

The Ring

THE JOURNAL OF THE CAMBRIDGE COMPUTER LAB RING

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Letter from the Editor

It's been great hearing from so many Lab graduates recently, and fascinating to read what impressive and varied jobs and interests they all have. In particular I have noticed how many graduates are involved in music and the arts.

Stan Kelly-Bootle (DOW MA53 Dip54) has enjoyed a successful show-business career (see *The Ring* May 2009), while Justin Siu (Q BA00) left Silicon Valley, where he worked after graduating, to start Innonation in Hong Kong. Innonation provides all-round music education and learning. Justin is also a freelance cellist and performs with the Hong Kong Sinfonietta. Hervé Duteil (W Dip90) also plays professionally; he is a concert organist. He spent two years at the prestigious Julliard School in New York and, over the last 14 years, has combined music with a successful career in investment banking.

Meanwhile, Andrew Robinson (K BA76) set up Seventh String Software whose product Transcribe! helps musicians to work out music from recordings.

In this edition of *The Ring*, there's an interview with Mike Kemp (EM MA74). During his long involvement with audio and the electronic arts, Mike has worked with an impressive array of artistes from Stephane Grapelli and Victor Borge to The Stranglers, Toyah

Wilcox and Stiff Little Fingers. His company, Sintefex, continues to provide artistes such as Kaiser Chiefs, U2 and Prince with unique recording hardware (see page 8).

Michael Nabarro's idea for his company, Spektrix, came from spending three years managing the ADC Theatre in Cambridge (see page 6). Michael (TH BA03) continues to combine business with the arts, and is building a long list of credits as a professional lighting designer.

When not working as a sound designer for Electronic Arts in Montreal, Ian Ratzer (ED MPhil06) plays in two bands: First You Get The Sugar and Morning Lush. Ian, who has also played piano on a number of pop releases, writes this edition's Graduate Story (page 10).

Finally, many Lab graduates play music as accomplished and enthusiastic amateurs. By day, Nick Barratt (SE BA80) manages Software Integrators, a company he founded to develop integrated message and payment solutions for financial institutions. By night, he plays the horn, performing with the Woking Symphony Orchestra and the Kingston Chamber Music Society. He also plays in the Cambria Wind Quintet, and recently answered an SOS from the Elmbridge Music Club for a horn player.

Events calendar

2009

October

Wednesday 14th
Roundtable Discussion Event

St. Catharine's College, Cambridge
An evening with Mark Richer
Reception 19:00; dinner 19:30

Admission by ticket only

Tuesday 6th, 18:30
London Ringlet Bar

December

Wednesday 2nd, 18:30
London Ringlet Bar

2010

March

Wednesday 17th, 19:00
Ring annual dinner

Queens' College, Cambridge
Reception 19:00; dinner 19:30
Admission by ticket only

Visit the Ring Web site at www.camring.ucam.org for the latest news about Ring events.



London summer BBQ

Forty-four Ring members converged on the offices of LBi for the London BBQ. Everyone was very grateful to Lorenzo Wood (CHR93), for hosting this wonderful social event. **Peter Cowley reports.**

Everything conspired to be perfect for the London summer drinks — good weather, glorious food, plentiful drink and, most importantly, interesting company with forty-four Ring members attending. Some commented that it was a great pleasure to be able to spread out in the open and enjoy the good conversation without the usual distractions of London's pubs. For those of us not familiar with the area, it was quite an education to walk through the vivacious and funky Petticoat Lane area on a summer's evening — by no means the desolate area one member expected based on Google StreetView!

Our table's discussion ranged widely from Jeremy Bennett's excellent article in the previous Ring magazine on open-source hardware to the use of random time limits in electronic bidding processes and Lithuanian contract law. A few tips were shared on getting VC funding that could be most useful in the future. Despite debate, no conclusion was reached on the vexed question: "is life too short to Twitter?"

There was an interesting mix of new and potential Ring members — Prof. of robotics from Imperial College; a previous director of ICL, who did a mid-life PhD; someone from my mid-70s era. Three of my mentees present. Great location (surprisingly close to Liverpool Street), great food, great weather, great company. I was sorry to leave to catch train before rail strike.

If you would like to support a London event please contact Alastair Gourlay at mail@agourlay.com



Who's who

Louise Auger (CAI BA98) works in Cambridge for Qualcomm where she is a staff engineer.

Toby Austin (JE MA05) has founded Transentia and GradFutures. Transentia assists intellectual property owners with early-stage technology commercialisation. GradFutures helps students to find their ideal graduate jobs.

Oli Bage (SE MA98) is an executive director at Morgan Stanley in London where he is a senior sales and trading systems development manager specialising in data modelling.

Simon Birtwistle (F BA09) has started working at Goldman Sachs in London as a technology analyst.

Hansley Chadee (G MPhil96) is head of IT and IS for Innodis Ltd in Port Louis in Mauritius.

Gerald Cheong (T BA96) is a senior member of the technical staff at VMware in California.

Tung Jin Chew (PEM BA07) is a software engineer at Autonomy.

Brian Collins (CL BA77) is technical director at Infonic Geo-Replicator Ltd.

Ben Coppin (Q MA96, MPhil08) is VP Data Analytics at AlertMe.com in Cambridge.

Michael Day (T BA87) is a programmer at Insomniac Games in California.

Peter Ferne (T BA86) is technical director at Jiva Technology. He is also Chair of Bristol Wireless Community Co-operative Ltd.

Matt Grimwade (TH BA98) works for UBS AG in Hong Kong.

Steven Guest (JN Dip01) is animation team lead programmer at Frontier Developments.

Francisco Guerra-y-Rullán (DAR 78) is a senior partner at Guerra y Millán Consultores Asociados in Mexico.

Nicholas Hammond (CAI BA86) is CEO of Internet Security Consulting in Atlanta.

Ian Jones (CHU BA84) lives in France and is a consulting sales engineer for US based TippingPoint, where he has built a customer and partner base from nothing to a multi-million-dollar annual business.

Mark Jones (CTH BA77) works for engineering consultancy WS Atkins where he is a director.

Sheung Kam (M BA95) is an associate partner at Oliver Wyman in Hong Kong.

Martin Kleppmann (CC BA06) is delighted that Go Test It (<http://go-test.it>), his company's product for automated cross-browser testing of Web sites, is now in private beta. Martin will also be starting a PhD, under Dr Stephen Clark, at the Computer Laboratory in October. He will continue to run his company at the same time.

Stephen Melvin (SE BA09) has just graduated and has started work as a software developer for Frontier Developments.

Huw Parker (CAI BA92) is IT director at Coggit Ltd.

Jon Pawley (Q BA96) lives in New Zealand where he is a senior software engineer for Wellnomics Ltd.

Denis Payne (T MA72) works for Cambridgeshire County Council as a GIS manager.

Barney Pell (T PhD94) is now at Microsoft where he is a strategist and Evangelist for Bing, Microsoft's search engine. Powerset, a natural language search company founded by Dr Pell in 2006, was acquired by Microsoft in August 2008.

Nicholas Prentzas (JE BA00) lives in Nicosia where he is an IT manager for the Epiphaniou Group.

Andrew Pullen (CHU PhD88) works for Curtiss Wright, a defence contractor, as a programme manager.

Philip Robertson (JN BA85) lives in Tokyo where he is a director at Honyaku Plus which provides translation, interpreting and related services.

Alasdair Scott (T Dip77) works for JourneyLog where he is a director.

Tomaz Sesek (R MA96) is managing director at TS Consult in Ljubljana, Slovenia.

Simon Sheard (CHR BA83) works for Reliance Precision Ltd as a computer systems manager.

Sam Stokes (R BA05) has started his own software consultancy, Rectangle Software.

Paul Theobald (CHU BA90) is a senior systems engineer at MetaSwitch.

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The Ring is the journal of the Computer Lab Ring, which is the graduate association of the University of Cambridge Computer Laboratory.

Governing council: Prof. Andy Hopper (TH78) (Chair); Stephen Allott (T80); David Colver (CHR80); Peter Cowley (F77); Robert Folkes (EM82); Lorenzo Wood (CHR93)

Careers committee: Peter Cowley (Chair); Andrew Herbert (JN75); Chris Morgan (JE01)

London Ringlet: Alastair Gourlay (SE02)

Duncan Towers (Q MA99) is VP of engineering at AlertMe.

Nick Towers (CL MA80) works for Citrix Systems as a resource manager.

Iain Tuddenham (TH Dip94) lives in Cambridge where he works as a software consultant.

Panit Watcharawitch (NEW MPhil00, PhD) is an IT manager at Fabrinet in Patumthanee, Thailand.

Jes Wills (F BA81) is a technical director for Gimmel Group in Texas.

Shan Ming Woo (K MA97) is a director at UBS in Hong Kong.

Andrew Yeomans (T MA 76) works for Dresdner Kleinwort as VP Global Information Security.

David Young (JN BA90) is a managing director at Azurra Solutions in Singapore.

Mark Yudkin (JN PhD84) lives in Zurich where he works for Schroder & Co.

Hall of Fame

blinkx

blinkx founder and CEO Suranga Chandratillake was selected as a finalist for the 2009 American Business Awards, in the Executive of the Year category for Media & Entertainment.

Embecosm

Embecosm will be launching its new open source products for embedded software development with hardware models in September 2009.

Lemur Consulting

Lemur Consulting, the creators of the Flax open source enterprise search engine, is sponsoring a one-day event on open source search on September 29th 2009. The event is open to all members of the open source search communities, whether developers or users. Tickets are free but advance registration is required. Further information can be found on www.flax.co.uk.

Linguamatics

AstraZeneca has extended its license to Linguamatic's I2E semantic knowledge-discovery platform with a further multi-year deal.

Zoonami

Zoonami has developed video game Bonsai Barber for Nintendo WiiWare. It was released in March 2009 in North America and in August 2009 in Europe.

Class of 2008 – where are they now?

Max Bolingbroke (R BA) is doing a PhD at the Computer Laboratory and has had a paper accepted for publication at the Haskell Symposium. The paper explores a new functional compiler intermediate language that lets us perform much more precise optimisation of function-calling conventions, without introducing lots of nitty-gritty, low-level details.

Ben Challenor (JN BA), **Alex Davies** (JN BA) and **Simon Jackson** (CC BA) are all working at Red Gate Software in Cambridge.

James Griffiths (R BA) joined the graduate scheme at Credit Suisse in London. He has been working in the Technology Division and is in the commodities IT team supporting the front office. James has visited Cambridge regularly as most of his friends were on a four-year course.

Jennie Lees (T) is running a technology start up, Affect Labs, in Edinburgh. The company is trying to make sense of online chatter using sentiment and text classification, and is seeking seed investment. It launched its first product in August in conjunction with Channel 4's 4iP and the Edinburgh Festival.

Meredydd Luff (CAI BA) is doing a PhD at the Computer Laboratory. She is in the Computer Architecture group under Dr Simon Moore.

Anton Lokhmotov (R PhD) joined Imperial College London as a Research Associate in February 2008. He has been working in the Software Performance Optimisation research group on programming models for accelerated computing.

Charlie Reams (SE BA) is doing a PhD at the Computer Laboratory under Professor Alan Mycroft. Charlie is specialising in concurrency and energy-efficient programming and is trying to get his first paper published, titled 'Computing on the Cheap: Formal methods for energy-efficient scheduling'.

Malcolm Reynolds (Q BA) is reading for an MSc in Machine Learning at UCL.

Kenny Stoltz (W BA) is working for Google in Switzerland as an associate product manager.

Sintefex Audio



What do Peter Jackson's *The Two Towers* and *The Return of the King* have in common with the Kaiser Chiefs?

Mike Kemp's unique recording hardware.

TR: Mike, can you tell me about your career up to founding Sintefex?

MK: I got my BA degree from Emmanuel in 1974. Back then it was two years of the Maths Tripos before one year of Computer Science. I started doing a PhD under Neil Wiseman (wonderful man, sadly missed) but decided that I should leave academia to follow my interest in recording music with our company Spaceward Studios.

Being poor graduates, we had to build our own equipment, so I built a 16-track audio tape recorder just in time for the "punk" boom in 1976, which allowed us to bring the price of recording down to an affordable level for all those keen musicians. That kept us working night and day for several years as the likes of Stiff Little Fingers, Gary Numan, Toyah and Iron Maiden came through our semi-detached portals in Victoria Street.

The computer knowledge came in handy when building an 8080-based mixing desk for our move to the village of Stretham around 1980, and later when I started designing computer graphics equipment for TV use, based first on Z80 then on IBM PC platforms.

With Spaceward Microsystems, which we had branched off from the studio, we made increasingly complex computer paint systems for TV until we fell foul of the infamous Quantel patents on computer painting, and were unable to persuade the rather ancient high court judge that the likes of Alvy Ray Smith (one of our witnesses from Pixar) had done it all first. Indeed, Alvy told us that he had even demonstrated his paint system to Quantel before they patented it! Quantel was later to lose a similar case against Adobe's Paintshop in the US, where the jury accepted that Alvy had done it first and had publicised it.

We carried on for a while, including providing graphics for the new look ITV weather in collaboration with the Met Office, but I left in about 1990 to return to my first love of audio.

I then set up an audio manufacturing company with a couple of colleagues, Studio Audio and Video Ltd., where we designed a computer

audio editing system. As a fan of 'The Archers' radio programme, I was delighted when the BBC adopted our Sadie audio editor as the tapeless audio recording and editing system for the programme.

I left SAV in 1994 to move to the better climate of Portugal, and get a rest from the rat race.

TR: Did your interest in electronic audio equipment emanate from your enthusiasm for music or did you use your interest in audio engineering to solve a problem facing the recording industry?

MK: I've always been on the technical side of music. While I've picked up some expertise from working with many artists over many years, engineering and producing their recordings, I'm not a musician. However I've found both in music, and in my foray into computer graphics, that my technical ability has allowed me to design equipment and software for the creative artist in a way that many techies can't. That ability led me to anticipate the need for low-cost multi-track recording at the start, and later to be in front with the computer-based editing of music. With Sintefex Audio I anticipated the need for "analogue sounding" processing in the digital recording chain, and invented the process of "Dynamic Convolution" to be able to inject this sometimes indefinable sound into the digital chain.

TR: Did you face obstacles peculiar to Portugal when setting up the company? Why did you choose Portugal?

MK: I'd lived in Cambridge for 20 years and felt in need of a change. Being a Europhile I realised I need not stop at the border. We looked around France but found that winters of snow and ice were not uncommon, and that the towns were as busy as in the UK. So based on some earlier visits to Portugal we took the plunge and moved here, to spend a bit of time away from it all and learn a new way of life. When I thought up the idea for Dynamic Convolution we debated whether to return to the UK to develop it, but decided to bite the bullet and plunge into the unfamiliar bureaucracy of Portugal. It seemed very

alien, but on the whole I don't suppose it is much worse than the UK. On the downside, you often have to queue for hours to sign documents in front of a notary. But on the upside, you can't visit the bank without the manager taking you out for coffee and spending most of the time discussing anything but business.

TR: Can you explain how your products use Dynamic Convolution and how this helps audio professionals? Do you have an offering for the amateur enthusiast?

MK: Well, the original problem is that digital recording is too clean. Artistic creations require funnelling reality into an interpretation. For example, the perfect photograph is an interpretation of reality, not a copy of it. So a recording is an interpretation and the digital perfection works against you. Audio professionals cope with this by using analogue processing in the signal chain. In my view this adds a much needed complexity to the signal digital processing struggles to recreate. Dynamic Convolution allows the signal chain to remain all digital by taking multiple impulse response samples of some original equipment to capture the way it affects sounds according to various parameters, such as signal level and user control. Once a device is sampled and stored, the engineer can recall the processing of the original equipment and recreate that effect.

Our original offerings were expensive boxes with up to 40 DSPs doing the work, and were very flexible. More recently we have re-engineered and licensed the technology into several simpler products suitable for the home and project studio based on ordinary home computers. Although we still require some DSP hardware to be attached, this has come down in price dramatically.

TR: I see that many of the company's functions — including manufacturing — are carried out in Portugal but that software R&D is done in Cambridge. Why not do everything in Portugal?

MK: Actually, software R&D is done in Portugal. Our hardware design is still done in Cambridge because our third founder/director and hardware guru still lives there, after graduating from Churchill in 1986. It is also useful to have a small UK office for sourcing components and equipment that are not easily available in Portugal.

TR: What sets your offerings apart from the competition?

MK: If you need an analogue sound, your only alternatives are to use analogue gear, which is increasingly rare, expensive and temperamental, or to use a programmed simulation that does not use the Dynamic Convolution idea. Programmed simulations are as good as the programmer, who needs to understand and model the operation of the analogue circuits. We feel that sampling real gear means that you

get around all that. A visual analogy might be using a real photographic texture map in a computer graphic versus a simulation of what, say, a brick wall might look like based on knowing how it is constructed.

TR: You've been involved in the recording industry since the Punk era. What major changes have occurred in the last 35 years?

MK: In production, mainly the move from the expensive recording studio to the home project studio. In marketing and sales, everyone can now publish and sell direct to download. This has eliminated the need for a skilled recording engineer, a job I used to do. So, we have to provide these desktop solutions in an easy-to-use package.

TR: I see that you produced a number of albums by The Stranglers, a band I saw at the Rainbow in Finsbury Park in the late 70s! It must have been a very exciting time to be involved in the music industry.

MK: Yes, it was quite momentous when Jean-Jacques Burnel, their charismatic bass player and vocalist, first turned up at our door in Victoria Street on his motorbike wanting to record a solo album with us. Later I worked with the band on several albums and singles. But I am afraid I always shunned the actual music business as, apart from the artists who were usually great, I did not like many of the people I met. We kept on the periphery of all that, at least as far as we could.

For more information about Sintefex Audio visit www.sintefex.com

Spektrix



Michael Nabarro's idea for Spektrix came from his time managing the ADC Theatre in Cambridge.

TR: Michael, after reading Computer Science at Cambridge, you graduated with a post-graduate diploma in Stage Electrics & Lighting Design from RADA. You are a successful lighting designer and have now set up Spektrix, which develops software to provide ticketing services to the entertainment industry. Did your experience in theatre generate the idea for Spektrix?

MN: I wouldn't quite say I'm a successful lighting designer yet! As with other creative fields, it generally takes several years to establish a name for yourself.

The idea to start Spektrix came from spending three years managing the ADC Theatre after I graduated. During this time I was responsible for installing the theatre's first computerised box office system. The project cost a total of around £30k and significant technical expertise was needed in house, both to set up the system initially and, longer term, to keep it secure, up-to-date, backed up etc. It seemed this would have been the case with whatever solution we had gone with at the time. I felt there was a need for something which removed the technical complexities involved with running a box office system, leaving the management instead with an easy to use set of tools that they could use to effectively run their operations.

TR: Can you describe what a venue may look for in a box office and ticketing solution and how your offering meets these requirements?

MN: Everyone puts ease of use pretty high up the list of core requirements. Most venues in the UK don't have seamlessly integrated on-line booking. Some are now starting to appreciate the importance of this in terms of increasing sales and lowering costs, but too many still focus elsewhere. Some venues are starting to realise the problems and hidden costs involved with running a system in house, and in this case they're looking for a solution that allows them to budget accurately and looks after all security concerns.

On the feature side of things, a lot revolves around the power of the system as a tool for building and developing your audience. So tasks such as data analysis, targeted marketing and calculating return on investment are all very important.

TR: What sets your offering apart from the competition?

MN: Many things! We are one of the few companies who offer a completely hosted and Web-based solution. All you need (apart from peripherals like printers and a "Chip & PIN" reader) is a PC with a Web browser. Some suppliers are offering hosted versions of their solutions using Terminal Services, but we don't see this as a good long term solution. We have developed a state-of-the-art enterprise-grade Web application. It is as responsive as a desktop application, which is very important when it's potentially something you might be using for eight hours a day.

Many of our competitors' solutions have suffered from a steady trickle of new features and this has led to bloated and unnecessarily complex software. We have attempted to strip out all but the basics and then added functionality in much more generic ways. So rather than trying to hard code certain concepts and second guess our users, we provide the ability to customise the system so that you can just have the bits that you need for the way you run your venue.

From a more technical point of view, we have built a highly resilient and scalable solution that can be rolled out cost effectively and quickly. This will pay off long term as maintenance of our competitors' solutions tends to be expensive and scalability is often limited.

Looking to the future we have built a system that, at the right point in time, will be able to move into the "cloud" and we are excited by what this will hopefully mean for us in terms of reduced costs, ability to handle huge peak demand and improved redundancy and availability.

TR: Did you have any sales or marketing experience before starting Spektrix?

MN: There are certainly some similarities between trying to fill seats in a theatre and selling software solutions, but only a few!

TR: Did you receive any outside help or mentoring and, if so, how did it help you?

MN: Yes. My father, Daniel Nabarro, has been mentoring me throughout and is also the company's Chairman. He is a serial entrepreneur and has been through it all a number of times before. His advice and support have been hugely important in getting us where we are now and I'm extremely grateful for it. He also absolutely loves doing it!

TR: What do you look for in employees when you hire?

MN: In short, bright people, who really want to learn and develop, and are excited by the idea of being involved in a start-up.

We place huge importance on the engineering aspects of software. Our technical director and co-founder, Matt Scarisbrick, is a Cambridge engineering graduate and likens building software to building bridges: it shouldn't collapse! We place a huge onus on the specification and design process. Only once new features have been carefully specified and designed in detail will we write some code. This way of working has led to very robust and componentised software with surprisingly few bugs.

When looking for new developers we are looking for people who are open to these ways of working. We are looking for people who pick up new ideas and concepts quickly. We aren't looking for experience in any particular programming languages — we firmly believe that if someone understands the concepts they can learn anything. We have benefited hugely from being open to new technologies and techniques and we are looking to work with people who find this exciting, not those who are too stuck in the their ways

TR: What pressures have you faced?

MN: Early on the pressure was to get a product out into the market place as quickly as possible. Once we had our first two trial sites agreed we had a deadline to meet for them and though we were confident we had some good software, the pressure was in being sure we had a product that was solid enough to suddenly take over the running of a venue. When dealing with the flow of both personal and financial data, the thought of there being problems in the system is a worrying one.

A few months on we are now very confident in the capability and robustness of the system. There's still a huge amount to do in terms of new features, but we feel we have a great platform to work off. The pressure now has moved on to sales. There's a lot of competition in the field from a number of large and successful companies. However there's also significant dissatisfaction in venues and therefore room for change. Being a small company and asking venues to trust most of their income to your system is challenging, but we're getting there.

TR: Have you been able to continue with lighting design or have you had to put it on hold while setting up the company?

MN: Lighting design is taking a bit of a back seat at the moment but I'm still keeping my hand in and building the relationships with young directors with whom I enjoy working.

TR: What has been the highlight so far?

We recently signed up our first local council customer which was a very exciting step forward. They had shortlisted four suppliers, two of which were major players in the industry. The feedback from them was fantastic. They said we were the leaders by far, both in the product we were offering and by being the only company who had actually listened to their requirements and proposed solutions to their problems.

To find out more go to: www.spektrix.com

Ian Ratzner



Ian Ratzner, who graduated with an MPhil from St. Edmund's College in 2006, now combines his love of music with his interest in computer science.

When I finished my MPhil at Cambridge and came back to my home in Montreal, Canada, I was excited to enter the job market. Having spent a third of my 25 years pursuing higher education, I was eager to apply my knowledge and skills to a career in industry. I had chosen my courses of study based largely on what had interested me most from a young age: computer science and music. Prior to my year at St. Edmund's College, Cambridge, I completed degrees in each of these at McGill University. A few decades earlier, my father, Gerald, had come to McGill as the first graduate student in computer science, following his year of studies at Cambridge with many of the founders of modern-day computing. I knew that, unlike him, an academic career wasn't for me, but was still a bit daunted by the array of options presented by the job market. I decided from the start that I would keep myself open to as broad a range of careers as possible, and it wasn't long before I discovered Electronic Arts' Montreal game development studio.

EA is the world's largest third-party developer and publisher of entertainment software (the "third party" meaning that we develop games but not the hardware on which they're played, unlike Sony, Microsoft, and Nintendo). With around 7,000 employees working out of two dozen locations worldwide, it's a big place. Luckily, it doesn't feel that way because each studio has an individual workplace culture. I don't feel lost in the shuffle of the couple hundred employees at my studio. If I'm looking for a tech solution or a specialised tool for a particular game project, I can draw on the wealth of experience, code, and internally-developed software tools that are common to the whole company.

I approached my current job with a varied set of degrees and little to no industry experience. I knew there was more than one specific job title that matched my qualifications, but it soon became clear that my interviewers had a better idea of where I could flourish within the company than I did. I had a good dialogue with them and after a few sessions, began work as a newly-minted Sound Artist. Within that role, I discovered, there was room for a broad range of backgrounds, from audio experts with lots of programming experience to media special-

ists who have worked in creating the sound treatments for film and broadcast television. During my time here I've worked on a diverse array of projects, from setting up an interactive music system for a snowboarding title, to music direction for a trio of singing and dancing games, to creating dynamic interactive engines for race cars. To date I have worked on six games for the Nintendo Wii and one for their DS handheld system. It's fun work, allowing me to use my technical and artistic skills in tandem.

The prospect of turning away from pure software engineering to a more artistically-inclined role, while still working within software development, was an option that hadn't even occurred to me, but made lots of sense. Add to that the fact that the software in question is games, and it's easy to see why I'm still happy here. The desk in the office from which I'm writing is populated with the tools of my trade: a Macintosh, a PC, a family of Nintendo game controllers, a large MIDI piano keyboard, a surround setup of studio monitor speakers, an oversized coffee mug, and a flock of yellow sticky notes. It's a telling sign that my home office is similarly appointed!

In addition to my professional career, I have become increasingly active as a musician. With my evenings freer than they were during my studies, many of my weekends find me playing small to medium sized club gigs with one of my two pop-rock bands, or as a sideman to a handful of other musical projects, most of them falling between blues and classic rock. My two bands are called "Morning Lush" (in which I play bass) and "First You Get the Sugar" (I play keyboards). For the curious, both are easily found on MySpace and Facebook.

Don's diary



A Day in the Life of **Dr Cecilia Mascolo**, University Reader and EPSRC Advanced Research Fellow

8:40: After getting my daughter Bianca ready and taking her to school (luckily we live in the same street as the school), I work on a draft of a project proposal to be submitted in June. It's about the use of sensor systems to gather complex networks behind human communities, in collaboration with some architects and complex network experts in Scotland.

9:30: Work on slides for a presentation on federated sensor networks for a Cambridge Wireless Event at which I was invited to speak. Sometimes it is difficult to pitch these things right: the audience here is really industrial and I must make sure that I have plenty of application examples.

10:30: Cycle to the Lab.

11:00: Talk to my PhD student, Salvatore Scellato, about the analysis of some data collected in our project where we use sensors to understand badgers' behaviour together with zoologists in Oxford. Luckily, the results of the analysis are really good!

12:15: Lunch with the group in the cafeteria

13:00: Dr Steve Hand gives a talk about the use of inference to make operating systems work better. There's lots of discussion on a nice idea!

14:00: Meet a Canadian visitor who would like to come and work with us for a year. Let's see if something comes of it.

14:30: A quick tea break to refresh the mind. Some e-mail: Bianca's school wants to know if she can go on a school trip. Print and sign the permission form and quickly check my favourite Italian newspaper (La Repubblica) on line to read the latest developments on the life of the Italian Prime Minister.

15:00: Meet PhD student John Tang. We talk about his progress on the simulation results of his work on temporal social network metrics with applications for studying malware propagation. He is progressing really well, no concerns for now!

16:00: Meeting with my RA, Dr Mirco Musolesi to discuss his move to St. Andrews University where he has been offered a Lectureship from the Autumn. I'm very pleased for him! Also prepare for tomorrow's meeting with our collaborator from psychology, Dr. Jason Rentfrow, about mobile phone sensing to understand people's interactions. Multi-disciplinary research is always hard!

16:30: Conference call with sea mammal researcher, Dr Bernie McConnell, about a possible European proposal on work with sensors on seals and other marine mammals. He has come back from a boat trip somewhere around some islands in Scotland. What a different life these people have.

17:30: Rush home!

18:15: Bianca gets back from her Tuesday swimming with her nanny. Some reading for her homework, check her school bag. Prepare some dinner. Tuesday is usually Bianca's favourite dish, spaghetti alla carbonara.

19:00: My partner gets home and we have dinner. Bianca finishes her plate (impressive). Some more playing with the new Monopoly set for kids.

20:30: Bianca's finally in bed, exhausted from her swimming! Finish off a review for the conference *Middleware09*. Still four to do, eventually!

22:00: End of the working day. About time!

Computer Laboratory news

Honours and Awards

Professor Ross Anderson has been elected both a Fellow of The Royal Society and a Fellow of The Royal Academy of Engineering.



Professor Anderson is Professor of Security Engineering. He is a pioneer and world leader in security engineering, and one of the founders of the study of information security economics, which not only illuminates where the most effective attacks and defences may be found, but is also of fundamental importance to making policy for the information society.

Jon Crowcroft, Marconi Professor of Communication Systems, has been awarded the 2009 SIGCOMM Award for his pioneering contributions to multimedia and group communications.

Dr John Daugman and **Dr Anuj Dawar** have been promoted to personal Professorships.

Dr Steven Hand and **Dr Cecilia Mascolo** have been promoted to Readerships.

Dr Peter Sewell has been awarded a 5-year Leadership Fellowship. According to the EPSRC, "Leadership Fellowships provide support for talented researchers with the most potential to develop into the UK's international research leaders."

Dr Eiko Yoneki has been awarded a Career Acceleration Fellowship. According to the EPSRC, 'Career Acceleration Fellowships provide support for talented researchers at an early stage of their career'.

PhD student **Yan Wu** was awarded the '2008 Chinese Government Award for Outstanding Self-financed Student Abroad'.



Yan Wu (pictured above, receiving his award at a ceremony at the Chinese embassy in London) is supervised by Dr Ian J. Wassell and is one of the 24 PhD students in the UK who received this award. The China Scholarship Council honoured 305 Chinese students worldwide, based on their academic record and character. In January 2009, Yan was also granted a Wing Yip & Brothers Bursary for demonstrating academic excellence.

MPhil in Advanced Computer Science

The Computer Laboratory is looking forward to the first intake of students for the new MPhil in Advanced Computer Science in October 2009.

The course is intended to prepare students for a PhD degree (either at Cambridge or elsewhere) and provides a unique mixture of practical, theoretical and discursive courses spanning the breadth of computer science.

The course has been heavily oversubscribed. 142 applications were received, and of the 45 offered a place, 51% are from overseas, 36% from Europe and 13% from the UK. 91% are men. A prerequisite for acceptance is a first-class honours degree or equivalent in a relevant subject. Many of those made offers also have experience in industry.

For more information about the course go to: www.cl.cam.ac.uk/admissions/acs