

Response from the UK Computing Research Committee (UKCRC) to the House of Lords Science and Technology Committee inquiry of 16th January 2014, into the effect that immigration rules may be having on international students

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The UK Computing Research Committee (UKCRC), an Expert Panel of the British Computer Society, the Institution of Engineering and Technology and the Council of Professors and Heads of Computing, was formed in November 2000 as a policy committee for computing research in the UK. Its members are leading computing researchers who each have an established international reputation in computing. Our response thus covers UK research in computing, which is internationally strong and vigorous, and a major national asset. This response has been prepared after a widespread consultation amongst the membership of UKCRC.

The UK's stated policy of shifting its emphasis towards an economy with more manufacturing, the Research Councils' greater emphasis on technology and manufacturing, and the ongoing shortage of the numbers of new graduates (including some of those with doctoral degrees) that are needed to fuel and maintain these shifts, appear to be at odds with the Government's policies regarding visas for scientists and engineers with research degrees or for those seeking advanced degrees. Although it is hard to know whether recent changes in immigration rules alone have had a major impact on prospective PhD students and post-graduate and post-doctoral research assistants who would normally choose to study and conduct research in the UK, we have indeed observed a significant drop in general for incoming STEM students, and a shift in the countries of origin for STEM students who enter the UK. Visa policy may not be the only cause of this problem but it is a contributory cause.

It is quite clear that the length of time required to obtain a visa by, say a prospective Chinese PhD student who has gained admission to a UK university, has increased significantly in the last two years, with processing total delays reaching four or more months. This is a serious amount of wasted time for anyone who has ambitions to progress and succeed in their chosen field of research. There is currently a seller's market for high performing students in computing science, with very strong competition between international universities for the best students. The time window in which UK universities can compete for these students is brief and uncertainty over the outcome of visa applications places us on the back foot in competition.

The measures put in place after 6th April 2013 allowing PhD students completing their course to apply to stay in the UK for a further 12 months beyond the end of the course, so as to find skilled work or to set up as an entrepreneur, are indeed positive and are aligned with common practice abroad, for instance in the USA and in France. However, for PhD graduates of UK universities who are non-EU citizens and who have a job offer, the hurdle of the acquisition of leave to work in the UK has become quite daunting, with unexplained delays and the sheer difficulty of obtaining an interview with the Immigration Authorities.

Regarding post-doctoral research, the whole process of applying and obtaining a working visa for a non-EU post-doctoral candidate from an elite university in, say Israel or the US, or for a non-EU citizen who receives a PhD from an EU university or research centre, seems to have been designed

to dissuade both the UK sponsor and the candidate from taking this perilous, time consuming and uncertain route.

This problem is exacerbated by the fact that the UK is often, by European standards, an expensive study destination. While certain BRIC countries such as Brazil, as well as Chile, have launched programmes to place large numbers of their own PhD students abroad, the purely nominal doctoral tuition fees that are paid in most European countries are a significant disadvantage for attracting them to UK universities. Thus several countries in Europe, including Hungary, France, Italy and Germany, are attracting an increasing number of PhD students from Brazil. UK strategy has been, on the whole, to increase fees (both internally via tuition fees and internationally) while UK Research Council scholarships are focused on home students rather than attracting students from abroad. The combination of high fees, few scholarships and more difficult navigation of visa rules is not a recipe for attracting the best and brightest PhD students to the UK from abroad.

Beyond this, European nations continue to raise their attractiveness in other ways. In France, work rules have been relaxed and amended by the current government, whereas previously it was difficult for non-EU doctoral graduates to apply for post-doctoral and other positions. France, Germany, Switzerland, the Netherlands, Belgium and Scandinavia have made it much easier to teach and conduct research activities in English, reducing one of the UK's most competitive assets. German industry, even the automotive industry, is competitively extending its reach in advanced computer science and electrical engineering as transportation becomes "smarter", and many of our own UK PhD graduates from different countries move to Germany to take up advanced technology jobs in industry and applied research centres which abound in that country.

UK computing departments do still play strongly in an extremely competitive environment where the ubiquity of our discipline means that competition is worldwide. In addition to the traditional US competition, many countries in the European Union as well as Switzerland are actively and aggressively recruiting foreign talent into their PhD programmes and into post-doctoral and other research positions. Research activities in Europe, China, Singapore, Taiwan and India are expanding and PhD candidates as well as graduates from abroad (and of course their own home students) are being encouraged to take up doctoral traineeships and post-doctoral positions in these countries.

The UKCRC therefore feels that the current process for attribution of visas to highly qualified PhD candidates and post-doctoral researchers is badly conceived at a time when many other factors also make the decision to study in the UK less clear cut than it may once have been. Sending an unwelcoming message abroad will affect not only the higher education sector in general, and the STEM fields in particular, but can also adversely impact the image of British business and society internationally.
