So – What IS Smart Learning?

This article attempts to describe the full dimensions of the Smart Learning project with the minimum of technical language or theory.

Firstly, Smart Learning is NOT a set of software tools. There are software tools (“Smart Tools”) that are critical to the operation of Smart Learning, but Smart Learning is about the organisation of learning and teaching, enabled by the software.

Most broadly Smart Learning is about professionalising learning and teaching. Not in the sense of saying that people who work in University and learning and teaching are ‘unprofessional’ in the way that term is often used – suggesting somebody is a bit slack on the job – but in the sense of giving learning and teaching the full infrastructure that usually supports a profession (see for example The Grattan Institute’s “Taking university teaching seriously”: http://grattan.edu.au/static/files/assets/aa7940a6/191_Taking-Teaching-Seriously.pdf)

Take any established profession, such as medicine, accountancy or engineering. These professions have some common features.

1. Some sort of formal qualifications for members, related to the work.

2. A body of knowledge that informs the work, based on research and practice.

3. Tools that enable the work, based on the body of knowledge in 2 and which also link to other aspects of the professional work, such as the business of the profession (funding, reporting and regulation etc.).

4. Shared values, standards and language, developed and constantly modified as needed, by the members of the profession.

5. A regulatory framework, with policies and the standards listed in 4, to oversee the operation of the profession.

6. Generally professions are self-governing or self-organising, even though they’re deeply connected to others outside the profession via the work they do. This self-organisation is made possible by putting in place process to ensure that both the everyday work of the profession and the administration or management of this work are talking about the same things – the specific details of the everyday work.

Learning and teaching, in most contexts and particularly in universities and other ‘higher education’ bodies, would not generally fare well when assessed against these 6 criteria. For example:

- while most higher ed teachers have some form of qualifications, these are often if not mostly related to the area in which they teach, rather than being qualifications in teaching itself (so they know about geology or law, but not necessarily about the best ways to teach geology and law)

- following on from this, it’s inevitable that they also won’t have a body of knowledge surrounding teaching that all staff share
there are many tools used in education, and in recent times particularly software tools. But these tools do not often have a strong relationship to learning and teaching research, and certainly not in any sort of way that is widely shared by and agreed to by other teachers (generally individuals try to innovate in this area, or at best ‘communities of practice’, rather than the profession as a whole)

again, without a shared body of knowledge surrounding learning and teaching, it is very difficult for teachers to have shared values or standards related to learning and teaching, in a concrete way

generally regulation of learning and teaching is not driven by the profession itself, but by external agencies, and/or by the organisations in which people work, and

this reflects the fact that learning and teaching is rarely self-governing or self-organising in any sort of way, at scale, within an organisation and beyond it. Those who manage teachers and those who do the teaching talk about quite different things – the teachers are the ‘micro’ level, and the managers more often do the ‘macro’ work of organising the conditions in which teaching occurs. People aren’t ‘on the same page’, working on the same issues arising each day in teaching, even if they’re all committed to learning and teaching.

Smart Learning is designed to address each of these challenges, in the following ways (not in any order of importance).

1) In recognising that many university teachers are not trained in teaching, it develops collaborative processes around teaching that allow for a much greater sharing of knowledge. It also builds research-based knowledge about good teaching into the tools that learners and teachers will both use, so that the tools will help to make people ‘smarter’ about learning and teaching (hence “Smart Tools” - doctors and other professions do this with decision-support systems, as an example from other professions).

2) This collaborative work is embedded within peoples’ duty statements or contracts, so that collaboration is reinforced by processes such as performance management and promotion. Collaboration will become a basis to be directly rewarded and promoted, rather than a more individualistic process as currently exists.

3) The teams of people working on course design and teaching include all those at every level of the Faculty, right up to the Executive Dean, as well as key Divisional support staff. These teams will be actively engaged, in real-time, with course design and the learning and teaching happening within courses, rather than a micro (teaching) / macro (management) split.

4) The Smart Tools make this collaborative work possible in both course design and delivery, providing the real-time feedback data needed to show members of the teams and students how the design and delivery are performing, and allow changes to be made immediately where problems occur.
5) The tools collapse the usual split between teaching, the management of teaching and students by providing each group with just the data it needs to manage the learning as it unfolds in real time. For example students will be able to provide direct feedback on learning tasks, as they happen, with staff then able to act upon this feedback the same day if needed. Management will be able to precisely target resources and actions in ways that make a real difference to the learning – the process and tools will show precisely where the problems are, in real time. And because the Smart Tools unpack the learning and teaching KPIs so that they can be embedded right down to individual assessment tasks, management of the Faculties and University will also have real-time data to show and modify progress against these KPIs, in their work with the course teams.

6) All course design and delivery begins with a shared set of ideas, standards and values about what the course is hoping to achieve and how it will achieve it, so that all involved in the course team will have a shared understanding and set of values and ideas.

7) Learning and teaching and related course policy have been re-written so that it supports the collaborative processes above. In this way the governance of the process will be consistent with the process itself, and collaboration will be further reinforced because the policies require it.

8) The student-facing Smart Tools will embed research in learning and teaching. For example group work and lecture Smart Tools are designed so that as students and teachers use them, the tools will be structuring the learning so that it matches what research says actually works. In this way teachers without a background in teaching research will find it much easier to design and deliver learning experiences that are powerful and effective.

9) The Smart Learning process is driven from the ‘bottom up’, in that it’s the design and the delivery of the course that generates the momentum and data that keep the rest of the process running. Learning and teaching becomes a more self-organising activity.

10) Because the collaborative Smart Learning process has precise roles for each member of a team, and these are also part of employment arrangements, there is line of sight right through from the individual learning task a student undertakes to how course design and delivery is funded. The Smart Tools as a result will allow a marriage of the work and business aspects of the profession, as the tools other professionals use do as well.

Examples

Three far-from-comprehensive examples showing the way that Smart Learning mirrors the way other professions work.

Medical Practice
Doctor sees a patient. Preliminary assessment suggests a MRI scan might be needed to confirm a diagnosis. New research on MRI suggests a particular type of scan, which the doctor recommends. Patient receives scan and diagnosis and treatment is decided upon.
Government and profession monitors the use of scans and latest research, and medical outcomes, and continuously refines guidelines for use of MRI and funding arrangements.

**Teaching with Smart Learning**
A course team has decided that one subject in the course will need a strong group work focus. There is clear and extensive research on the use of group work, which has been built into the Smart Tools and modules to be used by students in the lessons. As students use the tools their direct feedback is diagnostic for the teaching team in identifying where the students are struggling, and what intervention may be required. The intervention occurs immediately. At the same time the tools tell managers that further professional development may be required in the area of group teaching, and that this is an emerging pattern across courses within both this Faculty and others. Faculty and university-level plans are adjusted accordingly.

A Faculty Smart Learning Committee discusses new research emerging in the effectiveness of a new type of group work, and refers it to the Academic Senate Smart Learning committee. Senate agrees to add a new module to Smart Tools to enable this new type of group work. Members of the course team discuss how this will operate within the School, with the Head of School and Course Director devising a new approach. The Executive Dean adjusts the Faculty plan accordingly.

**Teaching without Smart Learning**
A staff member has knowledge of research on group work in teaching, and implements it in their subject. The results are promising, but there are too many students in the subject to allow proper implementation of the approach. Preliminary feedback from some of the students suggests there were good and bad aspects of the approach, but the teacher will need to wait until the end-of-session subject evaluation to get a sense of the general success of the teaching (and that feedback will not necessarily specify in detail what was good and bad).

The staff member discussed the approach with colleagues, but some of them didn’t know of the technique, weren’t confident in using it, or didn’t have time. All weren’t sure if it fit within their current performance agreement with the Head of School. The Faculty and University learning and teaching plans make no specific reference to group work, so the staff member isn’t sure how to share the outcomes of their work and how to build some momentum around it across CSU. Courses in which their subject sits aren’t designed to the level of teaching strategies, so the staff member has difficulty sharing the results even at the course level. Everyone is busy doing their own, relatively separate, thing.

**In summary...**
Smart Learning addresses all of the characteristics of professions listed earlier. Smart Learning integrates organisational change, technology and collaboration as part of a systemic approach to learning and teaching. Technology is only used where it helps with that integration, so that learning and teaching become fully professionalised and responsive to the needs of both students and staff. A change in teaching or technology or policy will be evaluated according to their effects on each other – they are all the one process under the SL approach. The Smart Tools are where they all meet, as staff and students use them in course design and delivery.