A commercial perspective on universal access and assistive technology: towards implementation

J. Coy

Royal Mail, Wheatstone Road, Dorcan, Swindon, SN3 4FT, United Kingdom; E-mail: joanne.coy@royalmail.com

Published online: 8 October 2003 – © Springer-Verlag 2003

Abstract. This paper presents one company’s perspective on the implementation and provision of universal access (UA) and assistive technology in an industrial setting. The paper addresses the need to provide accessible work-places and also accessible customer services, from legal, commercial and ethical standpoints. The company in question, Royal Mail, is one of the UK’s largest employers and service providers and so has been able to gather employee and customer data often unavailable to smaller organisations.

Keywords: Inclusive design – Assistive technology – Industrial perspective

1 Introduction

Royal Mail is an organisation employing over 200 000 people, providing mail delivery, financial and retail services for the entire UK population; the organisation can only prosper in the future by ensuring that the real and changing needs of its large customer and employee populations are accommodated. Indeed, the new chairman of Royal Mail has made quality of service and the well-being of employees a cornerstone of his plans for the reshaping and renewal of the business. Improving the accessibility of work and services can be a vital factor in achieving these ends.

The financial and commercial arguments for improving the accessibility of the workplace are convincing; early medical retirement and long-term absences are a major source of cost. Moreover, the demographic analyses of the European and UK populations lead us to expect that the workforce will be getting older in coming years and that accessibility in the workplace will become even more important. In this respect, the accessibility requirement extends beyond the environment (buildings, facilities, etc.) into the accessibility of work tasks themselves, as well as the accessibility of the tools and information that people need to work effectively and with safety and comfort. Note that approximately 100 000 of Royal Mail’s employees are frontline operational staff interacting with process machinery and computer systems.

While reinvestment in processes and systems is considered to be a vital element in the regeneration of the organisation, there remains a great deal of legacy equipment and working environments designed many years ago. It is uneconomic and unrealistic to expect total renewal; legacy processes and plant will exist for many years. Despite an increasing trend toward automation, it is realised that even in the most automated work areas people are of paramount importance in making the technology work and ensuring it delivers its potential benefits. The unmanned mail processing facility is still some way off, and not necessarily a desideratum. Many process industries are now facing the fact that it is unrealistic to expect unmanned facilities even in next generation automated systems [20]. Therefore, the accommodation of people’s needs in the process environment is of great importance. Indeed, many studies show that returns on investment in automated processes are considerably higher when automation strategies are developed in the context of ongoing, people-centred continuous improvement programmes [18]. The point deserves re-iteration; people are an essential element of automated processes and will be for many years to come; they are what makes automated process systems actually work. However, when an organisation approaches the specification of new process and support systems, the issue of accessibility still presents some difficulties. Currently, we are able to assess existing systems in an accessibility audit, but at this point it is often too late for significant changes, and the result may be less than ideal. There is a need to be able to implement an a priori accessibility specification. Employers are aware
that there is both a real requirement and an obligation under law, but the means of translating this requirement into a clear and unambiguous specification that would drive suppliers to implement design methods to improve accessibility is not clear. Also, in situations where it is sought to maximise the benefits from legacy equipment and systems, frontline workers are in many cases the people best equipped to advise concerning where change is needed to improve working conditions and accommodate their needs. Indeed, given the opportunity to contribute, frontline people are often a primary source of solutions. The addition of a framework and specific expert support could help those workers bring about changes that make the workplace both safer and more accessible.

As a provider of services, Royal Mail (post office) also realises that the ageing population must influence its long-term strategy regarding how services are to be delivered to the public. Post offices offer a wide range of services including pensions, benefit payments, bill payments, government services and an increasing number of financial and banking services. Moreover, in many rural communities, post offices provide the only shop within reasonable access and a real point of community exchange and focus. Every week some 28 million people visit a post office. Given that such a large proportion of the population actually depend upon post offices, it is important that service accessibility be based upon the data and analysis and that the means of accessing the relevant services is designed and devised in accordance with the data. This point again raises the issue of how an accessibility specification is to be relayed to suppliers.

This paper sets out to explain why assistive technology and design for accessibility are important to a large organisation such as Royal Mail, both from the perspective of an employer and of a provider of services. The requirements of the law and the very real business benefits of provision are outlined. Also, the context into which assistive technology and recently developed inclusive/accessibility-related design methods can be applied are explained together with the consequent barriers and some of the mechanisms by which Royal Mail and other large process-based organisations could potentially drive forward change.

2 Drivers for change: the employer’s perspective

2.1 Legal imperatives

In the UK, the Disability Discrimination Act of 1995 (DDA) [7] and equivalent acts such as the Americans with Disabilities Act (ADA) [1] place clear requirements upon employers to make adjustments to the workplace in order to create opportunities for people with disabilities. The DDA stipulates that for major employers the workforce shall include some 3% of employees with physical impairments and the workplace must not present unnecessary obstacles to employment opportunities. More specifically, the DDA requires that where any physical feature of premises occupied by the employer, or any arrangements made by or on behalf of the employer, causes a substantial disadvantage to a disabled person compared with non-disabled people, an employer must take such steps as is reasonable for him to have to take in all the circumstances to prevent that disadvantage – in other words, the employer must make reasonable adjustments.

2.2 Commercial incentives

Simply put, failure to recruit people with disabilities and to provide an accessible workplace is to deprive an organisation of a pool of talent and skills that could be of great benefit. Moreover, failure to provide an accessible workplace also results in both a loss of staff who develop physical impairments during the course of their careers and long periods of absence from the workplace during recovery from illness or injury; these scenarios are where significant costs are incurred. Figure 1 shows the number of people within Royal Mail that have been retired on medical grounds on an annual basis.

The costs of pension fund contributions and administration amount to some £ 80k per person; in previous years, the annual cost of early retirement on medical grounds has exceeded £ 120 million, but as the data illustrate, at least some impact has been made in keeping people in work; however, the costs are still above £ 60 million. This figure is not inclusive of the costs of recruitment and training to re-fill the vacant posts. An analysis of these people and their conditions to ascertain the potential for re-deployment is shown in Fig. 2.

It is clear that substantial savings could be made if the workplace was more accessible to the people described by the first three categories. However, it must be noted that the costs of early medical retirement are significantly superseded by those of long-term absence; the costs to Royal Mail per annum are currently approximately £ 160 million. Technology and design practices for a more accessible work environment, rehabilitation and