

The Environment Model.

a paper by Neil Lasher

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The scene:

So what does this paper hold? If you are a level 4 learner you will want the whole story in this paragraph... Not sure what a level 4 learner is... get in touch...

The Environment Model is a realistic, serious game you create in a parallel universe to the one you work in. A complete duplication of your workplace using technology to deliver, not using 3D walk around technology, delivered using simple decision trees and well designed flowcharts. Delivered using the desktop and mobile devices, using similar technologies to eLearning, voice on a telephone and SMS to a mobile phone. An environment where your staff can go to experience real world issues and challenges that happen in your business every day, get feedback from peers, see the results of their decisions and understand the implications before they do it for real. No single entry point to get in or single door to get out, but a series of paths through every day life in your organisation in an environment which is safe, where a wrong decision or poor decision will not cost vast sums of money or time. Not a place where you go to specifically do a course, but a place where you can experience.

Not bad for one paragraph....

There has been much conversation in recent months, with respect to the value of eLearning, discussions and presentations at conferences have begun to question the value and worth of eLearning.

The arguments for and against return on investment (ROI) in eLearning, have been with us for over 10 years. Now however, the argument is no longer about return but whether eLearning is providing value within organisations.

Over the last 12 to 18 months, conversations between some thought leaders in the e-learning industry have turned away from eLearning as a tool for providing training, to both performance support and business performance. Many have come to the conclusion that although we have relied heavily on eLearning as a method to deliver the 'cheaper' training course, the writing has been on the wall which suggests eLearning, as it stands today, is not providing the value to organisations for them to continue to use it in any way other than for tick box compliancy.

Over the last 50 years Training and Development has undergone many changes. The innovation and implementation of technology to learning is still fairly new in the grand scheme of things. Those of us who are truly honest with ourselves agree that for the most part, the learner does not have a good time in an

eLearning course. The question is often now posed: Is eLearning to be scrapped as a total loss or are we to change the way we are doing things?

For me the answer is the latter, however fundamental changes are required to the way we design deliver and measure.

Instructional designer values have changed dramatically over the last 10 years. The designs for 'training' have slowly moved towards designs for 'learning', however as technology has taken hold as a delivery tool designers have changed more towards the delivery of information and instruction appears to have been forgotten other than a select few who have held onto these values.

There still appears however to be an underlying thought process that eLearning delivers instruction and this should be delivered in courses and tracked by a management system that will provide details of who did what and when. If you are reading this paper and this is your thought process, please open your mind to something very different happening around you.

The first major changes to eLearning methodologies have just begun. The Experience API (Tin Can) will change the way we look at data, use data and design technology events so we can deliver best value with our information. Learning on Demand will be the new pull from the learner. In his recent book 'Learning on Demand', Ruben Tozman sets out a different mind-set for learning development. The semantic web plays a major part in this design methodology.

Recently I have been called a 'positive deviant', I was told I bring great disruptive technologies to organisations, which trigger learning and change. I am not sure I am comfortable though with the concept of 'disruption'. Sugata Mitra talks of Creative Disruption and many Instructional Designers feel it is a great badge to wear to be creatively disruptive. I am a baby boomer, old school at heart. As a businessperson disruption or the mere thought of the connotation that goes with it is negative for me. I see myself more of delivering complimentary technologies that do not disrupt, but deliver a challenging and enabling method to work smarter, harder, more efficiently and most of all with better value. Now that feels better than being disruptive. This paper is not designed to be disruptive but to add value through a new system of eLearning and experience with the knowledge of three Acts.

Act 1: Tracking

For the purposes of this paper, I wish to separate what has become known as tick-box compliancy training and all other forms of learning and training delivered by eLearning.

Since 1999, when the first learning management systems (LMS) arrived on the scene, we have had a change in culture, placing a huge emphasis on the process of tracking. You may disagree with this statement, but hardly a day passes where when talking to someone from learning and development, I do not hear "can we track that?"

This year has seen the release of a new standard, commonly known as Tin Can. It's real name is The Experience API. This new standardisation, created by the same people who brought you SCORM, is the next generation of data capture that can be associated with both learning materials and a wide range of other media. The output of the new standard is known as a statement. This statement can contain an infinite number of verbs, which are collated together in a new system known as the LRS or Learning Record Store. Different to a learning management system, the LRS, with the correct reports, may provide us with a detailed level of analytics. The result will be that we can see not only the way that people are using online systems but we will be able to identify trends and provide future material according to known future needs.

To be able to use the data stored within the LRS our first fundamental change is to move away from the concept of tracking, releasing ourselves from the burden of knowing who did what and when, and replacing this with where they did it, how they did it, why they did it and identifying what they are liable to do next.

The LMS will remain, to provide the tick-box service that we have been providing to fulfil the needs of those requiring compliancy. We are about to see each and every LMS vendor adding the LRS to their existing system, much thought and planning is required before you make this move, LRS data and LMS data in my opinion should be kept separate and used for different purposes.

Act 2: Branching – Decision Tree – The Score

At a recent conference a well-known speaker was asked "how do we know, if people are doing better?" The reply was that they would score better in the tests. I argued this point for quite some time, but it was obvious that the people in the room had fallen into the trap where eLearning courseware is followed by a test and that was all that is needed. They however did agree it only supplied some metrics of that point in time and no measurement to suggest the delegate would do something differently in the future.

A search to find a way to deliver material using 'e', which could offer a measurement of a change in behaviour, and could show a value gain to the organisation was started. No tests. No scores. What has evolved is the Environment Model.

Based on the concept of the artificial neural network, this is a mathematical model, which defines a direction or path through a set of differing content. Using a layer of artificial intelligence to store parameters called 'weights' which further manipulate data and allow an interconnection pattern between different layers of learning.

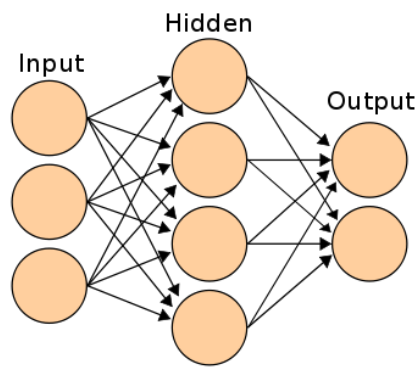


Figure 1 shows the standard artificial Neural Network. Note there are multiple inputs and multiple outputs.

Fig 1

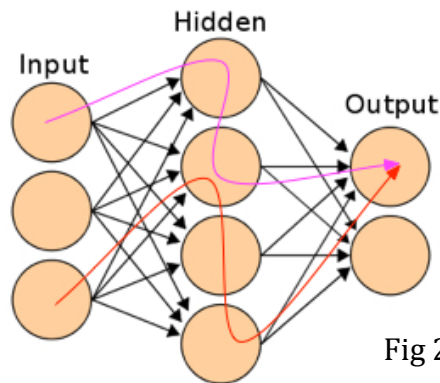


Fig 2

Figure 2 shows that different journeys can start in different places, have different routes but may end in the same place.

The Environment Model allows for a similar concept to neural branching but in an environment where the delegate is on their journey and is presented with everyday issues having to make everyday decisions within a controlled safe environment.

On first entering the environment the delegate will be introduced to a set of persons with whom they will interact, this group will remain the same throughout future visits and therefore increase realism.

Each place they pass which contains a 'weight' is known as a node. The decisions they make and the paths they follow decide the nodes they pass through and a background value score can be generated. Using The Experience API, when widely available, will allow for a statement to be sent at each node, thus creating a picture of the path travelled. Analysis of this information will provide trends in decision-making and allow for a real time view of the paths being taken and decisions made.

On exiting the environment, the delegate can be enticed back by sending them information by email or SMS about what they did and the consequences of their decisions. Once they return they may be introduced to new knowledge and enticed to make different decisions. These latter decisions may increase the

background value and therefore show both a value gain to the organisation and a change in behaviour.

Each intervention will not have a single starting place, but multiple starting places. The output of the intervention can be one of many places that the Journeyman (new word for delegate) can exit. The route from entry to exit is the path and forms one section of the journey. Dependent on the nodes that you touch during the journey, the outcome value will be different.

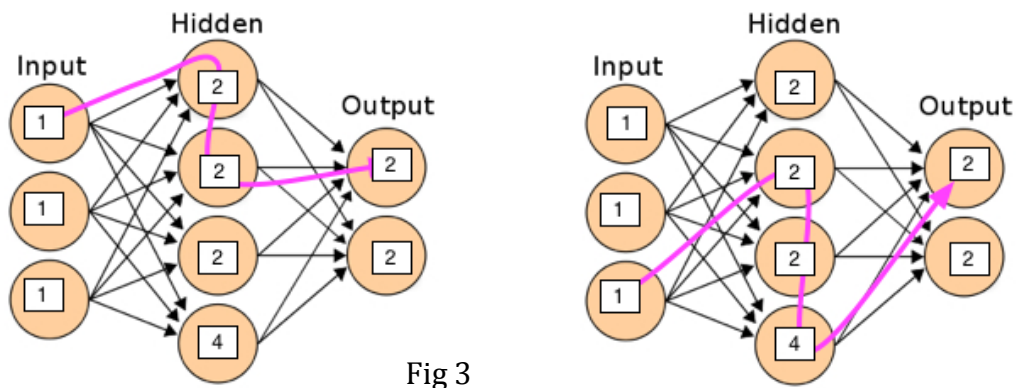


Fig 3

Figure 3 shows how one path may be valued by the organisation higher than another. Further intervention into process and decision-making would allow the user to return and probably make different decisions thus following a different path. The difference between the first journey (score 7) and the second showing higher value (score 11) would show a behavioural change as the decision making will have been different causing a different path.

The point to note is that there is no completion status, using The Experience API (Tin Can) this is not any issue, each journey will create multiple 'statements' showing the path and the value.

Adding a central place for information and inter-organisation social networking will further allow Journeymen to interact and discuss issues with peers, thus enhancing the experience.

Act 3 Creating a realistic environment.

The realistic environment is key in providing success in this model. Although those with technology as the central focus will immediately jump to 3D models and walk around games, it was not envisaged that this was the route this model should take. Creating walk around models and avatars may be suitable for some audiences but the vision was for a serious game, that use photographs, text, video clips and conversations in technology delivery. This will focus the Journeymen and the developer on the content and the outcomes and not on the delivery technology.

A realistic environment is where what takes place in the game mimics, to fine detail, that which takes place everyday in your organisation.

A realistic environment will not be one thrown together using 'Rapid' tools but carefully created over a period of time. Splitting your organisation into departments and sub departments and roles to re-enact everyday issues, decisions and consequences.

The Journeymen have to enter the environment when requested to do so by the system either in an email or SMS message, however they can enter anytime they wish to test their abilities or try out scenarios where they wish to learn.

The environment should become the first port of call for every learner in an organisation wishing to test out his or her ability and to experience everyday issues they may have to confront during their employment.

Neil Lasher

One of the pioneers of both of eLearning and mLearning, Neil has pushed the envelope at every opportunity and always challenges the existing rules of learning to forge new methods.

A lively speaker sought by many conferences around the world to present in his entertaining manner has published many new papers on Instructional Design and mobile learning techniques, all in plain speak and easily understood.

Neil sits on the advisory board of LPI, on the board of the BILD and is a past president of ASTD (UK Network) and past vice chair of the eLearning network.

Each year Neil hosts a mobile 'technical stage' for the eLearning Guild's mLearnCon (the world's premier mobile conference) in the USA.