

6 Modelling Citizen Engagement

The case studies presented in Chapters 4 and 5 have revealed the exciting possibilities for shaping society and transforming lives through engaging citizens as contributors to the decision-making process. Partly as a consequence of their diversity on very many parameters, the case descriptions reveal crucial data relating to numerous aspects of the citizen participation/engagement experience. In this chapter, we seek to use the data from this rich pool of documented experience to characterize and to model effective citizen engagement.

6.1 Dimensions of Citizen Engagement

The analytical framework for the case studies described in Chapter 4 identified some of the key dimensions which characterize citizen participation/engagement exercises. Our analysis of the cases has revealed a number of additional dimensions. These are crucial both to understanding the dynamics of the process and to the planning of effective, successful citizen engagement strategies. These additional parameters are:

- **initiator** (who are the initiators of the participation/engagement i.e. institutions or citizens);
- **structure** (pre-planned/formal or spontaneous/amorphous);
- **focus** (specific or broad);
- **scale** (size of the exercise, i.e. small group – local community – region – nation – world);
- **impact** (individual – local – national – global);
- **citizen influence** (extent of opportunity to influence the design decision-making process).

Each of the above are discussed below.

6.1.1 Initiator

Many of the well-documented and widely-publicised exercises described in Chapters 4 and 5 have been initiated by local, regional and national government institutions. In many cases there are individuals who spontaneously become project ‘champions’ or are formally designated as such. The objectives of such initiatives are usually aimed at implementing government agendas on issues such as enhanced civic participation, implementation of electronic service delivery, and reducing social exclusion. Typically the focus is determined by government, and projects are set up which are funded for periods ranging from a few months to two or three years. These exercises serve, variously, as demonstrators, as test-beds for ideas, as small-scale pilots to assess viability of the innovation, or to inform the roll-out of a particular policy, ICT system or service on a larger regional or national basis.

The common characteristics of institution-led engagement initiatives are that the institutions provide the funding and define the high level objectives. For example, the government-led exercises described in this book essentially seek to examine the impact and potential role of specific ICT applications on citizen behaviour and attitudes. Thus in the UK, 22 local e-Democracy pilots explored the impact of webcasts, blogs, text alerts, e-panels, e-consultation, committee information systems, online surgeries etc. (Local e-Democracy National Project Case Studies 2005). Non-governmental organizations (NGOs) also lead exercises and projects to explore the use of ICTs to engage with citizens – particularly those who are ‘hard to hear’ or those at risk of social exclusion.

Another, very different, kind of institution-led citizen participation is seen in the programmes introduced by NGOs such as ActionAid, voluntary organizations and formal or informal citizen groups. In some cases, the organisation or entity promoting the exercise has specific political aims, which are not necessarily party political ends. As reported in Chapter 5, Crisis, a charity for the homeless, supported Jamie McCoy’s blog (weblog) to voice opinions from an under-represented group, because it sought to influence politicians from all parties to improve provision for the homeless (Hansard Society 2005).

Funding and other resources, e.g. for education and training, are in most of these cases provided by an institution – governmental or otherwise, although the focus and direction of specific projects may be determined and carried out by citizens themselves to some degree. For example, the Canadian National Forum on Health, initiated by government, required participants to be well briefed prior to participating in the Forum and resources were provided to achieve the necessary learning and understanding of the

issues. Subsequently participants were free to exercise their judgement and discretion in contributing their own ideas on healthcare priorities (Wyman et al. 1999). Table 6.1 lists the case studies by initiator.

Table 6.1. Initiators of the case studies

Initiated By	
Institutions	Citizens
Online surgeries for young people, UK	Nepal Wireless, Nepal
Surrey 50+ website, UK	Jhai Foundation, Laos
Bundestag website design, Germany	K-Net, Canada
Madrid Participa, Spain	
Macatawa project, USA	
America Speaks, USA	
Reflect ICTs India and Uganda	
UTOPIA project, UK	
National Forum on Health, Canada	
'Logged-Off' Project, UK	
LOCOMOTION, UK	
Netmums, UK	
WomenSpeak, UK	
Future drug research and development, Denmark	
Participative design in neighbourhood planning, Chicago, USA	
Jamie's Big Voice, UK	

6.1.2 Structure

There is wide variation in the structure of participation/engagement initiatives. This ranges from the formalized and organised (e.g. in exercises initiated and supported by institutions) to informal and largely reactive initiatives led by concerned individuals or groups. Most of the initiatives described in Chapters 4 and 5 have explicitly sought the participation/engagement of citizens in a formal way in pursuit of some more or less closely defined objectives. However there are some examples where citizen engagement has arisen in a spontaneous way in response to a perceived need. For instance, the K-Net, Jhai Foundation and Nepal Wireless initiatives began as what might be termed 'grass-roots' initiatives, where individuals or groups of individuals set out with specific objectives which then inspired and motivated other individuals to engage and participate. Such examples make very clear that the structures associated with participation and engagement evolve and change in a highly dynamic way. Often

a highly motivated individual or small group engenders a process which begins in a loosely structured and informal way. As momentum builds up and action becomes more focused, the engagement process may become more formalized and institutionalized.

At one extreme, highly amorphous structures are occurring spontaneously. There are indications that ICT is fostering and enabling citizen engagement in exciting and innovative ways. One dramatic example of an emerging phenomenon is afforded by the SEA-EAT initiative which arose following the December 2004 Tsunami disaster: "*The December 26, 2004 tsunami that hit the communities encircling the Indian Ocean will be remembered as one of the world's worst natural disasters. It may also well be remembered as one of the earliest successful uses of the entire continuum of Internet and other communications tools to respond, to help, to grieve*" (Smith et al. 2005). Individuals across the globe created SEA-EAT (the South – East Asia Earthquake and Tsunami weblog) within 12 hours of the initial earthquake to coordinate the news, information and reactions that were dominating web space. Many different forms of digital technologies were used including blogs which served as the earliest reporting mechanisms of the disaster. The SEA-EAT blog was used to quickly respond to the outpouring of support and grief, by providing news, information and contacts. An online blog recording eye witness accounts was also published by the mainstream press. The facility to make donations online resulted in contributions from individual Americans matching the \$350 million pledge of the US Government within ten days of the disaster; total online donations worldwide reached \$750 million by January 10th. The disaster also led to the creation of 'wikis' (a web application that allows users to add content, as on an Internet forum, but also allows anyone to edit the content – see en.wikipedia.org/wiki/WIKI) to document the event for posterity. Mobile phones and 'short message service' (SMS) or text messaging also played a part and were used by citizen journalists to report on the aftermath of the tsunami from places without Internet infrastructure (Smith et al. 2005).

Contributions to the SEA-EAT blog about the tsunami and its impact were tailing off when a devastating earthquake took place in Kashmir on 8th October 2005. Within 24 hours, another blog had been set up with similar objectives and functions as the tsunami-help blog.

In terms of the technologies used, blogging and contributions to wikis are perhaps the most transforming new technologies in giving citizens their own voice. An important factor in their appeal may well be the fact that at present, access to these technologies is a free resource. In the case of blogs, sustainability depends primarily on the commitment of the blogger. Their use relies on the efforts, commitment and enthusiasm of the contributors.

Relevance to the ‘user’ is a given as individuals and groups themselves decide on the purpose, focus and content of their communications.

Although apparently increasing, the scale of spontaneous citizen action is hard to quantify and not always highly visible. However, it is an influential force in society that can only become stronger as more people become aware of the possibilities. A striking contrast with e-government programs is the fact that energy and motivation of citizens to engage in these activities is evident in abundance – there is no need for extensive persuasion or high profile public relations campaigns to secure their involvement and commitment.

6.1.3 Focus

The case studies described here also show significant variation in terms of their focus. As we have already mentioned in Section 6.1.1, the focus of projects in most cases is defined by the initiator, although the extent of definition may be very specific or very broad.

Examples which have both a very specific and ‘narrow’ focus include the Surrey Over 50’s website, and the Bundestag website. Initiatives which have a specific but potentially broad-ranging focus include Netmums and WomenSpeak, which sought to elicit the experiences and attitudes of a particular group in order to inform Government thinking and, potentially, policy making. Others have an even broader focus. For example, the Macatawa project, the Chicago neighbourhood planning project, the Jhai Foundation and the K-Net projects all had broad aims related to the improvement and regeneration of a particular community.

In deeply impoverished communities in the developing countries, we have seen that the focus of initiatives is more likely to be upon improving basic living conditions through a variety of technologies, including ICTs, to enable economic activity, health care and education. In western nations, initiatives are often focused upon the needs of excluded or marginalized groups. The focus in these cases is upon capacity building in the community.

In several of the cases, the specific issue on which the initiative focuses may in fact be somewhat secondary to a more general aim of engaging citizens in some way. For instance, ‘Logged Off’ (cited in the previous chapter) which was initiated by the Carnegie Foundation. This research exercise was conducted to explore the potential for ICTs to engage young people more effectively in political issues, the processes of public decision making and civil society (Howland and Bethell 2002).

The way in which the focus of an initiative or project is defined will have implications for the appropriate scale of citizen engagement, but perhaps more importantly it will have implications for the extent of impact and influence which citizens can have over decision making, as described in the following sections.

6.1.4 Scale

Another dimension we have identified for classifying participation/engagement is its scale. The proportions of citizens in a community who are engaged and the kinds of citizens involved in participatory exercises vary widely. Some initiatives, such as 'America Speaks' in the USA seek wide engagement of large communities to be broadly representative. (<http://www.americaspeaks.org>). 'America Speaks' therefore aims to involve as many people as possible in 'town hall forums' to deliberate on issues and make their views known to decision-makers. Fifty thousand people or more may be involved in these exercises. At the other end of the continuum, far narrower small scale engagement is sought for specific purposes. For instance, as part of the drive for greater social inclusion in the UK, there has been a focus of attention and investment of effort on reaching those who would not normally participate. Examples described in Chapter 5 are Jamie's Big Voice, the voice of one man speaking on behalf of the homeless in UK, or the young people who took part in the online surgeries as part of a UK e-democracy pilot project (Being Heard 2005). Care must however be taken in extrapolating from results gained from a small sample to the population as a whole.

6.1.5 Impact

The striking variation in breadth of focus and scale of the various citizen participation/engagement exercises analysed has already been discussed. Projects also differ in terms of the significance of their impact on citizens, some dealing with issues of central importance to citizens, and others with more peripheral aspects. An example of peripheral impact, the German Bundestag consultation reported in Chapter 4 was a participative exercise launched specifically to improve the design of the Bundestag website (Fühles-Ubach 2005).

Citizens with a particular interest in the operation of the parliament were recruited to inform the exercise. While significant to the group concerned, typically the impact of such specifically focussed projects on the lives of most citizens is marginal and does little to enhance democracy or

the quality of life more widely in society. Examples of exercises with wider significance and scale of impact include the Netmums consultation exercise which had the potential for major impact on employment practices throughout the UK (Netmums.com n.d.).

In the Netmums consultation, parents of young children were given a voice to make known their values and requirements in relation to employment and maternity rights via the Netmums network. Their views informed the deliberations of Government on the issues and informed national policy as well as identifying clear challenges for both the government and for employers in the UK.

The findings from the twenty cases examined show the varied impact of participation/engagement on the lives of citizens. The most pervasive far-reaching effects are seen where whole communities are transformed through participation/engagement exercises, e.g. the *Reflect* ICTs projects in India and Uganda, the K-Net project, the Macatawa and Chicago participative neighbourhood planning initiatives. This does not however mean that involving only a small number of people in the engagement process limits impact. For instance, gaining understanding of complex and very serious social issues such as domestic violence has been a most significant outcome of the WomenSpeak initiative with the potential for major positive impact on society, although only a small number of participants were involved.

6.1.6 Citizen Influence

The number of stages at which citizens have influence in the decision making process is another important parameter of participation/engagement. Each of the case studies described in this book was examined to identify which aspects of decision-making in the planning/design process were in fact open to citizen influence (see Table 6.2). The table shows that, in most cases, citizens were afforded the opportunity to engage in only a sub-set of the planning, design and development stages of any given project. Most of the exercises address only one or two elements of the complete decision making process. Thus, for example, the Bundestag website project invited the participation of a self-selected group of citizens in just one stage of the decision-making cycle – the analysis and requirements definition stage. The specific objective of the project was to better meet the information needs of citizens regarding the functioning of parliament. From the documented reports, the exercise was well-received by its target audience and successful. Certainly, the design outcome is likely to have achieved a good match with the needs of the enthusiastic and engaged citizens recruited for

Table 6.2. Opportunity for Citizen influence by case (N = 20)

Stage Case Study	Agenda Setting	Analysis/ Require- ments Definition	Shaping Policy	Shaping Technology	Shaping Social System	Imple- mentation	Evaluating outcomes/ monitoring progress
Bundestag Web- site, Germany		✓	✓				
Macatawa Pro- ject, USA	✓	✓	✓		✓		
America Speaks, USA		✓	✓			✓	
Madrid Par- ticipa, Spain		✓	✓	✓	✓		✓
Future drug R&D, Denmark			✓				
Reflect ICTs Uganda, India	✓	✓	✓	✓	✓	✓	✓
K-Net, Canada	✓	✓	✓	✓	✓	✓	✓
National Forum on Health, Can- ada	✓	?	✓				
Participative neighbourhood planning, USA		✓	✓		✓		
'Logged-off', UK		✓		✓			✓
LOCOMOTION UK		✓	✓	✓			
WomenSpeak, UK	✓	✓					
UTOPIA, UK		✓	✓	✓			
Online Surgeries for Young Peo- ple, UK			✓				
Surrey 50+ web- site, UK		✓					
Jamie's Big Voice, UK	✓	✓	?			✓	
Netmums, UK	✓						
Nepal Wireless, Nepal		✓	✓	✓	✓	✓	
Jhai Foundation, Laos	✓	✓				✓	?

the venture. However the number of stages in which citizens are involved is not of itself an indicator of the importance of the engagement nor of the likely success of participation/engagement exercises. This is clear from the Netmums case where citizens were only involved in one stage of the policy-making process. However, because it was the crucial agenda-setting stage, their contributions had the potential to influence everything that subsequently happened, as a result of clarifying for members of the working party the critical aspects and issues to address in their deliberations.

It seems that only in a minority of cases are citizens given the opportunity to be part of every stage of decision-making. Only three of the 13 cases described in Chapter 4 (namely, the two *Reflect* ICTs pilots (Beardon 2005) and K-Net (Beaton 2004)) gave citizens the opportunity to be part of the whole spectrum of decision-making, from setting the agenda to choosing or developing ICT solutions and ‘owning’ the subsequent implementations. Such experiences enable citizens to develop an holistic view of the technological, social and policy aspects of developments which relate to them, empowering them to shape decisions on design and policy – and progress towards desirable digital futures. In other words, building the capacity of citizens to participate and engage effectively. Confining participation to specific decision-making stages of any development limits the understanding, the learning and the sense of ownership citizens have regarding the eventual outcome.

6.2 Modelling Citizen Engagement

Using a framework based on concepts from systems theory, we have analysed the case studies described in Chapters 4 and 5 to identify the inputs, outputs and the intervening transformations involved in participation/engagement projects. Based on the results, a descriptive model of effective citizen engagement has been developed, as shown in Fig. 6.1. In this model, the diverse characteristics, knowledge and experience of citizens are identified as the inputs to a transformation process. Supported by relevant tools, and with appropriate leadership and facilitation, this leads not only to the generation of *outputs* (i.e. artifacts such as problem definitions, requirements specifications, action plans or policy statements), but also to the generation of a range of *outcomes* (e.g. raised awareness, greater confidence, empowerment). These are in some respects less tangible than the outputs but profoundly significant in enabling people to influence and shape decisions, thereby contributing to the creation of desirable digital futures.

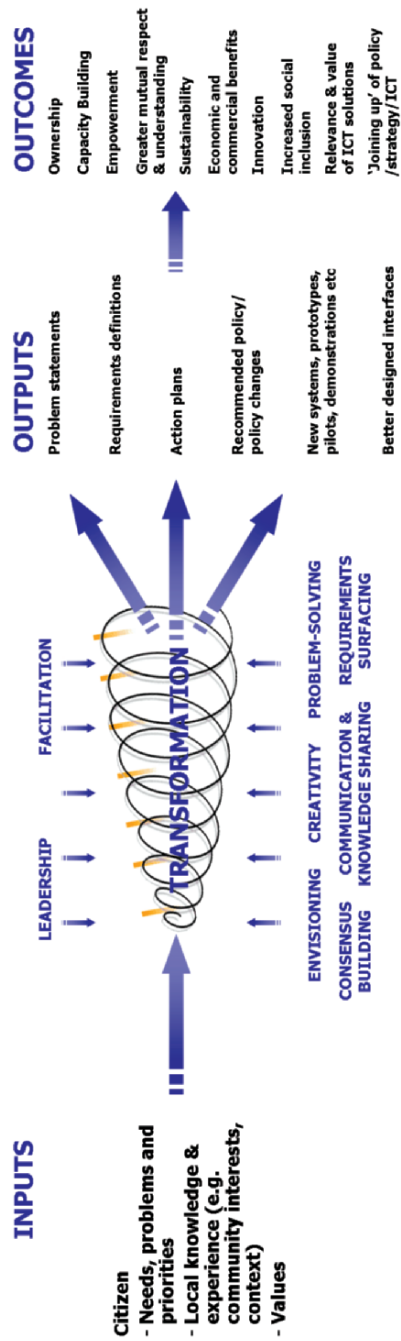


Fig. 6.1. A model of Citizen Engagement.

6.2.1 Citizen Input

Citizens bring inputs of many different kinds to participation and engagement exercises. These inputs include deep knowledge of their own personal circumstances, needs and problems – in other words, they offer rich and detailed understanding born out of first-hand experiences. Such knowledge cannot be provided in its fullness by intermediaries or external agencies.

The understanding of the complexities and nuances relating to the parameters of our lives derives from our experience of day-to-day living. Citizens' inputs may be highly specific and sometimes unique, relating to their own needs and requirements, explicit and tacit knowledge on local context, on community interests, and crucially, on priorities and values.

Established methods typically used in ICT development do not adequately elicit and articulate these. All of these inputs are of profound importance in informing the shape of a digital future that will be perceived as relevant and desirable by its citizens. Examples of some of the inputs which citizens have brought to the various exercises reported in Chapters 4 and 5 are discussed below.

Knowledge and understanding of needs, problems and priorities

The UTOPIA project was able to generate guidance for ICT designers about older people's needs and how to accommodate them. This was achieved through in-depth engagement with a wide range of older citizens. Video footage of interactions with older people was then used to help convey understanding of the problems to the designers (UTOPIA 2004).

WomenSpeak, an online interactive project, enabled women who had suffered domestic violence to make essential inputs to the formulation of policy and of an action plan. They shared with concerned politicians their experiences and their ideas regarding their priorities for action in this area. Their perspectives and analysis of the issues gave unique insights and understanding of a very sensitive subject to the politicians addressing this issue (Moran 2002).

The Canadian National Forum on Health and the Macatawa cases provide examples where citizens contributed to prioritizing actions. In these cases eventual implementation of plans reflects the stated priorities of citizens and therefore acceptance and positive support of the changes is more likely to follow.

Local knowledge and experience (e.g. of community interests, context)

The crucial significance of context (whether geographical, cultural, economic, social and political or other factors) for the development of effective interventions is very clear from all the cases considered.

The aim of the Macatawa case study, for example, was to improve quality of life and living conditions in their community. A wide range of citizens of the Macatawa area contributed their local knowledge and experience of citizenship in the community to identify and specify problems in their community and region, and then developed action plans to address these. Similarly, local knowledge and first hand experience of villagers participating in the *Reflect* ICTs projects enabled them to specify their individual information needs and requirements and to share their knowledge of what technologies would or would not be useful – and above all practicable and affordable for them.

Values

Understanding what we, as citizens, really value is fundamental to informing design decisions and shaping digital futures which we perceive to be desirable. Values are often so deeply embedded in a culture that they are not easily articulated. To explicitly gain inputs regarding values can be of enormous significance to the projects and programmes seeking to make beneficial and acceptable changes in communities. The documented study of developments in the K-Net project provides us with powerful evidence of this. The activities and conduct of the indigenous peoples represented by the Keewaytinook Okimakanak are permeated by their deeply held belief in the importance of respect, for each other, for their community, for other peoples, for the environment and the need for sustainability. As a result of developing engagement processes which manifested respect, community members became engaged in the initiative and worked to identify and develop new applications of ICT which would serve their communities and which in turn would embody the values of respect towards citizens.

6.2.2 Transformations

In development projects of all kinds where citizens are active participants, inputs are synthesised into outputs through transforming experiences of collaboration, communication, shared learning and envisioning. These transformation processes are fuelled by harnessing human imagination, creativity and problem-solving capacities of the participants.

Characteristically, a key part of the transformation process is knowledge sharing across many divides (including those of domain, context and life experience, frames of reference, personal and professional goals and objectives, attitudes, perceptions). This can lead to identification of shared problems and formulation of problem statements which form the basis of agreement on potential solutions. The learning which takes place as ideas develop and as knowledge is shared helps citizens to use their imagination, to dream their dreams, to envision desirable futures and to engage in creative problem solving. Insights stem from bringing together people with a diverse range of skills and expertise and from different backgrounds working to a common purpose. Consensus on or even differences about goals may only become clear during the process of working together. Evaluating possible solutions may be a valuable part of building shared understanding, identifying potential problems and the creation of new, improved solutions.

The case studies provide evidence of the contributions generated through a transformation process. The *Reflect* ICTs Project illustrates the value of using creative approaches to build peoples' capacity to identify and articulate their information needs and, as a consequence, to increase their access to information. This led to the confidence of the participants being increased, and enabled them to develop the capacity to be aware of, and to speak up for their rights.

Although not formally documented as a case study, another positive example of utilising citizen creativity comes from the Hansard Society's experience in launching a national competition to design a web site for young people by young people. The project 'Being Heard' aimed to encourage youth participation in the policy and decision-making process of Government and used the creative skills of the young people themselves. The website itself provides a place to increase young people's awareness and participation in politics. This is achieved through the provision of information and a forum for them to voice their opinions and consult with decision-makers (Being Heard 2005).

The excitement of the transformation process for the participants grows as outputs begin to develop and outcomes can be anticipated. The feelings are vividly described by Al-Kodmany, in his description of the initiative in Chicago's Pilsen neighbourhood, USA, in which a combination of new technologies was used to engage citizens in the planning process for the regeneration of their neighbourhood. The use of technology provided citizens: "...with a wealth of maps and visual data that helped orient the participants, identify problems and facilitate consensus", "...empowerment to plan and design for the future of their community." One resident of the neighbourhood exclaimed "...as we saw ideas begin to take shape before

our eyes we could feel the excitement rise. The pulse begins to beat a bit faster!” (Al-Kodmany 1999).

Similarly, in the Macatawa area project, the transformation process generated a strong sense of enthusiasm to deliberate and decide on priority areas for action. Those involved in transforming their individual and collective contributions into action plans, committed to continued involvement in the projects they had been instrumental in defining and planning.

The case studies also revealed a very considerable array of tools and techniques which are available and in use worldwide to support and promote the processes. This aspect will be discussed further in Chapter 9 ‘Strategies for Citizen Engagement (ii) – Tools and Techniques’.

6.2.3 Outputs and Outcomes: Components of Desirable Futures

The transformation process which occurs in effective citizen engagement exercises delivers explicit, tangible outputs (see Table 6.3). Examples include:

- carefully formulated problem statements (informed by sharing experiences and knowledge of different stakeholders);
- analyses and specifications of information needs;
- agreed priorities for action;
- action plans.

Outputs

The effective shaping of requirements which results from the transformation processes serve to produce tangible outputs in the form of requirements specifications. For example, forums run by America Speaks always produce a preliminary report at the end of each deliberation, which can be taken away by participants at the end of the day. In turn, such documented outputs inform technical design decisions, increasing the relevance and value of solutions (as for example in the K-Net project). The Canadian National Forum on Health initiative resulted in an action plan formed on the basis of consensus among the participants on the healthcare priorities for the nation.

Tangible outputs such as these inform decision making and policy making which can then result in developments of ongoing benefit to individuals and communities. One such result is the establishment of a central information resource centre in a community in Uganda. This profoundly significant development came about as a result of the information needs

analysis and action planning by the citizens involved in the *Reflect* ICTs project processes. Through similar transforming processes, the communities in North Western Ontario represented by the Keewaytinook Okimakanak have succeeded in making telecommunications facilities available to citizens. These include new telehealth facilities and a virtual high school. As reported in Chapter 4, the Internet High School enables young teenagers to stay with their families and engage with their communities rather than having to travel far afield and risk losing their roots. Similarly, the telehealth project makes substantial savings by enabling patients to have virtual consultations with doctors and other health professionals rather than having to travel hundreds of miles for appointments. Desirable digital futures seem to be evolving for this community.

Outcomes

From the case studies, we can also identify numerous examples of other kinds of outcomes. These are sometimes less tangible than the outputs cited above but nevertheless important. Examples of such outcomes are shown in Table 6.3.

Table 6.3. Examples of outcomes from Citizen Engagement processes

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- Increased relevance and value of solutions generated
 - Ownership of solutions
 - Capacity building
 - Empowerment
 - Mutual respect and understanding
 - Increased economic and commercial activity
 - Increased innovation
 - Increased social inclusion and community cohesion
 - Joining up of policy, strategy and ICT
 - Sustainability
-

An outcome which is less immediately visible but equally important in terms of its long-term benefit, value and influence is the sense of ownership experienced by participants. The Jhai Foundation has several active projects in which local people can choose to participate on the basis of their preferences and skills. Cultivation and sale of local coffee (Jhai Coffee) on a fair-trade basis has promoted economic development throughout the area assisted by the Jhai Foundation (www.jhai.org/).

The projects report high impact and attribute this to the fact that their communities own them. Similarly the philosophy and methodology of participation in the *Reflect* ICTs project regards the community as a whole as the basic unit for the engagement process. This approach has meant that

whole village communities have been involved in problem formulation and discussion and in agreeing on priorities for action. At the other end of the technological spectrum, participants in the 'America Speaks' project are provided with electronic polling equipment and can debate issues round the table face-to-face with decision makers.

Another outcome identified from the analysis of the case material is capacity building – which is the change and development which takes place in individuals and thus in their communities as they participate in projects, learning new skills of many kinds and growing in confidence as a result. For example, a participative *Reflect* ICTs pilot in India (Beardon 2005) reports that the main objective of participating villagers has been to acquire information relevant to their needs. The pilot helped them to work out who has the information, where the information is and how much of it is relevant. Radio has been the most popular tool for information acquisition and advocacy. This has enabled the villagers to articulate proposals for expressing their needs and demands. Using ICTs to collect, store and analyse information is the next phase planned for the projects. Such capacity building provides the foundation for empowerment – in this case, enabling marginalized groups to become aware of their rights and to access information they need in order to improve their lives. Promoting learning and the development of skills and capabilities in this way are explicit objectives of the *Reflect* ICTs projects led by ActionAid. This institution regards capacity building as the key to achieving improvements in the quality of life of very poor communities. Investment in capacity building appears to far exceed expenditure on electronic resources, including ICTs.

A further outcome from the citizen engagement process is mutual respect and understanding between different groups. As an illustration of this, in consultations, K-Net received many requests for provision of a forum where aboriginal and non-aboriginal peoples across Canada could share information and discuss their views so that a respectful view of the aboriginal way of life could be promoted. Consequently, K-Net established 'Turning Point', which offers cyber-space for aboriginal and non-aboriginal people in Canada to have open and direct communication with each other (see: <http://www.turning-point.ca/>).

Other beneficial outcomes identified in several of the case study reports relate to major improvements in the effectiveness of economic and commercial activity. These have resulted from citizens communicating their needs, e.g. for information on prices at the markets where they sell commodities. A valued outcome of particular significance in some very poor communities is a direct result of having access to ICTs which enable people to monitor market prices and judge when they are likely to achieve a favourable return on the sale of their goods. They can therefore make an

informed decision about going to market (e.g. in the Nepal Wireless and Jhai Foundation cases). Such tangible benefits of using technology stimulate the enthusiasm of users to find further ways of exploiting the ICT capabilities. This engagement has led to the creation of virtual outlets which use the Internet to develop opportunities to trade in new markets. In the Jhai Foundation case this means that local coffee produced in Laos is now marketed and sold across the globe. In Nepal, yak farmers in very remote areas now use electronic communications to buy and sell animals. Such successes have given added impetus to initiatives to develop low cost ICTs, affordable to poor communities.

Improvements in community relations are also evident in increased social inclusion and community cohesion, as is illustrated in the communities which host the Jhai Foundation and the Macatawa Area Coordinating Council respectively.

'America Speaks' and the Canadian National Forum on Health are two examples from the case studies of initiatives that currently affect policies directly, achieving the joining up of policy, strategy and the use of ICTs. These programmes have brought together physically both policy-shapers and citizens, and used ICTs to facilitate their deliberations and decision-making. This approach has been adopted in the UK for consultations over the National Health Service that were held in four pilot locations between September-October 2005. One thousand people took part in an NHS consultation at the Birmingham International Convention Centre at the end of October 2005 adopting a similar approach to that of 'America Speaks' (BBC 2005).

The full potential of ICTs as a key enabler of citizen engagement has yet to be fully demonstrated, and in many studies, e.g. Madrid Participa, electronic methods are seen as just one of the means available to citizens to be involved in democracy.

Sustainability of the results of the initiatives depends on a number of variables, including **adequate funding**, the commitment and **support of community leaders**, the availability and reliability of **technological equipment and expertise** and, most importantly, **a political and cultural environment which supports participation**. Informed understanding of the capability of the technology and acceptance of the rights of citizens to pursue appropriate means of improving their daily lives are also key factors in sustainability. Some of the initiatives described in the case studies have taken explicit steps to become sustainable. For example, K-Net is owned and managed by the local community. Although external funding has contributed to the success of the initiative, it is able to generate its own income by charging users (including the Canadian Government) for its services. Other initiatives such as Nepal Wireless, and the Jhai Foundation

are working to generate income for communities through promoting the sale of local produce and handicrafts or encouraging tourism.

It is important to emphasize that the transformational processes which led to the outcomes described did not simply occur spontaneously – rather, leadership and facilitation were frequently crucial catalysts for action and for sustaining momentum in the projects. In several of the case studies, it is evident that one particular individual or small group has championed the cause and put in considerable personal effort to achieve success for the initiatives e.g. in setting up online surgeries for young people to engage with elected councillors and local council staff in Kingston, UK, in establishing ‘America Speaks’ to engage communities in debate and planning in the US, and in setting up schemes to support increased ICT-enabled commercial activity e.g. Nepal Wireless, and Jhai Foundation. K-Net is notable for the leadership of local chiefs and their clear vision of future ICT-enabled possibilities for their communities.

6.3 Conclusions

In this chapter we have presented a multi-dimensional model of citizen engagement, which reveals the richness and complexity of the process and the many benefits to be gained. This model extends current perspectives for analyzing citizen engagement which have tended to focus on the level of participation and/or the way in which technology is used in the process. It identifies a range of characteristics which not only enable a more comprehensive description of citizen engagement/participation initiatives but also offers powerful insights into the conditions for success of such initiatives.

It is evident that successes in civic participation – whether in impoverished communities in the developing world or in leading developed nations – are underpinned by the development of skills and capabilities of the participants. Therefore a key message for governments internationally who are concerned to promote participation and engagement of their citizens in democratic process and in civic society, is that investment in capacity building is the crucial route to empowering citizens to improve all aspects of their quality of life. The use of ICT is a powerful enabler in achieving this but will not of itself deliver more than limited and transient change. Significant and more lasting change and improvement comes through e-enabled new opportunities for economic activity, through understanding local governance, and learning how to have influence and exercise democratic rights. These outcomes empower people as stakeholders

in society to have some influence over decisions made on their behalf and in shaping their futures.

Thus, the model provides a strong foundation to inform the direction and formulation of citizen participation/engagement exercises and initiatives. It also provides improved criteria for systematic monitoring and evaluation of their effectiveness. Above all we hope that clearer identification of the processes, benefits, and far-reaching rewards emerging from practice on an international basis, serves to inspire widespread citizen engagement in society.

In the next chapter, we explore the barriers which have prevented widespread adoption of a participative approach to the design of ICT systems and services, and propose an integrated conceptual framework for ICT design.

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