Reducing Marginalisation Through Telework : PERIPHERA

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1. Introduction and Abstract

A general response to reducing unemployment and marginalisation of specific groups of citizens has been that of 'training' which often concentrates on IT and New Media. However, in many areas the main output of training is simply 'trainees' with skills, but still no real prospects of access to work. Telework promises a great deal to European citizens through methods and opportunities for access to work, and a number of training organisations have decided to facilitate the success of trainees by providing 'workspace' and management support to launch 'self-help' actions. This paper presents a number of cases where new forms of organisation have been developed around the ideas of teleworking with remarkable success. Disabled and previously long-term unemployed people are now finding work, despite having been marginalised because of disability, geographical position, and other factors. The cases are presented in terms of the barriers to be overcome, the strategy employed, and the success to date. A summary of key findings is presented to highlight the main issues in providing access to work for marginalised groups, especially people with disability, and these findings inform a consideration of future requirements for telework initiatives in this area. The emphasis of the paper leans toward the disabled users since the paper is for inclusion in a group concerning disability issues in Teleworking.

2. The PERIPHERA Project

The PERIPHERA project is an 'application' project supported by CEC DGXIII-C (TURA Project UR1022). It started with the identification of a general problem for 'regeneration' activities in both urban and rural areas. Intensive training strategies are widespread, and much of it is successful in promoting access to work - especially new forms of work - for previously disadvantaged groups. However, there are still significant minorities who cannot capitalise easily on training due to further barriers.

The originating case concerned a community based multimedia training and development group in the London Borough of Islington. Most of their graduates are taken up by the new media industry, and others find they can begin working as freelancers or SMEs. A minority cannot follow these pathways for different reasons : dependent children do not allow standard working hours; ethnic minorities face significant barriers; lack of 'history' in education or in the media field reduces employer confidence; disability mitigates against initial consideration; etc. Yet these are highly skilled and creative people. An identified solution was to assist them to turn training into jobs in a 'self help' scenario where they could make their own work space, and it was quickly identified that many other organisations in Europe face similar problems. European collaboration was therefore chosen as the best way to integrate this local issue into an examination of the general problem of integration through training with planned access to work opportunities through self-help.

The key aim of the project was to develop implemented strategies which will clearly demonstrate practical ways in which different marginalised groups can gain better access to the socio-economic life of Europe. The PERIPHERA project has been run by user organisations from the outset, and

has involved real users from the first stages. This is both desirable and necessary, since the new applications must fit well with users' real needs.

Each of the host sites involved in PERIPHERA is committed to maintaining a fully operational site at the end of the project which exploits the shared experience of the partners across Europe. While each site is a special case, addressing a real local problem, together they cover a range of issues and so can produce a consolidated perspective for wider benefit.

3. The PERIPHERA Sites and their Experiences

PERIPHERA has seven application sites which are now fully operational. Four of the sites address the needs of disabled people*, while the other three have a mixed user population.

Site and (Host)	Users and Telework Activities
Hasselt, BE (TeleOffice*)	• Physically disabled people, long term unemployed • Customer call centre services, information services
Nottingham, UK (NewLink*)	• Physically disabled people, long term unemployed or recently disabled and re-training • Graphic design and production
Hoensbroek, NL (FASTT*)	• Physically disabled people, long term unemployed • Web site design, HTML programming, database and web integration, graphic design
Sint Michielsgestel, NL (IvD*)	• Deaf people, unemployed / under-employed • Administrative telework
Magherafelt, UK (Workspace)	• Long term unemployed in a rural area + SMEs • Graphic design, web site design, multimedia presentation design
London, UK (ARTEC)	• Young - long term unemployed • Multimedia design and production, web site design, HTML programming
Scariff, IE (ECT)	• Unemployed / under-employed in a rural area • Customer call centre services, information services, tele-marketing, tele-surveying

Hasselt, BE : In Hasselt, there is an established Municipality initiative training disabled people in IT. However, some cannot find work because of mobility and integration barriers. The training arm of the Municipality set up a new teleworking company (TeleOffice) to allow disabled people to work on commercial contracts. TeleOffice have extended their premises and established a "Customer Call Centre" which is small scale and allows disabled people to provide the "front office" function for their clients. The Municipality itself is a customer of TeleOffice, and by out-sourcing work it benefits from the Call Centre approach in the usual ways and also improves its performance in encouraging employment for disabled people. The centre is now expanding to provide a complete "multi-lingual one stop shop" for a range of customer call services, and is negotiating commercial contracts to expand its portfolio of work for the disabled group.
Physical disability does not diminish the level of service quality !

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Nottingham, UK : The Nottingham site is hosted by Newlink, a registered charity committed to the training of disabled people in IT and related work. The host has four remote centres in an area of low population and low industry, and has interconnected these using Telematics technologies to provide a "virtual organisation" of greater mass (Centrex services and ISDN bridges). Each centre had previous success in obtaining small contracts, but together they now compete for larger contracts. The wide-area network and videoconferencing support distributed management, distributed working, and also remote training of disabled people - even in their own homes.
Further information : Ian Sherman, Site Organiser, email : ian.shermanr@nottingham.ac.uk

Hoensbroek, NL : In Hoensbroek, FASTT is an established agency for training disabled people in IT. While many disabled people can exploit new IT skills to find jobs in NL, many face continued barriers (e.g. workplace access, acceptance). FASTT have extended their premises and equipped a new centre to increase training in web site design, HTML and JAVA programming, database integration, and distributed collaborative working using BSCW (basic support for collaborative working - web-based tool). As well as forming new SMEs, where 6 disabled students are now responsible for more than 12 web site designs for commercial companies, the FASTT site has implemented BSCW support for 'virtual teams' of disabled people working on design contracts.
Further information : Joost Thissen, Site Organiser, email : joostth@dds.nl   (now operating as ATRIUM)

St. Michielsgestel, NL : The site in Sint Michielsgestel is hosted by the Instituut voor Doven (IvD) who are the largest education centre for deaf people in the NL. Training covers all ages up to further education and craft training, but finding jobs for deaf people is quite difficult due to communication problems. Teleworking is seen as a viable route to success, so long as client contact is supported, and a telecentre has been established including an ISDN PABX, videophones for communication, and standard office equipment. The concept was initially proven within a "simulated company" environment, and the IvD have now launched a TeleCentre in the local village in partnership with a large employment agency who provide brokerage.
Further information : Hank Frowein, Site Organiser, email : 100142.2016@compuserve.com

Magherafelt, UK : In Magherafelt the site is hosted by Network Personnel, who are an established community organisation in a remote rural area in the north of Ireland. The host has extensive experience of training unemployed young people in basic IT, but many trainees cannot find work and so migrate. To create work opportunities the host has expanded its premises and implemented a new centre where young people are trained in multimedia, graphics and presentation, and web site design, and can conduct commercial contracts for clients. The site has now formed a partnership with a newspaper company who will promote the services in web site design and hosting.
Further information : Alan Blake, Site Organiser, email : periphera@workspace.org.uk

London, UK : The London site is hosted by ARTEC, a multimedia training agency operated by the London Borough of Islington. ARTEC train gifted but unemployed people in "electronic arts", multimedia and Web Site design, and have a good track record in finding jobs for trainees. A minority cannot find work because of further barriers, and so ARTEC have expanded their premises, and equipped the new area to allow trainees to begin working for themselves as SMEs and freelancers. The concept is proven successful, with many completed projects for external clients, and ARTEC have extended this initiative as "ARTEC STUDIOS" - their commercial arm.
Further information : Jeremy Praill, Site Organiser, email : jeremy@artec.org.uk

Scariff, IE : In Scariff the site is hosted by East Clare Telecottage, an established telecentre with training links to the local community in remote, south-west Ireland. ECT have extended their premises and implemented a low cost "Customer Call Centre" technology which is scaleable from 3-99 desks, and allows connection of remote (home-worker) agents. The new technology has proven to be a significant addition to the menu of services offered by this telecentre, and many teleworkers have been trained in its usage. The new centre has attracted significant levels of new work, and the pool of translators for foreign language work and product localisation has been expanded to more than 70 people as a result.
Further information : Martina Minogue, Site Organiser, email : bealtaine@iol.ie

4. Shared Experiences in the PERIPHERA Sites

The results from the PERIPHERA sites show a significant level of success despite the barriers faced by each. The total costs per site for a three year design, setup and operation shows an average of around 450kECU per site. This level of cost is quite insignificant when compared, for example, to the costs of providing training and subsequent "activity" programmes for groups of disabled people, and illustrates the scope for cost savings by authorities through allowing user groups to generate (part of) their own funding. In some cases the additional funding from Telework has been small (but useful), while in others it has been so successful as to allow new SMEs to form as profitable enterprises.

The experience in PERIPHERA also exposes a common reality that while disabled people want to work and to participate fully in the economic life of society, authorities often aim at "occupying" them rather than providing an "occupation". Allowing people to exploit whatever skills they have, as part of a competitive market, ensures that the individual has the opportunity to maximise potential. There is, of course, a need to ensure that the skills in the user base can be formed into something attractive from a commercial point of view.

Another feature of the PERIPHERA experience is that of 'shared workspace'. Workspaces can be physical or 'virtual', and a number of sites have mixed these modes to good effect so that people do not have to travel to the centre, and can operate as remote agents in a collaborative team. However, the inclusion of remote agents can be difficult and requires 'team building' as in any other organisation.

Each of the examples in PERIPHERA contributes experiences which expose the general requirements for launching a 'self help' organisation for Telework exploitation, and taken together they show a need for an **operational model** showing a clear pathway from training to employment based on needs. This model must incorporate an **access mechanism** designed as both a strategy for access to the world of work, and as an operational construct whose characteristics are mapped onto the users' abilities (**suitable skills**) and the demands of the market. This also requires a set of **technical solutions** (whether for disabled people or others) which support both the operational model and the defined access mechanism. And finally, these elements must be implemented within a **user centred** organisation which, in contrast to 'owner' or 'profit' centred approaches must place the users first. The scope of this paper does not allow a full exposition of these themes, but a more detailed coverage can be found in our case study report [1] which is available on request.

5. Future Requirements in Telework for Marginalised Citizens

The experiences in PERIPHERA have shown how these example organisations and user groups have dealt with the barriers and opportunities in their own specific situations. However, while their results provide a good basis for dissemination of experience and methods, they recognise that there is a significant need to generalise and clarify a number of issues. This further research would ensure that the future of Telework in Europe includes focus on the needs of disabled people in particular. The themes emerging from PERIPHERA address the forming of groups of marginalised people into operational units for Telework exploitation, and so do not directly address the single "home-worker" who is often the focus of Telework activities.

Matching Skills to Customer Needs - Having Something to Market !

The users in PERIPHERA have been somewhat opportunistic, and have exploited new markets where there is a high demand and good prospects for new entrants, such as web site design, multimedia production and customer call centre services (small scale). However in every site this has required rapid extension of training to ensure suitable skill levels, and very often the selection

of 'self starters' who can learn 'on the job' when novelty is required. This suggests an enduring place in the market for such entrepreneurs, but begs the question of how to ensure a place for the larger set of disabled citizens. There is a need to examine the developing markets more closely so as to form a more solid basis for predicting areas (and skills) for exploitation through Telework.

Access to Work and Shared Work Space - Your Place or Mine !
The majority of users in PERIPHERA have accessed a (prepared) physical location as a shared workspace, and a significant minority have worked 'remotely' as part of a virtual team of some kind (e.g. home base web designer, home agent for call centre, etc.). The Telework literature has provided a general address to issues of isolation, inclusion, team formation, etc., but there is less emphasis on the issues for disabled people. The use of BSCW by FASTT has shown that distributed disabled teams can work effectively, but the high cost of ISDN videophones, and other devices for 'virtual presence', means that isolation and 'perceived distance' from the group is still a problem. FASTT have begun to examine 'virtual reality' simulations (such as Ultima Online) as a possible basis for generation of hi-fidelity shared space, and the project as a whole recognises the need to further explore 'shared space' as an area for development of better inclusion strategies.

User Driven Operation - A New Business (Support) Model ?
In every site the emphasis has been on 'user control' where possible. This has been varied in its implementation since within a well formed existing organisation there is a 'modus operandum', while in a completely new enterprise there is greater scope for a 'cooperative' organisational model. The PERIPHERA concept is aimed to place control, and the means of work, closer to the hands of the users because the emphasis is more on access to work and fulfilment of personal potential than on profit per se (generation of finance is also a key element in reduction of dependence - just not the whole story). This requires a new model of operation moving away from authority-supported strategies for 'occupying' disabled people, towards a new approach where support is provided 'as needed' while maintaining freedom to move towards independence as and when this is possible. Such an approach, on a large scale, would require flexible support mechanisms which have to be defined as part of the new social landscape.

Maintaining Critical Mass - A Flexible Pool !
A key problem for initiatives like the PERIPHERA centres is the loss of talent. In many cases the successful trainees have gone off to form their own companies, and this is both a success and a problem since no business can easily deal with rapid staff turnover when the replacements have to be trained. The original model, which situates the centre in relation to an established training organisation, is one solution so long as the flow of new trainees provides enough opportunity for replacement of lost skills. Another route is to develop a flexible approach where the telecentre is a 'movable feast' whose scale of operation can fluctuate with the level of personnel available. A more attractive proposition might be the combining, or pooling, of resources between centres, however this has been difficult during the PERIPHERA project since the sites are distributed among Member States, and so there is a natural language barrier. Some exchanges of people and work have occurred where a common language exists (e.g. FASTT, NL and TeleOffice, BE), but it is felt that a more secure position would be achieved if there were many such centres in each Member State, and some kind of 'brokerage' activity addressing the disabled community in particular.

Getting the Technology Right - Is it Ever Right ?
In common with all Telework activities, the PERIPHERA group have had to deal with matching the technology to the users' requirements. In the case of the disabled group, the established centres have well-formed views on both assistive technology and the use of 'off the shelf' solutions. However, it is generally felt that there is not yet a shared view of appropriate technology usage by disabled people. The promotion of the 'design for all' approach has gone some way to meeting this need, but it is still driven by developers treating disabled people as distant customers. There is a clear need to form a real consensus among the community of disabled Teleworkers through a suitable forum based within the community of usage. The ISdAC (Information Society disAbilities Challenge) has gone some way to proposing this kind of activity [2].

Escaping the Benefit Trap - Teaching Society About Freedom !

In every site in PERIPHERA which includes disabled people there has been a common experience of what is known as the 'benefit trap'. In each Member State, disabled people are provided with benefits (finance, support, services) based on established needs. In most cases, if a disabled person takes up employment, then the benefit is reduced or removed completely. This means that disabled people are often fearful of taking up opportunities for work since failure would mean going back to a much reduced situation (requiring lengthy re-establishment of entitlement). Such traps do not exist for other sectors of society, and so other citizens can take risks in exploiting their potential knowing that failure takes them back to where they were. There is a burning need to re-examine the provision of support to disabled people, and to build in measures which encourage rather than discourage self-fulfilment through exploitation (exploration) of work opportunities.

In summary, the PERIPHERA experience has proven that many groups of disabled people can (and do) benefit from work opportunities through Telework. The establishment of 'user driven' organisations for Telework can allow marginalised groups to re-enter European socio-economic life by exploiting new work opportunities where their skills can find a market. However, the broader adoption of this kind of initiative requires a Europe-wide address to the issues described, especially those of matching skills to market needs, development of better strategies of shared work space, models of 'user led' business enterprise, pooling of resources and brokerage, disabled perspectives on 'suitable' technologies, and most importantly, reduction of the benefit trap which dissuades many competent but disabled people from entering fully into the economic and social life of Europe.

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6. References

[1] "Verification of the PERIPHERA Concept and Definition of the Demonstrators". TAP Project UR1022 - PERIPHERA, CEC DGXIII-C. Project deliverable No. D10. Available on request from the coordinating partner, London Borough of Islington. email : tswash@urban.islington.gov.uk

[2] Information Society disAbilities Challenge (ISdAC). The secretariat is hosted by the PERIPHERA project and can be contacted through their web site at www.isdac.org

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