

Technology Enterprise Group Seminar – Summary Notes

Title: "Customer-focused technology transfer: Evidence from the London Technology Network and Cambridge Computer Lab Ring"

Speakers: Matt Schofield and Stephen Allott

Date: Tuesday 21st September

Time: 14:30 - 15:30

Venue: Project Room, Institute for Manufacturing, University of Cambridge.

Summary

Matt Schofield, London Technology Network (www.ltnetwork.org)

The London Technology Network ('LTN') is a government-funded initiative that aims to improve the profitability and efficiency of businesses by creating links between industry and London-based academia. Its mission is to help technology-intensive companies be more effective and efficient in their knowledge acquisition from London's universities. For further background, see www.ltnetwork.org.

LTN is a customer-focused organisation and, for LTN, customers are individual academics, heads of academic departments, individual company executives and company boards of directors. LTN's activities are, broadly, divided between identifying the needs of customers and working out how best to address these needs.

LTN is structured to reflect these activities. It has a 7-8 person Technology Team (divided between high tech/engineering and life sciences) working with around 100 Business Fellows recruited from the pool of academics within individual departments across the London universities. The Business Fellows are given training and paid a retainer to map the technologies of their particular academic department. This provides LTN with a structured view of the work of over 5,000 academics across London. It also provides the department heads with a useful resource for developing research strategies.

LTN's 4-5 person Events and Marketing team arranges events around particular themes identified by the mapping exercises and requests from industry. These events draw in decision makers from the leading technology intensive companies. The companies find these events particularly useful as it gives them a time efficient means to scope what the London universities are able to offer around specific themes.

LTN is not the organisation that will 'close deals' around opportunities emerging from these events. 'Warm leads' generated by LTN activities are passed over to the various technology transfer offices where a clear opportunity has been identified. However, the design of LTN activities have been influenced by research which shows that only around 10% of knowledge transfer from universities to business is in the form of patents¹. LTN focuses on bringing together the right people and letting them identify the most appropriate form for technology to be transferred. The example was given of how student placements have been highly effective at introducing companies to the benefits of working with universities.

Matt summarised the needs and benefits of the various stakeholders and customers as given in the tables below.

| Customer | Needs from university TT | Customer | Gain from LTN |
|-------------------------|---|-------------------------|---|
| <i>Gatekeepers</i> | | <i>Gatekeepers</i> | |
| Department Head | Plan for RAE 2007 industry impact Incentives for academics to collaborate internally | Department Head | "Technology Map" from interviews by Business Fellow (lecturer/professor paid by LTN) LTN cash for BF; invitation-only events for rest |
| Board R&D/CTO | Cost-effective R&D Personal industry safety net (themes, JVs) | Board R&D/CTO | Invitation-only events (often through peer referral) On-site visit by an industry-experienced (typically 15-25 years) LTN consultant to take a specific enquiry for free |
| <i>Transactors</i> | | <i>Transactors</i> | |
| Individual academic | Industry support on public grant applications Positive feedback (vs. academic critique) Supplementary income (consultancy) Low time-wasting on admin and Bus. Dev. | Individual academic | Poster presentation opportunities Filtered enquiries with big R&D spenders |
| Company project manager | Timely expert resource Access to public R&D cash (LINK etc) | Company project manager | Free enquiries for project skills gaps Signposting to government grants |

| Stakeholder | Needs from university TT |
|------------------------------|--|
| University TTO | Warm leads to senior executives for licenses Insight into capabilities of individual academics |
| Regional government | Lock-in inward investment by technology companies Insight into technology clusters |
| National/European government | Exploitation of public R&D Export-focused technology employment growth Spread of good practices ("innovation") |
| Company investors | Community participation (e.g. Microsoft regulatory issues) Product differentiation vs. India/China |

The presentation closed with Matt posing of a series of open questions:

For commercialisation activities of the University of Cambridge:

- Could RSD/Cambridge Enterprise create more new leads for funding for departments?
- Could i10 improve business access to the full scale of all Eastern region universities?

For research in the domain of technology transfer:

- Could we look at the ecologies of technology transfer transactions? This could provide a framework for assessing the value of interactions as well as currently widely researched activities of technology licensing and spin-outs?
- Can we look at the differences in technology transfer activities appropriate for the different research disciplines? For example, the needs of life sciences and computing are clearly very different.
- Regional interventions – what works? Can we get a better understanding of the comparative effectiveness of face-to-face versus Internet-based activities; What is “world-class” versus good practice?

Questions / comments from the audience then included the following:

- How is LTN funded? (A: Through a grant from UK Government)
- How will LTN become self sustaining? (A: By showing value that companies are then willing to pay for through membership programmes)
- With all the effort going in to enhancing the supply (university) side, what could we be doing to help improve the absorptive capacity on the demand (industry) side?

Stephen Allott, Cambridge Computer Lab Ring (www.camring.ucam.org)

The Cambridge Computer Lab Ring is a not-for-profit independent members' association that campaigns on behalf of Cambridge computer scientists to build the Cambridge community in computing.

In 2001, Stephen Allott volunteered his services to the Computer Laboratory who asked him to “help get more value from alumni”. He, along with Jan Samols (ex-investment banker), developed the Ring as a new initiative to help Computer Laboratory graduates realise their potential. The Ring was differentiated from existing activities as follows:

- Computer Lab Industrial Supporters’ Club – this is focused at the company level and had been set up to provide companies with a means to help their recruitment activities in return for a membership fee of £1k - £5k. The Ring was focused at the individual, not the company level.
- University Development Office – this is focused on direct fund raising from University alumni. The Ring does not seek to raise funds directly from alumni – its focus is on helping graduates have better careers and run better businesses and so focuses on ‘fund creating’ rather than ‘fund raising’.
- University Careers Service – this provides students with career advice. The Ring focuses on graduates once they have left.

One of the first things that Stephen and Jan did was to produce a ‘definitive list’ of all graduates of the Computer Laboratory – something that had not been attempted before. This produced a list of 3,500 names. Recent graduates (within last three years) of the lab are able to join for free, others pay an annual fee of £48. Membership currently stands at 373 with 141 of these being paying members.

116 companies founded by Computer Laboratory graduates have now been catalogued in a ‘Hall of Fame’. Over 70 members have volunteered to offer information careers advice to its members. 7 newsletters have been produced. The 2004 Annual Dinner was a sell-out. The Ring is seen as a valuable strategic asset for the Laboratory.

The Ring offers the following benefits to its members:

Social:

- Find out what your contemporaries are doing now and stay in touch
- Make new contacts amongst fellow Lab graduates at Ring events
- Stay in touch with the Lab

Career:

- Receive the Newsletter and stay in touch
- Use the Ring helpline to get advice on business and careers issues
- Find a new job or hire people through the Ring jobs board
- Find a great supplier of technology or consultant through the Ring
- Find a fellow business leader with whom you can chat about current business issues and challenges

Community:

- Help build the community by volunteering to give informal careers advice
- Influence the development of the Lab graduate community by volunteering to serve on a Ring committee
- Help student admissions by visiting a school and giving a talk about Computer Science at Cambridge

- Suggest an idea for a student project at the Laboratory

Stephen ended the main part of his presentation by summarising some of the lessons he has learned from setting up and managing this alumni network:

1. Identify a clear niche and have clear offering to them.
2. Communicate with current faculty so they know what is going on. Identifying a small number of ‘champions’ within the Lab was useful. Reporting between Ring organisers and these champions is very important.
3. Requires persistence and persuasiveness to get stakeholders to be supportive.
4. The customers are the graduates – they will vote with their chequebooks.
5. Hire dedicated resource early.
6. Do simple things that ‘create value from thin air’ – e.g., setting up Hall of Fame, Company of the Year Awards, Best Academic Paper, etc.
7. Observe and learn from others (Stephen was able to draw on his experience of the such organisations as the McKinsey Alumni Network, and the Bar Association for Commerce Finance and Industry).
8. Focus early on ‘exciting, easy wins’.
9. Get good presence on Web, and ensure good press coverage through being obvious / easy place for journalists to contact.
10. Ensure good links with related groups – e.g., in this case, the Industrial Supporters’ Club.

Stephen ended his presentation by opening up the broader issue of why universities should engage in technology transfer and, linking back to comments made by Matt Schofield, how we need to have different approaches for different disciplines that encompass activities beyond licensing and spin-out activities. He did this by referring to evidence from a number of research papers (detailed in the notes at end of this document²). Key evidence drawn from these papers was that different channels of knowledge flow are appropriate for different disciplines.

Questions / comments from the audience then included the following:

- There are numerous alumni networks in Cambridge for different departments, and even for different courses within departments. Would it be useful to start to share lessons from the setting up and running of these? Evidence from the Ring would seem to show that having well resourced, dedicated staff assigned to the task can deliver good results.

¹ Agrawal, A. and R. Henderson (2001). "Putting Patents in Context: Exploring Knowledge Transfer from MIT." *Management Science* 48(1): pages 44-60.

Thursby, J. G. and M. C. Thursby (2000). "Industry Perspectives on Licensing University Technologies: Sources and Problems." *The Journal of the Association of University Technology Managers* Volume XII (2000) - download from <http://www.autm.net/pubs/journal/00/perspectives.pdf>.

² Cohen, W. and J. Walsh (2000). "Public research, patents and implications for industrial R&D in the drug, biotechnology, semiconductor and computer industries." Unpublished draft available from <http://tigger.uic.edu/~jwalsh/CohenWalshUnInd.pdf>.