

Towards an understanding of Impact in using learning technologies - a Reader to accompany the LSIS Workshops

Introduction & the nature of Impact

Having impact justifies purpose. It allows us in short to answer the question: what is e-learning and 'e-learning, what's the point?'

Specifically, it is important for three reasons:

1. It allows us to justify what we do
2. It shows the contribution learning technologies makes to the college
3. It contributes to the reasons we should tell prospective learners why they should study with us.

Sir Isaac Newton explained Impact first and defined it in his three laws of motion:

First law: An object at rest will remain at rest unless acted on by an unbalanced force. An object in motion continues in motion with the same speed and in the same direction unless acted upon by an unbalanced force. This law is often called "the law of inertia".
Second Law: Acceleration is produced when a force acts on a mass. The greater the mass (of the object being accelerated) the greater the amount of force needed (to accelerate the object).
Third Law: For every action there is an equal and opposite re-action.]

If Newton had been an e-learning champ instead he would have said:

First Law *Momentum in teaching remains constant unless someone tries something different*

Second Law: *The amount of energy and enthusiasm in effecting change will only have an effect when it is stronger than the desire to hold the status quo*

Third Law: *Without commitment to doing something there is no consequence.*

There are two problems with attempting to measure Impact.

- First is how does one define the criteria that allows measurement.
- Secondly, how do we know that what we are measuring is a unique consequence of the effect of pure e-learning?

This presentation, we will attempt to provide answers to both questions by deconstructing the processes and makes suggestions for how impact can be better understood as it relates to e-learning. As a consequence it will provide a method of finding and describing impact and then providing an evaluation.

Impact is the outcome of two actions: A striking force on an object and its equal and opposite reaction as a result of that strike.

In education, we might say impact is the degree of effort put into the enterprise of change as a means of enjoying the (hoped for) benefits of the resultant equal and opposite reaction. It follows that the degree of benefit should outweigh the challenge and turbulence caused by effecting the change.

Graphically it would appear like this:

$$\frac{\text{Change}}{\text{Time}} + \frac{\text{Benefit}}{\text{Turbulence}}$$

Towards an understanding of Impact in using learning technologies

Impact assesses the striking force between physical objects which should cause an equal and opposite reaction, yet in e-learning terms, 'technology in action' in this sense is metaphysical and therefore beyond physical laws of measurement. Capturing a sense of how a teacher or student *feels*, relative to how they felt prior to the change (excited, engaged, supported, driven, challenged, enthralled, bored, disappointed) becomes the language of impact. Rather than measure empirically, we measure by evaluation the emotive responses recorded by those affected. That language is based on the experience summed up in the rate and profundity of change against the benefits felt and the degree of turbulence caused in getting through and settling the change.

Attitude itself is an important yet overlooked critical factor in the degree of take up and success engendered.

Distinguishing the unique e-learning contribution - The double-negative list

Using a double-negative list is a method of distilling the features of change that are unique e-learning activity.

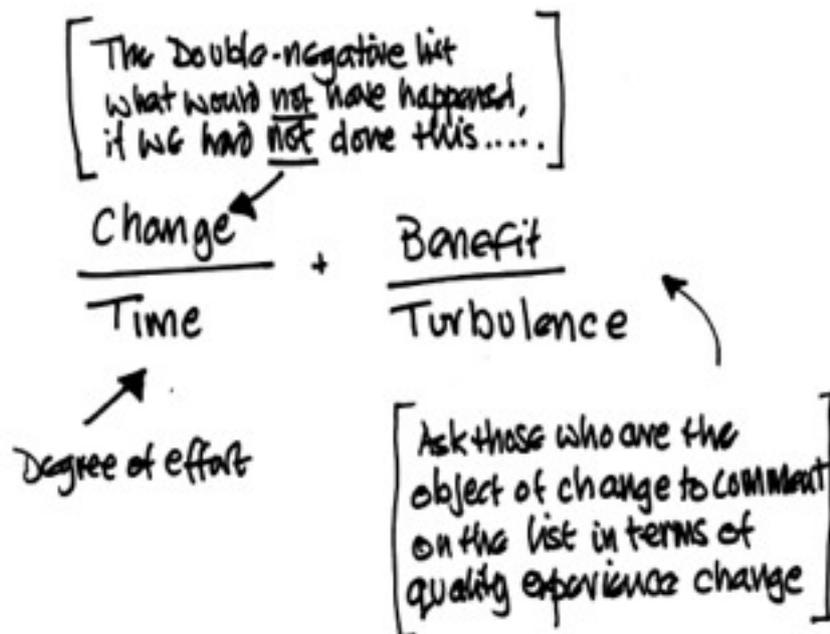
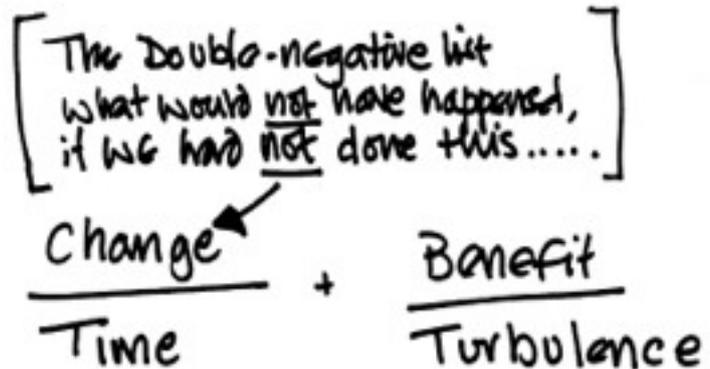
This is achieved by writing down everything that would not have happened had the change not occurred.

Discipline is required to leave out things that happened for other reasons, or would have happened regardless of the e-learning

intervention. Sometimes it may be necessary to adjust the language to claim an aspect of change if not the whole element. Be prepared to reword the double negatives to get an accurate and defensible list.

The 'double negative' statement ultimately provides a positive statement that include the technology involved and the change in experience generated that can be tested on a Likert scale by learners

for degrees of agreement. Depending on the degree of agreement, these statements answer the 'so what?' question posed above.



Towards an understanding of Impact in using learning technologies - a Reader to accompany the LSIS Workshops

One way of aiming impact is to refer to strategic targets. Consider the **learner entitlement list** shown as Appendix 3. Each of these aims could become the second part of the double negative statement.

For example, entitlement 4 could be *“had Moodle not been introduced, students would not be able to submit course work during periods of extended sickness absence from college”*.

Benchmarking

External comparison is of very limited value. It gives a sense of where you are generally relative to others. Perhaps it is valued because it does more to show where there are gaps in provision relative to others and where providers might be vulnerable to criticism.

Benchmarking suggests that there is ultimately a common structure and behaviour that all can strive for, led by the few. It suggests it is possible to standardise the personal and yet personalising is one of the great enduring strengths of e-learning. Valuable effort is used debating relative merits. Of much greater value is to know that progress is being made internally, according to learners and that there is discernible progress over time in the stories captured and outcomes achieved. Critically, it is being able to contribute that knowledge with evidence into the wider reporting procedure so e-learning can make informed contributions to progress in teaching, learning and assessment.

Turbulence and the inverse rule of Impact

Turbulence means in making the intervention the degree of which technology got in the way. It is possible that we have been deceived, in the past, in our search for the impact of technology, expecting it to be physically manifested and overt in everything teachers do. It could be that successful impact is evidenced by the opposite; technology use being one element in many artfully constructed student-centred learning experiences that are part of everyday practice such that the technology is not really seen nor acknowledged, simply being used when deemed appropriate for learning as planned. This appears to be the case with the use of Moodle VLEs to pick one example.

Troublesome or unsatisfactory technologies with little immediate application to practice remain on the surface and open to view, and thus to questioning through the turbulence they cause to the smooth running of the curriculum? The greatest impact that involves the intervention of technology actually occurs where its use is not seen, nor recognised and only emerges through prompts that promote reflection on practice.

Capturing the Impact evidence

In previous years, capturing evidence of impact was more straightforward as colleges were asked to provide information of ‘input’ side (eg. Number of PCs to students etc), This was in part driven by a poor understanding of what good e-learning practice might constitute. However, OfSTED are clearer now, not by specifics, but in the general requirement that all effort must have a bearing on the quality of teaching, learning and assessment. Through Impact statements, we are able to narrow down the e-learning contribution and particular benefits it brings to the table. Some of this is easily gathered (particular on the input side) by using large, central software that all learners use and from which data can be drawn. However, with the fragmentation of technology and the increasing practice of hosting work by learners, the evidence has become more elusive. For this reasons, e-learning champions must create a repository in which examples and illustrations of the practice that supports positive statements can (with the learner permission) be kept and shown by way of illustration. This may be a Moodle area, or a Mahara portfolio that learners post to. It might be a Blog to which examples and illustrations are attached. This needs to be planned as it is very difficult to arrange retrospectively.

Towards an understanding of Impact in using learning technologies

Impact Legacy

The final aspect of Impact is thinking how it might inform others beyond the original scope of the project. Adding what we learn to the accumulated pot of what has gone before allows others to synthesise new ideas and ask new 'what if' questions. We should be able to review our impact and see when it might have benefit for others in one or more of the following areas:

- A new concept and how it might fit into current practice
- Changing attitudes and levels of confidence generally
- Altering processes, curriculum re-design reflected in lesson plans etc.
- Changing the behaviour or working day for teaching staff and learners
- A combination of one or more of the above.

Apart from explaining what has altered for the better it is important to add what also altered for the worse or at least had no discernible effect either way and thoughts on why that might have happened. Sometimes, for the best reasons, things go wrong or are not as successful as hoped and part of the legacy is the ability to point out pitfalls and processes that just don't work, thus helping others to avoid making the same mistake.

Last thoughts

The value of technology is not in the way it alters the nature of education but alters its delivery and the structure of our working day, making us more efficient learners in terms of time, effort and diversity of information.

What we are attempting to do then in testing the idea of impact is to consider how teachers and support staff capture sometimes clear and sometimes subtle changes to the learning and the learner experience of studying with us.

It is interesting to note in answer to the question of what the impact of technology is, to answer it by inviting speculation on how long the college would remain able to recruit learners and therefore remain open without it.

Appendix 1: Characteristics of Impact:

1. Impact is an intervention that attempts to alter the natural or settled course of things
2. Impact can be an intervention that accelerates the natural progression
3. When making an impact through technology, it is the enabler, not the target
4. Impact statements must include 'technology in action'
5. Impact must be aimed at a minimum of one person
6. Impact must have an underlying reason or purpose in one or other statement
7. Statements are always written with a positive inference, that the target person confirms by degree
8. Impact has legacy
9. Consequences of impact will always include the intended, unintended & the unforeseen

Appendix 2: Impact & OfSTED

1. OfSTED use Impact 13 times in the Handbook and not at all in the Framework; suggesting the Framework is mainly about interventions and the Handbook is about outcomes.
2. 'Greatest impact' is the pronoun used most times. 'Successful' impact is used in terms of teaching & learning, suggesting any positive contributions are evaluated on the contribution to excellent teaching, learning and assessment.
3. Trends and patterns are evidenced by 'monitoring impact'.

Towards an understanding of Impact in using learning technologies - a Reader to accompany the LSIS Workshops

4. Impact is seen mainly as summative and retrospective, not formative and showing potential.
5. Impact is not evidence of action, but evidence of successful action.

Appendix 3: A suggested Learner Entitlement

1. The ability to access learning & teaching from outside college at times to suit the learner
2. Able to contact a tutor for help between set times
3. Learners are able to submit work remotely where the course allows it
4. Students can continue to learn during periods of agreed absence
5. Personal devices & social media can be used on campus to support teaching & learning
6. Where desirable, learners will use their own software and hardware to access teaching, and demonstrate learning.
7. Learners will have access to a range of specific and wider learning resources in support of their specific and general learning
8. Students will have a sense of learning being tailored to meet their personal needs and preferences in collaboration with course tutors
9. Each learner will have access to on-line personal learning space.

REFLECT & CPD

If you would like to see this Paper in REfLECT, please go to <https://reflect.ifl.ac.uk/webfolio.aspx?webfolioid=4599297> If you are an IfL member you can download this as webfolio through REfLECT by viewing the 'Geoff Rebbeck' Gateway

Geoff Rebbeck - September 2012