

A contribution to the review of research assessment from the Association for Learning Technology

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1. Background

The **Association for Learning Technology** (ALT) promotes good practice in research, use, and the development of learning technologies in tertiary education. We serve our members and the general public through:

- events, such as our annual conference (ALT-C, the premier learning technology conference in the UK), an annual one-day spring conference, and monthly workshops for groups including established and new researchers, as well as events such as focus groups for commercial suppliers and developers.
- publications, including an international refereed research journal (ALT-J), a quarterly newsletter (ALT-N), a series of books and 'starter guides' on learning technology topics published jointly with the LTSN Generic Centre. ALT also has an active web presence including a central site, electronic discussion lists for members and involvement in a national learning technology portal (RESULTS).

ALT, a registered charity, seeks to work on joint events and publications with like-minded organisations, and has links to groups such as the Institute for Learning and Teaching, the Association of Colleges, and many others, as well as comparable organisations such as SURF in the Netherlands and ASCILITE in Australasia. Our rising membership, reflecting a growing field and our success, currently stands at circa 500 individuals, 124 colleges and universities, and 13 corporate members.

ALT's aims are to:

- promote research and good practice in the deployment of learning technologies in education and industry
- represent its members and the discipline in areas of policy
- facilitate collaboration between researchers, practitioners and policy makers

This field of study is relatively recent (having its roots in research into the role of media in education originating in the 1940s) and so we have taken on an active role in developing both research and researchers, as well as supporting practitioners and developers. Terminology in this area is rapidly moving (largely in response to shifting government policy), and thus 'learning technology' now covers to areas such as e-learning, online learning, educational technology, instructional design and the use of computers in education more generally.

This response has been developed by the Research and Policy Committee of ALT, and circulated for comment across its committee structure. It should thus be seen as representing the views of the association including its executive and its membership.

In response to the invitation to contribute, this document outlines views and areas of concern as expressed by members of ALT, both through this consultation and informally in response to previous exercises. We have followed the invitation to contribute, with the different approaches to assessment considered first,

followed by the cross-cutting themes. Only those themes considered most relevant to ALT are addressed here.

2. Different approaches to assessment

We argue against a single methodology for all disciplines. The way to support new subjects such as ours is not to have one-off, small sums of money released separately (although extra funds are always welcome). Instead, we argue for an assessment methodology that has a light touch regime for established disciplines but allows differing approaches and recalculations in response to trigger indicators in emerging disciplines. This may involve more frequent review and recalculation than the standard period between RAE assessments, as well as variable levels of funding. However, we anticipate that the perturbation within the overall budget as a result of this should be small. We also argue for methodologies that are diverse and flexible. It is here that predictive judgements, rather than historical ones, may be needed. This treatment for new disciplines is essential for the health of UK research.

Expert review (including peer review)

Although peer review is problematic in such an interdisciplinary context (see below), this model is well established within the community and is likely to receive broad acceptance. However, we have concerns about the constitution of panels and about the likelihood that they will fail to reflect the diversity cross-disciplinary and fast moving specialist fields such as our own. Ongoing flexibility and adaptability in the panels is needed to address this, clearly supporting the idea that distinct groups of subjects may need to be assessed in different ways.

In new disciplines, significant international input is vital since the UK is unlikely to have sufficient expertise available, given its structures and responsiveness. This is particularly true when judging the importance of disciplines and their trajectory.

Given the value placed on applicable and influential research, participation from a limited number of representatives of UK "stakeholder" groups such as educators (or the Institute for Learning and Teaching in Higher Education), policy and support agencies (such as the Joint Information Systems Committee) may be appropriate.

Algorithm based entirely upon quantitative metrics

There is considerable worry about the use of metrics alone to judge research quality, especially in an environment in which games play is endemic. The spread of research across disciplines means that quality must be judged on the fitness of the investigation for specific audiences, rather than on some generalised ranking of quality, making measurement of publications' impact factors problematic in the short term. However, publications (a word which itself needs to be widely interpreted in the current shifting world) vary in status; sophisticated interpretation is needed to judge their quality that is not amenable to metrics alone. Even value of awards is difficult: assumptions about the kinds of funding that 'count' are problematic, when much excellent research within the field arises from reflections on what have been small-scale, internal or development projects. In this respect, the field might be considered as being analogous to the humanities, in that the primary cost of research lies in staff time, not equipment costs, making budgets relatively inappropriate as a proxy for research. Particularly damaging here to date has been the treatment of awards to do generic work for the funding bodies themselves. In our field that is part of the research funding mechanism – a situation that needs to be addressed in future revisions.

Self-assessment

Researchers within this field place great value on emancipatory approaches to learning and teaching, of which self-assessment is an obvious example. As such, self-assessment is likely to receive positive support. However, this interest also means that researchers are acutely aware of the mismatch between the educative value of such an approach and its use in 'high stakes' assessment situations, which a review of research would inevitably represent. Thus whilst self-assessment would be seen as playing an important role in enhancing the quality of research groups, its use for summative judgements about quality is and will remain problematic. Self-assessment of the things that are held dearest to an individual are those where judgement is likely to be weaker and the interplay with games playing is obvious. It is hard to distinguish between the honest mistakes, misrepresentation, and inaccuracy, and the devising of a set of rules to deal

with discovered inaccuracy is hard – ideally it should be punitive when intentional (at least involving substantial publicity), which is something from which the funding bodies will shrink.

Historical ratings

As has been noted, learning technology is a field that responds rapidly to technological innovations and policy changes; thus new areas of expertise can arise within the space of months. Moreover, studies within the field have shown that many researchers' careers consist of short, fixed-term appointments on funded projects (a position similar to other new fields such as computer science in the 1970s). At the end of such appointments, it is not unusual for the researcher to move institution. There is thus a fast turn-over of staff and considerable movement within the field. As a consequence, any model of funding that assumed slow or steady historical change (second derivative constant) would be entirely inappropriate. Similarly, other fields are collapsing because of a lack of an underpinning student population; these collapses can take place rapidly as departments are closed or merged.

It should be possible to have a way of using historical data, current metrics, and infrequent sampling for disciplines that are slow moving. This should, however, be tempered through the use of indicators that show when such assumptions are inappropriate. Possible indicators might include rapid expansion or contraction of the staff or student base, high mobility, departmental changes, etc. For the set of disciplines highlighted by such indicators, a more frequent and human-centered procedure should be used. To minimise the administrative burden involved, it might even be possible for the indicators to be triggered at a departmental (rather than disciplinary) level, for example for a newly formed department or much expanded one. Thus for established subjects the conventional, infrequent light-touch approach would be appropriate, whilst for those of recent birth or nearing death, more intensive care may be needed.

3. Cross-cutting themes

The meaning of research quality

ALT's membership includes diverse roles, including researchers, policy makers, IT and library specialists as well as educational practitioners (including academics from traditional disciplines and staff, educational and professional developers). This mix flavours the work that is valued within the field. Whilst blue-skies research work is welcomed, especially where this leads to new insights into the field, particular value is attached to studies or critiques that can directly inform policy and practice. Moreover, because of the fast pace of change and the complexities of implementation in this field, much research is (of necessity) case-based and reflective. We therefore welcome the Joint Funding Body's awareness of the need to recognise all aspects of excellence in research, especially in the areas of value added to professional practice, applicability, and impact within and beyond the research community. In particular, the community values research that can make a positive contribution to the development of learning and teaching and/or organisational learning and behaviour.

One aspect of this diversity that is of particular concern is in the area of methodology. Learning technology draws on a diverse range of disciplines (see below) and thus does not privilege one approach over others. Thus we would wish to see a mechanism for judging quality that concerns itself with the way in which methodology is interpreted and applied, rather than one which attempts to value particular approaches (such as, for example, the hierarchy of evidence in medical research).

Disciplinarity, interdisciplinarity and multidisciplinary

Learning technology is a truly interdisciplinary field of study, drawing on education, psychology, organisational behaviour, computer science, cognitive science, artificial intelligence and philosophy, amongst other areas. It is also informed by the characteristics of the specific disciplines in which education takes place. Not only are these different research traditions represented in learning technology (a situation we would characterise as 'multidisciplinarity'), but in many of the best examples of research in this field they are contrasted critically and productively. This provides new insights which inform not only learning technology, but also the originating discipline ('interdisciplinarity'). Thus, what constitutes interdisciplinary work is the genuine interplay between the disciplines. Acceptance of this often seems to cause problems for "pure" single-discipline researchers and leads to such work being considered as of lower value. The strong subject focus of so much activity by the funding bodies reinforces this conservative attitude.

This situation poses problems for researchers working in the field. Previous Research Assessment Exercises have proved to be divisive and counter-productive to this field of study. There are plenty of comparable examples, such as the emergence of both Computer Science and HCI as legitimate fields of study in the 1970s and 1980s respectively. Specifically,

- Academics working in traditional disciplines have experienced conflict between pursuing research into learning technology within the context of their discipline and pursuing what has traditionally been viewed as 'core' disciplinary research. With limited time at their disposal, researchers interested in this area may choose not to pursue their investigations if they perceive that this will not 'count' within their department, particularly where issues such as job security or promotion are at stake.
- Researchers who identify first and foremost with learning technology have experienced problems identifying an obvious 'home' for their work. Such researchers may be scattered across an institution (often coming from contexts such as staff development or other support services, as well as from a diverse range of departments) and may not readily identify with the institution's education department, particularly when this is focused on primary or secondary education.

In summary, this problem has been described as a 'box fitting exercise', with learning technology researchers believing that quality is judged on the ease with which their work fits the 'box' of interests represented by reviewers who lack the specialist interdisciplinary knowledge and approaches necessary to judge their work. The resulting delay in new discipline areas being recognized and adopted in the UK is unfortunate for the work of the country, but is a natural result of a process that rewards historic conformity, conducted by well-established vested interests. As a consequence there is a real danger that, as with other areas such as computing hardware work, important new research areas will abandon UK academia and be conducted from other countries and sectors.

ALT recognises that these problems reflect wider issues facing research more generally, and would wish to see a solution that accommodates these various areas harmoniously. In previous exercises, sub-panels have been constituted to address groups such as the Institute of Educational Technology at the Open University. Encouragement for the creation and use of such specialist sub-units of assessment and way of dealing with rapidly moving areas will be a way forward.

Equality of treatment

Research within the field suggests that many researchers who are on short, fixed-term appointments are women. This makes it particularly important to ensure that that researchers are not penalised for career breaks, for example. Moreover, the project-based nature of much work in this field means that individuals may find their time split between research, administration, teaching, staff development and other duties. It is therefore vital to develop a scheme that recognises that research work may represent a fractional, or even occasional, but nevertheless crucial part of any individuals' identity and that excellent world class research can be achieved outwith the 'dedicated monk' model.

Priorities

There appears to be a tension inherent in the areas of priority suggested by the invitation to contribute between the desire for a simple system and for one that is rigorous and resistant to game-playing.

Research within learning technology and education has demonstrated that no matter how complicated the design of assessment mechanisms, students learn how to 'play the game'. There is no reason to believe that researchers will be any different when faced with a mechanism for research assessment. It would seem, therefore, that the emphasis within the new design should fall on the side of simplicity and transparency. Alternative strategies include changing the rules very frequently, and making the result of being caught breaking them very unfortunate for the individuals and institutions involved. Both of these options have their place.

4. Summary

ALT represents a diverse group of interests; it is this diversity that has proved problematic in previous research assessments. As such, ALT would welcome a revised mechanism that:

- Is flexible, supporting and encouraging the creation of specialist, interdisciplinary sub-themes, involving greater international and outside involvement for evolving areas;
- Values diversity, judging the overall quality of pieces of research rather than privileging particular methods or kinds of research;
- Incorporates self-assessment (as an opportunity for development) and expert review (possibly including representation from stakeholder groups), but does not rely on algorithms or historical models, nor merely on self assessment;
- Is capable of being modified and recalculated in response to shifts in activity in fast moving areas, to nurture new activity and allow success to be reinforced rapidly
- Is simple, largely metric-based, and relatively infrequent in more established areas; and
- Does not penalise marginal groups of staff such as those passing into and out of a field of study or having other work commitments, those on fixed-term contracts and those taking career breaks.