivery infrastructure solution and created the only end to end (data centre to desktop) virtualisation software available — we're certainly not opportunity-constrained right now.

TR: How does the acquisition of XenSource change the Citrix product line up?

KT: With the close of the XenSource acquisition, we announced the end-to-end virtualisation technology strategy which included two new product lines — Citrix XenServer and Citrix XenDesktop.

The new Citrix XenServer product line is a platform for managing server virtualisation in the data centre as a flexible aggregated pool of computing and storage resources. Based on the high-performance Xen virtualisation engine, Citrix XenServer combines server virtualisation capabilities with scalability, performance and ease-of-use. The new product line ranges from Citrix XenServer Express Edition, an easy-to-use single-server solution available for free download, to the more comprehensive Citrix XenServer Enterprise Edition (formerly XenEnterprise).

Citrix XenDesktop, scheduled to ship in the first half of 2008, will overcome the challenges of cost, complexity and user experience that have prevented virtual desktops from becoming a mainstream enterprise reality in the past. Citrix XenDesktop will be the industry's first comprehensive, fully integrated desktop delivery system, moving beyond the limitations of existing virtual desktop infrastructure (VDI) point solutions to ensure the simple, secure, fast delivery of Windows desktops to any office worker over any network. Citrix XenDesktop will combine a desktop delivery controller (based on Citrix Desktop Server with native ICA protocol support), Xen virtualisation infrastructure for hosting any number of virtual desktops in the data centre, and virtual desktop provisioning to stream a single desktop image on-demand to multiple virtual machines in the data centre (based on Citrix Provisioning Server).

TR:Why is the acquisition good for your customers?

KT: Virtualisation has become one of the most talked-about technologies in recent years because it breaks the "hard-coded" link between hardware and software, allowing individual computing components to be dynamically combined and reassembled for maximum efficiency and agility. Citrix has long been a provider of virtualisation technologies at the user tier of computing with products that deliver applications to end users with the best performance, security and cost savings. The XenSource acquisition allows Citrix to extend its use of virtualisation into the logic and data tier of applications, improving overall customer value and enhancing its position as the market leader in end-to-end application delivery infrastructure.

TR: Citrix is no stranger to acquisitions. Can we expect more in 2008?

KT: Citrix continues to research, develop and potentially acquire leading technologies that give the company a unique position in the market, solving the complete end-to-end application delivery challenge for companies of all sizes. For example, we announced the acquisition of QuickTree in September 2007 to address the security and performance challenges of XML and Web services. It has strengthened our end-to-end application delivery infrastructure by enabling it to incorporate more robust XML processing capabilities across the Citrix application networking product line, which includes Citrix NetScaler, Citrix WANScaler and Citrix Access Gateway and is focused on the acceleration, optimisation and secure accessibility of applications. Although we are growing in all high tech areas around the world , with such a strong product and research base in Cambridge it would be excellent of course to welcome more companies from Cambridge into the Citrix family!

Dr Ian Pratt is a co-founder of XenSource and a senior lecturer at the Computer Laboratory. Ian is a graduate of King's College.

TR: Ian, tell me a bit about XenSource? What were your goals at the time you started?

IP: XenSource originally started as a consultancy with Steve Hand, Christian Limpach, Keir Fraser and me. Then we started getting calls from banks and others who wanted to deploy Xen in large configurations. We realised there was a great opportunity and knew we had to move fast to be able to take advantage of it. Looking for VC funding in the UK was not easy as open source business models were not well

understood. By contrast, in the US a number of the top-tier VCs were very interested and we could basically take our pick of the bunch. We went with Sevin Rosen and Kleiner Perkins.

The whole path wasn't entirely smooth in the early days. We were trying to do development on two sites — in Cambridge and in Palo Alto in the US. It took a while to learn how to make cross-site development work. We also got seduced by the lure of a couple of huge deals with major banks, but the sales cycle dragged on and on and we lost focus

on the rest of the market. We decided that a new CEO would help us get back on track. We grew the Cambridge team rapidly, and ended up with one of the very best systems software engineering teams in the world. That's when things really took off.

It was hard to get venture capital funding in the UK as open-source business models were not well understood. In the US we could pick from a selection of the top tier VCs

XenSource has never been an easy business to build. Xen works best when built into the platform and sold as part of the server. That's a really tough position to get yourself into as you have to have a lot of credibility with the hardware vendors. We wanted to commoditise the hypervisor and then build interesting software on top of it, to take individual machines and then combine them into a resource pool and enable features like live relocation of running virtual machines, and high availability.

TR: How did you put the business together?

IP: The group was doing bits of consultancy. We had a lot of high-level contact with people in different hardware and operating system vendors and managed to get a lot of people aligned behind Xen as the *de facto* standard open source hypervisor. So when we thought about setting up a business it was to these contacts that we turned. Some of Xen's success was down to its position of neutrality, free from the control of any CPU, hardware or operating system vendor. It was clear that in building XenSource we'd need to maintain that neutrality, setting up as an independent entity and turning down funding from any one vendor.

TR: What were your time, scope and sise ambitions when you started? Did your growth orientation change over time?

IP: When we set up the company and went to the US to get the initial funding, we knew we had to move fast. It was a very different experience from the previous start-ups I was involved with where we had small engineering teams which grew organically. This time we knew we had to hire quickly. Our initial round of funding ($6 million) was expected to last long enough to allow us to see a clear view of the next stage. So we knew we had to build everything up very fast. I knew it would be explosive one way or another! Our aim was to build a big company and build it fast.

TR: When you looked for key people, what attributes did you seek?

IP: We didn't get it right initially. When we put the original management team together, let's say that visions were not aligned. During the first year we got through a number of engineering managers, and changed CEO. Getting funding in the US meant that we were doing a lot there. However, the people there didn't have as deep an understanding of virtualisation as the team in Cambridge. So, we made the decision to build the team up in Cambridge and we hired exceptionally good people. We now have three offices: Cambridge — the core engineering centre — Palo Alto and Redmond. The management team is spread between the three offices with me in Cambridge, the CEO in Palo Alto and others in Redmond. The team is awesome, no doubt as a result of having so many Cambridge graduates and post docs.

TR: How long was a typical working day / week when you started?

IP: It's been pretty crazy all the way through. I worked a twelve-hour day and then more when I got home plus good chunks of the weekend. But, it's been a lot of fun, a real rollercoaster ride.

TR: What were the pressures and crises of the early days?

I think the challenges of figuring out how to make the business model work, having strong open source components and building proprietary stuff on top. What we were doing was unusual, it hadn't been done a great deal. It feels quite threatening to have other companies picking up your open source software and shipping it, but when we really internalised the fact that we just weren't competing with these other vendors it became a lot easier. The key thing we worked out was the importance of being neutral, to go after the broad market, and that knowing more about Xen than anyone else was a big advantage.

TR: Did your need for control change as XenSource grew?

IP: I didn't have a particular issue with control. When we had the right management team in place I was happy with the decisions that we jointly made — other folks on the team have a lot more experience with sales and marketing than I do.

TR: Did you make assumptions when you first started that subsequently proved to be wrong?

IP: I think one of the toughest things we had to deal with was the fact that we weren't all in one place. We were a distributed company. It's funny because now that's a strength as we're better equipped to scale fast, and having folks in multiple time zones (including India) means that issues can get resolved quicker. However, in the early days things would have been much easier if we'd been in one office. It took time

to learn how to bootstrap new teams and divide up the work so that they could operate with the right balance of independence and close co-operation.

I learned about the importance of sales, the importance of personal connections and the importance of a network of contacts. Trying to do something without those is tough

TR: *Were there critical points when the business almost failed or when you found yourself at a critical crossroads?*

IP: The most critical time was when we changed the management team. At the end of the first year we ended up seduced by a few very big deals with large banks. They looked great and the management team had had experience of doing those types of sales. But it's very tough for start-ups to sell to banks because their sales cycle is very long and they hadn't entirely fixed in their own minds what they wanted to do. So, we just weren't getting signatures on the bottom line. The direction we were taking was moving further away from the original vision of getting Xen on every box. So, we felt that getting in a new management team with experience of getting software shipped on the box was going to get us back on track. One of the key things I learnt from this whole process was the importance of sales and marketing, the importance of personal connections, the importance of a network of contacts. Trying to do something without those is tough.

TR: *Did you have an exit strategy before you started?*

IP: When we started we believed we were going to be in for the long haul as an independent company, as there were very few companies that could acquire us without breaking our position of neutrality. Our

Open-source software is a great way for universities to get traction, to have an impact on projects and build a community around them

business started going crazy in Q2 this year. Everything was doubling every quarter. Based on that trajectory we were looking to IPO in Q1 2009. We had a number of big announcements over the summer about partnerships with large companies, we had signed big deals with hardware vendors and we thought we were on the path to a 2009 IPO. Then an offer came in from Citrix. They've built a great business out of being "Switzerland" between industry giants, so we could maintain our neutrality. We started talking to them and they had a good vision for what they wanted to do, we really liked the people and we thought that this was a great opportunity to fill in some of the areas

where we were missing critical mass, namely the reseller channel and marketing. We knew this would provide us with a fantastic opportunity to really compete with VMWare. It's a crazy market. 9% of servers are virtualised so there's a huge opportunity with perhaps 90% prime for virtualisation in the next 3–4 years. With the market growing so fast we're not really going for VMWare's customers but for the white space in the middle. That market is huge and Citrix provides the perfect channel. Being part of Citrix also means that we don't have to remain focused on Xen for servers. We can get into really interesting things like Xen for laptops and desktops. While we have done much of the hard work we didn't have plans to build it into the product. However, Citrix has enabled us to expand what we're doing because they have the resources. We'd love to see not only Xen on every server but Xen on every laptop and every mobile phone!

TR: *So what now?*

IP: Nothing really changes. I now have a boss but it's basically business as usual for the whole XenSource team. The Citrix folks know how to do acquisitions. They are letting us integrate at our own rate and are offering their services and help rather than trying to impose policies. I'm setting up collaborations with other groups but basically it's the same job. I'll still be travelling a lot but will be based in Cambridge.

I'll be leaving the Computer Lab at the end of the year. The Lab has been incredibly supportive the whole way through. Releasing open source software is a great way for universities to get traction with their research to have an impact on the real world and on other researchers. It's a great platform for academic research. I look forward to maintaining close contact with the Lab.

John Mannix

The Ring was delighted to talk to John Mannix, founder of Governor Technology, an independent software and project consultancy. John is a graduate of Corpus Christi College.

TR: John, can you tell me about your career up to the point of founding Governor Technology?

JM: I started out as a freelance programmer after leaving university, and picked up a lot of useful experience working for clients such as Pearson, the BBC, and later on Web agencies and other internet-related companies.

Back then the Web was only just starting to be taken seriously by business so I got a good grounding in early Web development technologies and saw the industry progress from simple Web pages and scripts in the early days through to the domination of complex Web-based applications and development tools now.

TR: What motivated you to start your own software consultancy? How did you evaluate the opportunity?

JM: I have always been self-employed so the software consultancy grew out of that, but the defining point in the development of the company came when an old friend of mine — Gilbert Hill, also from Corpus Christi — joined the company to become my business partner.

Gilbert and I had kept in touch since university. He had worked at Citigroup since graduation, and through our connection hired Governor Technology to do some consultancy work. He was really impressed by our work compared to some of the other technology companies he had worked with. We got talking about going into business together, and about six months later he came on board as business development director.

TR: How long did it take from first having the idea to the first day of business?

JM: The business evolved gradually out of my early freelance work so it didn't really happen in that way. I just started out with a conviction that I wanted to work for myself, and once I had built up an initial client base I could see there was a viable business there.

TR: Did you have any sales or marketing experience prior to starting Governor Technology?

JM: Gilbert coming on board was what really started to drive the sales growth of the company. He came from an e-business marketing background at Citigroup, and had the experience and contacts within a corporate environment to help generate sales in new areas and move the company to a new level. Since then revenues have doubled every year without sacrificing profits.

> *Contrary to popular belief, I wouldn't say the early days were more pressurised than now. If anything, the pressures have grown as the company has grown.*

TR: Tell me about the pressures of the early days.

JM: Contrary to popular belief, I wouldn't say the early days were more pressurised than now. If anything, the pressures have grown as the company has grown and become more complex to manage. In the early days, if we picked up a new client we would have time to celebrate!

But now sales have to happen day in, day out to sustain the business and cover our increased overheads. So while the things that excited us in the early days have become a fact of life, there is a great satisfaction in knowing that you have built up a company that employs talented people and that you are doing work for some of the best known brands on the planet like Microsoft and Saatchi & Saatchi.

TR: What were the most difficult problems as you began to grow?

JM: The most difficult thing for us has been growing and managing the workforce. The labour market in IT is very competitive, so in the

early days it was quite difficult for us to find the talented people we needed to help grow the company. That has got easier as the company has grown, and now our reputation precedes us we have become very good at attracting and retaining consistently good software developers, designers and managers — so much so that our clients now ask us to help resource their own teams!

TR: When you looked for key people, what attributes did you seek?

JM: I think the most important attributes are general intelligence and an enthusiasm for the role and the company. A lot of people place too much emphasis on experience, but someone who is bright and eager to learn can very quickly become as useful a member of the team as someone with years of experience.

TR: What have been the critical elements for success?

JM: Financially we have always been careful not to overextend ourselves; we have managed cash-flow very closely, and the company has always been self-financing. That has definitely helped us to avoid a lot of the pitfalls normally associated with starting and developing a business. But really there is no easy answer — we have had to work hard and make sacrifices over the last four or five years to reach the point we are at now, and there is still plenty more we want to do.

TR: If you had to do it over again, would you do it in the same way?

JM: With the benefit of hindsight, I think on balance we have made pretty good decisions along the way.

One thing we did very differently to a lot of other Internet-related companies that were founded in the same period was take a generalist approach rather than concentrate on a specific innovation. At the time that was seen as unusual, but I think we have proved it has been a successful strategy, and has had greater longevity than many of the gimmicky ideas that were commonplace at the time.

TR: Thank you.

Governor Technology is currently looking for talented .NET developers of all experience levels. For information about the roles available please visit www.governor.co.uk/jobs.

For more information about Governor Technology visit www.governor.co.uk.

Siân Turner

Moving into computing from a Natural Sciences degree at St. Catherine's College in 2003, recent graudate Siân Turner talks about how she has started a promising career at hall of fame company DisplayLink.

Like many Cambridge graduates I left university not knowing what I was going to do next. I had no job lined up and no real career plans. After spending a year working for a small on-line gaming company doing some analyst work and IT support, I decided to build on my Cambridge Natural Sciences degree with an MSc in Computer Science.

When I started job hunting again, I submitted my CV to the Cambridge Network careers section, which led to a three-week internship at Newnham Research (as it was then) during the following summer in a small team of software engineers. At the time, the company only employed about ten people. I thoroughly enjoyed my internship and learned a lot in a short time, mostly about the type of company I wanted to work in. The job I they offered me seemed was a risk as, being a start-up, there was no guarantee the company would have money beyond the next few months. However, the excitement that exuded from the employees of Newnham about the prospects for the technology was too hard to resist.

I started full time work at Newnham in September 2005. They had just moved into new, bigger office and already the company was growing fast with the first major commercial product in the last stages of development and an impending rebranding to become DisplayLink. I started out in the test team and soon began helping with bug fixing to get the software production-ready for the launch of the first product. From day one the atmosphere at DisplayLink was busy and exciting, and not much has changed!

DisplayLink have been very supportive of my extra-curricular activities, even sponsoring my hockey club, Cambridge City, which has helped us greatly in the big jump we have just made to playing in the English National League. The company is constantly trying to raise its local profile with aim of recruiting more people and also to create a company with values and a culture of which its employees are proud.

I have now spent two years in the software team working on several areas of the cod; more are joining the fun all the time. The work has been challenging and I have had to learn fast; from the start I was given more responsibility than I would have given to a graduate! As part of my development DisplayLink has provided many opportunities to go on training courses, many of which have been very useful for advancing my career. I am now in the position where for some areas of the technology I am considered the company expert. The small start-up company I joined now has offices in Palo Alto and Taipei and has around 70 employees of which I am now one of the longest serving!

Recently I have decided to take on a new challenge; I have moved from the software team to the Field Applications Engineering (FAE) team. FAEs are considered part of the Sales team and form the link between Sales and Engineering: we're the Sales people that understand the Engineers and attempt to translate between the two! We support customers during their initial designs, provide technical support at Sales meetings, do demonstrations all over the world, and assist customers once their products are out in the field.

As an FAE I am becoming increasingly well acquainted with airports. I have travelled to the US, Far East and Europe to visit customers, provide training and attending trade shows. FAEs must have the technical capability to debug the technology both on site as well as remotely, providing all the information possible to the Engineering team who then fix any issues we find. An important thing to learn as an FAE is how to communicate with a variety of people from different cultures — this is one of the more challenging aspects of the job. I remain involved in some aspects of Engineering as it is important for FAEs to understand what is happening in the future with our technology and what not to let the Sales team sell quite yet!

DisplayLink has been very supportive of my decision to move to the FAE team: despite being such a small company there are many opportunities for career progression. The last two years, the first of my career, have passed very quickly. I have learned and achieved a huge amount, something I don't believe I could have done in another company.

Hall of fame news

Bango

Bango, a global leader in the development of the mobile Web, has been named to the Econtent 100, an annual list which recognises the "best and the brightest digital content companies" across the globe.

Bango was also named "Best Billing Provider" at the Mobile Entertainment Awards.

blinkx

According to Internet measurement service Hitwise, blinkx.com has increased its market share of visits within the Entertainment-Multmedia category by 541% between January and October 2007, outperforming the growth of the industry. Moreover, Hitwise reported that blinkx.com recently surpassed Google Video in the UK with weekly market share of visits. In addition, third party reporting agency Compete.com recognised blinkx as September 2007's fastest growing video spot on the Web, with an increase of 188% in number of visitors.

Since its IPO in May 2007, strong demand for blinkx's patented search functionality has established blinkx as the gold standard in video search.

Codian

Codian, the award-winning developer of high-definition videoconferencing infrastructure products has been acquired by TANDBERG®, a leading global provider of telepresence, high definition videoconferencing and mobile video. The transaction, a combination of cash and stock, is valued at $270 million.

Cronto

Cronto has formed an exclusive strategic partnership with AP Technology, a leading provider of secure banking solutions. AP Technology will be integrating Cronto's Visual Signing technology for strong user authentication and transaction verification into its Keystone Authentication engine.

DisplayLink

DisplayLink has received $24m in a Series C venture capital round led by new investor DAG Ventures, with participation from existing investors Atlas Venture, Balderton Capital and DFJ Esprit.

The funds will be used to accelerate product development and revenue growth and to strengthen DisplayLink's leadership position in the rapidly accelerating network display market. To date, the company has raised a total of $51 million of capital.

Greenstreet Software

Greenstreet has launched a new Web site (www.PCArtAndCraft.com) aimed at hobbyists and Crafters who want to make personalised products using their PCs.

Jagex

Jagex, the on-line games developer, has appointed Geoff Iddison, the former European CEO of PayPal, as CEO. Iddison held the position of CEO of PayPal Europe Ltd from 2003, having originally led the first expansion of PayPal from its base in California. Mr Iddison joined eBay in 2000 from Christies Inc where he was COO. Mr Iddison will drive the continued growth of RuneScape and bring new on-line games to market.

Masabi

Masabi won the Security award for its EncryptME technology, the only certified mobile Java cryptography, at the IET's annual Innovation in Engineering Awards.

EncryptME technology is a 3KB Java code library providing end-to-end encryption on all Java-enabled mobile phones. Masabi is supplying the software for Chiltern Railways' trial of mobile phone train tickets using the Java security technology.

The judges said "EncryptME technology is truly innovative. Small, fast, easy to deploy and using certified algorithms, it has the potential to have a significant impact on both users and the market."

Questionmark

Questionmark has won the top eLearning Guild "Members' Choice" Award for its testing and assessment reporting capabilities. Questionmark was also recognized with two awards recognizing market share in testing and assessment tools used by business, government and educational organizations.

Rubicon Software

Rubicon Software Group Plc and Market Harborough Building Society (MHBS) have won the award for "Best Use of CRM technology" at the 2007 Financial Sector Technology Awards for the implementation of Accelerator, Rubicon's flagship CRM solution, throughout the Society's head office and branch network.

Rubicon Software and MHBS were also short listed for the "Best Use of IT in Retail Banking" Award.

StegoStik

StegoStik is currently seeking funding to follow an expansion path into endpoint security, enterprise security and beyond.

Tenison

Tenison Technology EDA, a leading provider of software tools used to develop system-on-chip designs, has been acquired by ARC International. The acquisition includes fifteen key members of Tenison's engineering team, patents, and products such as the VTOC™ software suite and IP eXchange technology.

Tideway

Tideway won the 2007 Business Software Supplier of the Year at the 15th annual Computing Awards for Excellence. Tideway beat a strong list of nominations in the category including Red Hat, Citrix Online, StepStone, Websense, NetSuite, Kasperksy Lab and Texthelp.

Trampoline

Trampoline Systems has made a number of high profile appointments in recent months.

Peter Biddle, the senior Microsoft visionary, has been appointed Vice President of Development. Mr Biddle led Microsoft's entry into DVD and prototyped PVR. At Trampoline he is tasked with establishing Trampoline's products as the new standard in next-generation enterprise technology.

Adrian Jones has been appointed VP of Sales. Mr Jones joins from Oracle Corporation, where he served as the top salesman globally in the Oracle Embedded Business Unit. At Trampoline, Mr Jones will lead sales strategy and execution, establishing a global sales force.

Stephen Allott (T MA80), Executive Chairman of Trinamo, has been appointed to Trampoline's board of directors where he will serve in a non-executive capacity.

Ubisense

Ubisense, the world leader in precise real-time location systems (RTLS), and Intelligentz Corporation are partnering to deliver a revolutionary solution for retail stores. The CartMotion product combines Ubisense's precise RTLS with Intelligentz's analytical engine. The valuable data provided on consumer behaviour, conversion rate and asset management enables retailers to improve sales conversion, productivity and customer service.

XenSource

XenSource, the leading provider of enterprise-class virtual infrastructure solutions built on the open source Xen® hypervisor, has been acquired by Citrix Systems, the global leader in application delivery infrastructure, for approximately $500 million in a combination of cash and stock.

In October 2007, XenSource announced that it had signed its 1000th customer. The introduction of the feature-rich, high-performance XenEnterprise™ v4 in August accelerated sales growth, helping the company nearly double its customer base.

Zeus

Zeus Technology's ZXTM Virtual Appliance (VA) has been named the networking product of the year at the CNET Network UK annual Business Technology awards.

Don's diary

Alastair Beresford ponders the problem of falling applications to study computer science.

At this time of year there are so many things going on that more or less everything you'd imagine an academic would do is happening, and all at once. For example, I'm currently trying to prepare a lecture course for the New Year, squeeze in the remaining 1A, 1B and Diploma supervisions I must give before the end of term, get ready to interview prospective new undergraduates and, in addition, set some exam questions. All of this in top of actually conducting some research and talking with PhD students!

However, one of the things I'm trying to keep in mind in this mêlée of diverse activities is how we should go about recruiting the next generation of computer scientists. Some of you may have read the recent Guardian article about the down-turn in the number of applicants to read computer science at Cambridge. More worryingly, this isn't a problem specific to Cambridge. According to UCAS, the number of CS applications nationally has dropped by 40%, from over 91,000 in 2002 to 55,000 in 2006. We aren't alone as a subject either: the UCAS Mathematical and Computer Science Group of subjects has seen applications fall by 27%. In contrast, the total number of applicants to universities rose by 10% over the same period, although physical science applicants rose by only 8% and engineering applications remained broadly constant.

The problem has been attributed to misunderstandings about our subject, including what our subject is really about ("surely computer science is about advanced use of MS Word?") and the perception that there are no new jobs after the dot-com bust. Obviously we need to improve public understanding of our field.

My main concern, however, is coming up with ways to inspire and excite potential students about mathematics and computation in the 21st Century. I remember as a young teenager my fondness for programming my Amiga A500 and building electronic circuits from books and magazines. At first glance it seems odd that, with an ever-increasing number of computer interactions involved in everyday life, young people are less and less interested in studying how such things are built. As yet, I don't have any concrete notions of what we should do to encourage more people to consider studying computer science, but I have a few ideas. If you have suggestions, I'd like to hear from you.

Alastair Beresford came to Cambridge as an undergraduate in 1996 to read computer science. After graduating he worked at BT Research Labs for a year before returning to study for a PhD in the Engineering Department. He is now an RCUK Academic Fellow and faculty member in the Computer Laboratory.

You can contact him at Alastair.Beresford@cl.cam.ac.uk.

Read more UCAS statistics at www.ucas.com/about_us/stat_services/

Computer Laboratory news

Computer Laboratory students win IBM UK "University Team Challenge"

Congratulations to Alex Chilcott, Richard Heatley, Ignas Budvytis, Kenny Stoltz, Kathryn Gray, Ben Roberts (pictured above with team coordinator Alan Blackwell, centre), who won the IBM University Team Challenge (formerly: ThinkPad Challenge), held at IBM Hursley on 28 September 2007. Cambridge has become the first university, among the 18 that compete, to win the contest three times.

"The whole event was very enjoyable", said Ben Roberts. "The first half of the competition has been likened to the "Crystal Maze". 24 challenges were available within six categories, and you had two and a half hours to complete as many as possible."

"It does require being clever but isn't hugely dependent on being a great computer scientist" commented Kenny Stoltz. "It came down, ultimately, to the final round where we were pitted in a general knowledge quiz against all the other teams. Fortunately for me, our group had several people cleverer than me and a good mix of people overall, so were able to just beat out the next closest team for our prizes – Thinkpad laptops."

"This is Cambridge's third time winning the competition" added Kenny. "I suspect they might handicap us if we keep it up, but it will be up to next year's team to continue the winning tradition."

The Computer Lab bids farewell to the world's oldest taught course in Computing Science

This will be the last year in which the Diploma will be run as the Computer Laboratory gets set to welcome a new one-year MPhil in Advanced Computing Science.

"We probably had 25–30 students, ranging from Maths PhDs to historians," said Eiko Yoneki who was awarded her PhD in 2006 having done the Diploma in 2002.

"Most of us took as many subjects as the time allowed. There was a lot of work to prepare for supervisions and writing ML and Prolog at the same time was quite an experience. Half of the course was run in the New Museum site and half at the William Gates Building."

"I also did the hardware lab which, though not required for the course, was a great experience. All the work was a foundation for my PhD research."

Jean Bacon to exhibit art in Cambridge

Since moving to Blythburgh in Suffolk in 2003, Professor Jean Bacon has become fascinated by the reedbeds and started painting watercolours of the reeds. Initially she used some of the photographs commissioned and taken by her husband, Dr Ken Moody, as a reference, but has relied increasingly on her memory and imagination.

In August, Jean held an exhibition at Blythburgh church, the proceeds from the sale of her pictures going to her and Ken's good causes, Blythburgh church and the RSPB.

As many from the Cambridge area were unable to make it, the exhibition will be reprised at the Art Centre in King's College in February 2008. As well as paintings left over from the August exhibition, Jean will exhibit some of her new work. Jean and Ken will be there between Sunday 17th February and Sunday 24th February inclusive, so please do pop along.

Blyth Valley in snow, 2006
Watercolour on paper, 24cm × 32cm

October
Walk to college or work
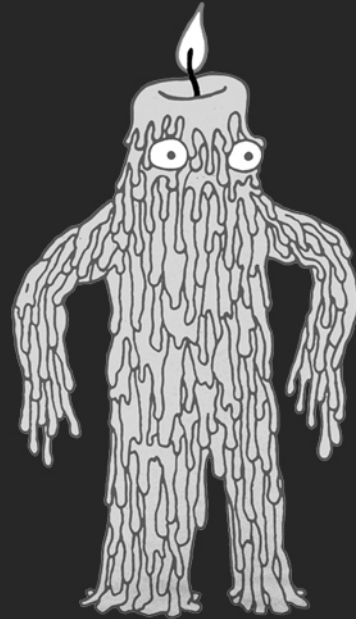
November
Lights off early

December
Buy an old thing

January
?

Do the green thing every month.
Promise it won't hurt.

dothegreenthing.com