

## **Submission for 2015 SRHE conference**

### **Zen and the art of risk assessment: what are the implications of a system of risk-based quality assurance for higher education in England?**

#### **Introduction**

Higher education has expanded significantly in the past decade, with systems in both developed and developing economies moving from elite to mass provision (Parry, 2003). The demand for higher education frequently outstrips the ability of the state sector to provide, resulting in an expanded private sector and mixed economy provision.

An expanding system of higher education raises questions about how it will be funded and regulated, to ensure that standards and the learning experience are maintained across a diverse and differentiated range of provision. The need to regulate in complex systems raises questions about regulatory coherence and how the various objectives of regulation can be best met in a cost effective way. One approach is the implementation of risk-based quality assurance and this paper discusses how this can be applied to the system of higher education currently in place in England, together with the potential effectiveness of different models and indicators of risk.

#### **The English context**

Government policy in England, since 2012 (*Students at the Heart of the System*, BIS, 2011), has created a market in which public subsidy for higher education is channelled through a system of loans and grants to students in institutions, charging annual tuition fees of up to £9,000. Student finance is administered by the Student Loans Company (SLC) and publicly funded higher education providers are subject to individual Access agreements with the Office for Fair Access (OFFA). Students in private providers are able to access loans for annual tuition fees of up to £6,000 for courses designated as eligible for support. In terms of quality assurance, this policy has been accompanied by the desire to create a level playing field for all providers and to introduce a system of risk-based quality assurance (HEFCE, 2012 and 2015), which is both proportionate and cost effective. In parallel, there has also been a recent shift in policy language, moving from references in the 2011 white paper to 'lighter touch regulation' and removing 'barriers to entry', to an emphasis on tightening standards and more robust quality assurance processes.

#### **Risk management: indicators and modelling**

Recently, there has been a significant increase in the availability of indicators concerning the management and performance of higher education institutions. This has been accompanied by calls for its use to target quality assurance activity in an intelligence-led, risk-based approach. In this research, we utilised recently-developed machine learning techniques to assess the ability of data to forecast the findings of quality assurance reviews, and hence drive a more targeted and efficient assurance system.

#### **Methodology**

An efficient, risk-based approach to resource allocation, must use centrally-available and comprehensive information. Over 665 indicators with possible links to quality or quality assurance within English HEIs have been collected and used to develop further indicators. These include indicators concerning the destination of leavers, staff and student characteristics, application data, past performance, student satisfaction and finance (HESA, 2013). Each QAA review of a university conducted under an approach comparable to the current *Higher Education Review* (HER) was then matched with the most current data available, one month prior to the review taking place.

Utilising the *elastic net* approach which combines *ridge* and *lasso* regression to perform both model stabilisation and variable selection, we were able to determine the model which, with perfect hindsight, would have best predicted the outcome of the QAA reviews without simply over-fitting the limited data set.

## Conclusions

A number of different models produced similar results; however, the chosen model utilises two specific indicators regarding institutional staffing characteristics and institutional student characteristics, to predict the likelihood of being judged as 'unsatisfactory'. How well this model performed depends on one's viewpoint and risk appetite. Within the first nine reviews the model would have prioritised five 'unsatisfactory' judgements; however, performance declined after this point. Whilst the model would have, with perfect hindsight, allowed for less than half the reviews actually conducted, to identify all 'unsatisfactory' institutions, it would have still had a required 72 reviews of 'satisfactory' institutions to have been carried out. Furthermore, the model's application to more recent data, not yet followed-up by reviews, suggests that some institutions which are highly ranked in global league tables, should be prioritised as 'at risk', if this type of modelling is used. Whether this means that there are high-profile institutions facing quality assurance challenges in a complex and fluid external environment, or, despite perfect hindsight and a wealth of data, we are unable to predict the outcome of regulatory reviews, is a matter for discussion.

## Implications for policy and practice

When considering the implications for policy and practice in higher education of a system of risk-based quality assurance, it is necessary to ask what constitutes quality in higher education and what are the objectives of quality assurance in particular systems? These may include:

- Ensuring accountability for public investment
- Assuring academic standards
- Protecting the student experience
- Promoting enhancement

The title of this paper alludes to *Zen and the Art of Motorcycle Maintenance: An Inquiry into Values* (Pirsig, 1974), in which the meaning and concept of quality, a term he deems to be undefinable, is explored. It is suggested that to truly experience quality one must both embrace and apply it as best fits the requirements of the situation. This approach would support the importance of a regulatory system designing methods of review, audit or accreditation that are fit for purpose for a wide range of different types of higher education provider, with different missions, purposes and traditions, as a necessary and contingent feature of a diverse system of higher education. This can be addressed by the concept of threshold standards and risk-based review which are more proportionate and cost effective,

reflecting the levels of risk at different institutions, based on both retrospective and predictive indicators.

## References

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