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A Research Career in Industry

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e-skills UK



My Background

- 25 years at University of Wales
- 12 years Director of Teaching
in Computer Science
- PhD Supervisor for 15 years
- Moved into software consultancy
- Moved to e-skills UK



So what is e-skills?

- Brings together top level management at:
 - CEO/MDs of Accenture, IBM UK, EDS, Fujitsu, Hewlett Packard, Microsoft, Oracle, Smart421, Vodafone and T-Mobile
 - Heads of IT including BT, British Airways, Ford Motor Company, John Lewis and the Inland Revenue

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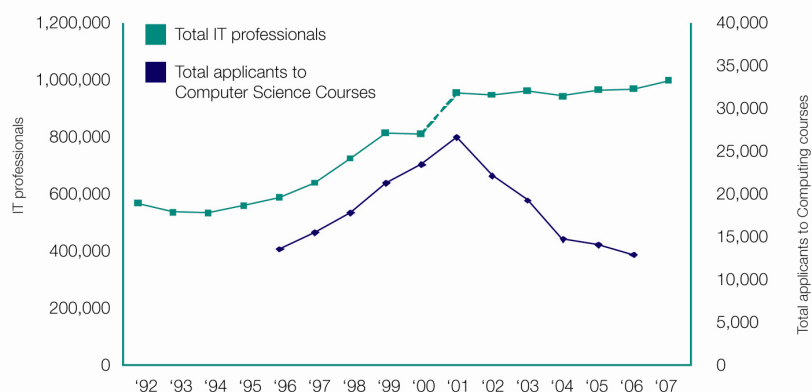
Some example e-skills programmes:

- CC4G
- ITMB
- Big Ambition - www.bigambition.co.uk
- 14-19 Diploma, Apprenticeships

- Industrial placements
- IT Skills Academy

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IT Profs in workforce/ UK applicants to Comp.



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What kind of positions

- contract research organisations (outsourcing)
- defence
- information technology/informatics companies
- energy
- pharmaceutical industry, chemical industry
- biotech companies
- physical sciences related industry
- telecommunications
- food and drink manufacturers, cosmetics

Source: GRADskills Conference. St. Andrews

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Post-Doc /PhD Level Entry

- Recruitment more discipline specific than MSc or BSc. grads. Hence fewer positions.
- Main asset sought after is quality: Lab experience and technical expertise gained after PhD/Post-doc
- Any applied industry experience: Sandwich year, Funding awards, commercial exposure will be valued

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Skills valued by industry

- Technical: Technically skilled, methodical, disciplined and hardworking
- Team work: Ability to work with others
- Communication: Able to present and communicate with peers at all levels.
- Business awareness – communication
- Adaptability: Projects change

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Transition into Industry

Employers always look for industrial experience.

How can you achieve this?

- Collaboration - as part of your PhD
- Placement before/ during PhD

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Perceived Advantages of a Research Career in Industry

Quotes from postdocs/postgrads:

- 'Well paid compared to academia'
- 'It's a permanent post'
- 'You get the perks of working in industry'
- 'Less funding restrictions'
- 'It's applied research rather than blue-sky research. You can see the benefits to society'
- 'I work shorter hours'
- 'There's more team work and support in general'

Source: GRADskills Conference. St. Andrews

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Perceived Disadvantages of a Research Career in Industry

Quotes from postdocs/postgrads:

- 'It's difficult to publish'
- 'It's hard to be innovative'
- I miss the academic freedom'

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Quote from Nokia

- At Nokia we employ over 20,000 staff in research and development - approximately 39% of our total workforce - to ensure we are at the forefront of product innovation.
- We look for specific skills when recruiting rather than qualifications, but applicants with PhDs have often developed these during their research.
- We need people who have a deep down knowledge of technology, can demonstrate the ability to solve complex problems efficiently, and be active within our company culture as well.
- PhD graduates can also act as a bridge between universities and industry, helping to promote technology transfer and a knowledge flow in both directions.

Karsten Vandrup, Nokia

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So why do a PhD?

- Because you want to
- And then make sure you maximise your employability

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