



A Dublin Institute of Technology Initiative

# **FINAL EVALUATION REPORT OF THE GO PROJECT**

**July 2006**

DUBLIN INSTITUTE OF TECHNOLOGY



## **ACKNOWLEDGEMENTS**

### **The Centre for Social and Educational Research (CSER)**

The CSER is a well-established independent research and policy analysis body, located within the Faculty of Applied Arts, Dublin Institute of Technology. It has a well-established track record of research on social and educational policies and practices. Research is currently being developed in media, technology and society, with an emphasis on social inclusion and ICT and community technology.

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## **SECTION ONE**

### **Introduction**

#### **1.1 Background Information**

The Grangegorman Online (GO) project was an information and communications technologies (ICT) initiative of Dublin Institute of Technology (DIT) that involved the collaboration of the Community Links Programme and the Digital Media Centre in DIT with the local community of Grangegorman. The Information Society Fund committed €800,000 to finance the project. It was proposed that it would be a 12 month project and would be delivered from January 2005 to the following December 2005.

The GO Project is set in the context of DIT's planned relocation to the Grangegorman area in 2010. This move will have a significant impact on the local infrastructure, communities and businesses. Overall, approximately 20,000 students and a further 2,000 staff will pass through the doors of DIT in Grangegorman, availing of the local services such as shops and cafes and inevitably renting apartments near to the campus. The DIT's strategic plan includes a "commitment to maximise accessibility to the campus, in particular for the surrounding communities with whom it intends to forge strong linkages".

The Minister for Education and Science, Mary Hanafin, welcomed the new campus as "an invaluable community resource" that could not only enhance the educational facilities of the North Inner City, but could also contribute to the cultural and social life of the area. The GO Project is a good example of how DIT is trying to make links within the local community before the campus opens.

#### **1.2 Aims of the GO Project**

The aim outlined in the Grangegorman Online Project proposal was to "design, build and evaluate a sustainable eCommunity that makes use of ubiquitous computing applications and services which allows the wider heterogeneous community surrounding

DIT/Grangegorman to maximally use ICT as a developmental, cultural and educational vehicle that will provide a model for the future”.

The eCommunity was defined as “a local community engaged in its traditional pursuits that are additionally and deliberately supported by online infrastructure, education and local activity”.

An ambitious work programme was designed to implement the GO project over a twelve month time frame. It was structured into eight work packages<sup>1</sup> that are summarised as follows:

1. **Management:** The purpose of this work package was to manage the project to successful completion of its objectives, within the agreed time schedule and budget. Activities included administration, financial management, activity planning and the monitoring of ethics, gender and social issues
2. **Community Requirements Dialogue and Solution Building:** Tasks emphasised the goal of developing user centred services, where the needs of the community would be identified and user requirements integrated into the early stages of the technology cycle
3. **Functional Requirements and Service Scenarios for eCommunities:** This involved developing user cases and scenario building to inform the design of software.
4. **eCommunity Content Development and Training:** The purpose of these tasks was to identify, prepare and deliver appropriate educational initiatives focusing on bridging the digital divide. It also outlined activities to help develop usable online training material

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<sup>1</sup> A more detailed outline of the eight work packages is found in Appendix 1

5. **Software Platform Development and Integration:** This work package was established to deliver Internet enabled services to targeted communities; implement use scenarios developed through work package 3; integrate existing eCommunity and eGovernment services.
6. **Hardware Test-bed Deployment and Trials:** This outlined the test-sites to ensure the hardware developed through the GO project was functioning
7. **Dissemination and Sustainability Planning:** This work package covered the PR for the project. It also outlined plans for the exploitation of the results.
8. **Self-Assessment and Evaluation:** The two aspects outlined were the formal technical and usability evaluation of the prototype systems and a self assessment process to monitor whether the project achieved its stated objectives

Restructuring in the Department of Finance had a number of implications for the implementation of the GO Project. The project, due to commence in January 2005, was delayed by six months and did not begin until June 2005. Furthermore, the budget was cut by half from €800,000 to €400,000. The initial aims of the project had been very ambitious and were now redefined based on what could be achieved during a six-month time frame.

## **1.3 Project Structure**

### **1.3.1 Project Overview**

The GO Project was divided into three strands: the Technology Strand; the Community Strand; and the Schools Strand.

The community and schools strands of GO were modelled on two existing projects run by the Community Links Programme in DIT – The Digital Community Project and the Dublin Inner-City Schools Project (DISC Project). Both were established with the aim of

achieving equality of access, opportunity and training in ICTs across inner city disadvantaged schools and communities in Dublin. In order to tackle educational disadvantage, new desktop computers and technology were provided to disadvantaged schools and community centres in Dublin city, along with relevant ICT training. Both projects have helped to integrate education into the community.

The GO Project sought to widen the scope of DISC and the Digital Community Project targeting the whole community (local people, schools, businesses etc) and not just those experiencing disadvantage. Furthermore, the project managers sought to introduce wireless technology such as laptop computers and mobile phone technology, over the traditional desktop computers supplied in the other projects.

The following provides a more detailed description of the schools, community and technology strands of the GO Project.

#### Schools Strand

The project manager for the DISC Project agreed to extend her remit to project manage the schools strand of the GO Project as well. Two schools participated in the project - St. Gabriel's National School and St. Joseph's Secondary School. Each school appointed its own IT co-ordinator to liaise with the project manager for the schools. The IT co-ordinators were teachers in the schools who took on the role in addition to their classroom duties.

Hardware installed and provided to the schools included laptops, scanners, laser printers, data projectors, 5 digital cameras and tripods and Sony digital video cameras. Software requested by the I.T. co-ordinator in the schools was also provided over the duration of the project. Examples of these include *Texthelp Read and Write*, *Science Explorer Site Licence* and *Maths Circus 2*.

Under the GO project, teachers were offered training in new technologies. Teachers from St. Gabriel's Primary school undertook the clay animation training. All teachers had the



opportunity to do IC3 and other computer training courses such as PowerPoint and Publisher workshops.

Students from both schools were also included in training. Sixth class children from St. Gabriel's school and second year girls from St. Joseph's secondary school participated in a digital video making training course. Transition year students from St. Joseph's along with the fifth and sixth year students were studying for the IC3 exams. The GO Project also funded English language classes to fifty non-national students at St. Joseph's secondary school. These classes were especially welcome in light of the high number of non-national students who attended the school, and coinciding with the withdrawal of State funded TEFL classes by the Department of Education and Science.

#### Community Strand

The project manager for the Digital Communities Project agreed to widen the remit of their job and to project manage the community strand of the GO project. Three community centres established in the Grangegorman area were approached to participate in the GO Project. They were the Prussia Street Family and Community Centre, O'Devaney Gardens Community Centre and the Gateway Project, Arran Quay. The project manager for the community strand of the project liaised with the centre co-ordinators on all aspects of the GO project taking place in the centres.

Two centres (Prussia Street Centre and the Gateway Project) were equipped with broadband Internet access in June 2005, along with a range of hardware and software. The hardware consisted of ten laptop computers, a server, colour printer and ten digital cameras. Software was also provided to the centres and consisted of Microsoft Office, Anti Virus Software and Adobe Imaging Editing Software (Community Links, 2006:10).

The three centres engaged in training funded through the GO project. The courses varied from a Foundation Course in the use of computers and e-mail, a digital cameras course, Microsoft IC3 training and English lessons to foreign nationals. Participants from the Gateway project and Prussia Street Centre interested in furthering their career prospects

and who were already completing the IC3 exams, attended the ‘Introduction to teaching and learning course’ (Train the Trainer) accredited by DIT.

### The Technology Strand

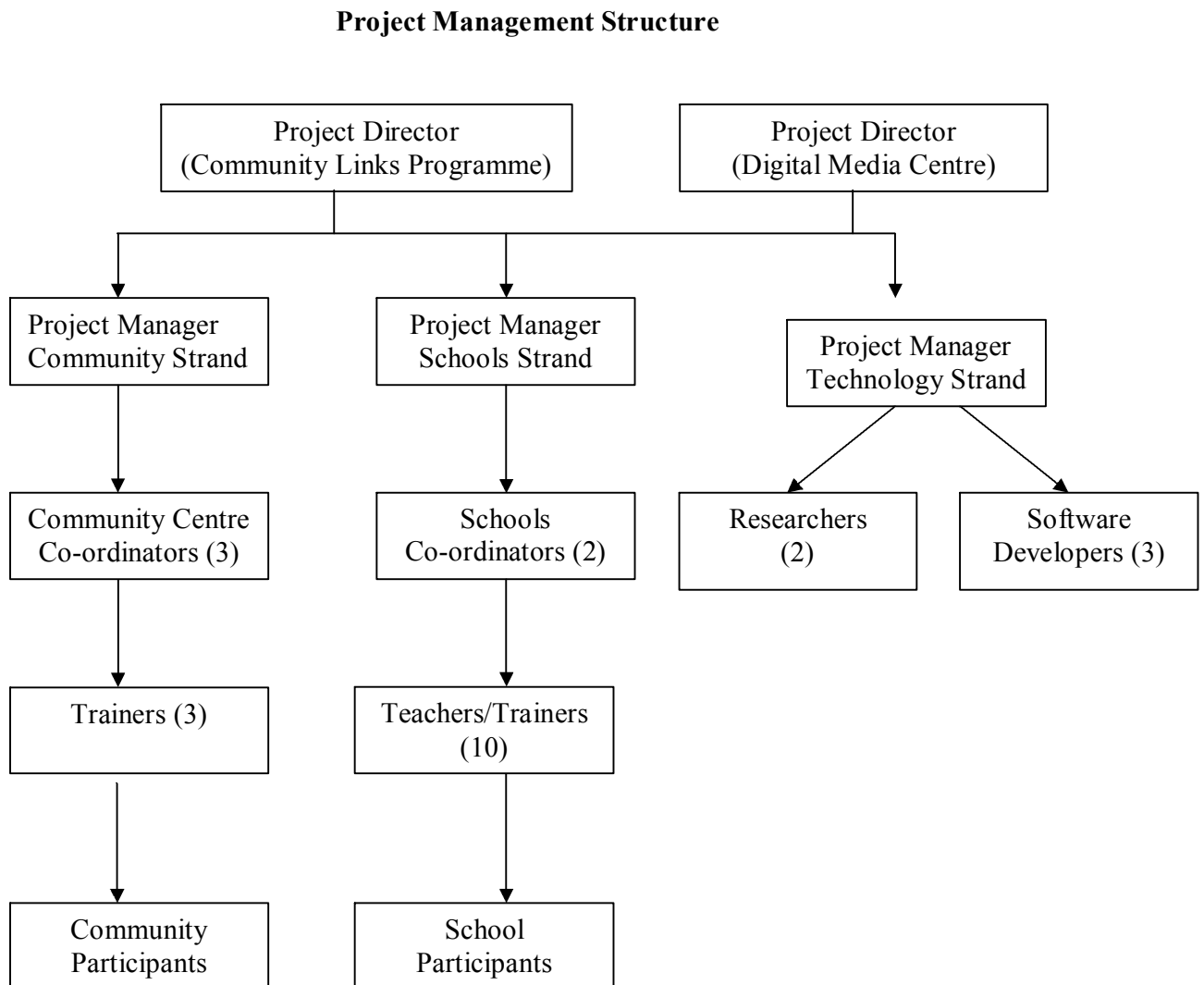
The technology strand of the GO Project was overseen and implemented by the Digital Media Centre at DIT. Their team aimed to develop innovative and robust software that would support an eCommunity in the Grangegorman area. The services developed over the lifetime of the project include the following:

- The Grangegorman Online website and Content Management System
- The GO Map
- The GO Interactive Television Interface or Set Top Box Technology
- The Grangegorman Online SMS (text messaging) Communicator
- The GO Language Learning Input Tools
- The Grangegorman Social History Archive (content gathering)

Overall, there were six members of the Digital Media Centre staff working on the project at different times. They included the Director of the Centre who was also the Director of the GO Project; the interactive website and set top box developer also employed to project manage the technology strand of GO; the SMS technology developer; the computer linguist developer; and two researchers.

### 1.3.3 Project Management Structure

The chart below outlines the overall structure put in place for the project.



At the initial stages of the GO initiative the project directors had anticipated employing one project manager to oversee the programme. As a result of the budget cut and time frame issues, it was agreed that the managers of the Digital Community Project and the DISC Project, already employed by DIT, would extend their remit to oversee the schools and community strands of the GO project.

A management committee was established and held meetings over the course of the project. It was made up of the programme directors, and the project managers for the schools, community and technology strands of GO.

## **1.4 Evaluation Methodology**

The aim of the evaluation is to assess the effectiveness of the GO project in the promotion of ICT in the Grangegorman/DIT area, in order to build a sustainable eCommunity for the future. This aim was drawn up bearing in mind the revised objectives and the limited time schedule of the project.

A number of research-questions were identified and incorporated into the evaluation process. These were:

- Description of the management and decision making processes of the GO Project
- Have the desired outcomes of the GO Project been achieved?
- What is the impact, if any, of the GO project on the participants' attitudes to DIT's planned relocation to the Grangegorman area?
- Has the project team succeeded in making the GO Project a replicable model?
- Has the Open Source Software development approach succeeded in producing a robust eCommunity system?

The evaluation was conducted between April 2006 and July 2006. A number of evaluation methodologies were used to assess the GO project primarily. For the documentary analysis all the project documentation and relevant reports were examined. The qualitative analysis formed the principal method of data collection to assess the experiences of those involved in the GO Project.

Following an initial meeting with the project directors it was agreed that semi-structured interviews would be conducted with those involved in the GO Project, along with focus groups for the project participants. The directors stressed the importance of getting feedback from the participants to find out what their experiences of the project have been.

Interview schedules were drawn up and in-depth interviews and focus groups were conducted with the relevant stakeholders<sup>2</sup>. These included:

- Project directors
- Project managers for the schools, community and technical strand of the project
- IT co-ordinator in St. Gabriel's Primary School and St. Joseph's Secondary School
- Clay animation trainer and digital video trainer
- Two focus groups (sixth class in St. Gabriel's; second year in St. Joseph's)
- Community centre co-ordinators (Prussia St, O'Devaney Gardens, Gateway Project)
- IC3 trainers (Gateway Project and Prussia Street Community Centre)
- Focus group with participants from the Gateway Project, Arran Quay
- Software developer for mobile phone technology (Digital Media Centre)

In total, eighteen interviews were conducted between May and June 2006. The interviews were then transcribed, coded and thematically analysed. In thematic analysis the researcher looks for themes (codes) which are present in the whole set of interviews and creates a framework of these for making comparisons and contrasts between the different respondents (Gorman, 2004:189)<sup>3</sup>.

## **1.5 Outline of Report**

Section One of this report has outlined the general background of the GO project. It has also included information on the structure of the project and the evaluation methodology.

Section Two examines the literature relevant to the project. In particular, issues with regard to ICT policy in schools and the community are discussed.

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<sup>2</sup> The Interview Schedules can be found in Appendices 2

<sup>3</sup> Gorman, Roger (2004) *Social Research Methodology: A Critical Introduction* Palgrave Macmillan

Section Three examines the schools strand of the GO Project. First, the management and organisation of the project from schools' perspective is discussed. Secondly, the satisfaction with the resources provided to the schools and any problems that arose with regard to the equipment are considered. Finally, the training provided to teachers and students is assessed. Data is drawn from interviews with the schools project manager, the IT co-ordinators, the trainers and students.

Section Four provides an overview of the management of the community strand of GO. The central issues emerging from the training in the community are discussed. It draws on the experiences of course participants, the community project manager and trainers. The outcomes of the training, in terms of participant's attitude to education, employment opportunities and DIT's relocation to Grangegorman, are considered.

Section Five discusses issues arising from the technical strand of the GO Project. First it identifies what the Digital Media team wanted to achieve in their work. This is followed by an analysis about the extent of community consultation in terms of identifying what software should be developed. Finally, the outcomes of the technical strand are examined with particular reference to the use of open source software in the software development process.

Section Six provides an overview of the management and development of the GO project. Directors' perspectives on the outcomes and challenges of the GO initiative are also examined.

Section Seven examines the principal findings of the research. The research questions are answered and recommendations are made based on the findings of the evaluation.

## SECTION TWO

### Literature Review

#### 2.1 The Knowledge Society

*“A knowledge society cannot exist without highly educated citizens and a well-trained work force. Education and training are therefore crucial to achieving the ambitious economic and social goals Europe has set itself for 2010” (Com: 2006)*

The emergence of the knowledge society presents opportunities and challenges for society as a whole. Developments in Information and Communication Technologies (ICTs) have been a powerful driver of social and economic growth. In Ireland, between 70 and 80 percent of economic growth is estimated to be due to new and better knowledge (ISC, 2002:2), while in Europe, a quarter of EU GDP growth and 40% of productivity growth are due to ICT (Com 2006:3).

The growth in ICT can benefit all citizens; making public services better, more cost effective and more accessible; and improving quality of life (Com 2005:9). At the same time, technological advancement has the potential to exacerbate existing inequalities in society. Evidence has shown that those who experience disadvantage and marginalisation in society generally are also at risk of being excluded from the information society (Duggan, 2003:8). A major report commissioned by the Dublin Employment Pact recognised the value of community based interventions alongside national policy in order to tackle the digital divide (Haase, 2003).

Developments are currently underway with regard to ICT policy. The government are due to publish a *Knowledge Society Action Plan* during 2006. This will build on the advancements made and the outcomes achieved by the two previous National Action Plans, with an emphasis on driving towards a knowledge-based economy and the need to provide greater inclusiveness (Ireland, 2006:18).

It should also be in line with the *EU i2010 Initiative 'A European Information Society for Growth and Employment'* (Com, 2006).

## **2.2 Irish Policy for ICT in Education**

The promotion of ICT has been an integral part of recent Irish Educational policy. In the *Department of Education: Statement of Strategy 2005-2007*, the government outlines their continued commitment to developing a knowledge based society. A key objective of the strategy is 'to promote the use of ICT in schools and encourage pupils to achieve computer literacy and acquire the necessary skills for participation in the information society' (DES, 2005:38). Further to this, the most recent social partnership agreement *Towards 2016* states that 'all children will have the opportunity to become ICT literate by the completion of second level education'.

In the last decade, two Irish government policies for ICT in Education have been published. These are *Schools IT2000, A Policy Framework for the Millenium* (1997) and *A Blueprint for the Future of ICT in Irish Education* (2001). The most recent Blueprint policy outlined the main thrust of the government's three-year strategy, which was:

- To lower the computer/pupil ratio
- To expand access to and use of the Internet through the development of wiring-networking infrastructure
- To further integrate ICT into learning and teaching
- To enhance teacher professional development (NCCA, 2004:12).

The *Blueprint* policy expired at the end of 2003 and we are currently awaiting the publication of the next Government policy for ICT in education. It is expected that this strategy will build on the aims outlined in the *Blueprint* policy and will remain in line with European policy for ICT in education.



### **2.3 Benefits of ICT for Teaching and Learning**

It has been widely recognised that the use of ICT in an educational context can enrich the teaching and learning experience. Among the reported benefits are gains in student achievement, increased student motivation, improvement in students higher order thinking and problem solving abilities, and the development of students' abilities to work collaboratively (NCCA, 2004:8). This is supported by research from Becta<sup>4</sup> that reported the use of ICT in the classroom can enhance a student's commitment to and engagement in learning, as well as raising their self-confidence and self-esteem. For instance, students involved in a project called *Challenge 2000*, an internet-based resource, were keen to work in their own time, before and after school, as well as during the timetabled sessions and did not have a problem maintaining motivation and excitement (Becta,2003:3).

The use of digital video and portable ICT devices are good examples of the type of modern technology that can be integrated into the curriculum to facilitate teaching and enhance learning. Using a digital video in the classroom can take various forms, from students producing their own films and animations to showing clips to help explain concepts. Digital video production draws on students' out of school interests and has been found to develop students' literacy skills, creativity and collaborative work (Becta, 2003:2).

Mobile devices, such as mobile phones, personal digital assistants (PDAs), personal media players (PMPs), portable games consoles and laptops, are becoming powerful tools to enhance knowledge and skills. For instance, a college in Wales was effective in responding to the needs of the non-traditional learner by setting up a Mobile Computer Lab. This highly mobile device comprised of a "trolley unit" that facilitated the easy transport of 10 laptop computers, a projector and a Printer. In examining the outputs of the project, the college reported that the mobile lab fits effortlessly into the "blended

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<sup>4</sup> Becta – British Educational Communications and Technology Agency [www.becta.org.uk](http://www.becta.org.uk)

learning” approach<sup>5</sup>. Overall, it was reported that replacing ageing fixed equipment with mobile equipment moves an organisation’s teaching and learning ethos into a contemporary and effective mode that is responsive, flexible and student centred (Ferl, 2006:7).

ICT alone does not contribute to positive educational outcomes. The teachers own familiarity with ICT, confidence and competence levels in its use is a key determinant of the effective use of new technology in the classroom (NCCA, 2004:9).

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<sup>5</sup> *The term blended learning is used to describe a solution that combines several different delivery methods, such as collaboration software, Web-based courses, EPSS, and knowledge management practices. Blended learning also is used to describe learning that mixes various event-based activities, including face-to-face classrooms, live e-learning, and self-paced learning (ASTD; [www.learningcircuits.org](http://www.learningcircuits.org))*

## **SECTION THREE**

### **School Strand: Summary of Findings**

#### **3.1 Introduction**

Two schools were selected to participate in the GO project; St. Gabriel's Primary School and St. Joseph's Secondary School. In total 480 students and 49 teachers had access to resources and training as part of this initiative. Under the GO Project the schools received the following equipment:

- 20 Laptops
- Server
- 1 Laser Printer
- 1 Cannon Scanner
- 1 Data Projector
- 5 Digital Cameras
- 1 Sony Digital Video Camera and equipment (tripod, microphone, long life batteries)
- 3 Web Cameras (St. Joseph's Secondary School)
- Educational Software
- IC3 resources and exams

Training was provided to students and teachers in the schools. Teachers from St. Gabriel's Primary school did the clay animation training. All teachers had the opportunity to do IC3 and other computer training courses such as PowerPoint and Publisher workshops. Students from sixth class at St. Gabriel's national school and second year girls from St. Joseph's secondary school participated in a digital video making training course. Students from transition year, fifth and sixth year at St. Joseph's were also studying for the IC3 exams<sup>6</sup>. The GO Project also funded English language classes to fifty non-national students at St. Joseph's secondary school. These classes were especially welcome in light of the high number of non-national students who

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<sup>6</sup> The Internet and Computing Core Certification (IC3) is a globally accepted Microsoft certification program for basic computing skills. Becoming IC3 certified demonstrates that you possess the knowledge required for basic use of computer hardware, software and the Internet. It involves three exams: Computing fundamentals; Key applications; and Living on-line

attended the school, and coinciding with the withdrawal of State funded TEFL classes by the Department of Education and Science.

The first issue discussed in this section is the management and organisation of the GO project from a schools perspective. The methods used to select the schools and define their needs are addressed here. The second section examines the satisfaction with the resources provided to the schools and any problems that arose with the ICT equipment. Thirdly, training provided to teachers and school students is assessed through interviews with the schools project manager, the I.T co-ordinators, the trainers and students.

### **3.2 Management and Organisation of the GO Project**

This section examines the management and organisational structure of the schools strand of the GO project. Data is drawn from the interview with the schools project manager. The views of the other participants working in the programme are also referred to.

#### **3.2.1 Aims of the Schools Strand of the GO Project**

The priorities for the schools strand of the GO project were outlined by the Schools Project Manager. The first aim was to equip the two schools with the best and most up-to-date equipment as quickly as possible. Once the equipment was installed, the second priority was to provide teachers and children with the skills and confidence to use the technology and improve their I.T. skills.

The GO project targeted the whole of the Grangegorman Community. All of the schools in Grangegorman are designated disadvantage including St. Gabriel's National School and St. Josephs Secondary School. It was noted that a high number of students drop out of school before or shortly after their Junior Cert, with very few skills. The project aimed to promote education and training through technology and make learning fun. Computers were found to be a motivating factor for students to come into school.

*"A lot of our children would say, it's great, we come in on a Friday and get to do computers" (Schools Project Manager)*

### **3.2.2 Management Committee**

The schools project manager was asked to give her views on the management committee set up to oversee the GO project. A number of areas of concern were raised through the course of the interview.

The first issue to be raised was concerned with the representativeness of the management committee. It was suggested that the wider Grangegorman Community could have benefited more from GO. The communities from the centres and the schools were the major benefactors of this project. One idea was that representatives from the community, members of the residence associations and principals from the schools could have sat on the management committee and be included in the decision making process. The time constraint of this project was noted as a reason why this may not have taken place.

*“In the long term, it would be ideal that to persue a project like this you’d have to get all sectors of the society involved in the management level and decision making” (Schools Project Mananager).*

The second issue to be address was the lack of regular meetings which inhibited the progress of the project. It was suggested that a number of decisions were made on a more *ad hoc* basis rather than through the agreed management structures. For instance, English language software developed by the Digital Media Centre was introduced to the schools at the very end of the GO project and without adequate consultation with the management committee. The point was made that this problem may have been avoided had the committee met on a more regularl basis.

*“I don’t think anyone actually benefited from it, maybe just the researcher that was actually doing it. But I don’t think any of the children got any of the benefit from that element of the project” (Schools Project Manager)*

Concerns were raised over the lack of consultation between the different members of the committee, and in particular, between the Community Links team and the Digital Media

team. It was suggested however that these issues could have been resolved had there been more meetings of the management committee.

*“Because we weren’t meeting as regularly as we should have we probably lost sight of what we were doing here. If we had met more regularly we might have got more focus and more out of it” (Schools Project Manager re English language software)*

### **3.2.3 Barriers to Implementation of Project**

A cut in funding and reduced timescale had particularly negative consequences for the schools strand of the GO project. Infact by the time the funding was received the schools were commencing their summer break. This meant that it was impossible to get access to the schools, staff or students until September 2005, leaving just three months to work in the schools. Any outcomes achieved in the schools during the lifetime of the GO project must therefore be seen in the context of these limitations.

The short time frame put pressure on the project manager and schools to identify their needs for the project. The project manager had approached each IT Co-ordinator who was to consult directly with teachers in order to define the technology needs of the school. The I.T co-ordinators were then asked to give feedback to the project manager acting on their behalf. The consultation process was rushed to a certain extent and this made it difficult for teachers to be given the time to develop their ideas and think about what they really wanted.

*“It was such a short time span, you actually felt pressure the whole time to be getting things done or getting ideas, or pushing people” (Schools Project Manager)*

### **3.2.4 Selection of Schools**

A number of criteria were outlined in the project proposal upon which school selection was based. It was essential that those schools selected for participation be located in the Grangegorman area and that a mix of primary and secondary schools be included. The

two schools involved in the GO project are designated disadvantage although this was part of the selection criteria.

### **3.2.5 Defining the Needs of the Schools**

The needs of the schools were identified through the discussions between the project manager for the schools and the schools I.T. co-ordinators. The co-ordinators were responsible for consulting with the rest of the staff with regard to ideas for training and software requirements. The feedback received from the two co-ordinators on the consultation process was very positive and also supported their role in liaising with other members of staff.

*“I asked everybody what they wanted? Was there anything they needed?” (IT Co-ordinator)*

## **3.3 Evaluation of the Technology Supplied to Schools**

This section evaluates issues relating to the technical equipment and software provided to each school through the GO project. In particular, it addresses satisfaction with the resources provided to the schools and the provision of technical support. Other areas discussed are the perceived benefits of using the wireless technology in schools, the extent of integration with other areas of the curriculum and finally, recommendations to improve this aspect of the project.

### **3.3.1 Satisfaction with the Resources received through the GO Project**

The school co-ordinators expressed high satisfaction with the equipment and general resources provided to the school through the GO project. Prior to the initiative both schools relied on using ‘computer rooms’ and desk top computers that were out of date and unreliable. The GO project has allowed each school to avail of modern ICT equipment that would have otherwise been unavailable to them.

*“The equipment that we have received is out of this world. We’re so lucky. It’s more than we could have ever expected and it means so much” (I.T Co-ordinator)*

*“Being in an inner city disadvantaged school we would have absolutely no chance of ever getting equipment like this” (I.T Co-ordinator)*

### **3.3.2 Technical Difficulties and Problems with the Laptop Computers**

The interviews revealed that a number of technical difficulties arose when using the wireless laptops in the schools. More problems were experienced in St. Joseph’s secondary school than in St. Gabriels primary school because the building is older and less well-equipped for the wireless. On-going difficulties included a sudden drop in the connection and a disconnection from the shared drive which had implications for the sixth year students who had yet to complete their IC3 exams at the time of the interview. There was disappointment that the girls could possibly be leaving school without a formal computer qualification and it was suggested that it may have been better to do the ECDL exams instead.



*“One teacher who had 6th years said she would have done the ECDL with them. We’ve been doing it for years. I’m a corrector and we’re an exam centre. Now our 6th years are leaving this year with no exam”*

In order to resolve this issue the project manager did offer to facilitate the exams at either DIT Mountjoy Square or in a community centre at Whitefriar Street. The IT co-ordinator was also examining the possibility of allowing the students to return to the school at some point to complete their IC3 on the older wired up computers.

The project manager suggested that it may be necessary to supply network cables to each laptop in order to solve the problem with the wireless computers. There would still be the wireless possibility but the schools could have the back-up of the cables.



Another issue to be highlighted by the IT co-ordinators was the difficulty in charging the laptops. In St. Joseph's secondary school the laptops were eventually put into one room that was locked all the time and where the laptops could be charged continuously. The teachers were therefore able to use this facility like a 'computer room' or get the girls to bring a laptop each to their classroom.

In St. Gabriel's primary school there was no spare classroom to store the laptops. Therefore the laptops had to be stored in a locked cupboard in the computer room. It was left to the IT co-ordinator to charge the laptops in the morning for anyone who wanted to use them that day. This proved to be an added pressure to their workload.

*"They have to be charged up in the computer room, which itself is another job. I have to come in early in the morning. I just find that hard to cope with at the moment"*

### **3.3.3 Satisfaction with the Technical Support provided to the Schools**

There was mixed feeling expressed about the technical support provided to the schools. St. Gabriel's primary school which had experienced very few technical problems were more satisfied with the technical support than St. Joseph's. The speed at which the contractors responded to a problem in the primary school was noted positively.

*"I rang them after school at 3 O'Clock and they were in the following morning" (IT Co-ordinator)*

The IT co-ordinator in the secondary school found the support less helpful. The cost of phoning the technical support on a personal mobile phone was also noted as an issue.

*"To be honest, they want me to do it really, I have to say. I ring them on my mobile here using my money and they're talking me through things to do. I should play dumb really and get them out" (IT Co-ordinator)*

### **3.3.4 Outcomes of using the Technology in Schools**

The GO project supported the integration of technology into other areas of the curriculum. A major benefit noted by the teachers and the project manager was that students are no longer restricted to the 'computer room' and laptops can be moved easily from one classroom to another.

*"It's hard to integrate computers into the classroom if you're constantly saying okay, we're going to the computer room. It will always indicate that it is a separate thing from the classroom" (Schools Project Manager)*

*"If it is to be integrated then the idea of a laptop is that they're stored in a classroom and taken out like a book is taken out" (IT Co-ordinator)*

This was supported by evidence from a focus group discussion with second years students from St. Joseph's School. All students suggested that they would like to use their laptops more often in other subjects. When asked why, they responded that it means that "you get off work" revealing a distinction in student's perception of traditional work' and computer work. It shows that computers are a valuable tool for teachers to help students learn in a way that is fun and meaningful.

Evidence showed that teachers in both schools are beginning to use the laptops as a resource for their own subject. Students in both schools have been using the internet to look up information for history class and geography projects. Students also remarked on the internet as a positive resource for looking up information.

*"Across the board teachers are starting to use them; home-economics, science, maths, some languages and geography" (IT Co-ordinator)*

*"I think if you go on the internet, you might be able to get more stuff than you get in a book" (Student from St. Joseph's Secondary School)*

Educational software was considered an excellent method for engaging children in education. In particular, it was valued as an important resource to work on the literacy and numeracy problems experienced by many children in both schools. The fact that the equipment was new and modern was found to make learning fun and exciting for students.

*“We’re told to steer away from the class texts. Make learning more fun. The kids love it (laptops) and look forward to it” (IT Co-ordinator)*

### **3.4 Up-Skilling Teachers and Students Through Training**

This section discusses the training that the students and teachers received through the GO project. Information drawn from the interviews examines what new skills students can learn from undertaking training in new technology such as the digital video or clay animation. Secondly, issues emerging from the teacher training component of the GO project are also discussed.

#### **3.4.1 Perceived Benefits of Training for Students**

Interviews conducted for the schools strand of the project highlight the potential benefits for children to be involved in technology projects. Clay animation and digital video making were promoted as having huge potential to raise the confidence and motivation levels among students. This was highly valued in the schools involved in the projects as many of the students had low self-esteem and learning difficulties.

The clay animation trainer described how the children in his own class doing the clay



animation learn a range of new skills. Making a film or cartoon from start to finish and gaining the approval of their peers was found to have huge benefits in raising a child’s self esteem. The fact that students are trusted to use modern and new equipment is also a confidence booster.

*“The idea of how they’re seen by their other peers when the film is shown is a massive thing. You made that, WOW!! We thought only the TV did that kind of thing!” (Clay Animation Trainer)*

In terms of educational value, clay animation was felt to have huge advantages. For instance, the trainer described how many of his students experienced language and sequencing difficulties. The idea of doing a storyboard helped students with their sequencing skills, along with doing the project from start to finish. Secondly, children could work on their communication and oral skills by doing voice overs for the characters they created for the film. The trainer also described the idea of manipulating the clay into the shapes of the alphabet or conducting phonics lessons through clay animation.

*“I’d like to do a lot of phonics lessons, where the characters say – the sound ‘O’ makes ‘OA’. Your mouth goes like this (shows O sound with mouth). So the character will be talking and saying things about phonics” (Clay Animation Trainer)*



Students were able to grasp a number of different skills through the digital video training. They learned about the equipment required for making a video and referred to words such as ‘tripod’ and ‘clapper’. The children were also taught every point in the production process from choosing a topic to film, making a storyboard, acting and speaking on camera, filming the actors and editing the film on their laptops.

The fact that the students were able to decide on what film they wanted to make was an important element of the digital video project. The trainer emphasised the need for the students to take ownership of the film, particularly among the older group of students.

*“We felt it was better for them to decide what they were going to shoot. So they could feel like they owned the film instead of us just imposing something on them”*

The digital video trainer noted that the project facilitated the children to express their creativity, and acting skills. The sixth class children were more open to this than the older students at St. Joseph's, who were more self-aware and conscious of what they were doing. Teamwork formed an integral part of the project as students were expected to negotiate with one another when deciding what role they would play (actor, cameraman etc) and during the film production. Editing required a great deal of concentration and patience which quieter students were reported to excel at.

Overall, both the project manager and teachers expressed their satisfaction with the digital video course. They explained how excited students were when the two video trainers came to the school, along with the potential of this training to open up future opportunities and aspirations for the students. This is supported by the feedback from students in both schools where one said they wanted to be a camera man and another girl in St. Josephs' reported she wanted to be a reporter in RTE.

#### **3.4.2 Feedback from Primary School and Secondary School Students**

Students' from both schools appeared to very familiar with the digital video cameras. When asked to describe the equipment the participants had no difficulty in referring to the different parts of the video cameras and explained what each part did. Children from the primary school stood out in terms of their description of how the film was made and the different jobs needed for film production.

*"We had to depict different pieces in different stories"*

*"One would hold it (the camera). Another would direct it. One would do the 'action' and we had chalk to write it down" (St. Gabriel's primary school children)*

#### **3.4.3 Teacher Training**

There was sufficient evidence from the interviews that it is better to train teachers to use technology live in a classroom situation rather than through in-service or part-time

evening courses. This was one of the major issues raised with regard to the clay animation course. While teachers really enjoyed the training and making their own film, none of them had actually introduced clay animation into their own classes. The biggest factors dissuading teachers were classroom management concerns and a lack of confidence and support. Teachers felt that it would be nearly impossible to do clay animation in a class of over twenty children without some support to control and help the children.

*“Each teacher, including myself, would be afraid to attempt it with a class of twenty. I feel that you’d have to have extra bodies in the room. There’s no way you could control it”*

The project manager for the schools supported the idea that training in clay animation or videos would be more effective if it was delivered live in the classroom situation. It was confirmed that different means of supporting the teacher in the classroom were to be examined. As a result of this finding, a project worker has now been employed to help out with training in the classroom for selected schools in the DISC ICT Projects Initiative, of which the two schools have been merged.

*“Her job for the year is to be out of the office and in the schools. So she’s scheduled on site when they’re actually doing the project with the children, until they (the teachers) become confident to go it alone” (Schools Project Manager)*

### **3.5 Sustainability of the Schools Strand of the GO Project**

Both schools have now been integrated into the DISC project. This ensures that they continue to benefit from the resources and training provided to them through the GO project.

## **SECTION FOUR**

### **Community Strand: Summary of Findings**

#### **4.1 Introduction**

Three Community Centres participated in the community strand of the GO project. These were the Gateway Centre in Arran Quay, Prussia Street Family and Community Centre and O'Devaney Gardens Community Centre.

Two centres (Prussia St. Centre and the Gateway Project) were equipped with broadband Internet access in June 2005, along with a range of hardware and software. The hardware consisted of ten laptop computers, a server, colour printer and ten digital cameras. The software consisted of Microsoft Office, Anti Virus Software and Adobe Imaging Editing Software (Community Links, 2006:10). O'Devaney Gardens Centre did not take-up the offer of equipment and new technology. They did however benefit from training offered to the Centre.

In Prussia Street and the Gateway Project training delivered included a Foundation Course in the use of computers and e-mail, a Digital Literacy course that introduced learners to the use of digital cameras, Microsoft IC3 training and English lessons to foreign nationals. A number of participants attending the centres were also able to attend the 'Introduction to teaching and learning course' (train the trainer) accredited and run by DIT. The 'train the trainer' course offered to participants the chance to gain a recognised qualification and broadened their career prospects.

In O'Devaney Gardens English classes, literacy classes and IC3 using desktop computers was offered.

#### **4.2 Management and Organisation of the Community Strand of GO**

This section provides a comprehensive overview of the strengths and weaknesses of the management of the community strand of GO. The aims of the project and what it set out to achieve in the community are identified. This is followed by an examination of how

the centres were selected, the extent of consultation with the community and satisfaction with the management structures in place.

#### **4.2.1 Aim of the GO Project in the Community**

The Project Manager for the community strand of the GO project outlined what the GO project set out to achieve in the Grangegorman community. The main goal was to set up a number of wireless technology centres that local people in the area could access in a variety of different ways. The priority was to equip centres with computer technology and to help the community organise training for local residents. The aim of the project was defined in the context of DIT's planned relocation to the Grangegorman area.

*“So that was the whole idea. To set up an innovative technological centre based on the concept that DIT was moving into their area and they could become involved in a DIT project before the campus opened” (Community Project Manager)*

#### **4.2.2 Selection of Centres**

It was decided that existing community centres would be used to implement the GO project. This ensured that existing resources within the community could be maximised. The Prussia Street Centre was chosen first because of its location in the centre of Grangegorman. This was followed by the Gateway Project, Arran Quay and O'Devaney Gardens.

#### **4.2.3 Identifying the Needs of the Community**

A number of open days were held in the centres in order to identify the needs of the community and what they wanted to get from the project. Different interest groups were targeted and meetings were organised with representatives from O'Devaney Gardens and Prussia Street to discuss their interests. Project staff also met with various residents associations for an open evening and to provide information on the project. The project manager emphasised the role of the community in identifying their own needs.



*“We learned a lot from the digital community project and one thing is not to go into a project and tell them what you’re going to do. Now we go in and say ‘what do you need?’ and ‘what would you like?’” (Community Project Manager)*

#### **4.2.4 Management and Organisational Structure**

It should be made clear that the role of project manager for the community strand of the GO project was taken up by the manager of the Digital Community Project as an additional part of his work. He was able to draw on his considerable experience and expertise when introducing technology into the centres and setting up training for local residents. Where the GO project differed from the Digital Community Project was that it targeted the whole community in the Grangegorman area and not just disadvantaged groups. Secondly, it proposed to equip each centre with wireless technology instead of desktop computers.

Overall, the project manager seemed satisfied with the management and organisational structure set up to oversee the project. He described how administration was handled by the directors of the project, while the centres were run by the two co-ordinators. He had overall responsibility for the community strand, and worked closely with the schools project manager. It was suggested that meetings of the management committee occurred “very regularly” in order to discuss emerging issues affecting the GO Project.

The centre co-ordinators raised a number of issues with regard to the management aspect of the GO project. Strategic planning in the centres was made difficult because the training budget for courses was based on 30-hour blocks. This had an impact on the training of IC3, which is unlikely to be covered in 30 hours of training. Co-ordinators were concerned that if this funding was cut then their centre would have to bear the cost of continuing the training modules.

*“At the moment you’re working on ‘if the budget comes through’ basis. If you’re planning within a centre you can’t really work on the assumptions of what’s coming up” (Centre co-ordinator)*

The co-ordinators suggested that DIT did not always follow through on their commitments made to the centres. There seemed to be a lack of communication around what DIT hoped to do for the centres, in terms of payment or training, and what it was actually committed to doing.

*“Initially I was told that there would be a small co-ordinators payment for this but it didn’t materialise” (Centre co-ordinator)*

One co-ordinator recommended that a contract be drawn up at the outset of a project outlining what each stakeholder is committed to. In her view this would also assist with the management of the centre activities.

*“I think things should be put down on paper. Especially when you’re someone like myself running a busy centre. You’re hearing something across the phone one minute, but there’s nothing to reflect back on” (Centre co-ordinator)*

The community project manager expressed his frustration with the budgetary and time constraints imposed by the Department of Finance. There was a long time lapse between the start of the project where initial meetings were held with the centre co-ordinators and when the management were able to proceed with the project. The project manager noted that his first concern was to re-build trust with the community centres. This is a particularly pertinent issue with regard to the O’Devaney Gardens Centre.

The project manager noted that a more rigorous and lengthy consultation process was required to engage the O’Devaney Gardens Centre in the GO Project. He pointed out that within the shortened time scale imposed on the project it was not possible to implement the ICT elements of the project. Therefore, no wireless technology was delivered to the O’Devaney Centre over the duration of the project. It was possible for the centre to engage in training and they agreed to English classes, literacy classes and IC3 training on desktop computers provided by a local tutor.

### **4.3 Training Provided through the GO Project: Emerging Issues**

This section examines the issues emerging from ICT training in the community. It draws on the experiences of people who participated in courses organised through GO, as well as discussions with the project manager and trainers.

#### **4.3.1 Targeting the wider Community**

One of the unique aspects of the GO project was that training targeted the whole community and not just people from disadvantaged areas. This is demonstrated in the range of groups availing of training in the centres. For instance, in Prussia Street Centre one group availing of the IC3 course was made up of professional people who wanted to achieve a Microsoft qualification. The other group was made up of women over 50 years interested in computer training, but not necessarily in an exam. They were there to have fun, learn computers and be involved in using technology.

*“Computers is new to them for the last two or three years. They so much want to be part of the technology but it’s taking them a lot longer to learn than young active people”*  
(Centre Co-ordinator about older ladies group)

#### **4.3.2 Progression through Training and Education**

A strength of the GO project was the emphasis on progression through education and training. The project manager noted that after their initial computer training, many participants wanted to progress on to more advanced training. In response to this, the IC3 Microsoft training, along with the ‘Train the Trainer’ course was offered to those wanting to further their skills. Both courses provided access points to third level education and greater employment opportunities.

*“English classes, digital literacy and E-mail were the three main things that people wanted to learn. But we found out very quickly that once they started do this they wanted progression. Where can I go from here?”* (Community Project Manager)

#### 4.3.3 IC3 Exam Centres

None of the Centres involved in the GO project were registered IC3 Exam Centres. Therefore, the participants sat their exams in the Digital Community Offices in DIT, Mountjoy Square. The project manager emphasised their efforts to make participants feel comfortable in their surroundings. The exams took place in the offices because the boardroom was thought to be a bit intimidating. The intention was to put the participants at ease and create a 'comfort zone' where they could sit their exams in a relaxed atmosphere.

*"I was always afraid that people would be intimidated coming into the boardroom. What we did was we went to great lengths talking to these groups in saying "it's just the office" and we got away from the boardroom thing" (Community Strand Project Manger)*

However, the perception that participants would be more comfortable in an office setting over a formal exam setting was not matched with the groups' experiences. Those who sat the exam in the Community Links office, either professionals or those from the disadvantaged community, were critical of how the exams were managed. Frustration was expressed at the length of time it took to set up the laptops and that this had not been organised prior to their arrival. Complaints were made about the noise level throughout the exam and the absence of an appropriate workstation. Overall, participants did not think that the exam was run professionally.

*"We all started at different times. It wasn't an exam room where everyone starts at the one time"*

*"You were working from someone's offices so there were papers on the table and things all over it. People were still talking in the background so it was very unnerving"*

It should be noted that it was DIT technical problems with the filter system that caused the network to go down during the IC3 exams and that this was a cause of frustration for

both project staff and participants. All exams are now held in the community centres to avoid this problem. This is positive given that all of those interviewed recognised that participants preferred to sit their exams in a local centre.

*“It would make a difference if three people were to pass their exams making this a test centre. So if local people wanted to do exams, then they don’t have to travel too far and it’s more comfortable to do” (Trainer)*

*“It would be great if we could sit our exams here. You’re use to it and you’d be more at ease” (project participant)*

#### **4.4 Outcome of Training in the Community**

This section highlights the project outcomes. First, the impact of training on the participants’ confidence and their attitude to education is discussed. Secondly, the impact on further educational and employment opportunities is explored. This is followed by an examination of the communities’ attitude to DIT’s relocation to the Grangegorman area.

##### **4.4.1 Impact of Training on Attitudes to Education/Aspirations**

Training in IC3 was reported to have significant benefits, particularly for the participants who were early school leavers and had returned to education. Overall, they valued education more as a result of their training and had greater aspirations for their children to complete school and go to college.

*“We had to come back and basically re-educate ourselves here. You want your children to stay on in school and get an education when they’re there” (participant)*

*“My son now is 13 and he’s talking about going to college and all, and I’m trying to encourage him even though he’s only 13” (participant)*

#### **4.4.2 Impact on Educational and Employment Opportunities**

The participants recognised the value of the IC3 over traditional ICT qualifications such as the ECDL. One woman reported how she had found the training very relevant to her new job. The project manager made the point that not all participants were ready for employment but that the training had helped put education ‘back on their agenda’.

Participants who were in employment and had other qualifications did the training to improve their computer skills and employment opportunities. For one trainer, the benefits of the GO project have been enormous. After completing the IC3 and ‘Train the Trainer’ programme she is now working as a paid tutor in one of the centres. She described how lucky she felt for having a job she loved and felt confident she could achieve more.

*“Before I was just a mammy and a wife. And that was it. Now I’m seeing that they’re growing up now and I can do more”*

#### **4.4.3 Integrating Technology into Everyday Living**

One centre co-ordinator noted how much the over 50s group wanted to be included in the digital society. She found evidence that these women were indeed learning new skills through their computer training and putting these skills into use. This was shown in their ability to use the laptops to print advertisements for activities that they organise in the local area.

*“A couple of the ladies used to be up at my door nearly every week and now I see the odd little poster going up on the wall that they’ve done themselves”*

In another centre the women were able to use their skills to do everyday activities such as Internet shopping or to book flights.

#### **4.4.4 Attitudes to DIT's Relocation to Grangegorman**

Overall, the participants, trainers and co-ordinators were positive about DIT's relocation to the Grangegorman Community. The positive aspects of this move were associated with greater employment prospects and more facilities for the community.

*"We're gonna have more facilities for the community like a leisure centre and all that"*

The GO project was an attempt to build links with the Grangegorman community. The interviews suggest that projects like GO can have a positive influence on attitudes to DIT and what it has to offer.

*"I think the DIT has changed a lot now and they do value the learner that has been away from learning a long time"*

#### **4.5 Technical Problems and Support**

One of the major difficulties experienced with the wireless laptops occurred when participants were taking their IC3 exams. It was reported that at times the Internet connection dropped suddenly and as a result some students lost their exam. The project manager acknowledged the seriousness of this problem and the potential damage it could have caused. It was noted that this technical difficulty arose as a result of the DIT filter system and that this problem has now been rectified.

*"It had the potential to be a major disaster; to de-motivate students, to turn them off not only IC3 but learning. To take education off their agenda again"*

Overall, respondents were very satisfied with the technical support provided through the GO project. The I.T support consultant was referred to favourably and praised for his quick response to any technical problems.

## **SECTION FIVE**

### **Technical Strand: Summary of Findings**

#### **5.1 Introduction**

The Digital Media Centre was responsible for overseeing the technical strand of the GO project. Their team sought to develop innovative and robust software that would support an eCommunity in the Grangegorman area. The services developed over the lifetime of the project include the following:

- The Grangegorman Online website and Content Management System
- The GO Map
- The GO Interactive Television Interface or Set Top Box Technology
- The Grangegorman Online SMS (text messaging) Communicator
- The GO Language Learning Input Tools
- The Grangegorman Social History Archive (content gathering)
- Nutrition Programme

The aim of this section is to examine the technical strand of the GO Project. First, the software development objectives of the digital media team are examined. Next, the concept of an eCommunity is defined. This is followed by a discussion on how the software needs of the community were identified, along with the extent of community consultation in this process. Thirdly, the outcomes of the technical strand are discussed, and the use of open source software is considered. Finally, issues arising from the partnership between the Community Links team and Digital Media team are reviewed.

#### **5.2 Aims of the Technical Strand of the GO Project**

The Digital Media team were asked to identify what the aims of the technical strand of the GO project were. They reported that their overall goal was to use Open Source Software as a means of developing the eCommunity system to be used in the GO project.

An eCommunity was defined as *“an existing community that is being supported in all the things that the community normally does but with the added support of technology and*



*more important with the training to use that technology in a way that is supportive to their goals".* Therefore, the software does not exist in isolation but is actually integrated into normal everyday living, providing a service to the community.

The developers were aware that certain groups within the community including older people, or the homebound and disadvantaged groups may have limited exposure to ICT thereby impacting on their skills in that area. Therefore they decided to use existing technologies such as mobile phones, to introduce eCommunity software in a non-threatening way. This was to be supported by the training strand of GO project taking place in the communities. The developers recognised this as an important element of the project because community members would require a certain level of confidence and skill in ICT before using the technology.

### **5.3 Consultation with the Community**

The Digital Media team were asked about the consultation processes with the community in identifying software requirements for the GO Project. In most projects the client identifies their requirements and the software developers respond to these requests. In the GO project, the community around Grangegorman became the client, but their requirements were not necessarily mapped out in advance of the consultation. The project team had to consult with the community and identify those needs.

The extent of consultation with the community at times seemed unclear. At the proposal stage of the project, the software developers attended a number of meetings in training centres organised by the Community Links team. At the meetings ideas were shared about different technologies that would interest people in the area and in the training centres. The degree to which ideas were channelled directly from the community representatives was vague. There was no real structured needs assessment to obtain the wider opinions of the Grangegorman Community.

Overall, the project manager for the Community strand of the project was noted for his role in providing on-going feedback to the Digital Media Team. Through the training

initiative, he helped introduce the website technology being developed by the technologists. Meetings were also held in the Community Centres at the preliminary stages of the development process to demonstrate the technology being developed. It appeared that the process of receiving feedback from the community was a separate entity to the software development process.

*The community and school project managers were effectively the point people on the ground doing that work for us and giving us that feedback. Realistically as developers it is not possible for us to split our roles like that”*

The next stage of community consultation would have been at the user-testing phase of project. The software team described their disappointment at not having reached this point as it is considered one of the most important stages of the development process. While the developers were able to get the software functioning, such as the mobile phone communicator, it was impossible to introduce it to potential users in the community within a six-month timeframe.

#### **5.4 Outcomes of the Technical Strand of the GO Project**

The software developers involved in the GO project made reference to some key achievements of the technical strand of the project. A major outcome of the project has that within a short time scale they were able to build fully dynamic website (Grangegorman online) that is integrated with other technologies such as the mobile phone devices. The developers went to great lengths to ensure that the website is user friendly and easy to maintain. This was achieved using a Content Management System (CMS) that allows an individual to manage and update the website with simple training.

*“The CMS allows you to use simple typing skills and with simple unthreatening training to be able to add media images to the website, in a way that is simple and easy to manage”*

From an eCommunity software perspective, the website developed through the GO project has the capacity to support the activities of the community. Various groups or residents from Grangegorman could potentially use the services provided on the website to keep in touch about what is happening in their area; either through the mobile services, or the mapping interface. Overall, the technical project manager considered that the website was a successful outcome of this project, however it was noted that the process of training local people to update the website content was not achieved during the timeframe. Therefore, the website is not currently being used.

*“From a functional perspective I would say that the site is very good. It has a clear editorial mode and has a nice clean interface. It is a user friendly site in terms of adding content but also exploring the navigational side as well”*

Another outcome of the project has been the development of the Grangegorman Online SMS Communicator. This software allows text messages to be sent out over the mobile network to recipients in a GO group. The recipient can see that the message has come from the GO network. The service facilitates communication with people who may not have access to services through the web interface, but want to be updated on local events etc. On the receiver side, a GOMobile application runs on the SMS (Text messaging service) recipients' phone and has been developed to prototype stage. The software developer suggested that this application would be useful to those who were involved in a club or a group at local level and needed to communicate with one another in a cost effective manner.

*“We had envisaged it for someone who ran courses at night, such as Alcoholics Anonymous. It's a great way for them to keep in touch. So they could say 'meeting next Tuesday night' in a message and it goes out to everyone in that group”*

Other accomplishments highlighted by the Digital Media team included the use of open source software (OSS) to develop the eCommunity Services. OSS is more cost effective than commercial software or propriety software because the developer does not have to

pay a licence fee. Furthermore, it allowed the digital media team return the codes to the public domain so that other developers could use their ideas as a base to build their own eCommunity software.

*“OSS makes for better development. If you spot a problem in the code you can easily change it and there are no consequences. You’re then encouraged to contribute your alteration or improvement back to the code base, so it becomes available to the Open Source community. Problems get rectified quicker”*

## **5.5 Partnership between the Digital Media Team and Community Links Team: Emerging Issues**

It emerged through the interviews that at times there appeared to be a lack of understanding of the software development process among members of the Community Links team. The project managers on the ground were impressed by the demos and prototypes they were shown and the potential they had for the communities they were dealing with. On the other hand, they did not seem prepared for the length of time it takes to develop software. The digital media team emphasised the importance of the testing phase of the project, as an integral part of the development process, was not possible to achieve during a six-month period.

*“I think that it’s unfortunate that there was only 6 months. It would have been nice to have had more time to get it out there. Get it tested and really do the thing properly. And I think that was the verdict of all those concerned”*

## **5.6 Sustainability of the GO Project**

It was noted through the course of the interviews that the software developed for the GO project has continued to be built on through the European funded ICiNG Project. The Grangegorman area continues to be used as the test site of the software in an effort of support an eCommunity in the area.

## SECTION SIX

### GO Project Evaluation: Directors' Perspective

#### 6.1 Introduction

This section provides an overview of the views expressed by the two programme directors of the GO project – the director of Community Links programme and the director of the Digital Media Centre. This was the first time that the two centres within DIT collaborated on a project.

The information presented in this section provides a comprehensive overview of the management and development of the GO project. The perceived outcomes and challenges encountered by the directors during the lifetime of the project are discussed. The main issues explored here are management and decision making in the project, expectations for the project; the impact of the project on attitudes to DIT in the Grangegorman area and the sustainability of the project.

#### 6.2 Aims of the Project

The planned move of DIT to the Grangegorman area was central to framing the aims of the GO project. Both directors made reference to problems, which had occurred in the past when DIT moved into Aungier Street. They recalled that tension had emerged within the area, because of a lack of integration between DIT and the local community.

*“I actually saw what happened when we came here. There was actually very little interaction with the community here and there was a lot of trouble. Because we were moving into someone else’s patch, you know, and they saw no gain for themselves”*

When the directors met and began to discuss the idea of doing a collaborative project, they both saw the opportunity that the GO project presented in terms of smoothing the transition to the Grangegorman area. It was within this context that the central objectives of the GO project emerged.

*“I suggested, why not look at the new Grangegorman area because that’s where we’re going to be moving. From that, we started to build up the idea and put the proposal framework together”.*

It was difficult to elicit from the interview what each director viewed as the central aim of the initiative, as both spoke in terms of their individual strand of the project. For the Community Links team, the aim of the project was to promote ICT in the Grangegorman community, with an emphasis on wireless technology and building the confidence and self-esteem of participants.

The director of the Digital Media team defined two main aims of the project. The first was to test open source software<sup>7</sup> as a viable means of developing a robust e-community software system that could be used in the GO project. The second was to try different access methods to communicate information, such as mobile phones and set top boxes. The digital media team wanted to test whether these methods could be used with the open source software they were developing.

The community development aspect of this project is noteworthy. Initially, the Directors set out to target the whole of the Grangegorman community including the businesses, young professionals, foreign nationals and local people (many of whom are disadvantaged). Due to the time and budget constraints already mentioned, the scale of the project was cut back. However, the main target group remained the whole community (local people regardless of social class, immigrant community, professionals), unlike the DISC and Community Links Project where disadvantaged people are the specific group central to the project.

### **6.3 Role of the Directors**

The two directors were asked to define what their roles in the project were. It emerged from conversation that their roles were split and each was responsible for different

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<sup>7</sup> OSS is software that can be developed without having to pay a licence fee and it is then put back into the public domain. The opposite is propriety software, owned by large companies such as Oracle or Microsoft. A licence fee has to be paid to develop this type of software. (Refer to Chapter 7)

aspects of the project. One looked after the financial side of the project and the other was more involved in the marketing and looking after the links with the funders. Both, however, had an overseeing role in the project.

#### **6.4 Management and Decision Making**

A management committee was established at the outset of the project in order to oversee the running of GO. It was made up of the two directors and the project managers, including the schools co-ordinator, the community co-ordinator, and the software developer from the Digital Media Centre. They represented the different strands of the project.

The fact that the management committee was made up of a small group was considered a positive factor by the directors. Each manager was aware of their role and was able to get on with their work. Where decisions had to be made, the group would meet to discuss the issue. Both Directors emphasised the joint nature of the decision making process between committee members.

*“The people who were going to be directly affected by that particular decision, had to be part of the decision making process”*

While the directors were satisfied that the management committee ‘worked well’ together, there were aspects that they felt could be improved on. In particular, it was noted that at times the two departments worked separately, creating a “digital community side” and “digital media side”. It was suggested that the group could have worked better together had they met more often and also, had they been working within a longer timescale.

*“Like all things we could have held more regular meetings. Given the structure of the project I think we just had to get on and do the work”*

*“We were meeting and it worked very well. We were all under pressure for six months to deliver and I think we delivered as much as you could in that six months”*

## **6.5 Consultation and Engagement of the Local Community**

A central question in this evaluation is the extent to which the community were consulted and involved in the decision making of this project. It was clear from the interviews that both directors were conscious that the community should play a leading role in defining their own needs. They were committed to developing the project in response to these needs and not what ‘they thought’ the community required.

*“It’s really about supporting people to do what they want to do. It’s not about what we think they want to do. We go into communities and we say to them, so, what do you want?”*

In the community centres, consultation was based on informal discussions with the centre co-ordinators. Local people were not directly involved in this process. Centres such as the Gateway Project have been running courses for a number of years. It was suggested that the managers of these centres were aware of the needs of their community. No formal needs assessment procedure took place.

*“We have a co-ordinator in each centre, who determines the needs of the community and they tell us what they want. Rather than us telling them what they need”*

Responding to the needs of the community through the centre was restricted to some degree to what DIT was able to offer. The centre co-ordinators were informed of the courses and equipment that DIT could equip them with through the GO project. The co-ordinators were then able to “pick and choose depending on their own needs”.

The Digital Media Centre took a slightly different approach to consultation. They worked with the project managers from the community and schools and arranged meetings with the different communities. They had ideas about what software they



thought might be useful and wanted to present this to the meeting participants. They were also aware that this was “a two way process”. They did not just focus on what they thought were good ideas but tried to elicit what the community wanted to get out of the project as well.

The extent to which the community could be involved in the development of the software was limited. However, the technical teams did try and examine what type of functionality could be useful to them (mobile phone technology, website etc). Admittedly, it was recognised that most software development projects do require a more rigorous and long-term consultation process than what occurred in GO. It was felt that this was restricted because of the time constraints of the project.

*“Ideally, it should be quite a serious consultation process under quite a reasonable space of time but with the timescales that we had it was very restricted. We had to start developing software, and getting the equipment in and installed in centres”*

## **6.6 Partnership between Digital Community Project and Digital Media Centre**

The collaboration between the Digital Community Project and the Digital Media Centre is unique and central to the GO project. Both directors were asked to give their views on how well this partnership worked.

The directors pointed out positive experiences stemming from this collaboration, along with aspects that could be improved on for future projects. In particular, the partnership provided the opportunity for each centre to see what work the other was doing.

*“The Community Links Centre has a huge wealth of experience servicing digital communities in Dublin. We’d been working on a different approach to making an impact before we finally arrived here. It made sense to bring the two ideas together”*

The time constraint reoccurred as a problem affecting the partnership between the two centres in DIT and what they were able to achieve in six months. While the digital media centre did develop software within this period, including the mobile phone technology and the GO interactive website, it proved impossible to deliver this on the ground to the community. This was because there was not enough time to complete the rigorous testing procedure needed to complete the software for a larger user group.

## **6.7 Barriers to Implementation**

It became clear through the course of each interview that the project ran into serious financial and time constraints from the outset of the project. Funding was cut in half<sup>8</sup> and the timescale was reduced from eleven months to just six months. This limited the extent to which the project team could deliver what they had originally set out to achieve. In particular, the scope of GO was narrowed and the business dimension of the project was restricted.

The time delay in commencing the project led to difficulties in hiring a dedicated project manager to GO. This was exacerbated by DIT recruitment procedures, where it can take up to ten weeks to employ a member of staff. In order to contend with these issues, two members of the Community Links staff took responsibility for the community and school strands of the project, despite their heavy workloads.

From the digital media perspective, the reduction in funding and, in particular, time meant that they did not get to the testing and implementation stage of the project.

## **6.8 Project Outcomes**

The project directors discussed the outcomes of the project and gave their views on what impact the GO project had on the lives of the participants. New technologies, including wireless laptops, digital video cameras and digital cameras were tools used in the GO project to engage the entire community. It was emphasised that giving people in the

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<sup>8</sup> Reduced from €800,000 to €400,000

community the opportunity to use this equipment was as much about empowering the individual and raising their self-esteem as it was about teaching them new skills. Training in IC3 and the ‘Train the Trainer’ program was seen as having the potential to create greater choices for individual participants, particularly with regard to accessing education and improving their employment opportunities.

The point was also highlighted by the Director of Community Links, the participants reported that they now value education more, having experienced learning in a positive environment. This has a knock-on effect for their children and the expectations they have with regard to their education and realising their potential. It is gradually seen “as a route out of poverty” and facilitating a long-term “cultural change” in areas where education may not have always been high on the list of priorities.

## **6.9 Outcomes in Software Development**

One of the central objectives of this project was the use of open source software to develop a number of different access methods. An advantage of working with open source is that it is cost-effective (a licensing fee does not apply as in propriety software) and it is eventually returned to the public domain to be used by other software developers. Therefore, if another community project decided to develop a piece of eCommunity software, they can access what the DIT team have developed and can either use it for their own project or build on it.

Over the course of the project, the software team managed to implement the development phase of the prototypes. Some of the achievements referred to in the interview included the development of the Grangegorman community network software, integrated with mobile device communication and dynamic content management tools<sup>9</sup>. Also, the operation of the set top box (linked to the Grangegorman community network) and an online SMS communicator (mobile phone technology).

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<sup>9</sup> See Section 7 for a more in-depth description of these devices

In order to distribute the software to the community, it had to be capable of running, largely uninterrupted, in an end-user environment. This takes time and requires a large amount of testing, where unexpected problems with the software might arise and need to be fixed. Due to the short timescale of the GO project (6 months) it was not possible to get to this stage of the project.

*“While we got through the development process we certainly didn’t get to the point where we were able to do the testing and refinements that we would have liked to have done”*

Funding problems and a restricted timescale had a negative impact on what could be realistically achieved during the life of the project.

## **6.10 Sustainability of Project**

The sustainability of the GO project was highlighted by both directors through the course of the interviews. It was noted that the community and school strands have now been incorporated into the Digital Community Project and DISC, ensuring that both schools and centres continue to benefit from the project and the equipment provided to them. Furthermore, many of the prototypes developed by the digital media team are being advanced through another project, ICiNG, funded through an EU research programme.

## **SECTION SEVEN**

### **Summary and Conclusions**

#### **7.1 Introduction**

The overall aim of the GO Evaluation was to ‘to assess the effectiveness of the GO Project in the promotion of ICT in the Grangegorman/DIT area, in order to build a sustainable eCommunity for the future’.

The findings that have emerged through the interviews are discussed under each research questions identified in the Introduction chapter of this report. Therefore, the GO Project is evaluated with regard to the following criteria:

1. Managing the Project
2. The project outcomes in terms of the participants confidence, training in ICT, their attitudes to education and the eCommunity software developed
3. The impact of the project on people’s attitudes to DIT
4. The sustainability of the GO Project
5. The Use of Open Source Software for Developing eCommunity Software

Finally, the implications of the research findings and any recommendations stemming from these are drawn out.

#### **7.2 Answering the Research Questions**

Each of the research questions are addressed individually and the findings presented.

##### **7.2.1 Managing the Project**

The aims of the GO Project outlined in its original proposal to the Information Society Fund were very ambitious. Restructuring in the Department of Community, Rural and Gaeltacht Affairs had major implications for the project. The budget was cut and the GO Project became a six months initiative instead of the eleven months originally projected.

It emerged through the interviews that the aims of project were not clearly re-defined to take account of the altered budget and time constraints. This had implications for the management of the project and affected the partnership between the Community Links Programme and Digital Media Centre. At times there appeared to be a lack of shared vision or objective in the GO Project. They defined the main aim of the project in terms of their individual role.

Within a six month timescale it was not possible for the GO Project to firmly establish its' own identity. This was reinforced by the fact that the community and schools strands of GO were modelled on the DISC project and the Digital Community Project. The interviews showed that the co-ordinators found it difficult to make the distinction between the GO project and the two existing projects. This was complicated by the fact that the Project managers of DISC and the Digital Community Project also oversaw activities in the schools and community aspects of the GO programme.

The employment of a dedicated Project Manager to oversee all aspects of the project could have facilitated consultation and the partnership between the Centres. Ideally this role would have been filled by someone with knowledge of community development and the technology process. This was originally proposed at the outset of the project; however it proved impossible due to the budgetary and time constraints. On the other hand, the GO project most certainly benefited from the skills and expertise of the project managers from the DISC and the Digital Community Projects.

The management committee was another issue raised through the course of the interviews. The committee was made up of the two directors and the project managers for each strand of the project. The fact that the committee was made up of a small group was considered a positive factor by the directors of the project. Each member was aware of their role and could get on with their work. On the other hand it was generally agreed that the management committee could have met more often. This could have helped foster greater partnership between the two Centres.

Another issue to emerge from the findings deals with the extent of consultation with the community and participatory design. The project manager for the schools strand suggested that representatives from the Grangegorman community could have sat on the management committee. This level of consultation helps empower local people, by ensuring they are included in the decision making process at management level.

Community consultation is a long-term process that needs to be considered. The bridge between community development and the technology process is still relatively new and unexplored. The role of the software developer and community are interlinked in order to design eCommunity technology that is useful and will be in demand. The director of the Digital Media Centre acknowledged that their consultation process was undermined due to the time restrictions imposed on their team. Normally this process occurs over a longer period of time.

The consultation processes that O'Devaney Gardens Centre use was more rigorous and time consuming than with the other two centres involved in the project. As a result O'Devaney Gardens did not engage fully in the GO initiative and implementation was limited to the training component of the project. Each community centre involved in this project was unique and had their own organisational structure. It highlights the need for community technology projects to be set within the management structure and constraints of the community organisations involved in the project.

### **7.2.2 Project Outcomes**

Feedback from the interviews suggested that there were very positive outcomes for the participants who took part in the GO project. Findings from the schools highlight the potential benefits for children to participate in technology projects, such as clay animation or the digital video project. In particular, these are seen to have had a huge impact on the confidence and motivation levels of the students. In terms of educational value, it was noted that the new technology can be used to help students with literacy and numeracy difficulties. This was relevant to the GO project where both schools were designated disadvantage.

Another outcome of the GO Project is that it supported the integration of technology into other areas of the curriculum. The fact that the students were no longer restricted to the 'computer room' and could take out their laptop in the class was noted to be a significant benefit of this project. There was evidence that teachers in both schools were using the laptops as a resource for their own subject. The fact that the equipment was new and modern was found to make learning fun and exciting for students.

Community participants who completed training through the GO project also reported positive feedback. The manager and Co-ordinators reported that giving local people the opportunity to use modern equipment was as much about empowering the individual and raising their self-esteem as it was about teaching them new skills. Participants from all sections of the Grangegorman community (women's groups, trainers, co-ordinators, and older women's group) were able to do training under the GO Project, unlike the Digital Community Project that targets disadvantaged communities.

Another outcome of the GO Project in the community was that it promoted access to further education and training. The fact that participants attended the DIT campus to undertake their IC3 exams and 'Train the Trainer' course was highlighted as a positive factor. Students who may have otherwise never attended third level were introduced to the college and issued with a student card.

Evidence shows that participants valued education to a greater extent, having experienced learning in a positive environment. This had a knock-on effect for their children and the expectations they had with regard to their education and future employment opportunities. It was found through interviewing participants that the link between education and getting a good job was recognised as important.

From a technology perspective, the digital media team were able to achieve the development stage of an interactive website and content management system; the GO map (integrated into the Grangegorman online website); the set top box technology; the



GO language learning input tools; a local history archive and the SMS mobile telephone technology.

In terms of outcomes from the technology team there appeared at times to be a lack of awareness by the Community Links team of the timeframe involved in the development process. This was acknowledged by the directors and Project Managers involved in programme.

### **7.2.3 Impact of the GO Project on Participants' Attitudes to DIT**

Overall, the GO Project was reported by those interviews as having a positive impact on participants' attitude to DIT and their planned relocation to the Grangegorman Area. The positive factors associated with this move included better facilities for the community and more employment opportunities. The managers and co-ordinators suggested that the project was useful for showing local people what DIT has to offer the community.

Where participants reported mixed attitudes to DIT was based on their experience of undertaking IC3 exams at the Community Links Centre offices in Mountjoy Square. The women's group and co-ordinators involved were disappointed at the lack of dedicated computer spaces and on-going problems concerning the Internet connection. It was acknowledged by the Project manager that the difficulties reported with the network have now been rectified.

### **7.2.4 Sustainability of the GO Project**

The directors and Project Managers for each strand of the GO Project were positive about the sustainability of the GO Project. Much of the software developed through the GO Project is being further developed under the EU funded project – Innovative Cities for the Next Generation (ICiNG). The Grangegorman Community is one of three test bed communities for the project, along with Barcelona in Spain and Helsinki in Finland. The community strand and school strand of the project have been fully integrated into the Digital Communities project and DISC project respectively.

### **7.2.5 Open Source Software Development**

The digital media team successfully used open source software to develop eCommunity software for the Grangegorman Community. It is unfortunate that due to the time constraint it was not possible to test the software developed through the project in the community. Therefore, it is difficult to answer the research question of whether the digital media Centre were successfully able to use open source software to develop a robust eCommunity system.

## **7.3 Implications of Research Findings**

The issues and recommendations made in this section are drawn from data collected through the interviews.

### ***Governance and Management***

- Community technology projects require strong partnership between community development and the technology development process.
- The aims of the project should be clearly defined, understood and agreed by all partners and stakeholders
- Community consultation is a long-term process that should occur over a substantial period of time
- Where possible community technology projects should ensure local people are represented at all levels of the decision making process; from management to design and delivery
- Formal governance structures should be put in place and include terms of reference for the project, outline of project deliverables and the roles and duties of those employed under the project
- Consideration should be give to involve project participants in participatory research design. This would provide richer data on project outcomes

### ***Sustainability Issues***

- The long-term sustainability and development of ICT projects in schools and communities requires dedicated staff to be appointed to deliver these programmes.

- Projects that depend on the goodwill and enthusiasm of existing staff in schools and the community need to consider their existing workload and their capacity to take-on additional work

### ***Technology Considerations***

- When introducing wireless technology into schools or community centres the infrastructure should be adequately assessed to ensure the adaptability of the building to mobile devices

### ***Issues arising from Schools***

- Clay animation training and the use of new technology is better taught live in a classroom situation, with adequate support provided to the teacher
- It is more advantageous to store laptops in a dedicated computer room where they can charge constantly
- The use of new technologies in the classroom creates a fun and interesting way of learning and helps engage students in education
- Reimbursement should be provided to teachers who have had to use their personal mobile phones to call for technical support

### ***Community Considerations***

- Participants from community technology projects have the same expectations as other students in formal educational settings when sitting exams – dedicated computer stations, silence throughout the exam, well organised etc
- Community technology projects should be set within the management and organisational structures of the community organisations involved in the project
- Community technology projects such as the GO initiative have the potential to support DIT's relocation to the Grangegorman area

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## APPENDIX 2: Links

Ennis Information Age Town [www.eiat.ie](http://www.eiat.ie)

Wired up communities UK <http://www.dfes.gov.uk/research/data/uploadfiles/RR389.pdf>

Eastserve <http://www.eastserve.com/opencms/opencms> (good community forum)

E-communities Wales

<http://www.wis.org.uk/english/whats%20new/docs/PDF/english/annex1.pdf>

Digital communities Scotland <http://www.scotland.gov.uk/library5/finance/dcfr.pdf>

UK online centres England <http://www.dfes.gov.uk/research/data/uploadfiles/RR502.pdf>

Camfield Estate – Boston <http://alumni.media.mit.edu/~rpinkett/papers/acsp2001.pdf>

Computer clubhouse – Dublin (2 sites) <http://www.theclubhouse.ie>

CAIT projects <http://www.wrc.ie/publications/cait-ev.pdf>

Everybody Online project – UK <http://www.citizenonline.org.uk/everybodyOnline>

Alliance for digital Inclusion UK <http://www.citizenonline.org.uk/adi>

Social Exclusion Unit UK research

<http://www.socialexclusionunit.gov.uk/downloaddoc.asp?id=768>

Silver Stringers – Melrose Mirror Boston

<http://melrosemirror.media.mit.edu/servlet/pluto>

Nerve Centre – Derry <http://www.nerve-centre.org.uk/>

Spice Project & Aspirations – Derwentside

<http://www.derwentside.gov.uk/index.cfm?articleid=6070>

E-Neighbourhoods – Sunderland <http://www.sunderland.gov.uk/e-neighbourhoods>

Tees Valley Community Media <http://www.neukol.org.uk/index.php?cat=18>

Digital communities competition (social software)

<http://www.aec.at/en/prix/communities/communities.asp>