

Computer Science

Driving Entrepreneurship

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Introduction

- CPHC – 700 members in the UK, from over 100 universities
- April 2014 published a report into the role of university computing departments in promoting and supporting entrepreneurship



Motivation – improve perceptions of CS discipline

To counter recent negative public discourse, such as

- Big public sector IT projects fail
- Employers don't get the graduates they need
- Couldn't vendor MOOCs replace CS degrees?
- Unemployment rates of CS grads higher than other subjects

Graduate unemployment

- Destinations of Leavers in Higher Education – published Summer 2014 – for summer 2013 graduates
- Overall graduate unemployment rate **7.6%**
- Computer science graduate unemployment rate **13%**



Not the only story.....employment

- Graduate employment rate in Maths **46.9%**
- Graduate employment rate in CS is much higher at **67%**
- The figure quoted includes employed AND in further study
- **ONLY 10%** of CS graduates go on to further study

Still not the only story...

- CS graduate unemployment rates after 3.5 years (the follow up data collection point) is **5.8%**
- which is the same figure as Engineering&Technology
- while medicine and dentistry is 5.5%

Source

https://www.hesa.ac.uk/index.php?option=com_pubs&Itemid=&task=show_year&pubId=1714&versionId=54&yearId=292

And other good news....

- Headlines in newspapers in the UK citing CS graduates as the highest paid - <http://dailymail.co.uk/news/article-2781180/And-geeks-shall-inherit-best-pay-Figures-reveal-computer-science-graduates-earn-best-wages-leaving-university.html>

The screenshot shows a web browser displaying a Daily Mail article. The browser's address bar shows the URL: www.dailymail.co.uk/news/article-2781180/And-geeks-shall-inherit-best-pay-Figures-reveal-computer-science-graduates-earn-best-wages-leaving-university. The page features a navigation bar with 'MailOnline News' and various news categories. A main headline reads: 'And the geeks shall inherit...the best pay: Figures reveal computer science graduates earn the best wages after leaving university'. Below the headline, there is a list of bullet points: 'Computer scientists from Oxford University have highest graduate salaries', 'They earn an average of £43,895 six months after leaving university', 'Figure almost four times that of graduates in drama and dance from Essex', and 'Science degrees are increasingly the path to higher salaries, figures reveal'. The article is attributed to 'By THOMAS BURROWS FOR MAILONLINE' and includes a '361 shares' counter. A sidebar on the right contains an advertisement for 'hoop's shoulders' with a 'Try it Now' button and a '50% off' promotion.

The process

- Enterprise and Entrepreneurship in Computing Curricula resources (2013 workshop) as starting point
- Survey – of all CS departments
- Desk-based research into entrepreneurship as surfacing from websites/ external promotional material

The findings...

- A diverse range of models found
- Student-led
- Staff-led
- Resources included incubator labs
- Embedded in curriculum
- ...or not



Case study 1: Student IT consultants

University of
Kent

- University of Kent
- Kent IT Consultancy
- Support from industry
- Gives students practical experience
- Serves the needs of local business – SMEs in particular



Case Study 2: Technology spin-outs

- Queen's University
- Analytics Engines
- Support from venture capitalist
- Grant for secondment - CTO
- Also placement on courses



The report

The screenshot shows a web browser window with the address bar displaying 'http://cphc.ac.uk/'. The browser's menu bar includes 'File', 'Edit', 'View', 'Favorites', 'Tools', and 'Help'. Below the menu bar, there are several icons for 'Staff Intranet', 'Search Center', 'iTrent User Logon', and 'ESS'. The main content area of the browser shows a webpage with the following elements:

- Posted in **General** | Tagged **BIS, CS Graduates, Employers, Industry**
- ## New Report on Driving Entrepreneurship Published
- Posted on **14 April 2014** by **Vic Grout**
- A new CPHC report, written by Dr Peter Norrington, has been published*
- [Computer Science: Driving Entrepreneurship](#)
- This report presents the findings of a snapshot review to highlight spin-out, start-up and student-based models for entrepreneurship throughout computer science departments in the UK, showing how computer science can create jobs and growth. The report was undertaken with a view to celebrating the contribution of computer science to economic growth. It can also be used to generate and source ideas where institutions are considering how this might work in their departments.

[Continue reading →](#)
- Posted in **General** | Tagged **Entrepreneurship, the Council of Professors and Heads of Computing**
- [Older posts](#)

On the right side of the page, there is a social media widget for Twitter. It contains the text: 'to address the cyber security skills gap @isc2 @computingcounts Retweeted by CPHC Expand'. Below this is a 'Tweet to @computingcounts' button.

Below the Twitter widget is a 'RECENT NEWS' section with a list of items:

- **CPHC and Community Support for CAS** 22 July 2014
- **HEFCE, BIS, CPHC to meet** 22 July 2014
- **Plans for 2014/15** 7 July 2014
- **We Need to Talk!** 29 May 2014
- **New Report on Driving Entrepreneurship Published** 14 April 2014
- **Meet the New Committee** 9 April 2014
- **New CPHC Chair Looks Forward** 8 April 2014

At the bottom of the right sidebar is a 'FOLLOW CPHC' section with the text: 'Enter your email address to receive CPHC updates'. Below this is an empty text input field.

The browser's status bar at the bottom shows '125%' zoom level.

<http://cphcuk.files.wordpress.com/2014/04/cphc-computer-science-driving-entrepreneurship-final.pdf>

Data – the difficulty with it

- The dearth of public data on entrepreneurship and computer science, relating to course uptake and graduate destinations.
- Collated data on computer science start-ups and spin-offs, whether led by staff or students, is not available.
- UCAS course search only uses the course title, not the course summary or any of the deeper information on modules.

Impact - REF

- Later this year the Research Excellent Framework is published
- More good news stories will emerge

Conclusion

- CPHC is promoting the computer science discipline
- Improving the nature of the discourse
- Recognising the value of entrepreneurship is one way of doing this

Thank you!