

## Enter New Technology

Aligning staff from all walks of life to new systems



“ How the specific needs of different learner groups is addressed is the difference between training success and failure ”

### Action Items in this article

- *Productivity enhancement requires both the right tools and right mindset*
- *New Technologies should be introduced for strategic reasons, not simply because they are new*
- *The specific perceptions and needs of individual groups should inform what is brought in and how*

Introducing changes to the way we work happens so often it is becoming routine. The introduction of new software and online platforms, improvements in understanding workplace layouts, and changes to processes has both the potential to improve and hamper workplace productivity. For human resources practitioners, this constant pattern of change means going beyond introducing change to understanding how to improve the speed and effectiveness of change management initiatives. We take look at how this can happen by considering the case of introducing mature age workers to new technology and the online world.

### *Change... In Theory*

To understand how to best action technological changes let's first take a look at how new ideas are taken in (or not taken in) from the individual's perspective. The Theory of Planned Behaviour for example suggests that attitudes and beliefs inform the intention to perform or avoid behaviours as shown in the “five factors of behaviour adoption” model shown in Table 1 (Parry & Wilson, 2009: 657).

**Table 1: Five Factors of Behaviour Adoption**

<b>Relative advantage</b>	Is the idea better than other available options?
<b>Compatibility</b>	How well is it consistent with my values, experiences, and needs?
<b>Complexity</b>	How easy or difficult is it to understand and use?
<b>Trialability</b>	Can I try this out without having to make a major commitment?
<b>Observability</b>	Will others notice that I can do this better as a result of this effort?
<i>Source: Parry &amp; Wilson, 2009: 658</i>	

Another, the Technology Acceptance Model considers how and why people accept new technologies or methods (Chung, Park, Wang, Fulk & McLaughlin, 2010: 1675). Whilst researchers have proposed over 70 different potential variables for the Model, there are three key components: **perceived usefulness**, **perceived ease of use**, and **user intention**. When introducing and implementing change, these concepts should be considered at each step to help inform and guide the process.

### *A Net of Change*

Change is influenced by a range of factors that help in understanding how and why change can be welcomed or viewed with suspicion. Consider the individual and their perception of themselves, as well as their view of ‘technology’ as a whole: their own sense of self-efficacy—how effective they consider their own abilities are in a particular field—can play a big role in how exciting or threatening they consider new technologies. **Self-efficacy** is an important condition of feeling confident in being able to be successful with new challenges, yet it also requires experience with being successful in that field. Improving the technology-based self-efficacy of workers with limited experience means providing the tools and knowledge necessary to access it, and building that self-efficacy to a point where the individual feels confident. It is the conundrum of doing so in such a way that does not single out the individual for ‘special needs’ that is in the hands of human resources and line managers.

Another equally important question is whether the use of technology is for romantic or pragmatic reasons: is the technology actually useful to that person or situation, or is it merely being thought of as “technology, therefore beneficial”? Take for example the use of Voice over Internet Protocol (VoIP) or its branded cousin Skype. The ability to make long-distance calls over internet connections is financially valuable to enterprises that already have the computers and internet connection: the call is simply a matter of connecting the telephone

handsets. Contrast this to a retiree with no home computer: the cost of Skype includes the purchase of a computer, the internet connection, and learning how to use the technology. For such a person, Skype may be a much higher cost than an occasional long-distance telephone call. In the workplace, the use of new tools such as e-learning tends to see a mismatch between organisational interests and the individual needs of the learners meant to use the tools (Jia, Wang, Rang, Yang, Liao & Chiu, 2011: 3372). Regardless of the technology being introduced, the approach needs to be pragmatic: strip away the ideals of 'progress' and 'attractiveness' and ask, is it still better than the alternatives?

### *A Mature Response to Change*

How well different groups of workers perform in the workplace depends on the individual's acceptance of new methods and technologies, how competent they perceive themselves to be, and whether changes are truly beneficial or introduced for poor reasons. One of the key components of ensuring strong productivity is how well-trained individuals are in using the tools available to them. Mature workers are often stereotyped as being poor learners but this is inaccurate; rather, how the specific needs of different learner groups is addressed is the difference between training success and failure.

Different groups of people have different learning needs, and training in work technologies needs to balance these different needs against accepting that it is not going to be productive to split people into various "learning groups" either. Mature age workers for example are less likely to utilise options available for people with disability such as 'zoom' or 'sticky keys' to make typing easier; yet if these are introduced as 'productivity features' to all workers, then at least the knowledge is passed on without the potential discrimination of statements such as 'if you have poor eyesight you might need bigger letters on the screen' (Hanson, 2011: 446.) Previous studies have found that age-related difficulty with computers is a form of self-fulfilling prophesy: a lack of experience with computers along with expectations of having difficulties learning new skills at a mature age leads to lower self-efficacy which in turn results in poor learning of computer skills at a mature age (Chung, Park, Wang, Fulk & McLaughlin, 2010: 1676). Yet as technology continues to advance, workers brought up with one type of technology will find new technologies challenging. We are already witnessing the final days of the mouse-based computer interface in favour of the touchscreen; yet the technology for eye-movement tracking is already being developed. There is no guarantee that today's tech-savvy workers will naturally adapt to such a shift. It may be more suitable to look at change management according to need rather than according to generation.

### *Assessing New Technology Solutions*

When considering technology solutions, including different types of workers on the assessment team will assist in identifying limitations in staff adoption. Hanson (2010: 502) found that mature age workers are not generally the focus of technology design decisions. So, by including mature age workers in selecting technology solutions, problems can be identified early. Mature workers are likely to be aware of their own strengths and weaknesses so allowing them to identify the way to work around any issues, thus using their strengths to overcome their weaknesses will limit the sense of a loss of self-efficacy that comes with insisting that work be done in a particular way (Hanson, 2011: 448).

The scattershot approach to introducing workplace changes is counterproductive because of the nature of the individuals who work within the enterprise and the need to provide support and training to establish those changes. Knowing how change influences, and is influenced by individuals informs the best strategy to identify, introduce, implement and measure the success of change.

### *Are your leaders geared to deliver new systems?*

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### **References**

Chung, J.E., Park, N., Wang, H., Fulk, J., & McLaughlin, M. (2010). Age differences in perceptions of online community participation among non-users: an extension of the Technology Acceptance Model. *Computers in Human Behavior*, 26, 1674-1684. doi: 10.1016/j.chb.2010.06.016

- Hanson, V.L. (2010). Influencing technology adoption by older adults. *Interacting with Computers*, 22, 502-509. doi: 10.1016/j.intcom.2010.09.001
- Hanson, V.L. (2011). Technology skill and age: what will be the same 20 years from now? *Universal Access in the Information Society*, 10, 443-452. doi: 10.1007/s10209-011-0224-1
- Jia, H., Wang, M., Ran, W., Yang, S.J.H., Liao, J., & Chiu, D.K.W. (2011). Design of a performance-oriented workplace e-learning system using ontology. *Expert Systems with Applications*, 38, 3372-3382. doi: 10.1016/j.eswa.2010.08.122
- Parry, E., & Tyson S. (2008). An analysis of the use and success of online recruitment methods in the UK. *Human Resource Management Journal*, 18(3), 257-274. doi: 10.1111/j.1748-8583.2008.00070.x
- Parry, E., & Wilson, H. (2007). Factors influencing the adoption of online recruitment. *Personnel Review*, 38(6), 655-673. doi: 10.1108/00483480910992265