Technology Change for Inclusion – 12 steps towards Embedding Inclusive Practice with Technology as a Whole Institution Culture in UK Higher Education
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Introduction
“If a teacher today is not technologically literate - and is unwilling to make the effort to learn more - it's equivalent to a teacher 30 years ago who didn't know how to read and write.” (Fisch, 2007, winner 'Most Influential Blog Post, EduBlog Awards 2007).

“The potential to deliver rich, engaging and flexible learning experiences is well evidenced” (JISC, 2004).

“Accessibility is not hard to achieve, nor is it expensive, but it does require a change of thinking. Instead of a one size fits all approach, IT departments need to think about helping users to customise their systems” (Lamb, 2007)

Taking a broad view, it is argued that technology needs to facilitate all users (staff and students) in achieving the most effective possible service provision. There are many pockets of good practice across a wide range of institutions concerning the use of technology to create an inclusive learning experience (JISC Techdis, 2008a). However, often these pockets do not join together to create fully inclusive teaching across a whole department, school, faculty or institution. Nor do they effect change at a higher level, influencing policy and strategy to better facilitate replication of this good practice more widely by way of an improved inclusion ethos.

The main reason for this failure is the lack of an obvious role focus for leading and driving the necessary changes. In many organisations accessibility is associated with a particular group of people (disabled learners) and particular group of staff (Disability Officers or Learning Support) (JISC Techdis, 2006a). The aim of the Technology Change for Inclusion (TCI) work by the JISC Techdis service has been to identify, through discussion with a range of higher education institutions (HEIs) and FE institutions delivering HE, some common senior management led strategy and policy actions that will help join up pockets of good practice and create a more inclusive use of technology across the institution. This paper describes 12 steps that senior managers can take to lead and embed inclusive practice with technology as a whole institution culture.

Leaders must take action when they see good intentions dribbling away into minimal action (“We've done SENDA, that box has been ticked”(Anon., 2009)) and ensure those charged with implementation are fully briefed and resourced and appropriate SMART targets are developed – this paper provides leaders with a framework for achieving inclusive use of technology across an institution. If an institution is to make effective use of technology across the board it must be driven by a senior manager, ideally the Pro-Vice Chancellor (Academic, or Learning and Teaching) or equivalent, setting the strategy and ensuring that those charged with implementation are fully resourced (not overworked faculty reps). This paper introduces 12 steps they can take to move effectively towards this goal.
It is a fundamental principle that creating strategy and policy on inclusive use of technology is not just about catering for disability or impairment, or indeed the social inclusion focus of many Widening Participation initiatives – it is about providing an HE experience that is open to (and achievable by, which may require providing additional resource to particular groups) anyone who can reach the required academic level – and therefore can relate to cultural preference, geographical location, prior technology experience, availability of technology or learning style, amongst many other factors. This requires cultural change. “Mainstreaming matters most for the smaller, day to day decisions that may take place without [overt] consideration of their impact on minority groups” (Equality Challenge Unit, 2007).

“Legislation that tries to ensure access by the majority will always contain the potential to restrain as well as enable development, this in turn may cause resistance [among staff]” (Davies, 2003). The process of creating and evaluating accessible resources involves an understanding of the rationale behind the need to alter existing practice. Access to information is often limited by the forms in which it is made available. Staff create and upload content that suits the needs of students of whom they have prior experience rather than anticipating the needs of a wider audience. As a result, some people are disadvantaged by being unable to access that information, due to the staff ‘not knowing’ about the potential wider range of needs (Watling, 2008).

The point is that to deliver their services effectively, institutions need to cater for a wide range of learners whose needs are influenced by combinations of many factors. **Treating ‘disability’ or ‘widening participation’ in isolation will never achieve a holistic cultural approach to inclusive service provision.** The fact that the disability field is now supported by comprehensive legislation (Disability Rights Commission, 2005 and 2007b) means that this aspect currently has the strongest driver, but this driver should be used to improve service across the board – if an institution caters effectively for a wide range of learner needs (whatever the source of or reason for the need) it will meet the legal requirement to produce anticipatory adjustments to prevent discriminatory situations before they can arise, but will also greatly reduce the number and cost of any required ‘reasonable adjustments’ and will facilitate the inclusion of students who are currently excluded for a variety of reasons. Developing this degree of inclusiveness of approach requires a culture of reflection upon our existing practices and in particular how we design and assess learning.

The 12 steps towards embedding inclusive practice with technology as a whole institution culture are grouped into **five principal areas of HEI activity** in which policy in many institutions could be reshaped to better take into account the possibilities of technology to improve overall service provision (JISC Techdis 2008b and 2009a). These have been categorised broadly as:

- Senior Management – Leading Change;
- Learning, Teaching and Assessment;
- Web (and Intranet) Provision;
- Equality and Diversity;
- Information Flow.
Where specific roles are described below, it is acknowledged that some institutions do not have roles with these titles. It is assumed that in all cases the job roles are followed by the words ‘or equivalent’.

**Senior Management – Leading Change**

**Step 1**

**Issue:** There must be support from the very top of the organisation (Gray and Grocoff, 2007) – the only way this work will achieve success is by being owned at PVC level. Senior managers play a crucial role in influencing culture and ethos and in driving forward change. People feel permitted to do the right thing when the person at the top is saying that they want them to do it (Disability Rights Commission, 2005). “Without effective institutional support… it is inevitable that many enhancement activities will fail to have the intended impact” (Schofield, 2007). Indeed, a major reason for failure of institutional initiatives is ‘low levels of meaningful and consistent support from senior institutional leaders throughout the change process’ (Cox, 1993). Senior managers are pivotal in ensuring that all staff across all levels of the organisation embrace their responsibilities, shifting a potential mind-set of ‘this is the responsibility of specialist staff’ to ‘this is the responsibility of all staff’ (DRC, 2007a). Visible commitment to a pragmatic and practical approach to inclusion and technology is vital – more institutions have their Disability Equality Scheme made available from their public web pages (68%) than have linked instructions to how to change the appearance of those web pages for your own needs (59%), despite the latter being of more direct relevance to current (and potential) students and staff. In research for this paper, one senior manager said “All our staff receive Equality and Diversity training but many attend because they have to, and don’t engage at all with the principles of the training”. There was an implication here that senior managers cannot effect this engagement, but this is not the case, as has been shown at several universities where senior managers have taken a very visible lead in this area (for example, the University of Sheffield’s ‘Excellence Through Inclusion’ development programme (University of Sheffield, 2009)).

**Change Agent Responsible:** Deputy or Pro-Vice Chancellor (Academic or Learning and Teaching) formulating and leading the inclusive practice action team.

**Change Actions:** The institutions making the most successful move towards a truly inclusive approach to technology are those that have created an inclusive practice action team1 under the direct leadership of the Vice Chancellor or a Deputy or Pro Vice Chancellor – ownership at this level is the only way to award the activities of the team the degree of legitimacy they need to be effective throughout the institution. In a survey of

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1 * The inclusive practice action team will necessarily change in constitution according to prioritisation of issues over time, but will almost always include the individuals responsible for IT and Network provision, Learning and Teaching Strategy, Assessment Strategy and Validation, Quality Control or Assurance, Disability Support, HR and Administration provision, Marketing, Library and Information provision, Staff Development, Learning Technology or E-Learning and at least one representative of the student body. At times other individuals, such as the person responsible for procurement, or the Estates manager, may also be required to join the action team. "Who has the skills to provide you with the knowledge of what is involved in delivering [inclusive use of technology] in the institution and how long each task will take? (Rosenhead, 2008).
senior managers in HE and FE by JISC Techdis (2009a) only 20% stated their institution had documented policies on the accessibility of the virtual learning environment, and 33% on the use of personal technologies on the network (which can greatly enhance inclusive practice, JISC Techdis 2009b) - indeed, one said “The disability officer is working on updating policies which will address most of this”, which exemplifies perfectly the lack of ownership at senior management level that will doom such an approach to failure. That disability officer must carry the visible support of senior management if their policy work is to have any widespread and lasting influence.

Step 2

Issue: Education institutions have a tendency to be “loosely coupled systems, which are amenable to localised adaptation without affecting the whole organisation” (Weick, 1976), hence there has to be a good foundation for the inclusive practice programme – pockets of good practice are highly valuable in creating a sense of belief across the institution that work in this area is desirable, beneficial, and most importantly, that mileage has already been achieved. Cross-departmental coalitions built early in the process to share this information are vital (Gray and Grocoff, 2007). Change should be grounded in the larger mission or diversity statements adopted by the institution, but “there is a danger of ‘organizational schizophrenia’ …manifesting itself in a mismatch between organizational goals and achievable practice on the ground” (Lisewski, 2004), which means cross-institutional collaboration is a vital component of any change initiative moving towards widespread inclusive practice.

Change Agents Responsible: PVC (Learning and Teaching); Heads/Deans of Faculty/Department.

Change Actions: All examples of inclusive practice in using technology must be collated and exemplars disseminated widely across all faculties/departments – this may be a role for the Learning Technology manager. Incentives for cross-faculty collaboration in this regard may need to be instated. In research for this paper it was discovered that one institution is planning to train a member of academic staff in each department as an inclusion coordinator (similar to the Teaching Fellow model used in some institutions) – these coordinators will then meet together to exchange good practice and feed key benefits forward into the learning and teaching committee to achieve more widespread application.

Learning, Teaching and Assessment

“Lecturers need to be more aware of how they can support use of and access to e-Learning” (Seale et al., 2008).

Step 3

Issue: Learning and Teaching Handbooks often do not reference technology in terms of enhancing the fitness for purpose of learning, teaching and assessment. This leads to a lack of awareness among the general teaching staff of technological solutions to learning and teaching inclusion issues. In a survey of HEI senior managers only 6% said that formal training in the use of technology to enhance inclusive practice was routinely offered to teaching staff (JISC Techdis, 2009a). In research for this paper, it was found that one
UK institution has produced a handbook on teaching students with disabilities, written by the Disability Support Office, but which does not once mention technology.

**Change Agents Responsible:** PVC (Learning and Teaching) or equivalent, Heads of Staff Development, Disability Support and Learning Technology/E-Learning.

**Change Actions:**
1. Learning and Teaching Handbooks must not only mention but stress the potential of technology to enhance the fitness for purpose of learning, teaching and assessment (not substitute for it). For example:
   a. “We will ensure that programme approval…adopts a receptive approach to non-standard delivery patterns…and approaches to teaching and learning” (Leeds Metropolitan University, 2005).
   b. “Academic and learning support staff must be reflective practitioners and be motivated to develop their portfolio of skills. This applies as much to traditional approaches to teaching and learning as to the newer and technology-supported approaches” (University of Derby, 2000).

This can best be achieved by ensuring the involvement of the Heads of both Disability Support and Learning Technologies/e-Learning next time the Learning and Teaching Handbook is updated – they should be charged with including examples and illustrations of where the use of technology may effect a better learning, teaching and assessment experience, so that the individual academic is empowered to address their own learning design practices.

2. There are a wide variety of freely available staff development resources to support teaching staff in using technology to effect more inclusive learning, teaching and assessment. It is the sole responsibility of the Head of Staff Development to ensure that these are available to their staff and that they understand the range of benefits of engaging with these materials. It is the responsibility of the Pro-Vice Chancellor leading this initiative to take steps to ensure they have the time and resource to do so.

In research by JISC Techdis (2009a) only 30% of senior managers said that their learning and teaching policies significantly referenced accessibility, while only 17% of technology policies did so. One said “Policies are not accessible from our web site but I believe it refers to accessibility or at least widening participation somewhere”. In research for this paper, one university reported putting a learning technologist onto all faculty committees to ensure better reference to technology. However, at the same university all new assessments in each faculty are approved by the relevant Dean, but there was no formal procedure for ensuring the Deans were kept informed of inclusive technology developments.

**Step 4**

**Issue:** It is recognised that there still exists in some quarters a belief that there is a conflict between inclusion and excellence, and that in certain cases the two concepts are mutually

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2 For example, JISC Techdis ([www.jisctechdis.ac.uk](http://www.jisctechdis.ac.uk)), Skills For Access ([www.skillsforaccess.org.uk](http://www.skillsforaccess.org.uk)), SCIPS ([www.scips.worc.ac.uk](http://www.scips.worc.ac.uk)) and Inclusive Teaching ([www.open.ac.uk/inclusiveteaching](http://www.open.ac.uk/inclusiveteaching))
exclusive. This perceived conflict is asserted with no evidence, based on an outmoded industrial model of organisational values that defines excellence in terms of student inputs without consideration of value-added organisational processes (Williams et al., 2005).

**Change Agents Responsible:** PVC (Learning and Teaching) or equivalent and Head of Staff Development.

**Change Actions:**
1. Learning and Teaching Strategy must state explicitly inclusive practice with technology as primary underpinning values, for example:
   a. “The institution values and encourages scholarship in teaching, using evidence-based research to inform professional practice, enabling the choice of fit-for-purpose approaches and methods” (Leeds Metropolitan University, 2005).
   b. “The institution aims to create a culture which is inclusive, diverse and fair and our policy of excellence through inclusion sets out a series of measures and objectives to achieve this” (University of Sheffield 2009).
2. Staff development must highlight the exemplars within each discipline (home grown where possible – see Step 2) of inclusive teaching methods that emphasise the maintenance of academic standards and excellence.

### Equality and Diversity

**Step 5**

**Issue:** Strict demarcation between ‘learning technologies’, ‘assistive technologies’ and technologies that improve inclusive practice needs to be broken down, and its associated territoriality removed. “Disability support units are rarely integrated into teaching and learning units and the locus of disability awareness continues to exist on the periphery” (Watling, 2008). Many technologies can potentially aid the provision of an inclusive experience, and each should be provided in the most appropriate format, be that via the standard image used for staff computers, via the network, via installation on individual machines upon request, via provision on specific public access machines, or simply via promotion to staff and students (in the case of free software that operates from memory sticks). In a survey of Disability Support Service Managers it was reported that although most student desktops had personal organisation software installed as standard, mind mapping, text-to-speech, word prediction and dictionary software was in the majority of cases only available for specific individuals (JISC Techdis, 2009a).

**Change Agents Responsible:** Heads of IT and Networks, Disability Support Service, Staff Development and Learning Technology or e-Learning.

**Change Actions:** There is a wide range of technology that is free or Open Source that can be provided to all staff and students at no cost, much of which runs from memory.

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33 For example, see the Higher Education Academy Subject Network (www.heacademy.ac.uk/subjectcentres), Centres for Excellence in Teaching and Learning (www.heacademy.ac.uk/cetls) and various disciplinary-specific professional bodies (www.paradigm-redshift.com/busprof.htm).

4 See JISC Techdis Get Free Software and RSC Scotland Access Apps (www.rsc-nescotland.ac.uk/accessapps/).
sticks and needs no installation. Open and documented negotiations between the three parties listed above should determine:

- Which of these could be provided across the network or on the standard image for staff computers,
- Which should remain as ‘specialist access only’ (see next section),
- What mix is appropriate between free / open source tools and more specialised commercial access technologies.

It would then be the responsibility of the Learning Technologist and Staff Development Head to ensure Staff Development Policy incorporated the use of widely available technologies to teaching and learning practice, and the responsibility of the IT or Network Head to ensure that the availability of these technologies, and associated Getting Started guides, was appropriately signposted on the network and/or intranet, and coordinated across all IT facilities and departmental websites where these proliferate.

**Step 6**

**Issue:** Provision of specialist ‘assistive technology’ is often based upon an outmoded concept of technology as ‘compensation for an inability to do something’ rather than a means of providing a learning experience for all that is fit for purpose. If the focus is on meeting need or providing a capability, as opposed to the technology per se, the technology will prove to be more durable and flexible (Salmon, 2005). “IT departments do not have to make decisions about exactly what adaptive equipment to buy – there are specialist assessors available to advise on what is most suitable for each individual. The important thing is to consider disabled users when systems are commissioned so that accessibility is built into the fabric of … computing rather than bolted on as an afterthought” (Lamb, 2007). In surveys by JISC Techdis 44% of Disability Support Managers said their institution provided information to all staff on the assistive technologies provided in their institution, whereas only 5% of senior managers reported that this was the case, so there is evidently a communication gap that must be closed by senior management intervention.

**Change Agents Responsible:** PVC (Learning and Teaching), Staff Development Head, Head of IT provision and Head of Disability Support Service.

**Change Actions:** Technologies which have been deemed as ‘assistive technologies’ that will be provided only for specific individuals rather than all users need to be well signposted and well justified. With free assistive technology tools widely available, finance is unlikely to be a justification for limiting access except in cases where commercial software offers significant enhancement for disabled users. Having decided the pattern of provision, ensure their potential use in learning and teaching (and the consequences of their application) are widely understood. The Disability Service will hold relevant information regarding the operation of the technology, but must ensure that information regarding the impact of this technology is produced in conjunction with the IT/Network Head (in terms of potential software conflicts, licensing, etc.) and the Staff Development Head (in terms of the pedagogic implications of providing a suitable learning experience for students using this technology). The PVC (Learning and Teaching) should then be provided with a briefing covering the decisions made regarding Assistive Technology Provision such that they can ensure that Learning, Teaching and Assessment Policy works
to support them. This is unlikely to be effective without the express engagement of someone at Pro Vice Chancellor level.

**Step 7**

**Issue:** There is now legislative requirement to involve disabled people in any process of accessibility or inclusion (DRC, 2007a).

**Change Agents Responsible:** Entire Senior Management Team, additional input from Procurement and Disability Support Managers.

**Change Actions:** All decisions made towards providing an inclusive provision of technology, whether specifically oriented towards disabled people or more widely towards good inclusive practice, need to involve disabled people if there will be an effect upon them. It is the responsibility of the Senior Management Team to ensure that this fact is widely known and acted upon by all managers. The Disability Support Manager must be viewed as a source of expertise and potential contact information to facilitate this action, rather than having this action thrust upon them, which would once again have the effect of putting access issues outside of the mainstream activities of the institution. They should be able to advise on positive ways of facilitating this process without placing an unnecessary burden on particular individuals within the institution. The model of ensuring student involvement in such decision-making committees is already in existence in most institutions and can simply be mirrored here.

**Web and Network Provision**

**Step 8**

**Issue:** Conflicts between provision of accessibility features and network security have long been one of the biggest barriers to the use of technology to support inclusive practice. For example, desktop lock-downs, introduced with the aim of improving security, reduce the amount of support that is required and simplify systems (Lamb, 2007), but also can have important adverse effects on establishing inclusive practice, such as accessing the built-in features of Microsoft® Windows or installing more specialist software. This is possibly one of the most entrenched practices that needs to be re-evaluated in the move towards inclusive practice, and it is acknowledged that this change element may be one of the most difficult to achieve. However there are many small steps that can be taken to gradually effect a shift in culture, as outlined below.

**Change Agents Responsible:** PVC, Heads of Learning Technology, IT/Network, Staff Development, Disability Support.

**Change Actions:** Microsoft® Windows accessibility features must be always available to all users as a minimum provision, and guidance such as Accessibility Essentials 1 (JISC Techdis, 2006b) should be prominently provided. Network Managers, Disability Service Managers and Learning Technologists should work together to create a workable balance
between network loading/security and provision of tools to facilitate inclusive provision\(^5\). They will then need to work with the PVC and Staff Development Head to promote any memory stick based applications\(^4\) as these are the perfect solution for all parties. It is the responsibility of the PVC to ensure these roles are truly collaborative and are able to agree upon a balanced position for the benefit of the institution. In research for this paper, one institution was found to have combined their web development and marketing\(^6\) functions into the same team, to better enable web accessibility and inclusion to be discussed in context. This also enables the institution to justify its decision where it has decided not to adhere to web accessibility guidelines in favour of better usability for all users.

### Information Flow and Roles

**Step 9**

**Issue:** Diversity must be part of the institution’s culture and may need to be reflected in a top level mission statement – “Institutional mission statements can help institutions develop a sense of shared purpose and shape internal policy” (Jenkins and Healey, 2005). The Disability (or Single) Equality Scheme (DES / SES) must work for the institution and not merely be a declaration of good intent. More institutions have their DES linked from their public website than provide contact details for users who may need support – which undermines the very concept of inclusive practice. During research for this paper one institution’s senior managers revealed “Both of the authors of our Single Equality Scheme Action Plan have now left the university so there has been no movement on it”. Those institutions who passed the duty of writing the DES to the Disability Support office must now take the opportunity to bring the document up to strategy level and incorporate its principles into all cross-institutional strategies and policies from learning and teaching to IT provision to human resource processes. It would also be pertinent to make obvious its relevance to the managers who have responsibility for: data protection, freedom of information, health and safety, student complaints procedures and emergency evacuation procedures (DRC, 2007b). Early development of cross-departmental coalitions will make the later embedding of the principles enshrined in the DES much more successful. Many diversity efforts fail because of insufficient integration into core goals for educational excellence (Moses, 1994).

**Change Agents Responsible:** Vice Chancellor, Senior Management Teams, Disability Support Manager.

**Change Actions:** It is incumbent upon senior management at the highest level to ensure the DES is working for the institution. The outcome of a recent court case reinforces the need for compliance with the public sector equality duties (Equality Challenge Unit, 2009) regardless of whether or not the institution is primarily privately funded. It is vital that the role of the Disability Support Manager is that of facilitator, advising on policy change, rather than as the owner of this task. It is also vital that they take a holistic view of inclusive

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\(^5\) Accessibility Guidance for Network Managers and Technicians is available at [http://www.jisctechdis.ac.uk/Techdis/pages/detail/floating_pages/Accessibility_Advice_Network_Managers_Technicians_SMT](http://www.jisctechdis.ac.uk/Techdis/pages/detail/floating_pages/Accessibility_Advice_Network_Managers_Technicians_SMT)

\(^6\) Accessibility Guidance for Marketing and Admissions is available at [http://www.jisctechdis.ac.uk/Techdis/userneeds/seamlesssupport/marketing](http://www.jisctechdis.ac.uk/Techdis/userneeds/seamlesssupport/marketing) and [http://www.jisctechdis.ac.uk/Techdis/userneeds/corporatestructures/policies/admissions](http://www.jisctechdis.ac.uk/Techdis/userneeds/corporatestructures/policies/admissions)
practice and are not seen to be evangelising a viewpoint of narrow perspective which has in the past resulted in closing more doors than it opens. In research for this paper, one institution’s senior managers reflected that their Equality and Diversity Policy was a true collaboration, involving the academic office, HR managers, the Colleges office (for this was a collegiate university), the international office, library managers, procurement manager, Student Union representatives, estates managers and IT service heads.

Step 10

**Issue:** The commitment from university administration and Human Resources must be perceived as real – the incorporation of HR on behalf of the university’s systems is essential (Gray and Grocoff, 2007). The head of procurement would be another desirable member of the inclusive practice action team, preventing the purchase of technologies or systems that created inclusion issues if other more inclusive products are available, which may soon be supported by European law (Out-Law, 2005).

**Change Agents Responsible:** Senior Management Team, Registrar, head of HR and administration functions.

**Change Actions:** Co-opt where appropriate onto the inclusive practice action team senior staff from HR and university administration to ensure that the principles of inclusion are applied to the university processes as well as its practices. For example, the SMT can broker a necessary working relationship between the relevant parties from HR, the Intranet Manager and the Staff Development Head to ensure that best practice information on producing accessible documentation (which is freely available) is publicly available and implemented throughout HR and administration functions. It is unacceptable for any university to produce inaccessible electronic documentation when free guidance on how to avoid doing so with negligible time and cost implication is freely available. In research for this paper, one university revealed that its Quality Assurance committee is chaired by the PVC with direct contributions from the blended learning team (which includes an inclusion-focussed role) and consequently the access and inclusion initiatives that are fostered there are fed directly through to Quality Assurance processes.

Step 11

**Issue:** Financial support must be pledged from within mainstream provision – while seed corn funding is welcome, the institution must view inclusive provision as an on going process that needs financial assistance to be embedded appropriately, and adequately maintained, in all areas of the institution. This would be most successfully achieved from mainstream budgets. Williams and Wade-Golden (2005) highlight resistance to allocating sufficient resources, to ensure that the vision for change is driven deep into the institutional culture, as one principal factor in initiative failure. Funding must be utilised to transfer ownership gradually from management (in this case the inclusive practice action team) to individual staff roles. Some universities have a management-resistant culture where individual staff “keep their heads down to avoid the latest initiative” (quote from research for this paper), so careful targeting of information needs to be steered directly by the PVC.

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7 JISC Techdis Accessibility Essentials volume 2 (Writing Accessible Electronic Documents with Microsoft Word) and volume 4 (Making the most of PDFs) www.jisctechdis.ac.uk/accessibilityessentials
using the tools available to them through the inclusive practice action team, to ensure
individuals feel empowered rather than embattled, or, worse, embittered by the drive
towards inclusive practice. JISC Techdis offers a role-based online accessibility self-
evaluation service which can be helpful in enabling staff at middle and senior management
level to see their specific contributions to the practical aspects of inclusion in their
influence.

**Change Agents Responsible:** PVC, Senior Management Team

**Change Actions:** While it may not be advisable to withdraw funding from activities
designed to specifically aid inclusion for particular groups, it is the responsibility of the
senior management team to implement a holistic approach to inclusive practice and to
redistribute mainstream funding to all areas of the institution where inclusive practice
improvements can be made. Close examination of existing activities should be made, as
many initiatives utilising technology to aid disabled students or socially excluded learners
will enhance inclusive practice for many or all students. All internal requests for funding
should include details of how the project outcomes will be used to further inclusive practice
in the institution as well as details of the inclusive practices the project team will observe
during the course of their activities.

Step 12

**Issue:** Know that the programme may take some time to get going, so have patience –
change is rarely achievable as a one-off action. Inclusive use of technology needs to be
planned into a long-term strategy in order to be truly effective and results will not show in
terms of recruitment, retention or results immediately, and when they do it will be difficult to
disentangle the impact of technology from other impacts. It is also necessary to make the
brave acceptance that “no amount of knowledge will ever make it totally clear what action
should be taken” (Full an, 1993) and push on regardless – this is no excuse for inaction! It
must be realised that this concept is about quality of experience for all students and staff –
it simply benefits those with particular needs to a disproportionately high degree. It must
also be widely understood that embedding is not a numbers game – if inclusive practice is
adopted appropriately, each example of inclusive practice may affect a single student or a
thousand in different contexts and both eventualities should be acknowledged as
acceptable outcomes. “Choices of where to be innovative [and take a risk] should not be
based on a bland view of ‘market’ but on a more complex view of the value of e-learning
meeting the university’s mission and objectives as well as playing to its distinguishing
institutional strengths” (Richards et al., 2004).

**Change Agents Responsible:** Senior Management Team.

**Change Actions:** Ensure strategy and policy relating to inclusion explicitly states a
commitment from senior management that successful inclusion initiatives will be measured
by means unrelated to short term success or volume of students affected. Avoid loss of
momentum due to changes in senior personnel by writing explicit responsibilities for
inclusion management into a specified high level role job description.

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8 JISC Techdis Online Accessibility Self Evaluations
[http://www.jisctechdis.ac.uk/pages/detail/online_resources/Oases_09-10_Roles](http://www.jisctechdis.ac.uk/pages/detail/online_resources/Oases_09-10_Roles)
Conclusion
Embedding inclusive practice with technology as a whole institution culture rather than the current disparate pockets of good practice can only be achieved if it is owned and directed by senior management. If a manager at an appropriately senior level convenes an inclusive practice action team and undertakes work in the 12 areas highlighted in this paper, their institution should move significantly forward towards more inclusive use of technology. This should not, however, be viewed as a measurable end goal, merely as the start of an on going shift in culture which ultimately will facilitate a deeper and more widespread understanding of the role technology can play in providing a more inclusive experience for everyone. It is acknowledged that every institution will of course be at different stages along the path to inclusion in all of these elements, and for some even starting a dialogue on some of these issues will represent a huge step forward, while others may want to adapt these recommendations to best suit their own context.

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JISC Techdis Service
JISC Techdis aims to be the leading educational advisory service working in its field. It is a JISC Advisory Service with a mission to support the education sectors in achieving greater accessibility and inclusion by stimulating innovation and providing expert advice and guidance, in particular on disability and technology JISC Techdis produces a range of materials to advise and support institutions in their adoption of inclusive practices while using technology innovatively. For further details see http://www.jisctechdis.ac.uk or email helpdesk@Techdis.ac.uk

References
• Anon. (2009) Conversation with Pro-Vice Chancellor at a UK Higher Education Institution
• Disability Rights Commission (2007a) Understanding The DDA – A guide for colleges, universities and adult community learning providers in Great Britain.


JISC Techdis (2008b) Technology Change for Inclusion visits to volunteer institutions – conversations with senior managers, usually including the managers of the I.T. service, Disability or Student Support Service, E-Learning or Learning Technology team, Web and Intranet/VLE service, and Staff Development Unit, together with the senior managers with responsibility for learning, teaching and assessment policy.


