The Universal Service Agency's Telecentre Programme: 1998–2000

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Preface

The Surveys, Analyses, Modelling and Mapping (SAMM) Research Programme of the Human Sciences Research Council publishes an Occasional Paper series which is designed to offer timely contributions to debates, disseminate research findings and otherwise engage with the broader research community. Authors invite comments and responses from readers.

About the Author

Dr Peter Benjamin is from the LINK Centre, University of the Witwatersrand, Johannesburg. He has been involved in many community information projects in South Africa, and has done much research on telecentres and related initiatives including several publications. He started the ICT (information communication technology) for Development Programme at the University of the Witwatersrand in 1996 that has grown to become the LINK Centre. He has a first degree in physics, a masters in IT (information technology) and completed his PhD studies on the Telecentre Programme in South Africa in 2001. He is from the UK, coming to South Africa in 1994.

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The Universal Service Agency's Telecentre Programme: 1998–2000

Introduction

The African National Congress (ANC)-led government came to power in South Africa in 1994, committed to redressing the grotesque inequalities in all aspects of life in the country. The first objective in the 1996 Telecommunications Act was to 'promote the universal and affordable provision of telecommunication services'. This Act set up the Universal Service Agency (USA) to promote access to telephony and other information and communication technologies (ICTs) throughout the country, particularly in the townships and rural areas.

The data used in this paper comes from the author's experience with the USA Telecentre Programme since it started in 1997, USA records, a survey of community ICT projects in South Africa conducted between October 2000 and March 2001 and a workshop with 50 telecentre managers held in March 2001.[1]

Telecentre Programme of the Universal Service Agency

Though the Telecommunications Act did not mention any specific projects, from its inception the Department of Communications urged the USA to set up telecentres. In practice, this has been the USA's main activity even though

there are many other parts to its mandate. By the end of 2000, 65 USA telecentres had been established: 11 'mini-telecentres' and 54 full telecentres. All are in disadvantaged areas of South Africa, with the great majority in rural areas. The data in this section were gathered in March 2001.

Mini-telecentres The mini-telecentres cost around R15 000. Entrepreneurs paid half the cost and ran the mini-telecentres as small businesses. The equipment consisted of one moveable cabinet with a pentium computer, a 3-in-1 (printer, copier and scanner) and two Vodacom 'Sigi' telephones. The 'mini-telecentre' was placed in whatever building the owner preferred.

Full telecentres The full telecentres were more substantial, costing between R150 000 and R250 000 (the average cost was around R200 000). Most of these telecentres were owned by community organisations, such as women's groups, civics or community forums. A few were privately owned by entrepreneurs, and many of the newer ones are owned by government institutions such as schools, post offices or information points. The full telecentres are expected to provide a community service, as well as being successful small businesses. They are mainly based in existing buildings that are refurbished and fitted with security bars and alarms. Furniture is installed to provide cubicles for telephone and computer use. The equipment they receive varies a little, but usually comprises: between three and five telephone lines (either Telkom lines or the Vodacom Sigi phone); a management system that works out the cost of a call; between two and four new computers; a printer; a photocopier; a fax machine; and usually a scanner, a television and a video recorder.

The full telecentres received a maximum of four new computers from the USA. A few telecentres were able to get more computers through linking with colleges or making deals with computer suppliers. However, most did not have the facilities for computer training.

Working equipment For each of the telecentres, it was determined what equipment there was in working order. The equipment that was checked included Internet access, personal computers, public phones, faxes and photocopiers. The percentages of telecentres with working equipment are shown in Table 1.

Table 1: Equipment in telecentres

Equipment	With	Without	Percentage with
Internet	5	60	8
Fax	24	40	38
Phones	32	33	49
Copiers	41	24	63
PC usage	42	23	65

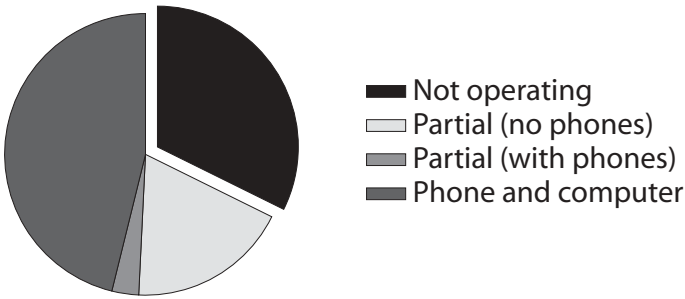
From this data it can be seen that there was a very low level of Internet usage. However, this is not so surprising when one considers that Internet usage requires both the telephone connection and computers to be working and less than half of the telecentres had working telephones. Nearly two-thirds had PC usage and about two-thirds had photocopiers.

In consultation with the USA fieldworkers, the telecentres were classified in one of four categories:

- Not operating – the telecentre had shut down;
- Partial without phones – the telecentre was operating, but with no phone connection (so no fax or Internet) although it had computers and a photocopier;
- Partial with phones – the telecentre was operating, but only with telephone services (effectively a phone shop); and
- Phone and computer – the telecentre offered both computing and telephone services.

Figure 1 illustrates a breakdown of the operating status of the 65 USA telecentres.

Figure 1: Operating status of the 65 USA telecentres



About a third of the USA telecentres were not operating at all at the time of this study. These 21 cases were followed up, and below are the primary reasons for these telecentres not operating:

- Burglary/theft (4): A major burglary had taken all or a majority of the equipment and there was no insurance nor alternative sources of equipment, so the centre was disbanded.
- Technical problems (4): The two main technical problems were lack of power supplies for rural areas that were off the electricity grid and where generators or other alternative supplies were not possible; and no telephone lines. Another technical problem was no one with the skills to operate the computers and no demand for the computers.
- Managerial weakness (4): Unskilled or otherwise incompetent management had led to the collapse of the centres.
- Financial problems (4): These centres had insurmountable debts – mostly Telkom bills they could not pay. A debt of many thousands of rands was impossible to pay, whether generated through fraud, incompetence or Telkom, it was impossible to verify.

- Community conflict (3): Major tensions in the community between different factions over who should own the telecentre led to the centre closing down.
- Fire (1): Catastrophic fire led to damage to the building and destruction of the equipment.
- Repossessed (1): A telecentre was housed in the building of a community radio station. This was done to promote synergy. However, the radio station got into debt and their building was repossessed. The telecentre equipment was taken in the repossession. Although a legal case is pending, the situation does not look hopeful.

So, less than half (47 per cent) of the telecentres had both computers and phones working, though all had been provided with this equipment at the start. This emphasises the difficulties of maintaining ICT equipment in rural and township areas, combined with the difficulties of centralised procurement.

Sustainability indicators

So, are telecentres sustainable? Studies in response to this question have not been conducted over a long enough period nor in sufficient depth to provide conclusive answers. However, this study does allow some tentative discussion through using the three indicators of salary, profit and success as loose measures of the sustainability of the telecentres.

- Salary: Did the telecentre pay a salary to the manager or not? The USA gave no recurrent funding to the centres so all operating costs, including salaries, had to be generated by the telecentres themselves. Where salaries are paid, they tend to be low, somewhere between R500 and R1 000 per month. The highest salary known to the author is R2 000 per month.
- Profit: Did the telecentre produce a profit or not? Profit here means bare operating profit (income minus immediate expenses). It does not consider reserves (for example, for maintenance), depreciation, or tax (almost all centres did not pay tax).

- Success: Did the telecentre managers and/or the USA fieldworkers feel the centre had been successful or not? In most cases the managers and fieldworkers' views coincided (where they did not, even after discussion, in two cases, the telecentre manager's view was recorded). Of course, this is very subjective.

The author hopes that in future more long-term, objective, in-depth studies of these centres will be carried out, but until then, salary, profit and success are useful gross indicators.

True sustainability is clearly more than economic viability, and the 'success' indicator captures a little of that. However, without proper studies into how the users (and non-users) viewed the centres, these indicators are largely silent on how useful, relevant and 'socially sustainable' the centres are. The figures for these three indicators for the 62 centres where data could be collected are in Table 2 below.

Table 2: Indicators of sustainability

Indicator	**Yes**	**No**	**Yes**
	(n)	(n)	(percentage)
Pay a salary	20	42	32
Profitable	23	39	37
Successful	30	32	48

Eighteen of the telecentres (29 per cent) had 'yes' for all three indicators. These fortunate few, unsurprisingly, were mainly the telecentres with more functioning equipment.

If one bears in mind that the full telecentres cost around R200 000 and that only a third of the telecentres pay a salary (the other two-thirds are run on a voluntary basis), it is impressive that not more than 21 telecentres (32 per cent) have ceased operating. This can be attributed to the dedication of the telecentre managers.

Just over a third of the telecentres made a bare operating profit, and just under half considered themselves to the 'successful'. The figure for 'success' is noticeably higher than for the other two more economic measures. From further discussion this seemed to be due to the centres seeing themselves as offering a useful service in their areas – bringing computers, and in some cases telephony, to their community for the first time. (There was also a psychological factor of not wanting to admit to the failure of the telecentre.)

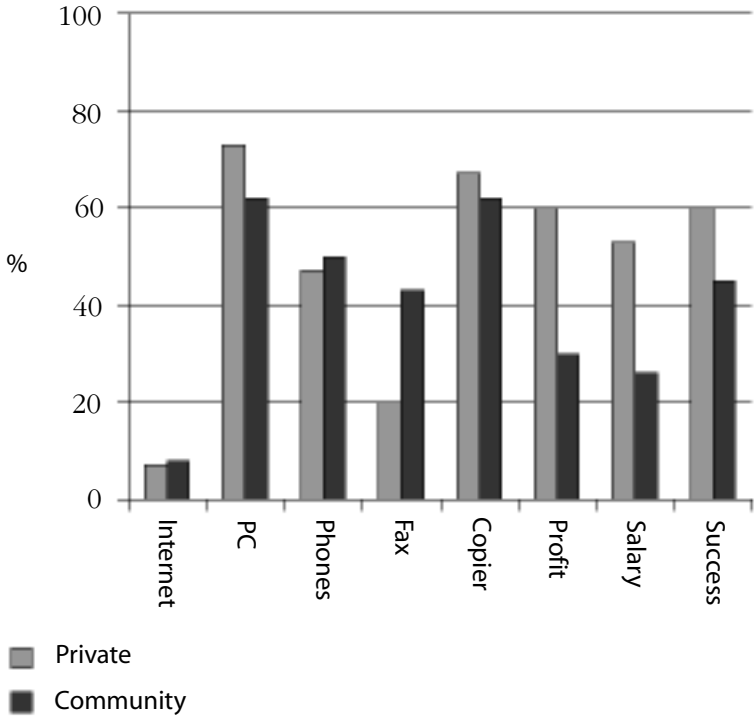
On the basis of this evidence, less than a third of the centres appear to have a reasonable chance of self–sustainability. Based on focus group discussions with the telecentre managers, there was consensus that to keep operating a telecentre requires all three indicators (profit, salaries and success) to be positive. It was also agreed that of the existing USA telecentres, only about a quarter appeared to have a chance of sustainable operation for five more years without external assistance.

Ownership breakdown The majority (50) of the USA telecentres were 'community owned', which in practice means they were owned by a committee of local residents. In most cases these were existing organisations such as a civic, women's group or development forum. Fifteen of the telecentres were privately owned (which included all 11 mini-telecentres). Figure 2 on page 8 illustrates the equipment functioning and the three indicators of 'sustainability' (profit, salary and success), by ownership type, that is, private or community ownership.

This shows that the level of equipment functioning was quite similar between the two types (other than fax). This is not too surprising – who owns the telecentre does not affect what service they get from Telkom, the equipment suppliers' response or the likelihood of breakdowns in rural areas. However, the indicators of 'sustainability' are noticeably higher for the privately-owned sites – 60 per cent are profitable as opposed to 30 per cent for the community-owned sites. Again,

this is not very startling – the primary purpose of the privately run telecentres is to make a profit. Also, 60 per cent of the private telecentres claim to be 'successful', as opposed to 44 per cent of the community-owned ones.

Figure 2: Equipment and 'sustainability' by ownership type



Other factors in the success of a telecentre

These factors were suggested by the study of the telecentres and then debated and supported at the national workshop of telecentre managers in March 2001.

Good management The single greatest factor seemed to be energetic, responsible and trusted managers. A good manager was seen as a local 'champion' of the project who will do

whatever they can to make the project work, who is known and accepted in the community, and who will bring people in to use the centre. This is not the same as the most educated person. Computer and other skills can be taught – drive and respect cannot.

Develop new services The better centres were able to develop new services. The USA provided equipment, not services. The 'middling' telecentres offered equipment usage (make a phone call, fax or copy, or type a letter). Most of the more successful telecentres were able to learn what services were needed in their community and adapt the centre to provide these. In Gaseleka they set up a local post office and a Home Affairs office and started a local newsletter. In many sites they set up computer training. Botlokwa sells stationery, newspapers and cleaning products. Mkwakwalia prints registers and test papers for the local school. Mamelodi produces a community directory. The abilities to innovate and use the equipment as a tool to produce a needed service, are crucial to the success of telecentres.

External linkages Another clear characteristic of the more successful telecentres was that they had links to other external organisations, not only the USA. Various other donors and partners supported some centres: the Dutch Nepostel provided some equipment and training; the Canadian International Development Research Centre (IDRC) provided extra equipment and follow-up visits to 12 telecentres; the Government Communication and Information System jointly supported some telecentres as multipurpose community centres; and six telecentres were part of the University of the Witwatersrand's Information Literacy Computer Training Programme. These linkages tended to greatly increase the chances of 'success' of the telecentres.

Networking The better telecentres tended to be the ones that linked with other telecentres to share experiences, ideas and

solutions. At the end of 2000, the telecentres in the Northern Province formed a committee and started meeting regularly (in Pietersburg (now Polokwane), the provincial capital), with Peter Lebepe as the chairperson. This committee shared experiences (for example, information on the best and cheapest place in town to repair computers) and as a group lobbied the USA and Vodacom to get Vodacom phones to replace their Telkom ones.

Phone service Telkom is the main telephone company in South Africa and has a monopoly on fixed lines. Vodacom is one of the then two cellphone companies (there is now a third cellphone company). Most of the telecentres had Telkom lines, while a few were supplied with Vodacom community service lines (in a unit known as a Sigi phone). The Vodacom phones worked out better for three reasons:[2]

- They proved to be more reliable;
- They were pre-paid, meaning that it was impossible to run up major debt, unlike the crippling bills some telecentres ran up with Telkom post-billing, pre-payment enforced financial discipline; and
- Vodacom allowed a much greater mark-up of phone charges for the operator. For most of the period under study (until price rises in 2000), the user paid 60c per phone unit on the Vodacom system. Of this money, 40c went to Vodacom, and 20c to the telecentre operator. On the Telkom system the tariffs were usually around 62c per unit, of which 60c went to Telkom. So the Telkom phones were marginally more expensive to the user, but significantly less profitable to the operator. In fact, with Telkom also charging monthly rental charges for the lines it was almost impossible to make a profit on Telkom telephones.

Critique of the USA Programme

It is difficult to assess the USA telecentre rollout experience because it is unclear which criteria to use. For instance, it is

not possible to compare the programme against the USA's legal mandate, because the USA was not charged by the Telecommunications Act (1996) to establish telecentres.

However, the USA did have targets for the number of telecentres to be established in its first two annual business plans (60 in its first year, 100 in its second year). Only one was established in the first year (Gaseleka), 18 by the end of the second year, and a total of 65 by the end of four years (early 2001). However, the number of telecentres is not as important as how effective they were.

Unfortunately, little can be said of the effectiveness of the USA telecentres. There has been hardly any detailed study of the effects and usage of telecentres. Most centres kept no records of users, usage or of wider impact. Some telecentres did bring telecom services to new areas (though 53 per cent of the telecentres reported competition, indicating that telephone services were already available in those areas).

The Telecentre Programme was allocated about R30 million from the Universal Service Fund between 1997 and 2000 (USA 2001). About half of this money was directly allocated to establishing the 65 centres, and the other half was allocated to training, support services and fieldworker costs.

So, a full assessment of the wider social impact of the USA Telecentre Programme is premature. We can, however, discuss some areas where there is better evidence.

Finances of telecentres As stated above, 38 per cent of the centres considered themselves profitable, which means they had a bare operating profit. Of the 34 telecentres asked these questions, only six said they paid insurance and only four paid tax. Also, as mentioned above, less than a half paid their managers a (low) salary. This led to many trained staff leaving for better paying jobs, which threatens sustainability as there is no systematic passing on of skills.

Of particular concern is that the depreciation of equipment is not covered by the financing of telecentres. Computer equipment tends to have a limited life – both from increased breakdowns, and the sales-induced push to continually

upgrade. If the marketing hype is ignored, it is still likely that computer equipment in hot and dusty areas would need to be replaced in around four years. No one, neither the telecentres nor the USA, had budgeted for such replacements.

There are a few telecentres that do generate strong revenue, such as Bhamshele, Tembisa, Gaseleka, Siyahluma and Mkwakwalia. As mentioned above, these more successful centres tend to have a combination of competent managers, strong local demand, good location, the ability to innovate and develop services to meet local need, and linkages with supportive institutions.

Services Clearly USA telecentres are not an appropriate model if the intention is just supplying telephony. The investment is too large – payphones or phone shops are more cost-effective. Telecentres are set up with an advanced technological infrastructure. In the telecentres without computer literate staff, the computer-based services are rarely used. In a number of telecentres, computers gather dust having never been connected. By far the most popular service is telephony and thereafter facsimile and photocopier. However, where accredited quality computer training is offered by telecentres, this service does tend to be in demand. Currently demand for such advanced services as document creation, scanning, overhead projection and so on is limited or non-existent. Communities themselves do not prioritise electronic information services. With little or no existing community demand and no national support services, Internet services are currently not deliverable in this manner.

Top-down programmes From the start the USA tried to support local empowerment, and its selection procedure that encouraged applications from local organisations showed an understanding of the importance of responding to local need. However, unintentionally, many of its procedures created dependency. Crucially, the contract with the suppliers of the telecentre equipment was signed by the USA and not the telecentres. This was done for understandable reasons of

centralised discount purchasing and simplified tender procedures, but this took control away from the telecentres when things went wrong. To respond to equipment failures, all the telecentre managers could do was hassle the USA.

There was little variation in the equipment provided. In particular, there was little effort to match the equipment provided with the specific needs of the local area, and the local telecentre owners had no say in the equipment they would receive. This 'one size fits all' model came through pressure to deliver faster with central suppliers. In some telecentres, more Telkom lines were installed than were actually used. As rental had to be paid on each line, this caused a major recurring drain, and in the case of Makuleke contributed to the phones being disconnected as the bills become more than the centre could generate. This problem became known as 'killed by over-capitalisation'.

A different problem showed that the interests of a telecentre can be different from the national plan to set up universal access. A centre in the Northern Cape did not want a payphone installed in the community as this would be competition. This led to the Telkom payphone being vandalised. The telecentre became a block to universal access to telephony – the opposite of its intended role.

As a national system, the Universal Service Agency found it hard to provide a telecentre model that was effective at a local level. National supply was not effective at meeting local need and demand. From the experience with telecentres, one could say that top-down planning is very unlikely to achieve bottom-up development.

Misunderstanding of role The USA appeared to misunderstand the role that its telecentres could play. In 1997 the USA estimated that South Africa would require about 5 000 telecentres for there to be true universal access – a number clearly out of the reach of a small agency. Therefore its task was more appropriately to run demonstration pilot projects to see what is possible, using a combination of market forces and

subsidy. The USA Telecentres could have been clear experiments to see what works and what does not. However, without a variation of design to try different models or proper evaluation of usage and impact, this demonstration role was missed.

The USA spent money on establishing the centres, but then expected the telecentres to generate their own running costs. The telecentres were experiments on multiple levels – technical, social, service, organisational and financial – and were expected to fend for themselves before a working blueprint was developed. The USA was caught between knowing it had a weak model that needed elaboration, and the political pressure to 'deliver' more telecentres.

It is true that many things were beyond the control of the USA. In particular, Telkom did not fulfil many of its obligations, leaving the USA frustrated. Many of the actions of the USA originated from a push and pull of forces above them – not receiving money in the Universal Service Fund for a long time, then being obliged to spend it quickly to show delivery for the Ministry.

Although the USA's foray into telecentre delivery has had more failure than success, the very fact of there being an Agency active in supporting telecentres has influenced the public debate in South Africa. The USA was established before the current enthusiasm for 'bridging the digital divide', and can claim some part in encouraging the many projects currently involved in setting up telecentre-type projects, such as numerous government departments, businesses and donors. In the policy review of the USA conducted in early 2001, the telecentre managers have been strongly supportive of the USA, urging that the USA should continue to support the telecentres towards sustainability.

The uses of ICTs in telecentres

Much of the current enthusiasm for ICTs in development projects assumes that placing a working personal computer

(with Internet) in a community will automatically benefit that community. The experience with the USA Telecentres shows that the task is harder than that. Unless adequate training, support and maintenance are available, the technology will probably not work after the first few months (as evidenced above). Even where the technology is functioning, its benefits are not immediately obvious.

The various applications and possible benefits of the equipment at the telecentres will now be discussed.

Telephony, faxes and photocopiers Where there is no or little other telephony access, this certainly is of use. The understanding of what a telephone can do, perceived usefulness of this and skills to use a phone are all relatively high in rural and township areas. What varies is whether those that one wants to communicate with can be reached by a phone or not. Clearly, in most disadvantaged areas, most friends and family do not have a phone themselves (universal service), and in most areas message proxies (friends, message boards, voice mail or virtual telephony) are not well advanced. However, this technology is definitely of use, as shown by the widespread usage of telephony in all telecentres and phone shops where it is functioning (and not prohibitively expensive).

There is considerably less understanding of faxes in the general population. However most of the people in organisations or needing to interact with organisations who might need a fax do learn of its use. The manipulation of the equipment is usually done by the telecentre operator, and so skills in using a fax macine are not so relevant a consideration.

The same considerations for faxes apply to the use of photocopying. Its use is wider understood than faxes, though less than telephony, and the actual machine manipulation is usually done by the operators.

Computers Considering the use of the computers, in particular their networked use for email and the web, the discussion

changes. This is partly due to the greater skills required and the many ways that computers can be used (as opposed to the single– or few-use design of the equipment already discussed). For our discussion, a number of distinct uses of computers will be considered.

Information service delivery The claim is frequently made that ICTs are the modern information infrastructure required to provide education, health, small business, agriculture or other basic services. Often this is the argument put forward to motivate the establishment of ICTs in disadvantaged areas. While these types of services can play a role in disadvantaged areas, it also needs to be remembered that information is only one of the many resources that are required (Heeks 1999). Also, ICTs can greatly assist service delivery. However, it is equally true that the ICTs are not the service. Many projects provide the equipment and pay little attention to the services that could be provided. In this context, McLuhan's well-known slogan does not apply – the medium is not the message. The primary issue here is whether electronic health, education, agriculture, small business or other services are available – which is entirely different from delivering the local technology. There is a chicken-and-egg situation here – while there are few access points, not many organisations will develop both extensive and expensive electronic services and vice versa.

In South Africa there have been few real functioning electronic services that have gone beyond the pilot phase (BRAIN, small business information; AIDSlink, health information; Johannesburg General Hospital, tele-medicine). Probably the most developed area is distance education, where the University of South Africa (UNISA) and others in the TELISA network have pioneered web– and email-based education courses. However, these are not widely used, particularly in disadvantaged communities. So, despite much hype and enthusiasm, there are very few examples of telecentres being used for electronic service delivery.[3]

Access to information age skills A main function of telecentres is to promote the diffusion of technology, and provide people with the relevant skills. Where there is a skilled person to be the trainer, and some form of accreditation, then this has proven to be in demand in many telecentres. In townships there have been many successful stories of trainees getting ICT-related jobs. However, in more remote rural areas, those that get the training tend either to leave the area in search of work skills, or not to be able to apply their new skills. In very few cases (only two known to the author) have new jobs been created in the rural community using ICT skills. This means that unless local need for these skills can be developed, the training will either lead to 'extraction' (the brightest leaving the area in search of work) or to frustration.

Communications and linkages ICTs can definitely be used to link people through the Internet (email and web). This can develop global virtual communities of interest, and peer-to-peer exchanges between people with similar experiences and challenges. This is a very exciting potential use of the technology. There are a couple of examples of telecentres using email to correspond with government departments, but not many compared to the investment (remember that only five of the 65 telecentres had functioning email). Most of the Internet use has been in training, and in accessing one-way information – surfing and downloading information from the web. For South African telecentres, there are few electronic 'commons' (shared spaces that people feel they own where they can interact with peers). These can be developed, and there is great potential for linking telecentre staff and users with individuals and organisations globally. However, this is a separate task to support linkages, make introductions, broker communications and develop electronic interaction and commons.

Own information creation It is possible for telecentre ICT to be used to develop local electronic content, as in a community

website. The electronic community from North America and Europe gives great attention to this (Gurstein 2000; Schuler 1996). The Well in San Francisco, Manchester Host in England, Craigmillar Community Information Service in Scotland (Slack 1999) and many other local electronic initiatives pride themselves on the locally rooted online information developed. To date this has not happened, with the partial exception of in Mamelodi where a website was developed together with the CSIR.[4]

In disadvantaged areas of South Africa the motivations are different from Northern countries. Clearly, there are very few local online users (almost by definition why the telecentres were established). Therefore there is little local use that can be made of electronic information, where most people would come to the centre to use the computers. Most information is already known locally, and in almost all cases it would be easier to ask someone local (perhaps in the telecentre) rather than logging-on via a computer. Where local information stored electronically has been very useful is where it is disseminated in some other medium. Mamelodi and Alexandra have produced very successful local directories of services and organisations in printed paper form; Gaseleka has started a local newsletter; Botlokwa links up with the local community radio.

So local electronic information is not currently of much use locally. This could change when different organisations produce online information (such as the local authority making governance information available, the chamber of commerce publishing jobs and tenders), but this has not happened yet in South Africa.

However, a different use could be made of local online information, and that is for other communities to access it. This can be seen from the Green Environmental Information Project around Pietermaritzburg in KwaZulu-Natal. The projects there have put a great effort into developing websites of local environmental information and concerns, which are minimally used locally, though receive much attention from elsewhere.

So, if all or many communities produced websites of local issues and concerns, that would be of great interest in other areas. The issue is the effort required to develop the information before others have done so. Until there is an audience, the reward through pride of being seen is uncertain. This is a form of network externality – the more areas have such websites, the great value comes from being part of the network.

Conclusion

The USA Telecentre Programme was ambitious and lessons have been learnt from the successes and the many problems. A few of the USA's Telecentres have been very successful, such as Mamelodi, Gaseleka and Acornhoek. However, many are struggling with the technology not finding much local application.

The Telecommunications Amendment Act (2001) has allowed for an increased in the contributions of the telecom companies into the Universal Service Fund, and so from 2003 the USA will have considerably more funds to implement projects. Recently more support has been going to schoolnet centres and multi-purpose centres linked to government service delivery. The rapid increase in the usage of cellular phones also allows another means for increasing access to electronic services without requiring personal computers.

From the past few years of experience with telecentres in South Africa, we have seen how technology is wasted if there is not sufficient training and infrastructure support. Where local applications of the technology are not developed, the technology serves little purpose.

This work must now change in focus. Much of the community ICT work in South Africa seems more interested in the technology than the people. To use American slang, we 'dig' all the broadband, multimedia, real-time, interactive systems before seeing how they will be applied. There is a 'dig it

all' divide – a division between the hype of the technology and how it can be used by people in poverty.

Work should now focus on exploring ways in which these technologies can be of use in increasing the capacity of people in poverty (Sen 1999). Most current development ICT projects require a mental leap (in terms of skills and social expectations). Greater humility is needed for researchers to learn how electronic ICTs can be integrated with the existing information and communication patterns of disadvantaged people.

Notes

1 Other research reports on community ICT in South Africa are available on http://www.communitysa.org.za

2 For disclosure, the author should mention that he works at the Vodacom-supported LINK Centre at the University of the Witwatersrand.

3 Claiming that ICTs can provide all health, education, agriculture and other services is similar to providing a blank pad of paper and a pen and saying that this supplies all literature, instruction manuals and graphic art. All that can be put down on paper, but the medium is hardly the point.

4 The CSIR (Council for Scientific and Industrial Research) is the South African technology 'parastatal'. See Legoabe (1999).

References

Gurstein, M. (ed.) 2000. *Community Informatics: Enabling Communities with Information and Communications Technologies*. Hershey, PA: Idea Group Publishing.

Heeks, R. 1999. *Information and Communication Technologies, Poverty & Development*. Institute for Development Policy and Management, University of Manchester, accessed at <http://www.man.ac.uk/idpm/diwpf5.htm> on 12 September 2000.

Legoabe, N. 1999. *Mamelodi Community Information Service*. Paper presented at the Building the Information Community in Africa conference, February, Pretoria, South Africa, accessed at <http://www.bica99.org> on 23 March 2000.

Sen, A. 1999. *Development as Freedom*. Oxford: Oxford University Press.

Schuler, D. 1996. *New Community Networks: Wired for Change*. Reading, MA: Addison-Wesley.

Slack, R. 1999. 'Community and technology: Social learning in CCIS', in M. Gurstein (ed.) *Community Informatics: Enabling Communities with Information and Communications Technologies*, Hershey, PA: Idea Group Publishing.

Universal Service Agency (USA). 2001. *The Voice of Telecentre: Official Newsletter of the Universal Service Agency*. May, Volume 1, Johannesburg.

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