Terms and Conditions of Use of Digitised Theses from Trinity College Library Dublin

Copyright statement

All material supplied by Trinity College Library is protected by copyright (under the Copyright and Related Rights Act, 2000 as amended) and other relevant Intellectual Property Rights. By accessing and using a Digitised Thesis from Trinity College Library you acknowledge that all Intellectual Property Rights in any Works supplied are the sole and exclusive property of the copyright and/or other IPR holder. Specific copyright holders may not be explicitly identified. Use of materials from other sources within a thesis should not be construed as a claim over them.

A non-exclusive, non-transferable licence is hereby granted to those using or reproducing, in whole or in part, the material for valid purposes, providing the copyright owners are acknowledged using the normal conventions. Where specific permission to use material is required, this is identified and such permission must be sought from the copyright holder or agency cited.

Liability statement

By using a Digitised Thesis, I accept that Trinity College Dublin bears no legal responsibility for the accuracy, legality or comprehensiveness of materials contained within the thesis, and that Trinity College Dublin accepts no liability for indirect, consequential, or incidental, damages or losses arising from use of the thesis for whatever reason. Information located in a thesis may be subject to specific use constraints, details of which may not be explicitly described. It is the responsibility of potential and actual users to be aware of such constraints and to abide by them. By making use of material from a digitised thesis, you accept these copyright and disclaimer provisions. Where it is brought to the attention of Trinity College Library that there may be a breach of copyright or other restraint, it is the policy to withdraw or take down access to a thesis while the issue is being resolved.

Access Agreement

By using a Digitised Thesis from Trinity College Library you are bound by the following Terms & Conditions. Please read them carefully.

I have read and I understand the following statement: All material supplied via a Digitised Thesis from Trinity College Library is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of a thesis is not permitted, except that material may be duplicated by you for your research use or for educational purposes in electronic or print form providing the copyright owners are acknowledged using the normal conventions. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone. This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.
I declare that the work described in this thesis is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

I agree that Trinity College Library may lend or copy this thesis upon request.

Signed: Fionnuala Conway

Fionnuala Conway, B.Mus., M.Phil.

October 2008
To Mary and Tony Conway, who have given me all I will ever need. Their love, support and encouragement is a wonderful thing.
Summary

This thesis represents a step forward in the creation of art for social change by presenting an interdisciplinary approach that informs the creation of artwork to raise awareness of citizenship. It presents a body of work that is interdisciplinary and offers a new way to look at citizen engagement.

This thesis sets out to explore the possibilities that creative applications of multimedia and technology, in combination with an artistic approach and aesthetic sensibilities, offer for the development of new approaches that raise awareness of citizenship in a manner that compliments current initiatives. In order to explore citizenship, it draws from citizenship theory and social research methods to create a novel mixed-method interdisciplinary approach to art creation.

It presents a review of citizenship theory and outlines responses to the current situation of citizen disengagement in Ireland. It proposes that multimedia and technology, used in an artistic way, and in combination with social research methods offer new ways to engage citizens. Multimedia, used in an artistic way can offer new ways to enliven the presentation of factual information. In combination with social research methods, it can be used to generate participant-authored content that presents unique perspectives on the issue being presented.

It presents two artworks designed to raise awareness of Active Citizenship. DATAmap, an immersive interactive environment, is the result of an exploration into the use of multimedia and technology to engage citizens with factual information on Active Citizenship. Images of Power/Powerhouse, a mixed-media environment, presents participant-authored content in an artistic setting that offers a unique perspective on Active Citizenship.

This thesis sets out to explore the possibilities for applying art and technology to the creation of art that addresses social issues. In doing so, it explores the possibilities of an interdisciplinary approach to inform and develop an artistic
practice that embraces other disciplines in order to expand the palette of artistic approaches and tools.
Acknowledgements

Firstly, I thank Linda Doyle for giving me the opportunity to explore such an exciting area, one that allows me to draw together my many interests and passions. Her enthusiasm and support has given me the confidence to take on the challenges presented by this work.

Thanks to Gerard O’Leary, whose love for life, generosity and courage has been a huge inspiration to me. His death has reinvigorated my sense of purpose and encouraged me to keep playing my part. His love for life and strength remain with me.

Thanks Dr. Kenneth McKenzie for all his guidance and support.

And to Mark, my strength and support, who makes me realise I’m not doing this on my own. A BIG thanks to you.
## Contents

1 **Introduction** ......................................................................................................................................................... 1

1.1. Introduction ...................................................................................................................................................... 1

1.2. Different approaches in Art for Social Change .................................................................................................. 2

1.3. Art and Technology and Art for Social Change ............................................................................................... 5

1.4. Using Art and Technology to Explore Citizenship ........................................................................................... 9

1.5. Support of Research ........................................................................................................................................... 11

1.6. Thesis Overview ............................................................................................................................................... 12

2 **Modern Irish Citizenship** ........................................................................................................................................ 15

2.1. Introduction ...................................................................................................................................................... 15

2.2. The citizen at the heart of democracy – a survey of recent work on citizenship theory ........................................ 16

2.3. Modern citizenship – a focus on participation and the social ........................................................................ 20

2.3.1. Social Justice and Welfare Theory .............................................................................................................. 21

2.3.2. Democratic Theory ....................................................................................................................................... 22

2.3.3. Feminist Political Theory .......................................................................................................................... 23

2.3.4. Postmodernism ........................................................................................................................................... 25

2.3.5. Modern Citizenship Theories – Conclusion ............................................................................................ 27

2.4. Indicators of the health of Irish democracy ....................................................................................................... 28

2.4.1. Poor participation at all levels ..................................................................................................................... 29

2.4.2. Poor representation at all levels ............................................................................................................... 29

2.4.3. Disillusioned and disempowered citizens? ................................................................................................. 31

2.4.4. Review of Indicators – Conclusions ........................................................................................................... 32

2.5. Responses in the Irish context .......................................................................................................................... 33

2.5.1. The importance of social capital ................................................................................................................. 35

2.5.2. Civic republicanism at the heart of Active Citizenship ............................................................................... 36

2.5.3. The modern Irish Active Citizen ................................................................................................................ 36

2.6. Engaging Citizens – Conclusions .................................................................................................................... 38
<table>
<thead>
<tr>
<th>3 Methodology</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. Introduction</td>
<td>41</td>
</tr>
<tr>
<td>3.2. Towards a definition of multimedia – the mutual influence of art and technology</td>
<td>43</td>
</tr>
<tr>
<td>3.2.1. Integration of the arts in immersive environments</td>
<td>44</td>
</tr>
<tr>
<td>3.2.2. Interactivity and new narratives</td>
<td>45</td>
</tr>
<tr>
<td>3.2.3. Identifiable characteristics of multimedia that set it apart from other media</td>
<td>49</td>
</tr>
<tr>
<td>3.3. Extending multimedia characteristics - artistic possibilities for information visualisation, organisation and extending the physical interface</td>
<td>51</td>
</tr>
<tr>
<td>3.3.1. Information visualisation, organisation and presentation</td>
<td>52</td>
</tr>
<tr>
<td>3.3.1.1. Two-dimensional, three-dimensional and time-based visualisations</td>
<td>52</td>
</tr>
<tr>
<td>3.3.1.2. Representation and visualisation – the artist as author of experience</td>
<td>54</td>
</tr>
<tr>
<td>3.3.1.3. Information organisation – the interface metaphor</td>
<td>55</td>
</tr>
<tr>
<td>3.3.1.4. Conclusions</td>
<td>58</td>
</tr>
<tr>
<td>3.3.2. Reworking and extending the physical interface – putting the body back in the picture</td>
<td>58</td>
</tr>
<tr>
<td>3.3.2.1. Using interactivity to encourage imagination and play</td>
<td>60</td>
</tr>
<tr>
<td>3.3.2.2. Group aesthetic experience and use of metaphor</td>
<td>62</td>
</tr>
<tr>
<td>3.3.3. Conclusions</td>
<td>65</td>
</tr>
<tr>
<td>3.4. Social research methods to create participant-authored content</td>
<td>65</td>
</tr>
<tr>
<td>3.4.1. Photo-interviewing and photo-elicitation methods</td>
<td>66</td>
</tr>
<tr>
<td>3.4.1.1. Autodriving and reflexive photography</td>
<td>67</td>
</tr>
<tr>
<td>3.4.1.2. Photo Novella and Photovoice</td>
<td>69</td>
</tr>
<tr>
<td>3.4.1.3. Conclusions</td>
<td>69</td>
</tr>
<tr>
<td>3.4.2. Data analysis – content analysis and thematic networks analysis</td>
<td>70</td>
</tr>
<tr>
<td>3.4.2.1. Content analysis of documents</td>
<td>71</td>
</tr>
<tr>
<td>3.4.2.2. Thematic networks analysis – illustrating all themes</td>
<td>73</td>
</tr>
<tr>
<td>3.4.3. Social research methods – conclusions</td>
<td>76</td>
</tr>
<tr>
<td>3.5. Conclusions</td>
<td>76</td>
</tr>
</tbody>
</table>
4 DATAmap

4.1. Introduction

4.2. Focus on representation of gender balance

4.3. DATAmap design

4.3.1. Information visualisation and representation

4.3.2. Design of the DATAmap space

4.4. Discussion

4.4.1. Information visualisation and representation

4.4.2. Interaction with information – the map of Ireland as an interface to information

4.4.3. Facilitating a group experience of information

4.4.4. A space for reflection

4.5. Conclusions

5 Images of Power/Powerhouse

5.1. Introduction

5.2. Images of Power – creating participant-authored content using the photo novella technique

5.2.1. Images of Power Sampling

5.2.2. Images of Power Procedure

5.3. Images of Power – Data analysis

5.3.1. Images of Power - analysing and organising participant-authored content using thematic networks analysis

5.3.2. Images of Power Results

5.3.3. Reflections dataset – a summary

5.3.4. Conclusions

5.4. Powerhouse – a unique presentation of Active Citizenship

5.4.1. www.imagesofpower.net

5.4.2. Powerhouse

5.5. Discussion

5.5.1. Social research methods - a unique perspective of Active Citizenship for the artist

xiii
Art of Decision: Exploring Citizenship Through Art and Technology
1 Introduction

1.1 Introduction

The motivation for this dissertation was born out of a strong interest in art for social change. Artists have always kept a watchful eye on culture and society. They have held the privileged view of being able to criticise and comment on cultural and societal change albeit from a safe distance. Artists defy categorisation and are often happy to remain on the fringes, safely monitoring changes in society and expressing their ideas about these issues. From visual art, to literature, to theatre and music, artists have used their chosen medium to make sense of human nature, respond to developments in technology, and comment on societal and political developments.

While much art can be deemed to have a political message, there is a body of art that deals with issues of social change and makes an attempt at societal intervention. Art for social change is a broad encompassing term that describes this approach and the creative expression emerging from artists interested in improving individual and group or community circumstances. The approach is to create work that is not only about the art object, but also its impact on geographic location, communities of people and collective consciousness. Artists interested in creating
art for social change are concerned with the many ways art can function in a real-world application. For example, how art and artistic tools can be used to comment on social issues or how they can be used in education, community development or creating awareness of environmental issues. They work in all media from literature to theatre to visual art. Their commitment is to bring the arts to bear on a wide range of possible social conditions and challenges facing society. At the heart of the work is a belief that creative expression is a means to effect social change. The artist treats their work as a political act, a deliberate effort to intervene, to facilitate and participate in social change. The work may be created by the artist with the intention of provoking people to think about a particular issue or take action. It may also take the form of directly involving the community in its creation. By engaging people with the artwork, either by creating a piece that provokes thought or by facilitating participation in the creation of art, the artist advocates change and serves as a cultural catalyst of social intervention and transformation. The artist attempts to harness the power of artistic creation and expression to provoke thought, catalyze thinking and even get people to act differently.

1.2 Different approaches in Art for Social Change

Art with the goal of social change has been given many, now familiar, labels. Among them are political art, activist art, public art, community art, social art and outsider art. While different approaches are at work in each category, the common theme in these movements is to use art, artistic goals and tools to engage people in thinking about their lives, their situations, their surroundings, how these affect them and how they can be changed or affected.

Different approaches to art for social change tend to put the artist, the community and the subject matter in different roles. The fields of political, public and community art best illustrate this difference. Political art describes art created with a strong political statement or message, typically expressing the artist’s response to or interpretation of an issue. Examples of this include wartime propaganda posters1.

---

1 Anreus et al. (2006) provide a good summary of political art of the 1930s.
or something as ingrained in pop culture as the iconic portrait of Che Guevara. Political art draws attention to a cause, intending to ultimately leave a thought-provoking impression that lingers on. Political art is at one extreme of the breadth of work for social change because full ownership of the work and ideas therein lies with the artist.

Public art describes artwork that is specifically created to be seen or staged in public and thereby intends to affect social change by situating art in the community with the intention of provoking thought. Monuments and memorials are probably the most obvious form of public art, as they are clearly placed in a public place and created to remind the public of a significant event or person. While the artwork may be solely created by the artist, its location in a prominent place frequented by the public means that it is intended to engage the public. Anthony Gormley's public work, such as “Angel of the North” (Gormley, 1998), is known for the artist's personal expression of the human condition. This work is created solely by the artist but intended to engage the community. While the “Angel of the North” is a public artwork, the term public art has come to mean more and usually is used to indicate a site-specific piece that has been created with some community involvement and collaboration (Kester, 2004). The artwork is the result of a consultative process involving the community and artist, a process that allows the ideas of the wider community to impact on the artist. Hence both the artist and the community are involved in the creation of the piece and there is an emphasis on bringing the finished artwork to the community as a reminder or monument to their involvement in the creative process.

At the other end of the scale, community art is an art form based solely in a community setting. This approach to art-making can describe any art form and is characterized by interaction or dialogue with the community (Diamond, 2007). Another main feature of community art is that it is typically based in disadvantaged areas, with a community oriented approach, aimed at empowering the community. In general, community members come together to express concerns or issues

2 See One Place after Another by Miwon Kwon (2004) for a comprehensive and critical history of site-specific art since the late 1960s. She provides a theoretical framework for examining the political progressivism associated with public art.
through an artistic process, facilitated by professional artists. The approach focuses on the artistic process as a means of expression and a catalyst for change within the community, and can even be aimed at a national or international level. The process can often be directed around an educational aim and the term is often used to refer to the field of community and neighbourhood art practice which has roots in social justice and informal educational methods. In the art world, community art signifies a particular art-making practice, emphasizing community involvement and collaboration. The artist engages the community at an educational level with tools for artistic expression. Participants may be taught, for example, how to paint or to make a video. The resulting artwork may, for example, be a mural created solely in terms of concept and execution by the community participants, with the expert guiding hand of the artist. The artist serves the community through education and the facilitation of creative expression. Community art best describes art that is focused on social change as it emphasizes community participation and involvement.

So we see that in some artworks, the artist retains full authorship or ownership of the work with little or no participation from the community. In other approaches, such as community art, the community is fully involved in the creation of the work. Somewhere in between these two extremes is the collaboration of the artist and community participants. This work is a genuine collaboration of the artist and the participants where both the artists’ and participants’ ideas are expressed. The films created by the Desperate Optimists\(^3\), known for their engagement with civic and community issues, are a good example of this. These artists work in collaboration with the community to create films that are a response to social issues of that community and its environs. They work with the participants in a particular community to learn more about the participants’ lives and experiences in their community and surroundings, often gathering personal stories from participants.

\(^3\) The film ‘Moore Street’ is a single tracking shot filmed on Dublin's famous Moore Street with people from Dublin’s African community. It can be seen on the Civic Life DVD, a collection of 7 short films made about the lives of residents in a number of communities. More information can be found at www.desperateoptimists.com.
They draw inspiration from these consultations and create works that feature participants' personal stories and experiences. A key feature of their films is that they use participants from the community as actors. The process serves to feed and inspire their own creative work as filmmakers while also respecting the participants' involvement.

1.3 Art and Technology and Art for Social Change

Art for social change can be created using a variety of media. Of particular interest in this dissertation is art that draws on multimedia and other technologies. There has been a radical shift in the boundaries of art since the beginning of the twentieth century (Carroll, 2007). This shift has been realized in a testing of boundaries and a spree of experimentation. Previously, art was produced in media that was considered valid for art-making, presented in a limited set of contexts from museums to theatres to concert halls. It had specific purposes such as religious glorification and the representation of people or places. The development of new technological forms, such as photography and film, began the dramatic change in how art is defined. Since the beginning of the twentieth century, artists have challenged the definition of art by adding new media, new contexts and new purposes for art-making. While this experimentation has caused turmoil, there is some agreement on these features of art: art is intentionally made or assembled by humans, and usually consists of intellectual, symbolic, and sensual components (Wilson, 2002:17). For example, the Getty Museum Program in Art Education defines art-making as follows:

"Art-making may be described as the process of responding to observations, ideas, feelings, and other experiences by creating works of art through the skillful, thoughtful, and imaginative application of tools and techniques to various media. The artistic objects that result are the products of encounters between artists and their intentions, their concepts and attitudes, their cultural and social circumstances, and the materials or media in which they choose to work" (Getty Museum Program in Art Education, 2008).
The art world has assimilated much of the experimentation of twentieth century artists. The variety of approaches, styles and methods include the following:

- Abstract painting: Examples include the work of artists such as Mark Rothko, Jackson Pollock, Wassily Kandinsky, whose work extended beyond ‘realistic’ representation.
- The incorporation of found objects into art. Examples include the work of artists such as Picasso (collages) and Duchamp (urinal)
- Movement into non-art settings and intervention in everyday contexts. For example, the Happenings staged by Allan Kaprow.
- Presentation of live and real-time art such as the Dada and Futurist performance.
- Interactive art that dissolves the boundaries between the audience and artists. This can be seen in work such as alternative performance and interactive installations.
- Public art – work with site-specific materials; social processes and institutions and community collaborations.
- Exploration of technological innovations such as experiments with video and holography*.

Many modern artists use unorthodox materials, tools and ideas and do so in non-art contexts, such as laboratories, the Internet, and the street. Technologies of varying kinds feature more and more in the art world (Wilson, 2002).

Historically, art science and technology were unified. It would seem that art and technology were historically closely related until as recently as the mid-nineteenth century when in the West, an era of specialisation began. Science became an organised system of processes and worldviews. During the Industrial Revolution, science began to inspire technological developments and vice versa. But all the while, the arts were separated from these developments and maintained a position of commentary and critique. In the 1960s, C.P. Snow developed his influential “Two Cultures” theory, concluding that those in the arts and humanities and those in the sciences had developed sufficiently different languages and worldviews that

---

4 This list is a condensed version of that offered by Wilson (2002).
they could no longer understand each other. This breakdown of communication between the “two cultures” of modern society, he suggested, was a major hindrance to solving the world’s problems and to the future development of society (Snow, 1964).

In the last decades, scholars have begun to analyse the relationship of art to science and technology. While generally the mainstream art world has largely ignored developments in science and technology, the review has shown that there are some examples of scientific and technological influence on the arts. For example, among the most notable is the influence of technology on the Bauhaus art movement and that of Freud on the Surrealists. Generally, however, mainstream art has treated art focused on science as a minor footnote (Wilson, 2002:36).

As research has become the centre of cultural innovation, there is a need to examine this disconnection. The results of research are radically influencing life and thought. In the 1960s, EAT (Experiments in Art and Technology) and the Los Angeles County Museum collaborations in art and technology were examples of situations where artists began to dabble with new technologies (Klüver, 1966). The engineers involved in these experiments functioned merely as technical assistants and the collaborations touched only the tip of the iceberg of the role of artists in research. Since those experiments, artists have begun to engage with the concepts, tools and contexts of scientific and technological research. Stephen Wilson’s book *Information Arts* provides an excellent compendium of this work. It identifies artists working with scientific and technological research and provides a list of institutions dedicated to including artists as part of research teams investigating these issues. Art, science and technology need to participate together in defining research agendas, conducting inquiries, and analysing their meanings (Wilson, 2002).

There are several reasons why the reconnection of disciplines is important. Technological and scientific research is impacting in every corner of society, from communication, medicine, domestic life, education, entertainment and government. Developments in these areas are changing basic notions about society, the nature of the universe and humanity. For example, new communication technologies are
challenging traditional ideas about distance and space. Technological and scientific developments must be understood within the larger psychological, political, economic and cultural frameworks in which they exist and which they influence. Reconnecting the separate disciplines is important as modern society increasingly demands application-oriented knowledge. Funding agencies are increasingly stressing the social relevance of research results, and consequently a new mode of application-oriented research is emerging.

Modern art has shifted interest from the “precious art object” to a process of engagement and artists are no longer interested in just freezing particular moments in time from particular viewpoints, but seek to explore the different functions of arts (Wilson, 2002: 651). As scientific and technological research is becoming so central to society, it is important for artists to investigate the function of the arts in research and assume a more integral role in it. Artists can establish a practice in which they participate in research activity rather than remain as commentators. They can participate in the cycle of research, invention and development in many ways by learning enough to become researchers and inventors themselves. Free from concerns such as demands of the market and the socialisation of particular disciplines, artists can explore and extend principles and technologies in unanticipated ways. This approach redefines the notion of the arts as a zone of integration, interrogation, rebellion, one that can serve as an independent centre of technological and scientific inquiry and innovation.

It is in the context of art that draws on multimedia and new technologies, that art for social change is explored in this thesis. This art practice in becoming increasingly of interest to artists and can be seen in the work of Smartlab and Proboscis, institutes focused on addressing social issues through multimedia and technology⁵. It is still, however, an emerging practice.

⁵ These are but two examples of institutes around the world that focus some of their research towards social issues. More information on Smartlab can be found at www.smartlab.uk.com; more information on Proboscis can be found at http://proboscis.org.uk
1.4 Using Art and Technology to Explore Citizenship

The combination of art and technology offers new tools for exploration and new ways to look at the issues of social concern. While there are a wide range of issues that can be explored in a variety of ways, one means of exploring the role of art and technology and its part in art for social change is to situate the exploration in a specific context.

Irish society is changing rapidly and huge progress has been made since the 1980s. This has affected us at social, economic and cultural levels and while many of these changes are welcome, some feel that aspects of community spirit and human well-being have been eroded. For example, concerns exist about the level of inequality in Irish society (Taskforce, 2007a). Developments in technology are altering how we interact with each other at a local, national and global level and political boundaries between nations are beginning to change. At a national and international level, concerns about the changing nature of society have sparked a renewed interest in citizenship, which concerns itself with the identity and conduct of individuals, their role and responsibilities in society. Citizenship captures and underlies an approach to all social issues and provides a broad and all-encompassing context for this work.

At the heart of this thesis is the use of art to raise awareness of an issue of social concern and the creation of artwork that can be used for that purpose. The application-oriented approach requires that the artist considers the context for the work, the variety of artistic and technological methods available to realize the work, and importantly that the artist has a concern for the human dimension in addressing the creation of such a work. There is therefore a need for multiple disciplines, methods and perspectives to illuminate the human context (Rolen, 1996) and input is needed from a variety of disciplines relevant to the study, in this case including art, technology, design, politics and social science.

Using multiple methods and perspectives suggests a lessening of a tendency, normally present in disciplinary analysis, to adhere strictly to methodological

---

6 This reference pertains to environmental issues but the general point should be recognisable.
approaches at the expense of the application or solution. An interdisciplinary approach suggests that problems must be viewed using a variety of different methods or approaches and then their partial insights may be assembled into something approximating a whole (Gibbons, 1994; Thompson, 1990, 1996). An emphasis on the human dimension of problem-oriented work continually raises questions about the nature of the relevant participants and audience and the work’s relevance to the audience. The variety of disciplines, methods and perspectives required to inform the artist in this thesis serves to illustrate the unusually comprehensive approach required by interdisciplinary research in order to begin to address the problem, its context and the human dimension. However, in order to gain this comprehensive viewpoint, many obstacles and challenges must be met and overcome.

While contextualising the exploration offers a way to ground the enquiry, the subject matter and interdisciplinary nature of the study offer challenges for the artist. This kind of art practice demands that the artist educate herself enough to function non-superficially in the world of scientific and technological research, and it requires a connection to all disciplines. It expects artists to abandon, if necessary, traditional concerns, media, and contexts and challenges them to develop access to the contexts and tools relevant to their investigations. While this will prove to be challenging, it is an important part of this thesis, as the interdisciplinary approach serves to focus on the creation of the artwork to raise awareness of Active Citizenship, and this focus therefore indicates some of the theories and methods to be included and used in the approach.

With that in mind, this thesis has two goals: a) to reach out to the public through the creation of a public artwork that raises awareness of Active Citizenship and b) to

---

7 Gibbons et al (1994) analyzed changes in knowledge production by contrasting two modes, distinguished as disciplinarity and interdisciplinarity. Mode 1, disciplinarity, is the production of traditional ‘disciplinary science’ in which academic interest in ‘pure’ knowledge is most important. Mode 2, interdisciplinarity, literally means using more than one discipline and its focus is on application-oriented knowledge production.
reach back to the artist-researcher by addressing the challenges of interdisciplinary art practice. This thesis therefore proposes:

- To explore the use of creative applications of multimedia and technology, in combination with artistic practices and aesthetic sensibilities, that allows for the development of new approaches that raise awareness of citizenship in a manner that compliments current initiatives.
- To explore the possibilities of interdisciplinary approach to further inform and develop an artistic practice that embraces other disciplines in order to expand the palette of artistic approaches and tools.

It is worth mentioning that this thesis and the resulting artwork is not an examination of how the artwork can bring about social change. This evaluation presents other challenges and perhaps is best examined from another research area. This thesis is about the exploration of artistic practice, informed by political theory and social research methods, with the aim of creating art that raises awareness of social issues, with a focus on Active Citizenship.

1.5 Support of Research

Before outlining the remainder of thesis, a number of important acknowledgements should be made.

This research was made possible by generous support from the Department of Justice, Equality and Law Reform. The work was funded by the Irish Government and part-financed by the European Union under the National Development Plan, 2000 - 2006. Upon receipt of the funding, a team of researchers was put in place in Trinity College, Dublin that consisted of Dr. Linda Doyle and Fionnuala Conway, Department of Electronic and Electrical Engineering, and Dr. Maryann Valiulis and Jane Williams, Centre for Gender and Women's Studies. The research of the Art of Decision team had various goals and areas of exploration.
All conceptualization, design and implementation mentioned in this thesis is the work of Fionnuala Conway, multimedia artist, except where acknowledged in the text. This research resulted in the production and staging of a public exhibition, Art of Decision, shown in the Liberties area of Dublin, that captured the output of the investigation of new methods in artistic practice applied to Active Citizenship. The Art of Decision exhibition consisted of nine interactive installations, two of which are presented in detail in this thesis. A documentary of the exhibition has also been made and shown at a number of festivals. A DVD of the documentary is included with this thesis, as an accompaniment to the ideas presented in this thesis, and provides a full account of the entire exhibition.

1.6 Thesis Overview

The remainder of this thesis is presented in five chapters. The main thrust of each chapter is briefly described here.

Chapter 2 presents a review of citizenship theory. It also looks at the current situation of citizen disengagement in Ireland and presents the Taskforce vision for Active Citizenship as a response to this situation. It goes on to look at the Taskforce recommendations on how to address citizen disengagement.

Chapter 3 presents the methodology of the work. It presents the mixed-method approach used in the research and first describes the multimedia and technology method. The method draws from artistic advances using technology. These will be outlined. The second part of the chapter looks at social research methods that will be used later in the thesis, including data-elicitation and analysis methods.

Chapter 4 describes DATAmap, an immersive interactive multimedia environment that allows citizens to experience and access factual information in a memorable and engaging presentation. This chapter explores one aspect of the mixed-method approach and describes the application of multimedia and technology to raise awareness of Active Citizenship.
Chapter 5 describes *Images of Power/Powerhouse*, a mixed-media environment that presents participant-authored content offering their perspectives on power and power structures in Ireland. The chapter describes and discusses a mixed-method approach that uses social research methods to create content and the use of art and technology to design the mixed-media environment.

Chapter 6 concludes the thesis with a summary and presents conclusions and some challenges for future work.
Modern Irish Citizenship

2.1 Introduction

Since the 1990s, there has been a renewed interest in the concept of citizenship as an important idea that has relevance to today's social and political problems (Faulks, 2000:ix). Alongside theoretical attention, the renewed interest has come about in response to political events and trends - increasing voter apathy and increasing multiculturalism and multiracial populations, for example, are common trends throughout the world. Where migrants arrive to share a space traditionally reserved for the indigenous community, contestation ensues.

In the Irish context, citizenship has become more relevant in the context of recent social, economic and demographic changes in Irish society. Habermas notes that "the institutions of constitutional freedom are only worth as much as a population makes of them" (Habermas, 1992:7). The country continues to experience significant levels of voter apathy, increasing immigration and increasing diversity around moral, religious and ethical perspectives (O'Connell, 2003). These developments in Irish society have made clear that the health and stability of Irish democracy depends not only on its basic structures (political structure, representation, accountability) but on the qualities and attitudes of its citizens; for example, how citizens respond to these social, economic and demographic changes;
how they participate in government in order to represent the public good and hold politicians accountable (Kymlicka and Norman, 1994:353) The activity, or lack thereof, on the part of the citizen determines the nature of democracy. It would seem therefore that the democratic health of a country depends hugely on the control that the citizen exercises and that encouraging participation of the active citizen is fundamental to the health of a democracy. It is not surprising, then, that since the early 1990s there has been a growing concern, at both the international\footnote{Kymlicka and Norman (1994:353) report on citizenship promotion among governments in Britain (Britain’s Commission on Citizenship. Encouraging Citizenship 1990), Australia (Senate Select Committee on Employment, Education and Training. Active Citizenship Revisited. 1991) and Canada (Canada Standing Senate Committee on Social Affairs, Science and Technology. Canadian Citizenship: Sharing the Responsibility. 1993).} and Irish level, for a definition of citizenship that focuses on “the identity and conduct of individual citizens, including their responsibilities, loyalties and roles” (ibid).

This chapter will present a review of theories of citizenship by looking at a selection of theories and histories that serve to a) contextualise modern citizenship and in doing so b) define the relevant terms associated with the concept. It will then go on to look at evidence from political science that explains the context for this response and, in general, provide indicators on how Ireland is faring in terms of democratic health. It will then look at responses in the Irish context.

2.2 The citizen at the heart of democracy – a survey of recent work on citizenship theory

The theory of modern citizenship is inherently egalitarian. The idea of citizenship appeals to all political communities, of whatever political persuasion, as it integrates and links ideas of individual entitlement (rights) on the one hand and of obligation and duties to one’s community (responsibilities), on the other. Rights give the individual the possibility to influence decision-making at a governmental
level but this means that the citizen because of their status (rights) has responsibilities, duties and obligations to their society.

Many classical liberals believe that it is possible to make a liberal democracy secure by simply securing rights for the citizen. This idea of the ‘passive’ (or ‘private’) citizen suggests that as long as citizens have rights, there is no real need to participate in public life. A brief description of postwar political theory will serve to illustrate the implicit view of citizenship\(^2\), a view “that is defined almost entirely in terms of the possession of rights” (ibid:354). Kymlicka and Norman (op. cit.) provide a clear description of this conception of citizenship-as-rights as seen in the social liberalist T.H. Marshall’s “Citizenship and Social Class” (1949)\(^3\). For Marshall, citizenship is about making sure that everyone is treated as a full and equal member of society by ensuring their citizenship rights. He divides citizenship rights into three categories: a) civil rights and b) political rights, both of which have come about in the eighteenth and nineteenth centuries respectively; and c) social rights\(^4\), established in twentieth century England. With the expansion of rights, there was also an expansion of the class of citizens to include previously excluded groups such as women, the working class, blacks, Jews and Catholics (ibid).

Because of its emphasis on passive entitlements and the absence of any obligation to participate in public life, this concept of citizenship is often called ‘passive’ or ‘private’ citizenship. The idea of the ‘passive’ citizen, however, cannot really be upheld, as all political communities, no matter how little significance they place on citizen responsibilities, make some demands on their citizens (Faulks, 2000:1). All governments rely to some extent on the citizen behaving in a responsible manner\(^5\). It is clear that simply ensuring citizen rights is not enough to ensure citizen

---

\(^2\) Kymlicka and Norman (1994) and Faulks (2000) both refer to Derek Heater (1990) and Michael Walzer (1989) as good sources for a concise introduction to the history of citizenship.

\(^3\) Reprinted in Marshall (1965).

\(^4\) Social rights are, for example, rights to public education, health care, unemployment insurance, pension.

\(^5\) Kymlicka and Norman (1994:360) suggest that in areas such as health, care-taking of the elderly and children, the environment, the economy, governments rely on the responsible behaviour of citizens to be cooperative.
engagement and active participation. It is plausible to argue that some level of cooperation, self-restraint, civic virtue and public-spiritedness on the part of the citizen is required. This has resulted in criticisms of passive citizenship that focus on the need to a) introduce active citizen responsibilities and b) address the diversity of groups (brought about by the expansion of the class of citizens) and their requirements, in modern society.

While there is a consensus that citizenship is desirable, there is less agreement on the one hand about what membership status means, what it should entail, and whether or not it is exclusive. On the other hand, the responsibilities, duties and obligations expected of the citizen raise concerns about the extent to which the citizen is actively involved in their community or in political decision-making. Through analysis of the liberal approach to citizenship, which has focused more on citizens’ rights, political theorists have criticized the somewhat ‘thin’ conception of citizenship in favour of a ‘thick’ or ‘deep’ one. In 1958, Hannah Arendt gave us a vision of the political as active participation in public life. Much of her work focuses on a conception of freedom which is synonymous with collective political action among equals. In The Human Condition (1958), she theorizes freedom as public and associative, drawing on examples such as Greek society wherein the ideal of the "polis" meant that public and private life were considered separate. Politics as collective public life and action requires that people move out of their private life, their needs and suffering. She argues that the rise of the consumer society, or the modern age, has meant that the division between public and private life is blurred, and therefore the political life is eclipsed by the social, a modern construction (Arendt, 1958). Modern political theorists i.e. from 1970 onwards (Young, 1996), have largely rejected this separation of political from social and accept that the social must be a main focus of the political and that social justice is a condition of freedom and equality (Pitkin 1981; Bernstein, 1986). Michael Freeden debates the relative positioning of right vis-à-vis economic and social rights (Freeden, 2003).
Keith Faulks outlines a typology of ‘thin’ versus ‘thick’ citizenship, which has been reproduced here for the purposes of illustration⁶ (Faulks, 2000:11).

<table>
<thead>
<tr>
<th>Thin Citizenship</th>
<th>Thick Citizenship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rights privileged</td>
<td>Rights and responsibilities as mutually supportive</td>
</tr>
<tr>
<td>Passive</td>
<td>Active</td>
</tr>
<tr>
<td>State as necessary evil</td>
<td>Political community (not necessarily the state) as the foundation of the good life</td>
</tr>
<tr>
<td>Purely public status</td>
<td>Pervades public and private</td>
</tr>
<tr>
<td>Independence</td>
<td>Interdependence</td>
</tr>
<tr>
<td>Freedom through choice</td>
<td>Freedom through civic virtue</td>
</tr>
<tr>
<td>Legal</td>
<td>Moral</td>
</tr>
</tbody>
</table>

Table 2-1 Faulk’s typology of ideal types of thick and thin conceptions of citizenship

As can be seen from Table 2.1, the extremes of ‘rights-based’ or passive citizenship are presented as ‘thin’, where the citizen has a legal status that entitles them to rights and independence but relieves them from any (above the minimum required) involvement in society. The description of ‘thick’ citizenship acknowledges and recognizes the dignity of the individual, while at the same time reaffirming private life and needs of the individual and therefore the social context in which the individual acts. The appeal of this is not just that it gives benefits to the individual, but also that it requires the acknowledgement of the social context through which rights can be fulfilled. In modern society, this social framework includes schools, courts and the government and requires that all citizens play their part in maintaining it. It is conceivable to imagine a society that could function without a formal expression of rights but it is, on the other hand, difficult to imagine a community, or democracy for that matter, that could remain stable without some sense of citizen responsibility, duty and obligation to its members (Faulks, 2000:5).

While this description of citizenship that acknowledges the social context is powerful and very appealing, it is important to remember that societies are dynamically shifting entities, altering economically and socially, driven by human

---

⁶ Faulks (2000) has adapted this typology of ‘thin’ and ‘thick’ citizenship from Bubeck, 1995.
relationships and defying a simple and static definition that can be applied to all societies at all times. Therefore it is plausible to argue that the idea of citizenship is contingent on the particular set of human relationships and particular types of governance found in any given society (Young, 1996). In trying to understand citizenship, and a possible definition for it that can be applied to a society at a given time, it is essential to understand the social and political arrangements that form the context in which it will be practised. Every society needs to consider the constraints that social divisions or differences, such as socio-economic background or gender, may bring to the citizen’s life. An imbalance in power and related power structures affects how the citizen exercises their rights or fulfills their responsibilities. While citizenship implies equality for all members of a society, the societal context may not consist of ‘equal’ individuals, or groups for that matter. This consideration of societal context, and how it affects different groups, is therefore a consideration of power and power structures (c.f. Freeden, 2003).

The next section will provide an overview of the major influential theories that have led us to this current definition of modern citizenship, with rights, responsibilities, duties and obligations, as an ideal that can only be defined, or partially defined, through careful consideration of social circumstances and requirements of the citizen in terms of how they are to participate and take part in a society. Societal context has to be taken into account as it affects the representation of individuals and groups, and therefore takes into account the diffusion of power and power structures. As will be seen, the main theme through the review is the acceptance and belief that an adequate theory of citizenship requires a greater emphasis on participation, citizen responsibilities and, ultimately, on the social context that citizens find themselves in.

2.3 Modern citizenship – a focus on participation and the social

Since the 1970s, political theory has encouraged participation as an activity of citizenship. A focus of political theory is the practical application of this idea in society and thereby, the encouragement of active citizen engagement with society
and political institutions. It is important to understand that this focus on giving attention to the social life of the citizen, as well as their responsibilities and participation, was quite a shift in thinking.

2.3.1 Social Justice and Welfare Theory

Social Justice and Welfare theory deals mainly with how government should explicitly try to address social and economic inequality. This topic continues the liberal line of conceiving citizens as entitled to rights and looks at how the state can assist in effecting that. The theory supports the idea that if citizens' rights are ensured, they will automatically participate. Without freedom from all social constraints, people cannot be expected to participate as equals. However, while it does acknowledge the significance of social life and its needs, it tends not to focus on citizen responsibilities and how it is to behave as an active participant in public decision-making.

The publication of John Rawls' *A Theory of Justice* (1971) made a significant contribution to re-establishing interest in political theory and citizenship, and has served as the basis for much of the debate since. The book deals with social justice (the concept of a society in which justice is achieved in every aspect of society), an issue that before this publication was associated with socialist politics (Young, 1996:481). Rawls' ideas represented a resolution in political conflict about whether or not liberal-democratic states should aim to relieve social problems (Rawls, 1971). In the book, Rawls outlined his first principle of equal liberty, which states that the citizen is entitled to all basic liberties. Rawls' second principle, the difference principle, has been interpreted by theorists as to suggest that governments intervene and are active in ensuring that social and economic inequalities do not exist, or are dealt with by the government in a manner that means all positions are open to all, and that those least-advantaged members are given the most benefit in applying for them. Most of the literature to follow *A

---

7 According to Rawls' first principle of equal liberty, the basic liberties that the citizen is entitled to are: political liberty (the right to vote and run for office); freedom of speech and assembly; freedom of thought; freedom of to hold (personal) property; freedom from arbitrary arrest.
Theory of Justice has paid more attention to his second principle and interpreted Rawls as recommending that governments assume an activist and interventionist role, not only to promote liberties, but to bring about greater social and economic equality (Young, 1996:481). Rawls and subsequent theorists focus on citizens as being entitled to rights, and not as active participants in public life. In this regard, it focuses on how governments can alleviate social problems, which is important as it is a focus of how citizens should be governed.

2.3.2 Democratic Theory

Leading on from other theorists of participatory democracy like Rousseau and J.S. Mill, Carol Pateman’s widely cited book Participation and Democratic Theory (1970) has set the agenda for contemporary participatory democratic theory. The book describes an ideal of democracy as involving active discussion and decision-making by citizens. Pateman argues that social equality is an understood condition of participation in a democratic system, and, furthermore, that participation in the democratic system helps to develop and preserve social equality. This means that any social institution, beyond the state, where people’s actions are directly involved, must be included as a site of democratic participation. She recommends first letting citizens “get their feet wet” in nongovernmental settings as the home, school and, particularly, the workplace (Brown, 1971:512). Since then, much theory has developed that takes speech and citizen participation as central (Young, 1996:484), but as important is the acknowledgement of a broader definition of democracy, as being outside the traditional state institutions.

C.B. Macpherson criticises what he describes as possessive individualism, where the individual is conceived as sole proprietor of his or her skills and owes nothing to society for them. He articulates a revised theory of liberal-democratic theory in favour of a more active conception of democracy, one that redefines human good as the development and exercising of capacities, and that is motivated by the notion that freedom is the opportunity to develop and exercise one’s capacities (MacPherson, 1973, 1978; Carens, 1993). The significance of this approach is that there is encouragement for the individual’s expression, self-realisation and development of their potential and capacities (Macpherson, 1973).
This expanded and deepened notion of freedom as an absence of domination and a positive capacity for self-realisation, is taken as a basic value by several political theorists. One aspect of contemporary democratic theory that is addressed by several political theorists is the notion of class inequality and how those affected by it cannot be expected to fully and actively engage with politics. Class inequality means that those affected by it may lack opportunity, power, the ability to influence and the ability to be self-realised and so it is unrealistic to expect that they can actively engage. Michael Walzer, among others, supports the idea that social measures should be put in place to limit socio-economic inequality and guarantee that all citizens have their needs met (Walzer, 1982). Feminists make a case for gender balance and want to expand the list of social rights to tackle structural barriers to women's full participation as citizens. Given the difficulties of combining family and public responsibilities, equal citizenship for women is impossible until workplaces and career expectations are rearranged and men take domestic responsibilities (Okin 1989:175 – 77).

Participatory approaches to democratic theory hold that a fuller democracy means that people can act as citizens in all the major institutions which require energy and obedience. For example, following from Pateman, there has been a renewed interest in workplace democracy. Theorists argue that citizens can realise the social and economic equality through the experience and practices of workplace democracy (or for that matter, other potential sites of democracy e.g. schools), and that they find a condition for democratic participation in society.

2.3.3 Feminist Political Theory

Feminist theorists draw attention to private life and question the divide between public and private that is seen in traditional and contemporary political thought. They propose that the family, sexuality and gendered relations of everyday life are political relations and that in order to participate effectively, the private life must be acknowledged. The public realm of politics is perceived to be rational, noble and universal only because the private life (care-taking, meeting the needs of everyday
life) is looked after elsewhere (Young, 1996:487). Feminists suggest that the private life is entwined with the public and that recognition of the private life needs to take place for politics to move on (Okin, 1979; Clark and Lange, 1979; Elshtain, 1981; Nicholson, 1986; Landes, 1988; Shanley and Pateman, 1991).

In *The Sexual Contract*, Carole Pateman addresses what she calls 'contractarian' theory. She argues that social contract theory (associated with John Locke, Thomas Hobbes and Jean-Jacques Rousseau) assumes the idea of the individual as male. This theory provides an account of the 'origin' of freedom in that politically guaranteed liberties come into being as a result of an original contract. Pateman argues that whether beginning with a 'state of nature' or an 'original position,' making a contract allows 'individuals' to exchange states of unfreedom for political society and freedom. Individuals 'contract in' to the political and to freedom. However women are left out of this original move (Pateman, 1988). Traditional and contemporary theory focuses on assumptions about the individual and independence and through feminist critique, such as Pateman's, it is apparent that these assumptions relate to a masculine experience and therefore potentially develop a one-sided account of the possibilities of political life. Other critics argue that the concept of the rational autonomous individual of social contract theory suggests an image of a person as self-originating, without birth or dependence. Feminists argue that if there was acknowledgment of the significance of the private life (and dependence on others) and this was to replace the assumption of self-generation, there would be a change in how we conceive of society and the political realm, the premises of autonomy and independence being replaced by connectedness and interdependence (Held, 1987).

Feminists have put many terms and concepts from political discourse to analysis, including power, authority, political obligation, citizenship, democracy and justice. The arguments tend to be around two projects. Firstly, feminists argue that theories and terms reflect a male gendered experience and need to include a female experience. The main criticism is that the terms claim to be general while they cannot, in fact, be general as they do not take gender difference into account. The second argument is that there is a tendency to disembody the political concepts
(power, authority), by repressing the relation of experience, and therefore making them more abstract.

2.3.4 Postmodernism

Like some feminist political writers, many postmodern political theorists are interested in the flow of power through society and how social power conditions, and is conditioned by, political institutions and conflicts (Young, 1996:489). Michel Foucault, arguably the main contributor to political theory from a postmodernist perspective, explains his theory of how power is created and diffused throughout an "economy" of discourse (or conversation) in *Power/Knowledge* (1980). Foucault believes that power is everywhere and is diffused through dialogue: "...in a society such as ours...there are manifold relations of power that permeate, characterize and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse" (Foucault, 1980). The theory describes how power is transferred along conduits of dialogue according to the knowledge one has.

Foucault thinks that modern political theory continues to assume a paradigm of power derived from pre-modern experience, and that since the eighteenth century a new structure of power exists. The older paradigm conceives power as sovereignty; where a ruler has complete control over an area, governance or people. The modern regime operates less through control and more through disciplinary norms. In this regime, ruling institutions discipline bodies with norms of reason, order and good taste, unlike the older paradigm where the king rules from the centre through fear. Power can be seen to operate through the institutions that discipline, organize and manage people such as schools, prisons, police departments (Foucault, 1980). This theory emphasizes the importance and significance of the social life in terms of power and political structures.
This description of power is reminiscent of Antonio Gramsci's ideas. Gramsci identified two quite distinct forms of political control: domination, which referred to direct physical coercion by police and armed forces, and hegemony, which referred to both ideological control and more crucially, consent. By hegemony, Gramsci meant the permeation throughout society of an entire system of values, attitudes, beliefs and morality that has the effect of supporting the status quo in power relations. Hegemony in this sense might be defined as an 'organising principle' that is diffused by the process of socialisation into every area of daily life (Boggs, 1976:39).

Gramsci's definitions had led on from the traditional Marxist theory of power, where power was based on the role of force and coercion as the basis of ruling class domination. Marx's division of society was therefore represented as an economic structure and a superstructure represented by the institutions and beliefs prevalent in society. Gramsci took this a step further when he divided the superstructure into those institutions that were overtly coercive and those that were not (Jakubowski, 1976). The coercive ones, which were basically public institutions such as the government, police, armed forces and the legal system, he regarded as the state or political society, and the non-coercive ones were the others such as the churches, the schools, trade unions, political parties, cultural associations, clubs and the family which he regarded as civil society. Gramsci's ideas and postmodernist theory are important because they draw attention to the seats and structures of power and how power is diffused through society.

Since the 1970s, there has been an emergence of groups and movements whose interests go beyond claims for rights. These movements make demands, for example, for environmentalism, peace and sexual liberation (Martin, 2001). The aim of many of these groups is to politicize the social by bringing attention to everyday interactions and habits. These movements are called "new social movements" for two reasons. Firstly, they are not as concerned with basic

---

8 For a discussion of how power is diffused through social institutions, see Gramsci (1971), 'Selection from the Prison Notebooks'.
citizenship rights but are concerned with social issues – respect for cultural
difference, participation in decisions in social, economic and political institutions.
Secondly, they are not organized in the traditional manner of political parties, but
rather they tend to be networks of more local groups that organize en masse.
Foucault’s and Gramsci’s ideas about the creation and diffusion of power in society
help to understand the development of these new social movements. Jürgen
Habermas, in his concept of the “colonization of the lifeworld”, offers a theoretical
context for conceptualizing the meaning of new social movements. State and
corporate institutions have developed their own approaches which have, in many
ways, become separated from the everyday life context of meaningful cultural
interaction. These institutional imperatives can constrain or distort every day life.
Many new social movements can be interpreted as a reaction to the “colonization of
the lifeworld”, an attempt to open greater space for collective choice, and to limit
the influence of systemic imperatives of power (Martin, 2002; Touraine, 2002).

2.3.5 Modern Citizenship Theories – Conclusion

The purpose of this section was to outline theories that encourage citizen
participation and active engagement through acknowledgement of the importance
of the private and social life of the citizen. Social Justice and Welfare theory
focuses on the entitlement of basic rights as a responsibility of government in order
to alleviate social problems, thereby going some step to ensuring that all citizens
were equal. Participatory democracy goes a step further to encourage participation
by promoting active discussion and a broader definition of democracy, one that
looks to social institutions as other sites of democracy, outside the traditional view
of government. It also promotes the idea of the individual’s significance and that
citizens have the potential to develop and exercise their capacity.

Postmodernism and feminism draw attention to other ways that power is diffused
through society. Feminist political theory has drawn attention to the holistic nature
of the individual and the individual’s life, that the private life, and its
circumstances, needs to be taken into account when assuming a public life, and that
private life affects how the individual appears in society. The recognition, therefore,
of the private life might change the traditional view of politics and life as independence and self-generation to one of interdependence and connection with those around us. Traditionally, politics is viewed as being a male, and therefore one-sided experience, thereby ignoring the female experience.

From a rights-based citizenship theory to Hannah Arendt’s vision of participation, these theories represent a shift in thinking about citizen participation in terms of how the private and social life is incorporated into the political life. The theories fundamentally represent a move towards empowering citizens, with the underlying principle that if people are not equal, because of class and gender inequality, they cannot participate. In addressing that inequality, they acknowledge diversity and the experience of different citizens. They also look at a broader view of democracy as being in different sites, or as power structures that differ from the traditional.

As stated earlier, democracy relies heavily on the quality of attitudes and beliefs of its citizens. However, many of the theories outlined above rely on empowering the individual as a means to encourage participation simply by ensuring their rights are in place and their needs are met. With that in mind, the next section will look at how Ireland is faring in terms of its democratic health.

2.4 Indicators of the health of Irish democracy

The Democracy Commission sets out its belief that collective participation in political decision-making is key to achieving equality in Irish society (Democracy Commission, 2005:vii). Collective participation suggests strong participation at all levels of the democratic process, from voter participation to local and national government representation, with participation and representation from all groups in society. This definition of democracy, with the active citizen as fundamental to the system, implies that if the citizen is active, knowledgeable and responsible, participation will be strong and representation will be equal. The main indicators therefore of how a democracy is faring in terms of participation are voter participation and representation in government institutions. This next section will provide a general review and examination of current participation in Ireland.
2.4.1 Poor participation at all levels

Voter participation: Participation in voting, the most fundamental form of political participation, is considered to be the standard indicator of the state of democracy in a country. Ireland's mean turnout rate in national elections over the last 25 years is 72.2% with the rate declining to 67% in the May 2007 election (Collins, 2007). Underlying these general statistics concerning the whole population are even more worrying trends in relation to the participation of particular groups.

The Central Statistics Office Quarterly National Household Survey (hereafter QNHS), conducted after the 2002 general election, showed interestingly that while male and female participation at the voter level was not significantly different, age mattered with “just over 40% of 18 –19 year olds, and only 53% of 20–24 year olds, indicating that they voted in the election.” (CSO, 2003:1). These figures supported the National Youth Council research that showed almost 67% of youth aged between 18 – 24 did not vote (National Youth Council, 2005). This is in stark contrast to figures that show a 90% turnout for those aged between 65 – 74. The QNHS also found significant differences when the turnout rates were analysed according to the socio-economic status of the respondent: “Just over three-quarters (75.8%) of those at work said they voted compared with 58.8% of the unemployed.” (CSO, 2003:1).

As can be seen in many countries, the decline in participation is a cause for much concern, as this will likely result in a weakened democratic system and reduced political equality. There is a concern about this as it provides evidence that low and declining turnouts often involve a class bias that leaves certain groups significantly under-represented.

2.4.2 Poor representation at all levels

Underlying the above general statistics concerning the whole population are even more worrying trends in relation to the representation of particular groups. Ireland faces some challenges in considering itself to be a representative democracy where
the full spectrum of the population is represented at the elected level. The following list details the situation for the representation of particular sub-groups - young people, those living in socially disadvantaged areas and women.

**Young people:** According to the 2006 census, 23.2% of the Irish population is aged between 18 and 30, and 42.7% of the population is aged between 18 and 44 (CSO, 2006). The representation of TDs is skewed towards those over 45 (Collins, 2007).

**Socio-economic class:** In Irish society, only 15% of the total population are lower and higher professionals (Galligan, 2005:287). Almost half (47%) of the TDs in the Dáil come from the lower and higher professional classes (Democracy Commission, 2005).

**Women:** The Democratic Audit Project Briefing document, a project initiated by TASC (A Think Tank for Action on Social Change) for the Democracy Commission, states that the “the position of women is a critical indicator of the quality of any democracy” (Democratic Audit Ireland, 2005a:2). The population of Ireland is almost equally made up of men and women, with the number of males exceeding the number of females by 2,500 in the 2006 census (CSO, 2006: 16). However, only 13% of seats in the Dáil are held by women (National Women’s Council of Ireland, 2007). While current figures are high by historical standards, they are very low by equal representation standards.

The inequalities highlighted in this section have served to give an overall summary of the under-representation of young people, those living in socially disadvantaged areas and women at representative political level, and to further highlight the poor representative nature of Irish democracy. This review of the health of Irish democracy based on standard indicators such as voter participation and representation does not give it a ‘clean bill of health’. These inequalities in representation stem from inequalities in political participation and are a cause of great concern for the health of Irish democracy. This review of participation levels would suggest citizens are not participating. It is important to look at reasons for this lack of participation.
2.4.3 Disillusioned and disempowered citizens?

The all-time low voter turnout in the 2007 election is considered to be an observable implication of a problem with attitudes to citizenship and an indication of the fact that people are not behaving like active citizens. While surveys and other opinion polls provide results of voter turnout, they also yield some insights into attitudes to political involvement, political representatives and the citizen's own civic and political duties.

The 2002 election was swiftly followed by the Central Statistics Office, Quarterly National Household Survey that focused on reasons for voter participation and abstention. The survey throws some light on the reasons for this low turnout. Circumstantial reasons such as not being registered or being absent or away were given as the main reasons for not voting. For example, among young people, 61% cite procedural obstacles ('not registered', 'away', 'no polling card') to voting. It is clear that the circumstantial reasons for not voting need to be addressed and have been through the government implementation of social and systemic facilitation processes, such as extending polling hours and changing polling day to the weekend. However, Lyons and Sinnott observe that this has not served to increase turnout (Lyons and Sinnott, 2003). The same survey found that 37% of non-voters gave motivational reasons for not voting such as lack of interest (20.4%), feeling disillusioned (10.6%), feeling their vote would make no difference (3.7%) and lacking understanding or information (2.9%) (CSO, 2003:1).

In general, attitudes to political representatives seem to be very negative. The QNHS survey of attitudes found that a worrying 4 in 10 of non-voters believe that their public representatives do not care about the opinions of ordinary people while even fewer (1 in 10) believe that politicians are honest. Lyons, in an analysis of public opinion polls conducted in 2003, reports an increased level of dissatisfaction with the Taoiseach, the government and the Fianna Fáil party. Moreover, a general pattern of disillusionment is indicated in public perceptions of politicians and public institutions (Lyons, 2005). Lyons also reports on a Millward Brown IMS public opinion poll, held in 2003, that confirms this negative perception. When asked how the Irish public perceived politicians in a general sense, the prevailing negative
view is that of politicians seen to be corrupt (50%), self-serving (46%), incompetent (37%) and lazy (22%) (op. cit.).

The QNHS study of sources of information on politics and current affairs found that traditional media in the form of television, radio and national newspapers are the main source of information for voters and non-voters. However, the number of non-voters using these media either on a daily or weekly basis is very low (CSO, 2003:2). Other inquiries into whether non-voters feel that they have a good understanding of political issues and whether they have definite views on political issues gave low results.

While the Democratic Audit Survey found that satisfaction with democracy has increased since the last European Values Survey in 2000, they acknowledge that over a quarter of the Irish public is not satisfied at all. They also acknowledge that the dissatisfaction of these survey participants is still of grave concern to Irish democratic health (Democratic Commission, 2005).

2.4.4 Review of Indicators – Conclusions

Alongside the low levels of participation and unequal representation of groups, this general sense of dissatisfaction and disillusionment does not paint a picture of a knowledgeable, responsible, actively engaged and participating citizenry. Its suggestion of a disillusioned and disempowered population has led the Democracy Commission to tackle the reasons for the increasing disconnection from even the most basic forms of democratic participation in decision-making for large groups of people (Democracy Commission, 2004:2).

It is becoming more evident that an emphasis on participation, as a means to encourage actively engaged citizens, or an effort to create empowerment through rights, does not ensure that citizens participate responsibly. Mulgan posits that by concentrating too narrowly on the need to devolve power and on the virtues of freedom, issues of responsibility have been pushed to the margins (Mulgan, 1991:40).
It is clear that the increasing levels of civic and political disengagement among certain groups in Irish society are a great cause for concern. Also, the levels of disillusionment and discontentment need to be addressed before people become disengaged (Democracy Commission, 2005:122). In addressing these concerns, the Commission has made recommendations that will require institutional and structural changes, in the hope that participation will be made easier and that elected representatives will be more accountable to the public. While these changes and structural recommendations go some way to facilitating participation, it is clear that citizen engagement needs to be addressed. Looking back to Pateman’s idea of citizens “getting their feet wet”, in other social institutions outside the state and corporate life, has meant a renewed interest in civic associations as the most promising places of expanded democratic practice.

2.5 Responses in the Irish context

Civil society theorists have described a move towards politics, in the sense of people meeting together to discuss their collective problems, as happening more in critical public places outside the state institutions. With that in mind, a concept of civil society as the centre of politics has been emerging that consists of voluntary associative activity. This includes civic associations, non-profit associations, and those that are only loosely connected to state and corporate economy (Bekkers, 2005).

Leading proponents of the theory of civil society include John Keane (1984; 1988), Jean Cohen (1983) and Andrew Arato (Arato and Cohen, 1992). These theorists emphasise the necessity of civility and self-restraint to a healthy democracy but deny that either the market or political participation is sufficient to teach these virtues (Kymlicka and Norman, 1994:363). Instead, they look towards civil society as the arena for deepening democracy. It is in the voluntary organisations of civil society (the church, families, unions, ethnic associations, co-ops, women’s support groups, environmental groups, neighbourhood associations, charities) that the virtues of mutual obligation are learned. Kymlicka and Norman (1994) cite
Glendon (1991:91)^ as saying that it is in these organisations of civil society that “human character, competence, and capacity for citizenship are formed”, for it is here that we internalize the idea of personal responsibility and mutual obligation, and learn the voluntary self-restraint essential to truly responsible citizenship” (Glendon, 1991:109).

In Ireland, increasing attention has been given to the importance of the community and voluntary sector, and the promotion of their growth and development as part of a strong civic culture and society. O’Ferrall (2007) refers to reports from the National Economic and Social Council (NESC) that emphasise the importance of the community and voluntary sector if the economic and social challenges confronting Irish society are to be met. In their 2005 report “The Developmental Welfare State”, NESC advocated harnessing “the characteristic contributions of non-profit organisations” (NESC, 2005:xxi). In 2006, NESC provided a key strategic analysis, “NESC Strategy 2006: People, Productivity and Purpose”, which includes a key section on ‘Enabling Voluntary and Community Activity’, designed to lay the basis for social partnership agreement, as this is considered “an important requirement for overall economic and social development” (NESC, 2005a:220).

In April 2006, the Taoiseach, Bertie Ahern established a Taskforce on Active Citizenship “to recommend measures which could be taken as part of public policy to facilitate a greater degree of engagement by citizens in all aspects of life and the growth and development of voluntary organisations as part of a strong civic culture” (Irish Times, 2006). The Taskforce was asked to ‘review the evidence

---


10 2003 saw the establishment of the independent Democracy Commission, by two think-tanks, TASC in Dublin and Democratic Dialogue in Belfast, to look at Irish democracy and how Irish citizens are participating in it. Fergus O’Ferrall (2007) mentions a number of reports from the National Economic and Social Council (2005; 2006), Democracy Commission (in Ireland) (2005) and European Union documents that highlight the need to support voluntary and community activity.
regarding trends in citizen participation across the main areas of civic, community, cultural, occupational and recreational life in Ireland’ (Taskforce, 2007b)¹¹.

2.5.1 The importance of social capital

In light of the recent trends in participation outlined above, it is important to note the levels of social capital in Ireland, as social capital is considered to be another major indicator of the health of any democracy. The great debate generated by Putnam’s “Bowling Alone” (2000) and the development of an extensive literature on ‘social capital’ reflects this widespread focus upon the voluntary action of citizens and its role in western societies. Social capital may be defined as “networks together with shared norms, values and understandings that facilitate co-operation within or among groups”¹² and since voluntary organisations of civil society represent important sites of social capital, their potential for encouraging citizen participation is something that needs to be addressed. As there have been growing concerns in Ireland, as elsewhere, about the extent to which people are prepared to be involved in their communities, the Taskforce on Active Citizenship, conducted a Survey of Civic Engagement (SCE) in order to begin to measure social capital (Taskforce, 2007c). The Taskforce found overall that the levels of social capital were very healthy, with no apparent decline in recent years in levels of volunteering, active membership of community and voluntary organisations or in various measures of political engagement such as joining action groups and writing to politicians (Taskforce, 2007a). With a reasonably ‘healthy’ report, it is no surprise that increasing attention is given to harnessing the potential contributions of the community and voluntary sector. However, simply identifying the community and voluntary sector as potential sites of Active Citizenship may not be enough. With that in mind, the Taskforce have looked to the civic republican tradition as a means to actively encourage citizens to participate.

¹¹ This can be found in the Taskforce Background Working Paper ‘The Concept of Active Citizenship’, March 2007.
2.5.2 Civic republicanism at the heart of Active Citizenship

The modern civic republican tradition is a form of participatory democracy largely inspired by Machiavelli and Rousseau. The distinguishing feature of civic republicans, that separates them from other participationists, is the “emphasis on the intrinsic value of political participation for the participants themselves” (Kymlicka and Norman, 1994:362). There is indeed a close association between the civic republican concept of the ‘active citizen’ and the concept of social capital. As has been noted one of the key aspects of civic republicanism is the belief in an ideal of ‘the common good’ which is achieved through the exercise of ‘civic virtue’ by the citizenry as well as by ‘institutional design’ whereby the best institutions are developed to facilitate citizens in seeking the ‘common good’ (Dagger, 1997).

Since the 1970s, more recent communitarian approaches emphasise that citizenship is socially-embedded: an individual’s identity is influenced through their relations with others. A ‘civic republican’ theory of citizenship draws together the importance of the social and private life seen earlier in participatory democracy, feminist political theory, postmodernist political theory and civil society theory to outline a perspective on citizenship that arises from the capacity for collective self-government and the individual’s sense of social concern as a member of a polity (Taskforce, 2007b:3). Civic republicanism has a 'thick' conception of citizenship in place of the 'thin' liberal conception.

2.5.3 The modern Irish Active Citizen

Active Citizenship with a civic republican perspective is now firmly on the public policy agenda for Ireland (O’Ferrall, 2007: 181). In April 2006, the Irish government established the Taskforce on Active Citizenship, “to lead a “national conversation” on the extent to which citizens engage in the issues that affect them and their communities – in effect, to establish what ‘active citizenship’ means to people in the changed country that is Ireland today” (Taskforce, 2007a:iv). The Taskforce, while acknowledging that there are a number of different approaches to defining ‘active citizenship’, describe it as “an all-encompassing concept embracing
formal and non-formal, political, cultural, inter-personal and caring activities”\(^{13}\).

The Taskforce definition of ‘active citizenship’ therefore describes an active citizen who plays a role in the family, their neighbourhood, their community, voluntary organizations, the workplace, as well as in political structures. The active citizen has rights, as well as responsibilities, in all aspects of their lives and community, defining a ‘thick’ conception of citizenship for modern Ireland.

The modern Irish active citizen is in general encouraged to be aware of their fellow citizens, their interdependencies and common economic, social and environmental concerns. They are expected to pay attention to political issues and contribute to policy decisions. An attitude of civic self-restraint is encouraged, which naturally follows on from a common appreciation of the interdependencies of society. This would mean that the active citizen limits their own pursuit of material wealth in light of the needs of others. Such an attitude implies a willingness to effectively challenge infringements not only of one’s own rights, but also those of others. Citizens are expected to be open to deliberative engagement, be prepared to explain their own positions and listen to other points of view, and revise their own opinions in deliberation (Taskforce, 2007b:6).

The Taskforce see the encouragement of Active Citizenship as helping to address more effectively many social and economic problems, as individuals and civic organisations are involved in finding and implementing solutions, and by generating networks of support and connection, both within social groups and across groups. This in turn can lead to a healthy and varied range of voluntary and community organisations which is good for democracy and can ultimately strengthen the quality of decision-making through the democratic process and the sense of belonging of individuals and communities (Taskforce, 2007a:3). This definition of the modern active citizen aims to provide an antidote to voter apathy and low representation at various levels of political decision-making.

\(^{13}\)The term ‘active citizenship’ can elsewhere be found to describe volunteering or informal social engagement, thereby ignoring political and civic engagement. More can be found on the Taskforce definition in the Background Working Paper, ‘The Concept of Active Citizenship’, March 2007, published by the Taskforce.
2.6 Engaging Citizens – Conclusions

In their final report to government, the Taskforce present a set of recommendations to enhance the work already being done to develop a strong, independent and inclusive, civil society (Taskforce, 2007a:3). The recommendations relate to institutional and procedural mechanisms as well as citizen engagement measures aimed at increasing participation in the democratic process; improving the interaction between the citizen and state institutions at local and national level; measures to promote a greater sense of community and community engagement; promoting further education on the issues around active citizenship; and measures that provide increased opportunities for the inclusion of ethnic and cultural minorities in an increasingly diverse society (Taskforce, 2007a:11). Active citizenship, by its very nature, starts with individuals and while the Government can facilitate, encourage and support it, it is ultimately up to the individual to play a responsible role in society. The Taskforce stress the point that while governmental and institutional measures to implement Active Citizenship are being considered, these measures can only be done in cooperation with individuals, community and voluntary organizations, unions and businesses, and these in turn have a role to play in encouraging and supporting Active Citizenship.

The Taskforce also makes recommendations on the role of media and its capacity to raise awareness and encourage involvement, especially at local and community level. Traditional media, such as newspapers, radio and television, play an important role in raising awareness of vital issues of concern for citizens. Media can play its part by promoting awareness of community-based activity through, for example, greater coverage of community and voluntary activities in national and local media. In particular, the Taskforce recommends that the media can play an important role in providing (i) a platform for debate and exchange of views, values and positions, (ii) education and (iii) information on opportunities to be more active in the community (Taskforce, 2007a:13-14) 14.

14 Examples suggested include electronic local notice boards, teletext, weekly Active Citizenship columns in the national papers, local community papers, news and current affairs programmes on local and community radio, and local radio networks.
Of specific interest to this thesis is the Taskforce recommendation that innovative projects to raise awareness and interest in Active Citizenship should be supported and promoted. The Taskforce suggests that projects in which community development and Active Citizenship are presented as something “attractive, real and personal could spark public debate and interest” (Taskforce, 2007a:14) and recommends that initiatives to explore new and innovative ways of connecting and engaging communities should be supported.

In this spirit of pursuing innovation, the remainder of this thesis presents a mixed-method approach that explores new ways to raise awareness and interest in Active Citizenship in a manner that makes it attractive, personal and engaging. It presents the application of multimedia and technology in combination with an artistic outlook to enrich and make more attractive the presentation of information on Active Citizenship. It also takes notice of the Taskforce recommendation to make Active Citizenship more real and personal in its presentation. It draws on social research methods as useful ways to create rich content in the form of personal insights and opinions of research participants that can then be presented using multimedia and technology. The mixed-method approach therefore explores the application of art and technology, in combination with qualitative social research methods, to enrich the presentation of factual information and participant-authored content, thereby providing an alternative platform for citizen engagement. This approach offers new ways to invigorate the presentation of Active Citizenship and complement current initiatives and recommendations made by the Taskforce. The next chapter will focus on defining the methods used in this approach.
3 Methodology

3.1 Introduction

With the birth of any new technology, from the printing press to television, new forms of expression and presentation emerge. The combination of artistic ideals and advances in computer technology has meant that multimedia, as a new form of creative expression, has become an established medium. Artists continue to push the boundaries of this form of expression and the possibilities for technology. The interdisciplinary field of art and technology offers new ways to address and explore citizenship using creative applications of multimedia and technology in combination with an artistic approach and aesthetic sensibilities.

The Taskforce has asked for innovative projects that raise awareness and interest in Active Citizenship, particularly projects that present issues relevant to the community in an entertaining, attractive, fun and engaging way. An important way to raise awareness and interest in Active Citizenship is to provide information to people. Traditional media plays an important role in providing information to people through radio, newspapers and television. Multimedia and technology used
towards artistic goals can bring new dimensions to information and offer new ways to make it entertaining, engaging and fun. This approach can be used to bring information to life, present the inherent complexities and make it more personal and memorable in a manner that can be used to raise awareness and interest in the subject and enhance current traditional media methods.

Multimedia and new artistic modes of information presentation, in combination with qualitative social research methods can be used to provide a platform for the investigation and presentation of content drawn from personal views, insights and opinions of people and their communities. The Taskforce have also explicitly identified the importance of presenting information in a personally relevant way so as to raise awareness and engage people in thinking about Active Citizenship at local and community level. Social research offers useful methods for enquiry into what people think about issues and eliciting information on a topic, which can give the artist a unique perspective and offer opportunities for reflexivity. In one way or another, participants taking part in social research author content by creating and telling stories about an issue and how it relates to them. Photo-interviewing and photo-elicitation methods are a particular part of this approach to enquiry and generation of participant-authored content. They are of particular interest here as they provide a way to interview research participants and gain personal insights into what people think, as well as the creation of visual media that can be presented, thereby providing rich personal insights and stories for presentation. Social research also offers methods to organise and present the resulting data. In particular, content analysis and thematic networks analysis offer ways for the artist to structure and present the information in themes that can be presented using multimedia and technology in an artistic manner.

The mixed-method approach outlined in this chapter will inform the design of interactive multimedia exhibits to present factual and participant-authored information on Active Citizenship to the public. The exhibits will provide a platform for engaging citizens in information related to Active Citizenship in manner that is attractive and entertaining. This chapter will first define the art and technology approach used with a particular emphasis on defining characteristics of multimedia that offer ways to inform the design of interactive multimedia
exhibitions. It will then go on to present new possibilities offered by artists working to extend and explore multimedia and new technologies. It will go on to present the social research methods used in the approach, outlining photo-interviewing and photo-elicitation methods, and data analysis methods. It will conclude by summarising the mixed-method approach used in this thesis and in later chapters.

3.2 Towards a definition of multimedia – the mutual influence of art and technology

In the last decade of the twentieth century, computer technologies have played a dynamic and increasingly important role in altering how we make art in all disciplines (Wilson, 2002; Dixon, 2007). Not only has this technology meant greater efficiency and speed in doing things, it has also influenced new ways of expression and given new ways to think about issues. Multimedia is now clearly established as the defining medium of the twenty-first century. However, while the development in computer technology has facilitated this medium, the concept of integrated interactive media has its own artistic past. Multimedia has come about, and continues to develop, through the mutual influence of artistic and technological vision and achievements, with both disciplines offering new ways for the other to develop.

There is a long history of engineers and artists who sought to craft a medium that would appeal to all senses simultaneously and mimic and enhance the creative capacities of the human mind (Packer and Jordan, 2001:xiii). Throughout history, artists have sought to integrate different art forms and interdisciplinary approaches to express their ideas. Since World War II, scientists have looked at ways to develop technology in order to extend memory, increase knowledge and enhance creativity. The goals and aspirations of both groups have resulted in what we now know as multimedia. Multimedia is therefore the culmination of artistic ideals and technological developments, where both disciplines mutually influence and inform the other. Given the wide array of forms that multimedia currently takes – Internet art, virtual reality installations, graphical online chat spaces, and real-time
networked performance, to name but a few – it is difficult to define a single dominant theme behind the emergence of this new media. A brief look at the history of the development of the medium is useful and, while not providing an exhaustive list of developments, serves to provide a foundation for defining multimedia characteristics.

### 3.2.1 Integration of the arts in immersive environments

Immersive illusionary spaces that integrate multiple art forms have a long history in civilization, dating as far as the prehistoric cave paintings (around 15000BC) found at such sites as the caves of Lascaux in the South of France. These immersive environments are thought by scholars to have been theatres for the performance of rituals that integrated all forms of media and engaged all the senses. In 1849, Richard Wagner, the German composer, outlined his theory of the ‘Gesamtkunstwerk’ or ‘Total Artwork’, a vision of the creative unification of multiple artforms: theatre, music, singing, dance, dramatic poetry, design, lighting and visual art (Wagner, 1849). Wagner went so far as to build his own theatre, the Festspielhaus in Bayreuth, Germany in order to realise his vision. In this theatre he attempted to engineer a wholly immersive audience experience through a variety of technical and artistic strategies, such as the creation of hypnotically repetitive musical structures, hiding the orchestra and darkening the auditorium. Twentieth century artists have taken the idea of integrating the arts and continued to heighten the viewer’s experience of art by integrating traditionally separate disciplines into single works. Examples include the Futurists, who in their 1909 manifesto, declared that cinema was to be the supreme art because it embraced all other art forms through the use of (then) new media technology. The birth of cinema saw some new theories of how this technology could be applied toward the achievement of a virtual experience that immersed the audience in an illusionary space. Morton Heilig proposed that a “A Cinema of the Future” would surround the audience with facsimiles of life so convincing they would believe themselves to be transported to

---

1 Oliver Grau provides a solid account of the history of these types of space, from Greek theatre to European cathedrals to modern day computer-generated Virtual Reality environments (Grau, 2003).
another domain (Heilig, 1955). Engineers such as Ivan Sutherland and Scott Fisher are credited with the technological development of Virtual Reality environments that allow the user enter into computer-generated virtual environments.

In the 1960s, the performance work of John Cage, composer and artist, was a significant catalyst in the continuing breakdown of traditional boundaries between artistic disciplines. He organized a series of events that combined an interest in collaborative performance and encouraged greater audience participation. His use of indeterminacy and chance-related techniques in these performances shifted responsibility for the outcome of the work away from the artist, and weakened the divide between artwork and audience (Cage, 1966). Allan Kaprow was particularly interested in Cage's ideas about blurring the distinction between the artwork and audience and began to hold events, which he called 'Happenings' (Kaprow, 1966). This led to a performance style that pioneered deliberate, aesthetically-conceived group interactivity in a composed environment and saw Happenings artists devise formal structures that allowed participants freedom to make choices that would affect the artwork. These techniques led to the emergence of genres such as electronic theatre, performance art, and interactive installations, where the integration of art forms is possible and the audience have more control over the work. While ideas about integration of the arts, immersion and interactivity were being developed by artists, computer technology was developing alongside and offering other ways to make artistic ideas possible, as well as influencing new artistic developments.

3.2.2 Interactivity and new narratives

Digital computers were initially designed as calculating machines. Only a handful of scientists considered the possibility of developing personal computing for creative purposes. Vannevar Bush in his article “As We May Think” (1945) outlined the design of the Memex, a device that could be a private file and library for the creative individual. The device he proposed enabled the associative indexing of information, taking its design from the fact that the human mind operates by association (Bush, 1945). The Memex could supplement this aspect of human
creativity by organizing its media elements to reflect the dynamics of the mind at play. His ideas had profound influence on the evolution of the personal computer and were pursued by other scientists and engineers such as Douglas Engelbart who, in 1962, created a "tool kit", the oNLine System (NLS) that would "augment human intellect". The innovations of the NLS were the design of an interface, including the mouse, windows for text editing, and the possibility of networking computers, based on the insight that the open flow of ideas and information between collaborators was as important to creativity as the free association of thoughts (Engelbart, 1962). The tool therefore allowed the user to manipulate and affect his experience of media and communicate with others through the technology, allowing colleagues to peer into one another's minds as part of the creative process with obvious parallels to the Happenings events. The organization of information in a nonlinear fashion was also paralleled in the literary scene of the time. William S. Burrough's cut-up and fold-in techniques, described in "The Future of the Novel" (1964), represented the spontaneous expression and moment-by-moment movement of the mind. He saw the techniques as tools that let the writer discover previously undetected connections between things, with potentially enlightening and subversive results (Burroughs, 1964). Ted Nelson, inspired by Bush's Memex and Burroughs' narrative techniques, made the connection between the two ideas and proposed the idea of the 'hyperlink', a term used to describe a way of connecting discrete texts in nonlinear sequences (Nelson, 1974). Using hyperlinks on the computer, writers could create 'hypertexts', which Nelson described as 'nonsequential writing' that let the reader make decisions about how text could be read in other than linear fashions. Literary critic George Landow and colleagues developed hypertext software tools, such as Intermedia, which allowed authors with little experience in programming to invent new genres of creative writing. This connection did not only apply to text, but all media could be linked in

2 Burroughs treated the reading experience as one of entering into a multidirectional web of different voices, ideas, perceptions, and periods of time. The cut-up technique is a technique where text is cut up at random and rearranged to create a new text. Fold-in is the technique of taking two different sheets of linear text (with the same linespacing), cutting each sheet in half and combining with the other, then reading across the resulting page. The resulting text is often a blend of the two themes.
such a fashion. With hypertext and its multimedia counterpart “hypermedia”, writers and artists could create works that encouraged the user to leap from one idea to the next, expressed through text, image, audio or video.

In 1989, Tim Berners-Lee, created a system for the online sharing of documents, which has become widely known as the World Wide Web or the Internet. The Internet brings together the artistic and technological visions of integrating different art forms in immersive illusionary spaces. It allows for the interactivity described by earlier pioneers in that the audience/user manipulates media and communicates with others in non-linear ways. The Internet also breaks down geographical boundaries by allowing people connect to each other via email or online chatrooms, which can be seen as a virtual reality, a new space for communication and creative collaboration.

The success of the Web seemed to confirm the intuition of artists engaging in digital media in the late 1960s, such as Roy Ascott, who believed that in the future, a global media database would inspire new forms of expression (Ascott, 1966). Ascott considered this database a new type of ‘Gesamtkunstwerk’, or a ‘Gesamtdatenwerk’, as he called it, in which networked information is integrated into the artwork. He described the notion of ‘dataspace’, a territory of information in which all data exists outside the traditional definitions of time and space available for use in endless juxtapositions. While the notion of a Virtual Reality can be applied to fictional worlds of all kinds, as in those created by literature, theatre, cinema, or art, people can access and inhabit digitally simulated worlds through the interface of the mouse, keyboard and monitor. These technologies allow virtual creations that can appear as physical reality situations or as more imaginative fantasy spaces, which can be navigated by people through the use of synthetic bodies or avatars. For example; email, Internet chatrooms and virtual worlds such as Second Life allow people to perceive and act at a distance, disregarding their physical surroundings and often their identity. In these spaces, people can manipulate and control media and communicate across time and space.

Immersive Virtual Reality represents a special case of this kind of simulated world and is most often used to indicate experiences generated by computers that simulate
sensual cues of physical reality more closely than that generated only on a screen and by regular loudspeakers. Typically, these Virtual Reality presentations aspire towards immersive visual and audio experiences through innovations in perceptual and interface technologies. Perceptually, they augment usual computer displays using technologies such as stereoscopic three-dimensional eye displays, surround projection on all surfaces, and/or three-dimensional spatially localised sound. They attempt to enhance the computer’s response to user actions by expanding the interface beyond mouse and keyboard. For example, they use head-mounted position sensors to track the direction and tilt of the head in order to realistically present spatially correlated imagery and sound. Some use data gloves to read gestures. The systems are highly navigable, using the metaphor and cues of three-dimensional space to allow users to move through them. Figure 3.1 shows an example of a person wearing apparatus to allow them experience an Immersive Virtual Reality environment. As is apparent, the attached devices are quite cumbersome. They are also typically designed to allow only one person at a time interact with the three-dimensional world.

While most research in Immersive Virtual Reality uses this system and interface, the Cave Automatic Virtual Environment (CAVE) is a multi-person, room-sized, high-resolution 3D video and audio environment invented at the Electronic Visualisation Laboratory in 1991. This is a slightly alternative approach in that it places the human body directly inside a computer-generated environment (DeFanti,
Sandin et al, 1993). Specialised helmets are still used to track the user’s location and movements. Figure 3.2 shows images of CAVE technology.

These environments, whether accessed through the computer monitor interface or the more elaborate technologies outlined are considered to be the logical culmination of the multimedia characteristics as they present the artwork as a territory for interaction, as a locus of communications for a community, and they echo many of the artistic and technological goals of previous generations (Packer and Jordan, 2001:xxvii).

3.2.3 Identifiable characteristics of multimedia that set it apart from other media

Not all computer-based media is multimedia and may be looked at as an extension of more traditional art forms. Stephen Wilson defines some computer-based media art as work that is created using new technologies as tools that simply give new ways of doing what artists have historically done. Wilson considers this use of the computer as offering digital extensions of traditional art forms, where the computer simply allows the artist or composer to create in a more efficient way. Examples of this include digital photography, computer music and three-dimensional computer animation where nothing new has been added to the expression of the art form through the use of computer technology. Packer and Jordan illustrate the difference between what they call ‘digital’ media and ‘multimedia’. The example they outline is the adaptation of a classic novel to a digital or multimedia format. Their point is that a digital version of the novel, such as a digital animation of the book screened
on a digital projector, does nothing significantly different to the book version. It is simply displayed in a different way. However, a multimedia version could have animated illustrations, hyperlinked text, an Internet discussion group that can be accessed from the multimedia version of the book, and perhaps an online virtual representation of sites mentioned in the book. This version of the novel therefore offers a different and expanded experience of the novel (Packer and Jordan, 2001:xxx).

The defining emergent characteristics of the diverse array of multimedia presentations that set them apart from other media presentations are best described in terms of the coherent goals and intentions of multimedia’s pioneers, both artistic and technological entrepreneurs:

1. Integration - multimedia presentations and artworks integrate different art forms, often with technology, into a hybrid form of expression.
2. Interactivity - they offer new ways to interact with media by allowing the user manipulate and affect her experience of media directly, and to communicate with others through media.
3. Hypertext and hypermedia – they link separate text and other media elements so that the user can create their own trail of personal association, much like the mind exploring thought.
4. Immersion – they offer different ways to immerse oneself in different experiences through entry into the simulation or suggestion of a 3D environment.
5. Narrativity – they allow the possibility of new aesthetic and formal strategies that derive from the above concepts, which result in nonlinear story forms and media presentation (Packer and Jordan, 2001).

These characteristics define a way of doing things, both artistically and technologically, and an approach to artistic creation that will be adopted for the design of the exhibition. This way of doing things is significant in that it not only exploits new technologies to facilitate the expression of artistic ideas but has also brought about new stylistic and aesthetic modes of thinking arising out of the conceptual implications of the use of technology in an art context. The method in this thesis is to use these characteristics to inform the design of the interactive
multimedia exhibition. The characteristics form the first part of a palette of creative tools that will influence the artistic ideas and use of technology in this work.

3.3 Extending multimedia characteristics - artistic possibilities for information visualisation, organisation and extending the physical interface

While developers have used these environments for applications in a wide range of fields, such as education, technical training, military simulation, games, virtual travel and scientific research\(^3\), artist-researchers are often interested in exploiting characteristics of multimedia and Virtual Reality's conventions and techniques of representing reality as tools upon which to expand (Wilson, 2002:693). These presentations are often provocative and conceptually rich. Artist-researchers also recognise the limitations of the computer interface and Immersive Virtual Reality apparatus and investigate how these interfaces can be reworked and extended through the body and more widely into everyday life. These enquiries offer interesting ideas and possibilities for the design of an interactive multimedia exhibition that focuses on presenting information to the general public.

The next sections focus on how artist researchers are addressing the use of computers to advance the presentation and organisation of large volumes of complex information by creating visualisation methods that incorporate experimental two-dimensional, three-dimensional, time-based, meaningful and metaphoric visualisation. They will also look at the work of artist researchers who are extending the interface by looking at ways to read human actions and ways to exploit the ways in which people understand the world through their body.

\(^3\) Fogg's book Persuasive Technology: Using Computers to Change What We Think and Do (2002) presents a large selection of these works.
3.3.1 Information visualisation, organisation and presentation

The advent of computer and digital technologies has altered the production, presentation and organization of information. Contemporary culture produces large volumes of information in areas such as, for example, email correspondence, media archives and research results. Increased storage capacity, made possible by digital technology, has meant that a large volume of information is possible and this in turn has changed how information is organised or made accessible. A digital archive of information may not seem too different from the physical counterpart, the standard library, where stored information in the form of books can be taken from shelves in a non-linear fashion. The obvious advantages of digital interactive media however include almost instant access to information across geographic boundaries; access to different media formats such as audio, image and video, and the superior sorting and ordering capabilities of the database structure made possible by computer technology. However the sheer volume of information requires some form of organisational model that will conceptually situate the viewer and provide a logical way of accessing data.

Artist-researchers are exploring the possibilities of multimedia and technology to offer new ways to visualise, represent and organise information. They are looking at the possibilities of presenting information in two-dimensional, three-dimensional and time-based visualisations and representations, the importance of the use of metaphor to conceptually situate the user and the role of the artist in bringing meaning to information.

3.3.1.1 Two-dimensional, three-dimensional and time-based visualisations

Virtual environments allow for greater flexibility in how large volumes of information are conceptualised and displayed. Information from different times in history as well as different geographical spaces can be placed in the same environment and users can navigate through space as well as time in order to access the information. An example of this can be seen in the work of Art+Com, an
innovative German organisation that brings together artists, researchers and technologists to explore opportunities created by new technologies. In 1991, they were asked to design a simulation of the Potsdamer Platz, Berlin that would represent the area as it was historically, in the present and in the future. The project *The Invisible Shape of Things Past*, is the result of the challenging task of conceptualising and organising a complex and voluminous amount of information. The user can navigate through an Immersive Virtual Reality representation and an Internet-based version to access city information. The system presents a three-dimensional version of the area in the past, present and future. Users are able to select a year from a timeline at the bottom of the presentation and move to that location in time. Figure 3.3 shows the display of different years.

![The Invisible Shape of Things Past - an image of the interface to different years](image)

The system also presents archive footage of historical events (Art+Com, 1995). However in order to present the historical footage at the same time as the present day version of the city, they made three-dimensional objects out of the two-dimensional historical film clips that were then spatially located in the space. Figure 3.4 shows a representation of a street in the city with the three-dimensional representation of the archived film footage of an event that took place on the same site.

The complete system allows the user to navigate both temporally and spatially through the city, and view historical events as film footage. This allows a user who is virtually travelling through the city to encounter information from the past,
thereby creating an open and flexible system that allows access to both the history and geography of the city.

Multimedia and technology make the presentation of complex information possible. The virtual representation is an accurate representation of the city and this makes it simple enough to spatially navigate through, for those living in the city and tourists who might visit it online. Upon entering the space, the user has to spend time learning how to use controls to navigate through space and in time, and also understanding how to manipulate and view the historical film footage. It is the accurate representation of the city and the flexibility and openness of the navigation system that are the key factor in the success of this piece and its presentation of complex information.

3.3.1.2 Representation and visualisation — the artist as author of experience

In representing a space such as a city, accuracy and objectivity is important. However, artists are often asked to create virtual representations of spaces that may be of cultural or spiritual significance, for example, to create virtual tours of art museums. In examples such as these, capturing and representing the visitor’s experience of the real space is as important as accurately representing the
architectural details. The artist’s role in this case may be to imbue the Virtual Reality presentation with meaning and objectivity may be of less importance. Benjamin Britton, electronic artist and Associate Professor of Fine Art, University of Cincinatti, was asked to create a Virtual Reality representation of the caves at Lascaux, the location of the world’s most famous Paleolithic wall paintings, a site of cultural significance. The work was for presentation on CD-Rom and the Internet. The caves were being damaged because of visitor traffic and Britton worked intensively with archaeologists to create a virtual reality world that allows the public to explore the caves without causing damage to the physical space.

Britton describes how he wanted to bring more to the piece than just a photographically accurate representation of the caves. The caves at Lascaux, for him, represent the earliest expressions of human creativity and are inspirational to all human beings. He wanted to create a representation of the caves that would reflect the respect, consideration and awe that is felt by visitors to the actual historical site. Britton talks about the purpose of the piece as reflecting humanity and inspiring peace, respect and consideration for such an historical site (Britton, 1992:217). He suggests that artists should not focus on what technology should be used to accurately represent information, as this is not what will give meaning to the work. In their role as reconstructionists of information, he suggests that artists should realise that objectivity is impossible and that a more important task is to understand the intellectual and spiritual core of what they are working with. It is only through the communication of their experience and their interpretation of the core meaning of the information that they will be able to craft a representation that will connect audiences with that core. The artist therefore brings their personality and artistic intentions to the work in order to give it a meaning that will engage audiences. The artist, as an author of experience, has an important role in this type of information visualisation.

3.3.1.3 Information organisation – the interface metaphor

While two-dimensional, three-dimensional and time-based visualisations of information go a considerable way to providing the viewer with a visualisation
model to access complex information, artists are also exploring ways to organise seemingly disconnected information so that viewers can access and understand it. An example of this might be seen in volumes of data such as collections of scientific results or interviews that have no apparent or obvious connection to each other. George Legrady, artist researcher and Professor of Interactive Media at the University of California, Santa Barbara, explains the need to use interface metaphors to allow viewers conceptually situate themselves in, understand and access the information (Legrady, 1994). Email, represented by the real-world metaphor of post being delivered and sent, is a familiar example of the interface metaphor and functions according to the logic of the real-world model. The role of the artist therefore is to merely connect information by means of an interface metaphor that helps provide a context for the viewer. This use of metaphor in shaping environments can redefine the viewer’s experience within the digital environment by bringing new meaning to the information and provide a context for viewers to create their own narrative and trail of personal association (Legrady, 1994).

Legrady’s *An Anecdoted Archive from the Cold War*, presented on CD-ROM and installation, began as a collection of personal texts, photographs and official texts from the Stalinist era. Legrady uses the metaphor of the Budapest Workers’ Movement Museum as the interface to explore the collection. The user navigates the interactive environment by moving around a virtual representation of the museum. Figure 3.5 shows the floorplan of the museum.
In installation, the piece is shown on a projector. The user navigates using the mouse, sitting on the podium, in the same way they would on the CD-Rom version. Figure 3.6 shows a photograph of the artwork in installation.

![Figure 3-6: The piece as an installation; the user manipulates the information through the mouse on the podium](image)

Legrady integrates old black-and-white family movies, everyday objects, and official propaganda as a means of exploring multiple references and codings and to explode the presentations of official history. Figure 3.7 shows some of the images and text from the time. Over 60 stories and objects in the artist's possession are classified according to the floorplan of the former Hungarian Communist propaganda museum.

![Figure 3-7: images and text, from the time, presented in the artwork](image)

When the viewer first begins to interact with the Anecdoted Archive, they are met with the floorplan interface, establishing the interface's navigational and visual structure. This use of a familiar physical space as an interface to the collection
allows viewers situate themselves conceptually, by presenting a museum floorplan, and thereby allows the viewer to navigate through the collection, creating their own journey through, and experience of, the archived material. The museum metaphor connects the information in a meaningful way by providing the viewer with a context or framework to begin their exploration, while not being intrusive to, or influential on, the viewer’s own narrative and experience of the collection.

3.3.1.4 Conclusions

The advances in information visualisation, representation and organisation seen in these artists’ work exploit and expand the possibilities of multimedia and Immersive Virtual Reality. All of these advances exist in and can be experienced through the standard computer interface or through Virtual Reality apparatus. The next section will look to the advances made by artists investigating different ways to allow people to interface with technology.

3.3.2 Reworking and extending the physical interface – putting the body back in the picture

When Engelbart designed the mouse and keyboard interface for his NLS system in the early 1960s, it is unlikely he intended it to be still in use in the early twenty-first century. The computer screen, mouse and keyboard have become the conventional interface to allow users manipulate data in virtual space. The physical actions used, in engaging the body with the mouse and keyboard interface, represent a miniscule proportion of the potential physical repertoire of human body actions, making us highly aware of our bodies’ physical contact with the devices, and often producing unintended bodily experiences, such as various forms of injury, if their usage is sustained over long periods. As Bill Buxton, artist and designer working with Microsoft Research comments, asking people to use the conventional mouse and keyboard interface is like asking someone to, “act with one hand and both legs tied and their mouth gagged” (Buxton, 1999). Even Immersive Virtual Reality still sees the user tethered to the interface through head-mounted displays and gloves, not
allowing for the richness of body engagement that could be possible (Hayles, 1996:1).  

The conventional interface is often intimidating to users. People may receive training in how to use word-processing software or browse the Internet but because their only interface to the software is through the restricted movement of the fingers, they can feel quite separate from the data-manipulation and often quite powerless when things go wrong. The Immersive Virtual Reality apparatus can be quite intimidating also as it seems both an unnatural and unintuitive way to experience other spaces. The constraints of these interfaces have limited the imagination in thinking of ways that digital information systems can be integrated into human life and have entered the museum environment as the dominant means by which digital and multimedia works are presented and can mean that people who are inexperienced with the use of technology can feel quite powerless when faced with this way of interacting with an artwork. Artists argue that this interface does not allow for a full experience of the artwork (Legrady, 2000). While most art forms are typically experienced by groups of people in galleries, museums, theaters and festivals, the standard interface also means that typically people view digital artworks in isolation, reinforcing a sense of alienation from physical surroundings.

Artists are looking at ways for the computer to exploit the fact that humans regularly use their body to understand and manipulate the world and are investigating systems that use the body, through gestures such as touch and motion to communicate with the computer (Wilson, 2002: 617). The artists investigate the implications of using sensors to detect changes in motion, gesture, gaze, touch and how these actions can be employed. These explorations can also be referred to as ‘mixed reality environments’ (MREs), environments that Drascic and Milgram (1996) describe as: “between the extremes of real life and Virtual Reality, in which

4 Psychologists, engineers and computer scientists in the area of human-computer interaction, are specifically interested in and dedicated to the study of how people engage and interface with computers. Artists look at this from a slightly different perspective and are interested in exploring the artistic possibilities for extending the interface. As is clear from the examples listed, artists and technologists work together in many research institutes to explore this area.

5 Mixed-reality environments are also called 'augmented reality environments'.
views of the real world are combined in some proportion with views of a virtual environment” (Drascic and Milgram, 1996: 123). In these installations artists augment real life with digital representations and focus on creating installations where visitors can manipulate familiar physical objects or act in physical spaces, when interacting with digital information. Working on the frontiers of this research, artists have created installations that respond to a great variety of visitor actions and probe the implications of this capability to create intuitive and un-intimidating experiences for visitors. This area of art and technology investigation can be used to inform the design of an exhibition aimed at attracting a public audience who may or may not have an experience of multimedia.

3.3.2.1 Using interactivity to encourage imagination and play

Interactive installation art is that which engages body actions, gestures and movement that can allow the body to move more naturally in the artwork, and combines sensory experiences with opportunities for action and control of information. It also offers opportunities to encourage the imagination as visitors are free to explore a space both mentally and physically, because it allows the visitor to play with the work using more natural and intuitive movement. By removing the restriction of the conventional interface and allowing the person to be physically free in the space, the person is more likely to feel mentally and physically comfortable to experience the work.

Monika Fleischmann, research artist, head of computer art activities at the German National Centre for Information Technology (GMD), and cofounder of ART+Com in Berlin has created numerous award-winning works that explore innovative interfaces that use touch, balance and motion. Fleischmann works on developing new kinds of interfaces that enable visitors to act on their imaginations, through experiments with new kinds of body sensors and rich spaces that allow visitors' imaginations to shape events. Fleischmann links the opportunities of interactive environments with the historical functions of literature and theatre. Greek theatre was invented to externalize the drama of life. She says that an interactive installation involves the visitor passing through a process and playing out scenarios
in interactive theatrical illusion spaces. She talks about interactive installation works as transformative media environments (Wilson, 2002:734).

David Rokeby, a pioneer in interactive art, focuses on the interaction with the artwork to create works that encourage users to intuitively play with the piece. An example of this is his famous piece, ‘Very Nervous System’ first created in 1986. He uses video cameras, image processors, computers, synthesizers and a sound system to detect a visitor’s movement in a space and then use these movements to create sound and/or music. It has been presented as an installation in galleries as well as being installed in public outdoor spaces. The mapping of motion to sound is complex and dynamic and it is difficult for the visitor to know what body movement is creating what sound, thereby encouraging imagination and play, as they try to explore the interface. Figure 3.8 shows Rokeby ‘playing’ with the system.

![Figure 3-8: David Rokeby in Very Nervous System in the street in Potsdam](image)

He describes a language of interaction that goes against the logic and predictability of the computer; one that strongly engages the body because the computer removes the user from their body; one that exploits the human experience of a large-scaled physical space unlike the computer’s small-scale circuitry; one that is intimate unlike the disinterested and objective computer (Rokeby, 1995). He proposes that interfaces are self-reflecting ‘mirrors’ through which we communicate and

61
describes how he seeks to create transforming experiences that lead visitors to new insights through their motion in normal space: “By providing us with mirrors . . . interactive artworks offer us the tools for constructing identities, our sense of ourselves in relation to the artwork, and by implication, in relation to the world” (Rokeby, 1995).

Rokeby explores the possibilities of interactivity and creates complex interdependent relationships between his systems and visitors’ actions. He consciously works against the tendency of viewers to search for deterministic, totally predictable feedback and resists the creation of a control system, whereby a work is reactive to the user control. He describes his interpretation of interactivity as one where neither partner in the system (installation and person) is in control. "Interactive" and "reactive" are not the same thing. The changing states of the installation are a result of the collaboration of these two elements. The work only exists in this state of mutual influence (Rokeby, 1996). These installations encourage the engagement of a wide variety of body movements or actions. Visitors explore the interface in a playful manner that engages their imagination.

3.3.2.2 Group aesthetic experience and use of metaphor

Traditionally, people are more familiar with the group experience of media presentations such as music concerts, theatre and cinema. A number of artists are interested in creating interactive experiences that encourage group activity and collaboration. The use of the physical interface metaphor to engage the body is very important in interactive installation art. Don Ritter, artist-researcher who has consulted for research companies such as Nortel, has a long-standing history of experiments with new technologies to create interactive group pieces. He stresses the importance of the group and social aspect in how people engage with the world around them and with traditional presentations of art. He says that the accepted situation of a solitary person working with the standard interface is extremely limiting and notes that most experiences do not require people to act in solitary fashion, but that many aesthetic experiences involve groups (Ritter, 2007).
Physical interaction and control play a central role in Ritter’s work with the focus on the use of interface metaphor. Unlike Rokeby, interaction in Ritter’s artworks is about allowing visitors’ make choices about action and seeing that action have an effect. An example of this is his work, *Vox Populi*, where crowds of people are projected as video and beckon the visitor to speak from a lectern equipped with a microphone and a teleprompter that displays the text of historical political speeches. As the visitor moves to the podium, the crowds begin to get excited and increase in their enthusiasm the longer and louder the visitor speaks. Figure 3.9 shows a visitor to the installation.

![Figure 3-9: Photograph of *Vox Populi*](image)

The response of the crowd, speech selection, and speed of the scrolling text are determined by an analysis of the visitor’s voice. The specific actions of the crowd—encouraging, mildly supportive, unsupportive—are determined by various vocal characteristics of the speaker. Ritter wants the piece to provide the visitor with an opportunity to control the masses but provides only an “an ironic illusion of power” (Ritter, 2005).

A number of Ritter’s works are created in such a way that a group of people can interact with them at a time and are modified based on the number of people who
interact with them. In *O Telephone*, six telephones, modified to contain speakers as well as handsets, are arranged in a circle within a darkened room, each with a distinctive sound. If a visitor answers a ringing phone, "om" is heard through the handset and through the speaker in the body of the phone. When other visitors answer other ringing phones within the installation, the resulting "om" sounds move around and are heard through all the answered phones. Figure 3.10 shows the setup of telephones in the room.

![Figure 3-10: Photograph of O Telephone](image)

This artwork is designed with the intention of encouraging group collaboration. Visitors create different experiences of the artwork by playing with the artwork and by collaboration with others. The group collaboration and social aspect brings a new dimension to the experience of the work.

Artists, such as Ritter, focus on creating artwork that uses the range of body actions and movements available to the visitor. They intentionally create artwork that is situated in familiar and intuitive environments and is interacted with through familiar objects (for example, the telephone interface used in Ritter's *O Telephone*). The use of metaphor to physically interface with technology is important here also as it can help the visitor understand more instinctively how to interact with the piece.
3.3.3 Conclusions

Artistic explorations into information visualisation and organisation have enriched the presentation of information and given new ways to experience the large volumes of information that are being produced. These explorations have exploited multimedia and technology to bring information to life and created new ways to organise this information. These advances, however, have remained ‘inside’ the computer screen. Artists’ explorations into ways for the physical interface to be revised and expanded have offered new experiences of artworks that encourage imagination and play. These advances in body engagement and reworking of the physical interface to the computer can be harnessed to create a rich experience of information and will inform the design of the interactive multimedia exhibits presented later in this thesis. Both of these approaches offer new ways to present information on Active Citizenship, enliven it, make it more attractive and personal and offer new ways for multimedia presentation to enter wider and deeper realms of life.

Up to now, this chapter has focussed on how multimedia and advances in art and technology research can be used to inform the design of new ways to engage people. This can be applied to the design of factual information on Active Citizenship. The remainder of this chapter will look at the creation of participant-authored content that can then be presented using similar techniques. Social research is an established area that looks at how people understand the world around them and offers research methods that can give the artist insight into the topic for presentation as well as useful methods to organise the resulting data. Social research methods will therefore be used to generate content for multimedia presentation and be used to analyse and structure the information.

3.4 Social research methods to create participant-authored content

Visual research methods are of a concern to the social research and the social sciences in three ways (Banks, 1995; Heisley, 1991; Collier, 1979). Firstly, they
take the form of visual data produced by the researcher. In this form, the researcher takes photographs to create a cultural inventory of people, objects and events. Secondly, image is of interest as documents already in existence studied by the researcher. In this case, all image data from newspaper images to family albums are considered as they provide information on society. These visual research methods are useful in that they provide a starting-point for enquiry into an area that may as yet be unexplored by the researcher. While these methods have merits in helping the researcher understand a topic, the focus in this work is to create content that can be presented in a multimedia presentation. The third form, photo-interviewing or photo-elicitation, is that in which photographs, created in advance of the interview by the researcher or by the participants, are used to stimulate thought on an issue and provoke a response in an interview situation. The photo-elicitation method is appropriate in this study as it provides a starting-point for interview and the generation of interview data, textual and visual. The generation of images, such as photographs, is appealing to the artist as they can be used in multimedia presentation, as in the intended exhibits.

Social research methods also offer a unique perspective to the artist as to how to organise, summarise and structure participant-authored content. The exploration of content can be facilitated with the aid of techniques such as content analysis and thematic networks analysis, that allow the researcher sift through data and organise it.

3.4.1 Photo-interviewing and photo-elicitation methods

In comparison with other visual methods, little has been written about the usefulness of photographs for interviewing purposes (Banks, 1995, 2001; Bauer and Gaskell, 2000; Hurworth, 2004; Prosser, 1998; Silverman, 1997). Nevertheless, photo-interviews have been successfully employed across a wide variety of disciplines and topics in order to provoke response on a range of issues (Hurworth, 2004)\(^6\). Franz Boas, one of the first to use the technique in early anthropological research, provides a substantial list of examples of the use of photo-elicitation across disciplines in order to: determine ethnic identification (Gold, 1986); understand behaviours (Entin 1979, Wessels 1985); enhance memory retrieval (Aschermann et al. 1998); work

\(^6\) Rosalind Hurworth (Hurworth, 2004) provides a substantial list of examples of the use of photo-elicitation across disciplines in order to: determine ethnic identification (Gold, 1986); understand behaviours (Entin 1979, Wessels 1985); enhance memory retrieval (Aschermann et al. 1998); work
research while studying the culture of the Tobriand Islands, would show photos to
research participants in order to get them to talk about specific rituals. The Colliers
found that photographs used in this way were an invaluable source of community
information unlike verbal interviews, which meant an inhibition of the flow of
information due to communication difficulties and even memory blocks (Collier
1979:281). The strangeness of an interview situation is averted because often
respondents are presented with visual stimuli that they are familiar with, typically
photographs from their lives and communities (Schwartz, 1989:151-152).

Other terms such as autodriving, reflexive photography, photo novella and
photovoice have become associated with the technique and while they maintain the
photo-interviewing approach of asking interviewees to comment on photos, the
terms describe particular approaches to photo-elicitation and the creation of
photographs by the research participants.

3.4.1.1 Autodriving and reflexive photography

Autodriving is a particular form of photo-elicitation where, instead of being
presented with photographs to comment upon, photographs are taken by the
interviewee themselves. This form of photo-elicitation was termed autodriving
indicating that "the interview is 'driven' by informants who are seeing their own
behaviour" (Heisley and Levy, 1991:261). As in any form of photo-elicitation,
photographs show people to themselves. When presented with images of
themselves, people become self-conscious and seek to explain and justify
themselves (Heisley and Levy, 1991:257). Autodriving is a method that uses this
motivation to enhance the involvement of the research participant and to elicit
enriched qualitative information concerning events as the participants perceive

with young children/school students (Diamond 1996, Weinger 1998, Foster et al. 1999, Salmon
2001); undertake programme evaluations (Brown et al. 1980, Tucker and Dempsey 1991, Buchanan
1998); provide a tool for nursing, medical and gerontological research (Hagedorn 1996, Higgins &
Highley 1986, Magilvy et al. 1992); teach tertiary students (Killion 2001, Smith and Woodward
1999); talk about more difficult, abstract concepts (Curry and Strauss 1994, Bender et al. 2001)".

67
them. It is based on projective techniques, widely used in consumer research, that are based on the logic that a person’s behaviour is meaningful and expressive of personality and cultural values. Therefore given a standard but relatively ambiguous task – such as talking about a picture – what a person does reflects how he structures and interprets situations and responds to them (Levy, 1963:4). In consumer research, verbal responses from people are seen as a form of storytelling that can be analysed projectively (Levy, 1981). Heisley and Levy combined projective techniques and visual research methods to interview participants by asking them to take photos of their family life in order to elicit verbal responses about the events.

Also, it is important to note that, in certain cases, researchers are often uncertain about what questions to ask. To a certain degree, autodriving allows participants to interview themselves, to provide their own perspective and raise issues that are significant to them.

Reflexive photography also uses photographs taken by participants and a reflective interview to discover reactions to the topic under investigation. Harrington & Lindy (1998) examined the perceptions of 10 college freshmen, by giving them a disposable camera and asking them to take shots of their impressions of the university. Ziller (1990), used the technique to examine cross-cultural issues, and asked students from four nationalities to take photos depicting what the USA meant to them and then to talk about it. Their photographs were quite different from those taken by American-born students. Douglas (1998) asked black students to take photos to represent their impressions of a predominantly white university and referred to the photos produced for subsequent interviews as reflexive photos. In these examples of reflexive photography, it is clear that autodriving is used. The most notable point from this study is that participants reported that this technique promoted deeper levels of reflective thinking than interviews alone would have done.

Heisley and Levy asked people to take photographs of their evening meals as a starting point to gaining insight into everyday life. The photographs were later used in interviews with the participants, as a way of getting them to talk about their lives.
3.4.1.2 Photo Novella and Photovoice

Another form of photointerviewing has been referred to as photo novella or 'picture stories'. In this approach photographs are used to encourage participants to talk about their day-to-day lives (Wang and Burris, 1994). As with autodriving and reflexive photography, cameras are given to participants, particularly to children, the elderly or other marginalised groups, to allow them to discuss life as they see it. The key component of photo novella is encouraging dialogue where participants show their photographs and talk about their significance and meaning. The photographs are grounded in the experiences of the participants. This, therefore, means that the photo novella is intended as a tool of empowerment, and encourages the participants to communicate where change is needed. Wang, Burris and Xiang (1996) used the technique with rural women in China to inform and influence improvements in women's health.

Wang and Burris (1997) have strongly advocated the use of the term photovoice, instead of photo novella, who describe it as a process by which 'people can identify, represent and enhance their community through a specific photographic technique'. They also suggest that it can be used for participatory action research whereby people create and discuss photographs as a means of enabling personal and community change (Wang, 1999).

3.4.1.3 Conclusions

As with any method, limitations exist and these include ethical issues, privacy, sampling and validity issues raised by authors such as Becker 1978, Templin 1982, Blyton 1987, Fang and Elwein 1990, Wang 2001. Photo-interviewing or photo-elicitation can be a particularly powerful way to interview participants when the researcher is new to an area of study. It can challenge participants, provide nuances, trigger memories, lead to new perspectives and explanations, and help to avoid researcher misinterpretation.
The techniques defined here provide a way to get the interview and enquiry started. The auto-driving approach means that the interviewee can lead the interview and the process can lead to deeper reflection on the issue. These techniques can provide a means of ‘getting inside’ an issue program and its context, through visual and verbal language, and thereby provide deeper insight into an issue for the researcher. Of particular interest to the artist is the use of these methods to create content that contains both text and image data. Despite their marginality and problematic nature, research methodologies based on image data open up a vast field of opportunities, one that can capitalise on the development of technologies and improvements in digital communications (Ramella and Olmos, 2005) and that is of interest to the artist involved in using multimedia.

The photo-interviewing or photo-elicitation methods outlined here offer ways for participants to tell stories by asking them to take photographs about a topic and then use these images to provoke a response, thereby producing comments in the form of recorded text. The presentation of this participant-authored content is of particular interest to this thesis. However as with any enquiry, there will be considerable data produced and a need to reduce it to a useful representation. Social research methods offer ways to organize and present this data in a manner that can aid the artist interested in presenting it using multimedia. The next section will outline an approach to this.

3.4.2 Data analysis – content analysis and thematic networks analysis

Data analysis is commonly divided into two broad types: exploratory and confirmatory. As the term suggests, exploratory analysis explores the data, trying to find out what it tells the researcher. Confirmatory analysis seeks to establish whether the researcher has got what they expected, based for example on a theory, such as predicting the operation of particular mechanisms. This chapter has so far highlighted the use of visual research methods as a useful starting-point for enquiry where the artist-researcher has little experience of interviewing or data-generation. The artist is interested in using the themes that emerge from the enquiry as a way of
presenting Active Citizenship and is particularly interested in participant-authored content as it can be used to present Active Citizenship in a more personal and meaningful way. The analytical process therefore is very much an exploration to find out the general themes that describe what people think on the topic. With that in mind, it was important to identify a specific method that would allow the artist-researcher sift through and organize the data in a thematic way.

3.4.2.1 Content analysis of documents

The analysis of social artifacts has been of substantial interest in the social sciences, with a focus on a particular kind of artifact: the document (Robson, 2002). By this is meant primarily, the written document, whether this be a newspaper, magazine or letter, although the term extends to include non-written documents such as films, television programmes, drawings and photographs (Bauer and Gaskell, 2000). A common approach to documentary analysis is content analysis, the quantitative analysis of what is in the document. This approach to analysis came to prominence in the social sciences at the start of the twentieth century, in a series of quantitative analyses of newspapers, primarily in the United States (Bauer, 2000). The approach was subsequently extended to radio and television. While the main interest has probably continued in the field of mass communications, content analysis can be readily adapted for use in the analysis of qualitative interview data (e.g. in the coding of open-ended questions) and visual data (e.g. what is in the image) (Robson, 2002: 351).

As with many techniques in social research, content analysis is codified common sense, a refinement of ways that might be used by laypersons to describe and explain aspects of the world about them (Robson, 2002:352). The aim is to come up with a coding framework in order to aid the categorization of data. The effective starting-point for the analysis process is the research question. It is also important to make the task manageable by sampling from the population of interest. This can also mean eliminating data that may not be useful to the research such as spoiled
data. In addition to these issues, it is necessary to select a recording unit. The unit most commonly used in textual analysis is probably the individual word. This approach can also be applied to visual data, by counting how many times an object appears in an image. In the simplest version (known as frequency distribution) wherein all occurrences of the word or object are considered as equal, counts of them are made and compared. This can provide a useful way to start deciding on themes that emerge from the data. The next level of sophistication would differentiate between the different senses of words that have multiple meanings (e.g. the use of the word 'right' to mean 'correct', or as 'non-left') and code phrases constituting a semantic unit (e.g. 'ice cream' or 'Houses of Parliament').

It may also be necessary to examine the context in which a recording unit is set in order to categorise it. In the example of an individual word being the recording unit, if the researcher is interested in its use in a positive or negative, favourable or unfavourable way, the sentence in which it appears may have to be taken into account. Researchers may also need to infer meaning to categorise themes. This meaning is expressed in terms of manifest content and latent content, corresponding essentially to low-inference and high-inference items respectively. Manifest items are those which are physically present (e.g. a particular word); latent content is a matter of inference or interpretation on the part of the coder. The research question should determine the type of system to be used, and it may well be that a high-inference system is appropriate.

Content analysis may be applied to a broad range of research questions. Constructing categories or themes framed by the research question is important. Holsti (1969) provides a list of several useful categories. For example, 'Subject matter' as a category concerns itself with what the data is about and may be a useful category for both text and image data. 'Direction' as a category concerns itself with how the subject matter is treated e.g. favourably or not. It is important that the categories are exhaustive, ensuring that everything relevant to the study can be

---

8 Spoiled data refers to data that is not complete. For example, a participant may have refused to answer questions in an interview or, in the photo-elicitation methods, may have not returned their camera.
categorized, and mutually exclusive, ensuring that anything to be analysed can be categorized in only one way (it cannot be categorized as something else). The categories also have to be operationalised; that is, an explicit specification has to be made of what indicators one is looking for when making each and any of the categorizations. Once all of these issues have been addressed, the researcher can begin to carry out the data analysis and create themes from the data.

3.4.2.2 Thematic networks analysis – illustrating all themes

Content analysis provides a good starting-point for the researcher to begin the process of data analysis. However, there is still relatively little said on how to analyse the textual and visual material that qualitative researchers are presented with at the end of the data gathering stage (Bryman and Burgess, 1994; Feldman, 1995; Silverman, 1993). Attride-Stirling details a method for conducting thematic analyses of textual data, using content analysis as outlined above, and proposes that thematic analyses can be usefully aided by and presented as thematic networks (Attride-Stirling, 2001). Thematic networks offer another layer of sophistication to content analysis by representing the data patterns as web-like illustrations (networks) that summarize the main themes in a piece of textual data.

Thematic networks draw on features that are common to many analytical approaches in qualitative research. Parallels of the guiding principles and specific steps can be easily found in many other analytic techniques; for example, grounded theory (Corbin and Strauss, 1990; Glaser and Strauss, 1967), frameworks (Ritchie and Spencer, 1994), and many others (see Bryman and Burgess, 1994; Cresswell, 1997; Denzin and Lincoln, 1998; Feldman, 1995; Huberman and Miles, 1994; Silverman, 1993). Thematic networks aim to explore the understanding of an issue and the core structure has significant parallels with the three basic elements of grounded theory: concepts, categories and propositions (Corbin and Strauss, 1990).

Applying thematic networks is simply a way of organizing a thematic analysis of qualitative data. Thematic analyses seek to unearth the themes that emerge through analysis of a text at different levels, and thematic networks can aid the structuring
and depiction of these themes. As such, thematic networks analysis is not in any way a new method, but one that shares the key features of any analytic process aimed at interpretation. What thematic networks offers is the web-like network as an organizing principle and a representational means, and it makes explicit the procedures that may be employed in going from text to interpretation.

Thematic networks make possible the systemization of thematic analysis by allowing the extraction of:

(i) Basic Themes – these themes are the lowest-order ideas or themes evident in the text. At this level, the content analysis techniques, as outlined above, are applied to the text data, and as the text is classified and organized according to these codes, a record can be kept of the basic themes that emerge. Basic Themes are simple premises characteristic of the data, and on their own they say very little about the text or group of texts as a whole. In order for a Basic Theme to make sense beyond its immediate meaning it needs to be read within the context of other Basic Themes. Together, they represent an Organising Theme.

(ii) Organising Themes – these are categories of basic themes grouped together to summarize more abstract principles. They are more abstract and revealing of what is in the text as they present clusters of significant themes that summarise the main assumptions in the text. Therefore they enhance the meaning and significance of a broader theme that unites different Organising Themes, which together constitute a Global Theme.

(iii) Global Themes - super-ordinate themes encapsulating the principal metaphors in the text as a whole (Attride-Stirling, 2001:388). They summarize and make sense of clusters of lower-order themes abstracted from and supported by the data. Therefore Global Themes tell us what the texts as a whole are about within the context of a given analysis.
Web-like maps depicting the themes at each of the three levels are created to illustrate and represent the relationships between them (see Figure 3.11). This is a widely used procedure in qualitative analysis and as mentioned above, parallels are easily found, for example, in grounded theory (see Corbin and Strauss, 1990).

![Thematic Network Diagram](image)

**Figure 3-11: Structure of a thematic network**

Thematic networks are presented graphically as web-like nets to remove any notion of hierarchy, giving fluidity to the themes and emphasizing the interconnectivity throughout the network. The analogy to the Web-like structure and non-linear presentation of multimedia cannot be overlooked here. This presentation of information is attractive to the artist-researcher interested in presenting information in such a format as the web-like thematic network structure can be drawn on for multimedia presentation.

Importantly, however, the networks are only a tool in analysis, not the analysis itself. A thematic network therefore can begin to be constructed early in the thematic organization. It will need to be revisited and refined throughout the process. Once it has been constructed, it serves as an organizing principle and an illustrative tool in the interpretation of the text. The depiction of data as a thematic network is developed starting from the Basic Themes and working inwards toward a Global Theme. Once a collection of Basic Themes has been derived, they are then classified according to the underlying story they are telling and these become the
Organizing Themes. Organizing Themes are then reinterpreted in light of their Basic Themes, and are brought together to illustrate a single conclusion or superordinate theme that becomes the Global Theme.

3.4.3 Social research methods – conclusions

The methods outlined in this section are very appealing to the artist interested in generating content of a personal nature that can be used to raise awareness of Active Citizenship. The researcher, in this case, is the artist with little experience of exploring social concerns or interviewing participants. All methods mentioned in this section offer ways for the artist-researcher to explore an area and give a unique perspective on the issues. They are also attractive as they are conducted in ‘multimedia’ ways: photo-interviewing techniques generate visual data, as well as textual data, which is appealing for multimedia presentation; the thematic networks analysis creates a web-like representation of themes that can aid the artist in sifting through data and organising it for presentation. The techniques allow the novice-researcher explore the issue in a ‘safe’ way: the auto-driving technique in particular is attractive because it allows the participant lead the interview and is useful for the researcher new to a topic. All the techniques allow for the novice researcher to explore an area while generating rich content that can be used in multimedia presentation.

3.5 Conclusions

This chapter has outlined an interdisciplinary mixed-method approach used to inform the design of interactive multimedia exhibits to raise awareness and interest in Active Citizenship. The exhibits focus on the presentation of factual information and participant-authored content aimed at addressing the Taskforce’s request for innovative projects that present issues related to community development and Active Citizenship, in an entertaining, attractive, fun and engaging way.

The large-scale interactive multimedia exhibition, *Art of Decision*, was open to the public in May 2005 in the Liberties area of Dublin, Ireland. This exhibition
represents an alternative and novel platform for the presentation of information relating to community development and Active Citizenship through the creation of a three-dimensional physical exhibition that can be situated in a community. The exhibition uses multimedia and technology combined with new artistic advances to present factual information and participant-authored content in an attractive, accessible and engaging way.

This mixed-method approach is a rich palette of tools from which to draw on, tools that offer new ways to create content for presentation and the design of engaging multimedia presentations that are brought into the community. The use of art and technology seen in this work is a new way of experiencing the artwork as a territory for interaction, as a locus of communications for a community, with a rich experience of information in a natural and intuitive way. The following chapters present the work done in this exploration.

The following chapters present different aspects of this mixed-method approach. Chapter 4 presents **DATAmap**, an interactive immersive environment that uses multimedia and technology to create an attractive and engaging presentation of factual information. **DATAmap** presents one aspect of the mixed-method approach outlined here. In this work the artist retains full authorship of the design of factual information. The following chapter, Chapter 5 *Images of Power/Powerhouse* focuses on the mixed-method approach applied to the creation of participant-authored content.
4.1 Introduction

As was seen earlier, the Taskforce definition of Active Citizenship is of a citizen who plays an active role in the family, their neighbourhood, their community, voluntary organisations, the workplace, as well as in political structures. The Taskforce believes that the encouragement of Active Citizenship will lead to a healthy and varied range of voluntary and community organisations, which is good for democracy, and can strengthen the quality of decision-making through the democratic process. This definition can ultimately provide an antidote to the low levels of participation and representation at various levels of political decision-making. Encouraging the citizen to participate at all levels, from civic to political, should therefore ensure that all citizens are equally represented in political decision-making.

The Taskforce have made various recommendations on ways to encourage the development of an active citizenry. One of these is the provision of information as a
way to raise awareness of vital issues of concern for citizens. Providing information on the levels of representation in Irish decision-making bodies serves to highlight the current situation in Ireland and is an important way to raise awareness of the implications of citizen involvement or lack thereof. This is important and relevant information for citizens as it serves to make them aware of who is making decisions about their lives and society and may motivate them to be more involved. The Taskforce have acknowledged the role of traditional media and its capacity to raise awareness of information such as this. Multimedia and technology, used in an artistic way, can offer new ways to present information that makes it more attractive, accessible and engaging.

This chapter focuses on a novel project, *DATAmap*, an immersive interactive multimedia installation that presents factual information on the levels of representation in Irish State bodies, with a focus on gender balance. *DATAmap* was presented as part of the *Art of Decision* exhibition in May 2005. This chapter will first present the focus and motivation for the design. It will then go on to detail the design and creation of the *DATAmap* project using photographs from the exhibition to illustrate the work. This will be followed by a discussion on the merits of the work and a conclusions section.

### 4.2 Focus on representation of gender balance

Contemporary culture produces volumes of data such as research results and often this information remains inaccessible to the public or is presented in a manner that is difficult to digest or unengaging. The traditional presentation style, for example, of presenting data, such as inequalities, as numbers and statistics is often inadequate in its ability to shock, anger, outrage and therefore engage the citizen. Traditional media has a role to play in the presentation of this type of information but often the presentation is a compact summary of a situation at a national level situation or for the population as a whole. The citizen’s experience of information presented as a summary of the regional and national level statistics can be quite removed from their personal experience in their locale and community.
As was seen in Chapter 2, there is a concern about the inequality and under-representation of certain groups (young people, women and those in disadvantaged areas) in political decision-making. While it is clear that structural changes have to be made to address the barriers to participation from these groups, information and knowledge on these issues can be used to raise awareness of these issues and engage the citizen. The presentation of age, socio-economic and gender differentiated data is important in understanding the position of these groups in society and decision-making. Providing the citizen with information and knowledge upon which they can consider action is fundamental to citizen engagement. In attempting to engage the citizen with information, the challenge is to make it appealing, impactful and memorable by making it personally relevant and meaningful so that the citizen feels engaged in a way that forms the basis for action.

In an attempt to raise awareness of the gender balance in decision-making bodies throughout Ireland, the National Women’s Council of Ireland (NWCI) and Department of Justice, Equality and Law Reform initiative involved the development of a life-size photographic exhibition, ‘Put More Women in the Picture’ depicting the gender composition of statutory bodies at national and regional levels (NWCI, 2003). By representing the numbers of men and women in these institutions as photographs of the actual people, the information is made more meaningful and engaging to the viewer. The exhibition has been displayed in a wide range of settings from locally based community centres to libraries and county buildings and, in situ, displays the information pertaining to the local area alongside national figures. While this presentation goes a considerable way to enriching the presentation of information such as this, as was seen in Chapter 3, art and technology offers new and alternative possibilities for presentation and audience engagement. The artist working with multimedia and technology can exploit these possibilities to present a complex view of many layers of information in an accessible and meaningful way. DATAmap is the novel result of an exploration by the artist into how the interactive installation could be a physical platform for the presentation of the complex set of local, regional and national data on the gender composition of State bodies around Ireland. The next section will present DATAmap.
4.3 DATAmap design

The design of DATAmap had two purposes: a) to use multimedia to visualise and represent data on the gender composition of State bodies around Ireland and b) to design a physical interface that allows visitors interact with information through a custom-designed physical space that facilitates a group experience. The design will be presented in the next two sections.

4.3.1 Information visualisation and representation

With the assistance of Jane Williams, Art of Decision research team member, key statutory bodies around Ireland were identified. In order to point out the breadth of institutions that are making decisions affecting citizens and society, a list of key statutory bodies was made that consisted of a wide range of decision-making bodies including, but not restricted to, those of local and national government. Along with national government bodies such as the Dáil and Seanad, city, county and urban district councils, vocational education committees (VECs), city and county development boards were included as well as boards such as the Arts Council, Bord Gáis and Fisheries Boards, and others that may not be so immediately obvious to the public1. A detailed database of the addresses and activities of each board was then compiled as this could later be used to influence the design. We then gathered data on the gender makeup of each of the boards, by consulting various sources2 and by telephoning the body. The data is therefore collated as the numbers and percentages of men and women on each board.

At the information visualisation design stage, it was important to find some way to differentiate the information from each organisation. The activities of each board served to inform the information visualisation as it allowed the artist to visualise and realise an animated scenario in which the numbers of men and women could be depicted, and served to give each board its own identity and personality.

---

1 A complete list of all data presented in the DATAmap in May 2005 can be found in Appendix H.
2 Most of the information was compiled by consulting the IPA Yearbook, board websites, Centre for the Advancement of Women in Politics, National Women's Council of Ireland.
Photography of locations where organisations are based was also used in a considerable number of the animations.

Figure 4-1: Representation of Dun Laoghaire/Rathdown County Council

Figure 4-2: Still image from the Bord Gáis animation

The numbers of men and women on each board are depicted as pairs or couples of symbols related to the activity of the board, while also suggesting a gender for each object, and are presented in an animation of a scenario or location that suggests the activity of the board. For example, the scenario presented for each city council is an animation of men as mops and women as buckets arriving to clean a city street, as
seen in Figure 4.1; the scenario presented for Bord Gáis is an animation of men as matches and women as flames being used to light a cooker, as seen in Figure 4.2. This is a light-hearted depiction of the idea of inanimate objects having a gender as the ‘gendered’ objects appear in humorous cartoons that are intended to play with gender perceptions. Alongside the animation, the information is also presented as numbers and percentages of gender composition.

4.3.2 Design of the DATAMap space

The DATAMap is an immersive installation consisting of a room, built around a large-scale, interactive, colourful floor map of Ireland, designed to allow large groups of people to interact with information. With that in mind, the room was designed as a large space, 48 foot long by 24 foot wide and with 12 foot high walls, which immerses visitors in an experience of the information. Figure 4.3 presents a three-dimensional schematic of the system.

![Figure 4-3: DATAMAP interactive immersive installation](image)

The room is surrounded by 6 projection screens that display the animations and correspond to colour areas on the map of Ireland. Figure 4.4 shows a sketch of the room layout to illustrate the placement of the 6 projection screens and shows how each screen displays information from the corresponding area of colour.
Figure 4-4: Design layout for the room. It shows how the map was divided into areas of colour and illustrates the corresponding screen.

Photographs of the space (Figure 4.5 and 4.6) illustrate the scale of the room as it was being constructed. The photographs were taken from on top of the high walls and serve to illustrate the scale of the room.
Upon entering the DATAmap, visitors walk onto a large-scale, colourful map of Ireland covered with sensors marked by small lights. These lights represent the 140 points of information that can be accessed in DATAmap. In light of the playful and humorous design inherent in the animations, the overall interior design of the DATAmap was intended to create a playful space where use of colour, light and materials was important. As is seen above, the map of Ireland is divided into areas according to colours and the area around the map, depicting the Irish sea, is covered in a blue plastic grass-like material. The animations and floor lights are the only sources of light in the room. Figure 4.7 and 4.8 shows the space at different times and illustrate this design.
Providing visitors with an intuitive way to understand how to access the information is a core concern in the design of the \textit{DATAmap}. It was important at the data collation stage to record the addresses of the boards, as this information is now used to allow the placement of sensors at the geographical location of the State boards. Standing on the sensors triggers the related animation to play on a nearby screen. However when a visitor steps on a light, only one animation is displayed at
a time. This means that people are ‘forced’ to watch the current cartoon and wait their turn for the information point they had triggered.

Figure 4-9: a close-up of a visitor stepping on a light sensor

Figure 4-10: a visitor interacting with information

Figure 4.9 shows a closeup of a visitor standing on a sensor and Figure 4.10 shows a group interacting with and viewing information. The map is the main interface to the information and the location of the light sensors allows visitors to understand how to interact with the information.
4.4 Discussion

DATAmap presents a rich experience of complex information in the form of an interactive immersive environment. It is designed to maximize the impact of the information to be displayed and to encourage engagement with the data. During the design process a number of factors and issues had to be taken into account and these are summarized and discussed here. During the Art of Decision exhibition, visitors were invited to complete a questionnaire giving their thoughts and feedback on the exhibits. In this section some of the comments will be presented as they provide a useful means of exploring the strengths of the approach.

"very effective introduction, super multimedia effects" (visitor to the exhibition, male aged between 41 and 55)

The DATAmap is an impressive use of multimedia in an immersive interactive environment. It provides an alternative, innovative and spectacular presentation of information thereby creating an experience for the visitor that is unusual, fun, thought-provoking and memorable.

4.4.1 Information visualisation and representation

The DATAmap draws attention to a broad definition of the decision-making structure by presenting information on the number of men and women in a wide variety of bodies that may not typically be associated with political decision-making. For example, presenting information on government institutions such as the Dáil and Seanad is to be expected, but presenting information on bodies such as the Arts Council, Aer Rianta and other bodies that make decisions that affect the citizen draws attention to the wider decision-making sphere.

The use of animation facilitates the presentation of complex information as it allows three layers of information be presented in one. The animations present data in the form of numbers, percentages and the creation of a unique scenario that gives the visitor some information on the activities of each organisation. The

---

3 The complete questionnaire can be seen in Appendix I.
presentations make the data more informative, personal and meaningful. The use of familiar locations in the design of the animations draws the visitor’s attention to the significance of the information in their locality or community. The use of humour and familiar locations brings the data to life, makes it more appealing and personal to the visitor, and therefore has a stronger representation in the person’s mind.

"I really liked this section, visually very impressive, light-hearted representation of men and women as objects" (visitor to the exhibition, female aged between 26-40)

Visitors were intrigued by the animations and pairs of icons. The reaction from visitors tended to be one of amusement and surprise. The arbitrary assignment of gender generated much discussion. This also served to encourage people to explore the room as they were curious to see how the other decision-making bodies were depicted. A considerable number of visitors reported that the depiction helped them remember the details of the constitution of the various Boards and Councils.

4.4.2 Interaction with information – the map of Ireland as an interface to information

The map of Ireland as a metaphor to engage with information from around the country serves to conceptually and geographically situate visitors in a landscape that is familiar to them. This metaphor provides a way to connect the information by providing a framework for visitors to begin to access it. It is a strong visual and spatial cue to the visitor that they are being presented with information of local, regional and national relevance. The map helps participants relate to their own area while also keeping an eye on the general national situation.

"good, very creative way to get people to play with lights. This was interesting though a bit confusing at first, once you worked it out though it was cool" (visitor to the exhibition, male under 18)

The interaction with the space and information proved easy to learn as people could orient themselves in a space they already understood. Visitors to the space engaged
quickly with the landscape and often would move immediately to a location that was familiar to them (where they lived or were born). They seemed to orient themselves quickly in a familiar environment, the map of Ireland, and made the presentation more personal to themselves. The non-linear presentation of hypermedia elements in the form of animations allowed visitors to move from one animation to the next, uncovering the information and creating their own trail through the country.

Providing visitors with an intuitive way to understand how to access the information was another concern in the design of the DATAmap. As the light sensors are mounted at the same location as the organisation, visitors understood how to access information on an organisation. In designing an interactive work with a physical interface other than the conventional mouse and keyboard, there is a concern that visitors may not understand the interface. The large amount of light sensors embedded in the map draws attention to the points of information. Also, focusing on harnessing the natural movement of people in a space meant that people naturally uncovered the interactive element simply by walking on the map. The volume of sensors meant that people could not avoid standing on them and this gave people an understanding of how the system worked.

"I walked form the North of Ireland to the South in 13 seconds" (visitor to the exhibition, female under 18)

The playfulness of the presentation encouraged visitors of all ages to physically engage with the information by moving and exploring the rich terrain of information. As they discovered information on a location, they were generally surprised, if not shocked, by the gender imbalance and this served to challenge them to discover the information in other locations to compare and contrast the numbers. Overall this interface provides an intuitive and familiar metaphor for visitors to understand what the space is presenting and how to interact with the information.
4.4.3 Facilitating a group experience of information

The scale of the room was intended to facilitate groups of up to forty people. As was noted earlier, the non-linear presentation and interaction with information through the use of sensors meant that visitors were free to move around the space and not be attached to a computer presentation. This was intended to encourage a group experience of information.

To encourage conversation and collaboration, the animations were designed to present one point of information at a time. As people waited for their turn to interact with the system, they would begin to talk to one another and this encouraged people to collaborate with each other in discovering the information. Groups of people, often strangers to each other, would begin talking to each other and discussing the animations and numbers. People would begin explaining the artwork to visitors who were trying to understand the piece. It was also observed that people would work together to compare data from different locations around the room. This collaboration seemed to reinforce the experience of the information.

4.4.4 A space for reflection

A crucial consideration in the design of the room was to create a large comfortable space where people feel encouraged to congregate, spend time and reflect on the information presented and interact with others visitors. Colour and light were an important element in creating an attractive space. The lights embedded in the floor and projection screen light provided the only illumination and this served to create a dynamically-changing colourful and ambient space as the projection screen produced different colours (and light levels) depending on the animation that was playing.

The design of the space meant that the visitor was immersed in a rich visual experience. The only light in the room came from the projected animations and the light sensors. This drew attention to the visual spectacle of the animations and illuminated floor, and created a strong feeling of immersion.
Overall visitors spent on average 10 to 15 minutes in this room and were very impressed by the space and design. They were impressed by the large scale and colourful design of the room. They found the interaction interesting and an exciting way to uncover the information. The space encouraged visitors to reflect and engage with the information in an unusual and interesting manner that kept their attention.

4.5 Conclusions

**DATAmap** is an innovative presentation that highlights a broad spectrum of seats of statutory power in Ireland. It focuses specifically on raising awareness of the gender composition of these bodies and creates a multi-layered rich experience of that information.

The role of the artist as an author of information is apparent in **DATAmap**. The artist exploits the possibilities of multimedia and new technologies to create a space for experiencing information and encouraging a playful discovery of that information. All aspects of the design of the space are therefore controlled by the artist. The artist exploits the possibilities afforded by multimedia and technology to maximize the impact of this information and thereby creates a new way for citizens to engage with information. There is also a conscious effort on the part of the artist to bring the artwork to the community. In doing so, the space not only represents a place for experiencing information but it also becomes a platform for congregation, reflection and discussion on issues pertaining to the community. The artwork becomes a locus for interaction and discussion and allows people to have a rich experience of issues around Active Citizenship. **DATAmap** is an accessible, meaningful and memorable experience of the complexities of information.

This chapter focused on the use of multimedia and technology with the artist retaining full control of the design of information. It is clear that the artist working with multimedia and technology has a lot to offer the design and presentation of information. While this is a valuable contribution to the palette of tools used to encourage citizen engagement, it only goes so far in addressing the concerns of the
Taskforce. The DATAmap presentation is an attractive, accessible and personally meaningful presentation of information.

The next chapter, Images of Power/Powerhouse will focus on the use of participant-authored content in combination with multimedia and technology to raise awareness of Active Citizenship. It presents the result of the mixed-method approach to content-generation and presentation.
5.1 Introduction

As Irish society matures, and experiences much greater diversity in terms of values, lifestyles and choices, the Taskforce report is an important move towards envisioning and defining different pathways of Active Citizenship. While acknowledging that institutional and procedural mechanisms need to be in place in order for Active Citizenship to be encouraged, the report stresses the importance and power of the individual's role in all areas of society, from family, neighbourhoods, communities, voluntary organisations, workplaces to political structures. This definition of different pathways encourages citizens to be leaders in many aspects of their community, from the private to public sphere, as well as encouraging involvement from Government, business, unions and other

1 Section 6 of the Taskforce report is dedicated to recommendations to Government addressing how public policy affects Active Citizenship (Taskforce, 2007a, 16 - 23). They list the recommendations under 5 key themes that include (i) Participation in the Democratic Process, (ii) The Public Service and Citizens, (iii) Community Engagement, and Promoting a Sense of Community, (iv) Education for Citizenship and (v) Ethnic and Cultural Diversity and the Challenge of Engaging Newcomers. These themes address ways that government can facilitate greater engagement of citizens through structural and procedural devices such as funding, education schemes, citizen and community consultation, to name but a few.
organisations. The Taskforce definition of Active Citizenship highlights the power of the individual, their role in society, and the power structures and seats of power that are a result of the individual's involvement such as Government. However it would seem that there is not a neat and clear definition of power structures, where power lies and how it affects and impacts on these structures in Irish society. Taken from the perspective of any individual in society, the definition of power and power structures will vary considerably. Raising awareness of Active Citizenship therefore means drawing attention to this complex structure and the many ways of defining it.

The focus of this chapter is to investigate people's perceptions of power and power structures and use these insights to present the many viewpoints of where power lies and of power structures in Irish society. In raising awareness of Active Citizenship, all perspectives on where power lies, who has power, and what and who it affects are valuable contributions as they paint a picture of the many different viewpoints of people and the complex nature of how people see their role in society. Participant-authored content that reflects the Taskforce's vision can provide a unique perspective that can be used to raise awareness of Active Citizenship. The role of the artist-researcher in this project is to present these perspectives.

The work presented in this chapter adopts a mixed-method approach, outlined in Chapter 3, that first uses social research methods to explore and analyse people's perceptions of power. This is useful as it offers a perspective on Active Citizenship as it is expressed by people. The photo novella approach can generate images for presentation and thematic networks analysis can outline data structures that, in combination with the application of art and technology, can be used to inform the design of the presentation. While acknowledging that an investigation of this nature will provide a limited perspective on the topic, understanding people's perspectives of power using this technique, therefore, serves to give the artist a unique perspective and rich media content for presentation. The role of the artist therefore is to facilitate the enquiry and create a platform for the presentation of perspectives on power.
This chapter focuses on a novel project, *Images of Power/Powerhouse*, an immersive interactive multimedia installation that presents participant-authored content offering personal perspectives on who has power and where it is held. *Images of Power/Powerhouse* was presented as part of the *Art of Decision* exhibition in May 2005. The project presented in this chapter can be viewed as having two main aims: a) content-generation and organization and b) presentation. The first part, *Images of Power*, uses the photo novella technique to generate participant-authored content giving perspectives on power. The project draws from content analysis and thematic networks analysis to organise and interpret the data produced. The second part, *Images of Power/Powerhouse*, involves the application of multimedia and technology, used in an artistic way, to present the participant-authored content and is influenced in part by the *Images of Power* data analysis stage.

The first part of this chapter outlines the *Images of Power* project. It presents the data-elicitation phase that uses the photo novella approach. The next section goes on to look at the data analysis approach using content analysis and thematic networks analysis and presents the results of that phase. The *Powerhouse* presentation of participant-authored content is then outlined and this is followed by a discussion section on the approach. The chapter finishes with a conclusions section.

### 5.2 *Images of Power* – creating participant-authored content using the photo novella technique

The photo-interviewing techniques (autodriving, reflexive photography, photovoice and photo novella), outlined in Chapter 3, are useful as a means of eliciting rich data on a topic that may be difficult to define or may not be accessible through more traditional approaches such as surveys. An enquiry into an abstract or undefined term such as defining what power means to people can be well served using this approach. Photographs used in this way allow people to express and capture meaningful and symbolic life moments constituting an interpretive text that
can reveal something about the meaning of the phenomenon of interest and can stimulate reflection on a topic at a later time (Hagedorn, 1994). Just as the more familiar practice of making an audio recording of interviews provides verbal descriptions of experiences, photographs provide visual data, which can be used in conjunction with the other data as a means of recording visual content and experience. The photo novella technique allows participants to tell stories from their own perspective and incorporates autodriving, where the participant leads their own enquiry, and reflexive photography, highlighting the reflective nature of the enquiry. The very process of taking photographs serves to encourage reflection on an issue, thereby raising awareness of it in the participant’s mind.

Photo novella, or ‘picture stories’, allow participants to tell their own stories by letting them lead their own enquiry and decide on the pictures they will take to tell that story. The use of photographs to tell their story enables them to communicate personally meaningful thoughts or impressions in concrete terms, and can be used later to stimulate further reflection on the topic. At the same time the pictures provide a vehicle for the researcher and participant to discuss meaningful aspects of the participant’s life and to collaborate on the interpretation of experiences and feelings by describing the picture.

In the *Images of Power* project, participants from around Ireland were sent disposable cameras by post and asked to take photographs to describe what power meant to them. Participants were aware that the photographs were to be used for research purposes and were encouraged to freely interpret power as they might like. In most photo-interviewing projects, the sample size is kept small to make the subsequent analysis less onerous. Participant numbers are often kept to approximately 7 participants. With smaller numbers, the photo novella technique is typically used to generate photographs to be used at a later stage in an interview with the researcher, and, with a smaller number of participants, the interview stage of the approach is manageable. Because some of the participants were a considerable distance from the researcher and the intention was to involve a

---

2 Bristow, Berman and Heisley had a small number of participants (Bristow et al, 2004; Berman et al, 2001; Heisley and Levy, 1991).
considerable number of participants, the *Images of Power* project asked participants to comment on photographs using a questionnaire that was then sent back to the researcher. The remainder of this section will outline the procedure in detail.

### 5.2.1 *Images of Power* Sampling

In an effort to select a representational sample of the population, potential participants contacted through “snowballing” techniques\(^3\), drawn from individuals and groups around the country, were identified with the assistance of other members of the *Art of Decision* research team\(^4\). The delivery of the project meant that participants would not meet the researcher at any point in the process and would receive cameras and instructions on how to proceed in the post. Managing and administering a project of this nature was a concern so it was important to identify individuals and groups that could be contacted easily. The team members identified two types of possible participants for the projects: a) groups of individuals that were drawn from their peer group and b) community or voluntary groups that they worked with before or had contact with. These were identified as it was felt that they could be contacted more readily and therefore make the project administration more manageable. It was felt that it would be easier to manage and administer the project to community and voluntary groups already in existence as there would be a main point of contact (group leader/facilitator) and regular group meetings. This was important as it was felt that this would ensure the likelihood of research participants returning their cameras. This accessibility and management was important due to the nature of the project i.e. participants would not meet directly with the researcher. Although this gives rise to a problem of selection bias, it was felt that the logistics would be too cumbersome if any other method of sampling had been used.

---

\(^3\) This refers to an approach where participants are involved in the project through contacts i.e. where one contact passes instructions to a friend or associate and that contact onto another.

\(^4\) The research team are Dr. Linda Doyle and Fionnuala Conway, Department of Electronic and Electrical Engineering, and Dr. Maryann Valiulis and Jane Williams, Centre for Gender and Women's Studies, referred to earlier in the thesis in Chapter 1.
With that in mind, care was taken to identify groups varying in:

- Age (15 – over 65s)
- Gender (male and female)
- Socio-economic background
- Rural/urban background

Because of the subject matter and enquiry, it was also important to consider groups or individual who were considered to hold positions of power such as political party members.

Each member of the team took responsibility for making initial contact with a group leader/facilitator and asking them if a) they would be interested in administering and collecting cameras and b) if they felt the group would be interested in taking part. Groups included students from Trinity College, a young people’s group from north-west Dublin, an Active retirement group based in Co. Tipperary, a women’s group based in Cork, members of the National Leadership initiative and various friends of the research team members. The group participants were approached by the group leader, invited to participate and give written consent. A meeting was subsequently held between the research team member and the group leader to describe the project in more detail, answer questions, and obtain the completed consent forms from participants.

### 5.2.2 Images of Power Procedure

This photo-interviewing project took place in two parts. In the first part of this project, participants received a package in the post, including the disposable camera and instructions on how to proceed. They were asked for demographic details (age, gender, whether they live in urban or rural area, if they were employed) but they were told that these details were for survey purposes only and that, apart from these

---

5 A list of groups and a breakdown of the demographic information can be seen in Appendix C.

6 This workpack document can be seen in Appendix A.
details, their identity would remain unknown. Apart from these details, participants remained anonymous to the researcher and it was intended that this would encourage participants to feel free to express opinions that they might not normally have revealed had their identity been known. The first instructions in the pack asked participants to reflect on and write down what first came to mind when thinking about power. As the process was self-directed and the researcher was not present to ask questions, participants were presented with the following statement: “Write down what comes into your mind when you think about the word POWER. Write down any words, phrases, sentences that come to mind.” Next, the participants were instructed to take pictures, over a 2-week period, representing what power meant to them. They were aware that they had to return the completed ‘workpack’ and camera so that the photographs could be developed, returned to them and on receipt of the developed photographs, they would then detail each photograph with comments on what the image represented. Upon completion of this phase, three sets of prints were made, two for the participant and one for the researcher.

In the second part of this project, participants received two sets of their photographs, were advised that they could keep one set and were asked to go through their photographs and write comments on each image, in the phase two worksheet. In the first part of this phase, they were again asked to comment on whether they had noticed any change in their perception of power as a result of taking part in the project and if their awareness of power had changed. They were presented with the following questions: “Since participating in the Images of POWER project, have you noticed any change in what you think about when you consider the word POWER? Has it made you think differently about POWER? Have you noticed POWER in other areas than before? Has the project made you more aware of POWER? If so, how has it changed?”. In the next section they were asked to go through their photographs and write comments, in the worksheet, on each image. They were given some instruction on how to write their comments and prompted by being asked to complete sentences such as: “I took this picture

7 This worksheet can be seen in Appendix B.
because power is...” and “This picture makes me think of power because...”. Upon completion of this second phase, they returned the completed packs.

5.3 Images of Power – Data analysis

As a result of the Images of Power procedure, two types of participant-authored content were produced. These consisted of:

1. Photo novella dataset: photographs and written comments describing perspectives on power.
2. Reflections Dataset: written data produced by participants documenting their responses to questions regarding their awareness of power and how that might have changed as a result of taking part in the project.

The analysis of the photographs and associated comments forms the main part of the Images of Power analysis. However because the written responses also constitute participant-authored content that was presented in Powerhouse, they will be briefly summarised and reported on at the end of the photo novella dataset analysis. This data will be looked at again in the Discussion section as it is a useful way of assessing the methods used in the project. The next section presents the analysis of the photo novella dataset.

5.3.1 Images of Power - analysing and organising participant-authored content using thematic networks analysis

The first stage in the photo novella dataset analysis was to go through the demographic information for each completed workpack. Out of 13 groups that had agreed to take part in the project and been sent photographs, 79 participants were identified. 2 groups and a total of 37 participants did not complete the task, leaving
42 complete and returned workpacks. Although there had been an attempt to select a representational sample of the population, the main age of groups were in the 18-30 and 55-70 brackets. There was also a majority of female participants (34), as opposed to 8 male participants. The rural/urban divide was almost equal. While the demographic details are interesting to note, the research question motivating the analysis was focused on exploring how people define and describe power. The focus of the *Images of Power* analysis stage, therefore, was to gather ‘picture stories’ that could be presented to the public as a way of raising awareness of Active Citizenship through the presentation of different definitions or themes of power. The concepts of content analysis and thematic networks analysis (following Attride-Stirling) were introduced and defined in Chapter 3 and are now used as an analysis tool. The next steps describe the approach used in the *Images of Power* analysis.

**Step 1: Combining images and comments**

In order to begin the data reduction phase, the images were sorted through and linked with their associated comments. As the project was seen as a story-telling opportunity for participants, it was important that the image and comments created what could be considered a ‘picture story’ or standalone object, where the combination of image and text told a story about power, and where one element supported, corroborated or explained the other. This was done by mounting the photographs on pieces of card with the associated text printed underneath. At this first stage in the analysis, it became evident that participants approached the process of taking photographs and commenting on them in a variety of ways. Some people took one photograph to represent one idea and subsequently commented on each photograph with an individual and clearly labeled annotation. This approach made the combination of photograph and comment manageable for the researcher. Other people took a set of photographs on one theme and when asked to comment, provided a summary of the set of images. In this case, each photograph was

---

* A completed workpack is considered to be one where all of the photographs and comments were returned and refers to the main dataset. 36 out of 42 participants completed the entire worksheet.
combined with a duplicated comment. However, at this stage a considerable number of images were eliminated, for a variety of reasons:

- Where photographs were unfocussed and it was difficult to make out the content, it was felt that the image would not support the associated comment and in fact, might confuse a viewer.
- Where text was unclear and did not seem to explain, support or corroborate the content of the photograph.
- Where participants had not clearly labeled photographs and their associated text, it was felt that estimating the correct combination would not be an accurate representation of what the participant had intended.
- Where participants had used one comment to explain a set of images, a selection of images were selected based on the content of the photographs displaying different content
- Where participants completed the photography phase but did not complete the commenting stage.

While the initial count of returned photographs came to a total of 848 photographs, this elimination procedure reduced the total to 352 photographs and associated comments.

**Step 2: coding the material**

By going through the 'picture-story' cards, the most prominent constructs in the discussions were identified and shaped into a finite set of codes that were discrete enough to avoid redundancy, and global enough to be meaningful. At the first stage of content analysis, 135 codes (or categories) were derived on the basis of:

a) recurrent words in the participants' comments with supporting image content. For example, the code 'Love' included text segments such as, 'I took this photo to highlight the peace of Christmas. I think that the power of love at Christmas can bring about peace and reconciliation'. As can be seen in Figure 5.1, the word 'love' is repeated a number of times and the photograph supports the comment.
Figure 5-1 - Category: Love - "Love within a family is very powerful. Love in the community where people reach out unselfishly to help each other especially those in need. The Love we have of the "God" who created us. The Love we have of ourselves." 

b) recurrent objects in the photographs with supporting text. Figure 5.2 shows an image of a billboard. Photographs of billboards recurred and warranted a separate category that was labelled ‘Advertising’. The text in Figure 5.2 does not mention the word ‘advertising’ but the theme is interpreted.

Figure 5-2 - Category: Advertising - 'influences our spending'

9 The text ‘Category: Love’ was added by the researcher. The text in quotations is from the participant. This labelling format applies to all images.
c) themes that summarized the content of the image-comment combination. The code ‘Negative behaviour’ included text segments and supporting image content as is seen in Figure 5.3.

![Figure 5-3 - Category: Negative power of money – 'position in society, money, dominance, influence over people'.](image)

The ‘picture stories’ were then dissected, classified and organised according to these codes. The emphasis was conceptual and a ‘picture-story’ could be classified under more than one code. For example, Figure 5.1 (shown above) was classified under ‘Love’ as well as ‘God’ as both words are mentioned in the text.

**Step 3: identifying themes**

In this case, the codes were grouped into 19 clusters and each of the ‘picture stories’ were re-examined. As this was done, a record was kept of the themes that were emerging and the number of ‘picture stories’ associated with that theme. The codes were reduced to 50 themes\(^\text{10}\). In the example presented here, the analysis focused on discursive themes common across the participants. Therefore, the themes that were more common were given precedence. This criterion for selection was not intended to attribute greater overall explanatory value to themes on a quantitative basis; it simply made it possible to focus attention on the common, homogenous, popular themes, which were the specific interest of this study.

\(^{10}\) The list of themes are presented in the second column of Table 1 presented in Appendix D)
Another analysis with a focus on, for example, group differences, would quite appropriately employ a different criterion for selection which might be, for example, themes that are particular to a group.

**Step 4: constructing the networks**

Table 2 in Appendix D illustrates the resulting themes that emerge through the construction of the thematic networks from the participants' data. The network itself is only a tool to help the researcher make connections and see patterns in the data. This step represents a considerable analytic leap, in which the process of interpretation takes on a higher level of abstraction. The thematic networks were created by working from the periphery Basic Themes, inwards to the Global Theme with the objective of summarizing particular themes in order to create larger, unifying themes that condense the concepts and ideas mentioned through the 'picture stories' at the lowest level.

Taking each group in turn, the themes, now interpreted as Basic Themes, were then interpreted as Organising Themes, and the underlying issues shared between the Basic Themes were identified and made explicit, thereby naming each Organising Theme. Taking in turn each of the Organising Themes, nine Global Themes unifying the Organising Themes were then deduced; these summarized the main propositions of the Organising Themes and the Basic Themes and can be seen in the third column of Table 2, Appendix D. Figure 5.4 shows a diagram of the construction of the thematic network 'Connections and Relations'. As can be seen in the diagram, the network is constructed by making connections between the Basic Themes, Organising Themes and having a Global Theme connect and summarise these.

---

11 The Organising Themes are listed in the second column of Table 2, Appendix D.
For the purposes of explanation and clarity, Table 3, Appendix D presents the themes as Global themes, Organising themes and Basic Themes. The next section summarises the Global Themes that emerged in this network.

5.3.2 Images of Power results

The aim of the content-generation stage of this project was to understand and gain perspectives on how people perceive power, in order to then present these perspectives. Through the exploration of the data, nine Global Themes emerged that represent participants’ perceptions of where power lies, who and what has it, and whether it is seen as having positive or negative impact. The Global Themes are:

1. Commerce
2. Connections and Relations
3. Knowledge and Education
4. Legislative Power
5. Nature
6. Norms
7. Religion
Underlying the exploration is the need to understand how people perceive power in society, as this is in line with the Taskforce vision of Active Citizenship. In order to use this content to raise awareness of Active Citizenship, it is necessary that it is relevant to the issue. Therefore this section will present the Global themes describing the patterns in the collection of ‘picture stories’ and briefly assess their relevance to the Taskforce recommendations and usefulness for a presentation on Active Citizenship. As will be apparent in the following summary, one of the Global Themes, ‘Time’ was interpreted by the researcher as not being relevant to a presentation of Active Citizenship so it will not be presented here. Each thematic network will be described by presenting its Organising Themes, elaborating on the signification of the Global Theme and illustrating it with the Basic Themes. For the purposes of illustration, a selection of ‘picture stories’ has been made and presented in Appendix E.

1. Commerce

The Global Theme ‘Commerce’ constitutes one thematic network comprising four Organising Themes and nine Basic Themes. This network represents a description of where the power of commerce is perceived. This includes concerns about corporate power, the influence of mass media, and the effect of money and wealth on people.

The Organising Theme ‘Advertising’ mainly includes references to the negative influence that advertising can have on people. It includes images of billboards and

---

12 A number of ‘picture stories’, 18 in total, referred to the power of time over peoples’ lives. ‘Time’ was not considered by the researcher to offer any insights on perspectives of power in society and was deemed to be not related to Active Citizenship. This topic could be returned to at a later stage and a deeper exploration may result in more meaningful data relating to Active Citizenship. For the purposes of this project, it has been removed from the list of Global themes for consideration as having potential for a presentation.
mentions the fact that these advertisements are influencing spending in a negative way.

The Organising Theme ‘Corporate’ is a broad category but it captures many peoples’ concern about corporate power, materialism and consumerism. It includes big business, the use of brands in marketing, logos, financial institutions and although globalisation is not articulated in any of the participants’ scripts, it is very much an undercurrent of this category.

The Organising Theme ‘Media’ focuses on the negative power of mass media – television, newspapers, magazines - which is what most participants termed as simply “the media”. It is interesting to note that while traditional media (television, newspapers) were depicted in a negative way, the Internet was considered by most participants to represent the power of knowledge and/or technology rather than the power of the media. The Internet, as a form of media presentation, does not feature in this category.

The Organising Theme ‘Wealth’ refers to the power of money, possessions, purchased status and image, such as expensive cars and designer suits and is associated with individuals. There is a great deal of overlap, of course between the four Organising themes and some ‘picture stories’ are duplicated in a number of categories.

The Global Theme ‘Commerce’ contains many perspectives on the power of money and business on people and society. Overall ‘Commerce’ is seen as having a negative role in society. As the Taskforce are encouraging businesses to play an active role in their communities and thereby encourage Active Citizenship, this theme summarises an interesting perspective and set of concerns that people have

---

13 The Taskforce make recommendations for businesses to play a more active role in encouraging Active citizenship through the active pursuit of opportunities for engagement with the community. For example, this could include: supporting specific community projects or voluntary activities; facilitating periodic secondments of staff to various community and voluntary organizations (Taskforce, 2007a: 12 - 13).
about the area, one that is useful and relevant for further debate and discussion on the role of business in the community.

2. Connections and Relations

The Global Theme ‘Connections and Relations’ constitutes one thematic network comprising four Organising Themes and eleven Basic Themes. This network represents a description of participants’ conceptualizations of the power of individuals’ connections and relations with each other.

The Organising Theme ‘Creativity’ deals with both the power to create and the power of the object to influence people. The power of art is expressed through ‘picture stories’ that describe paintings, sculptures, books, films, image, design, architecture, music and art created by collectives like schoolchildren, as having the power to affect people. It is seen as a positive source of power.

The Organising Theme ‘Humankind’ describes the power an individual has to affect the mood of another person and was presented in positive examples such as sharing and helping. For example, the power of a smile to positively affect another was mentioned. Power was also seen as being present in social gatherings. Sport featured as a social or community gathering that had the power to affect the spectators’ mood if, for example, their team won. It was also mentioned because it represented the power of involvement in sporting organisations to create a community spirit and sense of belonging. All of these examples represent a positive outlook on the power of humankind. Physical power of humans also featured in this network and was especially mentioned as the power of strength. This was seen to be something that could be both positive and negative, as individuals can use their strength for kind acts as well as for intimidating others. A number of participants mentioned the power of woman, or female empowerment. Also included in this category is the negative power people may have or use over others. This was described as anti-social behaviour, violence or intimidation.

The Organising Theme ‘Love’ is a subsection of Humankind since it represents a particular emotion that is seen as powerful in human relationships. It was given its own category because it is such an important source of power between people, but
also because it was mentioned and implied so many times throughout the project. This category includes photos of family members, friends and representations of friendship in addition to the traditional notion of romantic love.

The Organising Theme ‘People power’ describes the power that groups of people have, whether organised into formal bodies or not. The ‘picture stories’ include descriptions of the power of anti-war marches, public meetings and trade unions. The work of community workers to help those in their community is also described here.

This Global Theme ‘Connections and Relations’ contains many perspectives on the power of the individual to play a positive role in society. The individual can be seen to have a powerful role in relations with their family, friends, in their community, workplace, and in community organizations. These examples highlight and tell a story of how people see their role as powerful players in many levels of society. It also features the importance of the creativity of individuals and collectives, and artwork to affect us. This could be interpreted as having relevance in how people work together and express themselves. The ‘picture stories’ also contain negative examples of power, such as anti-social behaviour. Overall this theme summarises the main vision of the Taskforce, that each individual has a part to play and that they have a significant role in society. The ‘picture stories’ in this category present a positive perspective of the role of the individual and impact they can have in their family, neighbourhoods and community organizations, as well as how they choose to express that power.

3. Knowledge and Education

The Global Theme ‘Knowledge and Education’ constitutes one thematic network comprising two Organising Themes and five Basic Themes. This network represents a description of participants’ conceptualizations of the significance and importance of knowledge and education.

There is a logical overlap between the Organising Theme ‘Knowledge’ and the Organising Theme ‘Education’. ‘Knowledge’ includes ‘picture stories’ that depict
knowledge as information, expertise, explorations in science, and knowledge as
discovery of information. ‘Education’ has a subcategory to itself, as the word was
mentioned by a number of participants. The interesting thing about how participants
saw the power of education is that, although it was seen as being generally positive,
a number of people spoke about education as having a negative power because it
could exclude those who were not educated. The suggestion was that education
created a sort of club from which the less well-educated were excluded.

In general, this category represents knowledge and education in a very positive
way, which is relevant for a presentation on Active Citizenship. The negative
depictions of knowledge and education express concerns for those outside the
education ‘system’ and highlight the voices of those who feel marginalised from
this system. This depiction would seem very much in line with the Taskforce’s
vision of Active Citizenship, one that encourages people to think about others in
society and aim to be more inclusive.

4. Legislative Power

The Global Theme ‘Legislative Power’ constitutes one thematic network
comprising two Organising Themes and six Basic Themes. This network represents
a description of participants’ conceptualizations of the power of state bodies and
political power.

The Organising Theme ‘State’ takes account of a wide range of ways in which the
state exerts power over its citizens. The ‘picture stories’ in this category present
symbols of power. For example, symbols of state authority are depicted as persons
of authority (e.g. gardai), traffic lights and signs that order people to be a certain
way. Politics and politicians are excluded from this category and are given a
category of their own. This is partly because many of those participating in the
project did not appear to equate the power of the state with the power of politics or
politicians, so including both the state and politics in the same category would have
been inaccurate. This is logical from an institutionalist perspective.
The Organising Theme ‘Political Power’ includes anything pertaining to government and the political systems, including individual politicians. It is interesting to note that participants did not really draw many connections between the power of politicians and the power of the state. Also, the power of politicians was seen in a very negative fashion, as in the power to corrupt, rather than as a power to effect social or economic change for the better. This category deliberately excludes entities such as trade unions or pressure groups, such as those in the anti-war movement, as it was clear from the scripts, that by and large, the participants did not consider such groups to hold political power, even though in reality they can. All these concepts of power are dealt with under People Power.

Overall, this Global Theme presents a somewhat negative view of legislative power, which in many ways corroborates the evidence of citizen disengagement outlined in Chapter 2. However, participants clearly acknowledge the power of state institutions and government though which is a relevant theme for a presentation on Active Citizenship. While the Taskforce have made recommendations to Government, the perspectives of legislative power seen in the participants’ ‘picture stories’ offer a valid presentation of their concerns and opinions on legislative power and can be useful for furthering debate and discussion on the issue.

5. Nature

The Global Theme ‘Nature’ constitutes one thematic network comprising one Organising Theme and two Basic Themes. This simple network does not fit with other categories and therefore was left in a category of its own. It represents a description of participants’ conceptualizations of the power of nature in terms of how it affects peoples’ moods as well as its power over our lives. The power of Nature figured largely across all demographic groups - usually in terms of either beauty, destructive capability or as a resource as in the production of energy. Nature seemed to bring out a sense of awe in the participants, and even coaxed some towards a sense of the poetic when writing about their photos.

The ‘picture stories’ present a story of the environment and our surroundings. While this issue is not directly mentioned by the Taskforce, it is a concern for all
citizens as a local, national and global issue. The ‘picture stories’ present a story of environmental issues that could be developed further in discussion and is therefore considered a relevant theme to be included in a presentation on Active Citizenship.

6. Norms

The Global Theme ‘Norms’ is also a simple network in that it constitutes one thematic network comprising one Organising Themes and two Basic Themes. This network represents a description of participants’ conceptualizations of the negative power of gender and societal norms. This category includes peer pressure as well as gender “norms” and other restrictions or expectations put upon individuals by society. It is in a category of its own as it does not accurately fit into the Global Theme ‘Connections and Relations’ because it was not deemed as something that is created deliberately by the individual or group.

While it does not directly mention individuals or groups as being the cause of these restrictions, ‘Norms’ is a relevant theme as it draws attention to the fact that people feel under pressure to conform. This is deemed as a relevant issue for presentation as it draws attention the Taskforce’s definition of the active citizen as someone who is aware of others and accepts difference.

7. Religion

The Global Theme ‘Religion’ constitutes a thematic network comprising two Organising Themes and five Basic Themes. This network represents a description of participants’ conceptualizations of the positive power of religion and the negative power of the Church.

The Organising Theme ‘God’ includes the power of God, prayer and faith. It is mentioned exclusively by the older generations taking part in the project (which is interesting in itself) and is seen as being a very positive source of power.
The Organising Theme ‘Church’ includes all references to the church, which were depicted very clearly as photographs of churches, generally portrayed in a very negative way.

Religion is not mentioned by the Taskforce so this theme is not directly relevant to the Taskforce recommendations. However the depiction of religion in participants’ ‘picture stories’ draws positive attention to the role of religion and spirituality in peoples’ lives. This may be useful in a presentation of Active Citizenship as religion is usually a source of inspiration for people to be actively involved in their community. The expression of the negative power of the Church in the ‘picture stories’ also represents an opportunity for people to voice their concerns about the negative impact of the Church in Ireland.

8. Technology

The Global Theme ‘Technology’ constitutes one thematic network comprising two Organising Themes and seven Basic Themes. This network represents a description of participants’ conceptualizations of the power of technology as a tool to allow people have power.

The Organising Theme ‘Energy’ represents a very literal representation of power, in the form of electricity. It refers to the specific use of electricity as a powerful tool to allow people do things. The Organising Theme ‘Technology’ includes representations of technology as diverse as telecommunications, construction, engineering, and motor vehicles. It presents a broad definition of technology as tools with which humankind manipulates the world. This was described in a positive way. Technology features strongly as a powerful tool to allow us communicate with each other. The power of technology, particularly as computers and mobile phones was described by a large number of participants.

While it would seem that this interpretation of power is not directly related to Active Citizenship, this Global Theme represents an understanding of technological tools that allow us manipulate the world. It in some way relates to the ‘Connections
and Relations’ theme as it describes a tool that can be used in a positive manner for the good of others.

To summarise: the Global Themes that emerged through thematic network analysis present a broad definition of and diverse perspectives on power. As has been seen, some of the themes fit well with the Taskforce vision of Active Citizenship, wherein individuals are encouraged to play their part at all levels of society. Other themes are less directly related but touch on issues of importance for the active citizen, as in the ‘Nature’ category. These resulting themes summarise the complex and rich perspectives of power that exist in the participant’s content and the resulting structures influenced the presentation stage described in Section 4.4. Before completing the analysis section though, it is important to summarise the reflections dataset, as it formed an amount of the participant-authored content for presentation. The next section will briefly present a summary and examples in the reflections dataset.

5.3.3 Reflections dataset – a summary

In this part of the data-elicitation, participants were asked to document their feelings and thoughts on taking part in the project and in particular if they had noticed any change in their thinking by participating. This enquiry could be facilitated by a researcher in a typical interview set-up but this was not possible in the approach used here. It added another dimension to the project as people were being asked to document their enquiry, and will be returned to later as an assessment of the reflexive nature of the project.

36 participants (out of 42) completed this part of the workpack. This dataset has not been subjected to the same analysis procedure as the photo novella dataset. It is mentioned here because the some of the responses were selected to form another part of the participant-authored content for the multimedia presentation. This
summary therefore merely serves to highlight the main points in the responses and is not an exhaustive analysis of the dataset\(^{14}\).

Participants said that by taking part in the project, they found that their awareness of power had been heightened considerably. Others expressed the belief that they had changed as a result of taking part in the project and now saw power as something they have. Other participants reported that by participating in the project, they had been forced to think about the issue and realized that this process had raised their awareness of power. The overall impression from *Images of Power* is that the approach allowed people to reflect deeply and engage with the issue and that participating in the project has raised awareness of power.

5.3.4 Conclusions

The data-elicitation phase of *Images of Power* resulted in two sets of data: the photo novella dataset and the reflections dataset mentioned above. The main aim in generating this content was to present it using multimedia and in an artistic manner. The next section in this chapter will present the design and creation of the resulting exhibit, *Powerhouse*, presented as part of the *Art of Decision* exhibition, first seen in the Liberties area of Dublin city in May 2005. The next section describes the application of art and technology to the design of this exhibit.

5.4 *Powerhouse* — a unique presentation of Active Citizenship

*Powerhouse* is an immersive interactive multimedia exhibit that presents a physical space where visitors can experience the complex collection of ‘picture stories’ produced in the *Images of Power* project. The data analysis stage of the *Images of Power* allowed different data structures to emerge and these were used to influence the design of *Powerhouse*. The *Powerhouse* exhibit therefore is designed to

\(^{14}\) A transcription of these quotes, used in the *Powerhouse* exhibit, can be seen in Appendix F.
organise and present the many perspectives and interpretations that emerged in the *Images of Power* project. It does so by creating a mixed-reality environment comprising of a website presentation of the ‘picture stories’ accessible in the *Powerhouse*, a presentation of the card-mounted ‘picture stories’ in the physical space, a video presentation of the ‘picture stories’ and an audio recording of a selection of quotes from the reflections data. In the presentation of the ‘picture stories’, this means that there are two main organizational structures used to allow visitors experience the complexities inherent in *Images of Power*. The description of the exhibit will be presented in two parts: a) the website *imagesofpower.net*, and b) *Powerhouse*, the physical space. The artist once again assumes the role of author in this application of art and technology.

### 5.4.1 [www.imagesofpower.net](http://www.imagesofpower.net)

The *imagesofpower.net* website is a multimedia presentation of the *Images of Power*. It uses multimedia to present an interactive hypermedia version of the ‘picture stories’ and has two functions: a) to present the personal stories of participants and b) to gather further comments from viewers of the website. The data analysis tables seen in Appendix D present a clear and well-structured set of data structures that were used to inform the design. The hypermedia non-linear presentation characteristics mean that different layers of organization could be presented on the website.

The Organising Themes level of analysis offers a succinct summary of the ‘picture stories’ that could be used as the interface to allow viewers access the individual ‘picture stories’ at the next level down. As the aim of the website was to present the stories of participants, all ‘picture stories’ are available on the site and each Organising Theme allows access to the individual ‘picture stories’. The Basic Themes level therefore can be bypassed. The Global Themes level was considered but it was felt to be too abstracted from the personal stories.

---

15 Mixed-reality refers to the use of the ‘virtual’ presentation of the Internet presented alongside the physical space.
Presentation: The website presents a total of 359 images, structured and accessible through the Organising Themes. They can be seen in the second column, Table 2, Appendix D. The Organising Theme ‘Time’ has been left out as it was felt that it did not seem relevant to Active Citizenship.

On viewing the site, the visitor immediately sees the Organising Themes and as they move through the categories, they can access the individual ‘picture stories’. This design layout is maintained throughout every page. Figure 5.5 is an image of the website and shows the design layout.

![Image of website design layout](image)

Figure 5-5: an image of the design layout of the website. This design is maintained throughout the website

In Figure 5.6, the webpage is divided up to show the six areas according to function that are visible on each page.

- Area 1: the logo in the top left corner. The viewer can click on this logo to arrive at an information page.
- Area 2: global navigation area containing the Organising Themes labels. The titles are visible at all times at the top of each webpage. This provides a global navigation system that allows the viewer move around categories in a non-linear way.
- Area 3: Images of Power viewing area. This area presents the ‘picture story’.
• Area 4: *Category explanation.* This area presents a brief description of the Organising Theme.

• Area 5: *Feedback area.* Viewers can enter their comment or feedback here and press the ‘Upload’ button to enter it on the website.

• Area 6: *local navigation area.* This area presents a hypermedia list of ‘picture stories’ containing small preview versions of all of the photographs in a category.

![Figure 5-6: an image of the website with specific areas divided by yellow lines and numbered in orange.](image)

The website is a presentation of a large volume of complex information. In designing the layout, the concern was to make the information accessible and allow website visitors to see the scope and amount of ‘picture stories’ presented in each category. The design allows the viewer to quickly access all of the ‘picture stories’ in a category and move from one category to the next in a non-linear fashion. As the viewer enters a category, the total amount of ‘picture stories’ is immediately obvious to the viewer (in Area 6). They can browse through the set, by scrolling from left to right, before selecting a ‘picture story’ for viewing.

While the Organising Themes offered a clear structure to inform the design of the website, there was a concern that the volume of ‘picture stories’ in each category might deter viewers from going through all of the information.
refreshment is another function built into the design and means that each time a category is accessed or refreshed (the visitor might leave a category and re-enter), the set of preview images (Area 6, local navigation) is presented in a different order. This ‘refreshes’ the category for the viewer and invites them to look at images they may not have selected on a previous visit.

Gathering feedback: A feedback facility is also included on the site as seen in Area 5, Figure 5.6 above. This enables viewers to comment on any ‘picture story’. As can be seen in Figure 5.7, the right-hand side of the page is dedicated to this function. Viewers can enter their own comments and send them to the site (by pressing the button marked ‘Upload’).

![Figure 5-7: magnified version of Area 5 on website.](image)

The imagesofpower.net website is presented as one part of the Powerhouse exhibit.

### 5.4.2 Powerhouse

Powerhouse is a physical space where visitors can experience the Images of Power.

In designing Powerhouse, the artist’s intention was to remain true to representing
the complex and diverse perspectives on power and draw inspiration from the themes that emerged at the data analysis stage. It uses different media formats to create a presentation of complex information comprising:

- the card-mounted ‘picture stories’ presented in a non-linear fashion in different places in the physical space
- the imagesofpower.net website, outlined above, accessible from a computer in the space
- a video presentation of the ‘picture stories’. This is presented in a linear way, as a slideshow of ‘picture stories’
- an audio recording of voices narrating a selection of quotes from the reflections data. This is presented in a linear way.

The artist’s intention was to find a meaningful way to connect the complex presentation of information and allow the visitor access the information in a meaningful way. Drawing inspiration from the ‘picture stories’ in the Humankind category of the Images of Power project, the artist decided to present Images of Power as a caricature of a home. This interface metaphor suggested a familiar space to visitors. This metaphor created a meaningful way to connect the ‘picture stories’.

With that in mind, the Powerhouse presents Images of Power in a custom-built large room that suggests the feel and familiarity of a home interior and outside space (garden, street). The exhibit is bounded by eight-foot high wooden walls. Figure 5.8 shows a photograph of the Powerhouse taken during construction. The room is clearly partitioned into the ‘home’ and outside area. The ‘home’ area is visible in the foreground of the photograph.
The concept for the design of a ‘home’ included an interior that suggested various rooms in a house i.e. a sitting-room, a bathroom, and an outside space i.e. a garden and street. *Powerhouse* has three entrances: two that lead into the ‘home’ and one that leads into the outside area, visible in Figure 5.9 above.

*Powerhouse* is designed to present a mixed reality in the form of real objects and large white hand-drawn caricatures of objects in a home. The real objects include a table, a television, a clothes rail and hangers, a clothesline, a bedside locker, a shower curtain and a garden gnome, all of which are painted white. Figures 5.9 and 5.10 are photographs of the ‘home’ area of the exhibit. The clothes rail and table are visible in them.
The large hand drawn caricatures of objects in the home were hung by clear plastic wire in the space. They include a fridge, a toilet, a couch, birds and a bed. The white objects created a canvas for the presentation of card-mounted ‘picture stories’. The ‘picture stories’ were placed around the home and provided the only colour in the space, which served to focus the visitor’s attention on them. Low ambient lighting was also used to draw attention to the photographs. Figure 5.11 shows visitors looking at ‘picture stories’ on the fridge.
A compilation slideshow of the ‘picture stories’ is presented as a DVD shown on the television in the ‘home’ area, as can be seen in Figure 5.12.

The audio recording of voices narrating a selection of quotes from the reflections data is presented on speakers and the audio is heard by visitors in the exhibit. A selection of photographs from the *Powerhouse* exhibit can be seen in Appendix G.
5.5 Discussion

The mixed-method approach used in the creation of the *Images of Power/Powerhouse* project drew from social research methods in combination with art and technology. The social research methods used in the content-generation and content-organisation phase of this project created a considerable amount of rich media data in the form of 'picture stories' and reflections on the process. Multimedia, used in an artistic manner, was used to present this content in an attractive and engaging setting. This section will discuss the mixed-method approach and focus on the different phases of the project.

The first section will look at the social research methods used to create participant-authored content. It looks at the photo novella as a tool for creating participant-authored content and will discuss the technique in terms of its own use as a tool to encourage reflection. It will also discuss the data analysis stage of the project and look at its use as a way of organizing and informing the structure of content that can be used for presentation at a later stage. The second section will discuss the design and presentation of the *Images of Power/Powerhouse* exhibit. As was mentioned in Chapter 4 *DATAmap*, during the *Art of Decision* exhibition, visitors were invited to complete a questionnaire giving their thoughts and feedback on the exhibits. In this section some of the comments will be presented as they provide a useful means of exploring the strengths of the approach.

5.5.1 Social research methods - a unique perspective on Active Citizenship for the artist

"Doing the photography exercise forced me to make power explicit visually and I guess that this might leave a trace on how I experience my surroundings." (Female, aged 26)

The use of the photo novella technique had a dual and intended outcome of creating participant-authored content and facilitating participant reflection. In generating

---

16 The complete questionnaire can be seen in Appendix I.
content, the breadth and diversity of ‘picture stories’ created by participants offers many different perspectives on what power means to people and is a rich and personal perspective on power. Power is an abstract and complex subject and participants clearly reflected on, and analysed their perceptions of power during the process of taking photographs. The approach offered them a different way of looking at their perceptions of power. Asking participants to take photographs of power offered them an active way to engage in the process of reflection. This is important as it adds another dimension to the reflection process and possibly more than simply asking them to talk about their ideas.

Participants took a lot of care to explore the topic and gather images to represent their thoughts on power. Participants were creative in depicting power and actively engaged in finding a way to gather photographs that depicted their notions of power. The creative methods participants used to gather images include among others:

- traveling to particular locations
- getting people to pose for photographs
- staging scenarios with ‘actors’
- laying out objects that depict notions of power e.g. newspaper cutouts, books

"The project has changed me even though I always felt I knew what "Power" was. Now I realise it’s much more and touches all our lives and affects us differently." (male, aged 45)

The project also generated data in the form of reflections on the photo novella process. As was mentioned earlier, the overall impression from *Images of Power* is that the approach allowed people to reflect deeply and engage in thinking about power. It is important to note that the approach used here facilitates self-agency. Participants are prompted to reflect on power and examine their own ideas through the creative activity of taking photographs. The process of self-examination and reflection aids a transformative process that challenges peoples’ ideas and heightens
awareness of power in a manner that can lead to empowerment and confidence-building in the individual.

Based on the large number of participants who completed the project, feedback in the form of reflections on the process, and the richness of data, photo novella seems to hold enormous potential. In the reflections data, it is evident that participants enjoyed participating in the project, including playing the role of photographer and welcomed the opportunity to share their stories. The participant may feel under pressure at the thought of, and not being able to, meet the task of talking to a university researcher about what can be arcane and abstract concepts such as their notion of power. Photo novella offers a way for the participant to access content within themselves that may pertain to the subject matter and a way for them to express those thoughts. It allows access to sensitive issues and ideas that might be difficult to elicit using more traditional approaches. Further, the universal appeal of pictures to all cultural groups makes the photo novella an intrinsically attractive and viable method. Photo novella is a creative and innovative means for understanding and depicting human experiences, and for examining those experiences in new ways.

As with any method, questions need to be addressed to in determining the usefulness of a self-directed photo novella enquiry as is used here. There are two ways of looking at the absence of the researcher from the enquiry. One way is that opportunities for further lines of enquiry and clarification on certain details are lost. Also, posing the somewhat broad question of asking participants to describe what power means to them leaves the enquiry quite open. An example of this in the Images of Power project is those participants who returned data relating to the power of electricity. This subject matter is unrelated to the meaning of power in relation to Active Citizenship. The participant may not understand the question and may welcome further clarification from the researcher, which does not happen using this approach. Also the resulting data may be limited or partial. The presence of the researcher might offer an opportunity for this data to be investigated further. To summarise: the absence of the researcher means there was no scope for further enquiry, clarification on certain points, and the possibility for people to explain themselves where information seemed to be only partially completed. This means
that the researcher bias at the analysis stage is apparent as measures such as discarding data that was unclear or limited were taken here. On the other hand, the absence of the researcher lessens the likelihood of the researcher interfering with the self-generated reflection. The presence of the researcher can often be considered a hindrance as their presence and questions they may ask as clarification can influence the participant.

In general, photo novella projects tend to limit the number of participants in a project (Heisley and Levy, 1991; Berman et al., 2001; Bristow et al., 2003; Harrison, 2002)\(^\text{17}\). The exception to this is that in which a team of researchers administered the project and interviewed participants in person\(^\text{18}\) (Wang, Burris, Xiang, 1996). The intention in this project was to gather content from a large number of people. However the project required a lot of time commitment from participants and it was felt that this sampling method would ensure that people would take part and return the completed workpack. A standard approach to sampling from the overall population would not seem appropriate or possible under the circumstances of the data-elicitation approach. The somewhat large sampling size put considerable burden on the researcher to administer the project and categorise a large volume of data, in the form of photographs and concomitant data, which was far from ideal. It would seem that the ways around this are to a) have fewer participants, therefore fewer photos, as is the approach in most other projects or b) to use a team of researchers to administer, interview and analyse the resulting data.

The data analysis stage of the project was a useful way to aid the artist in organizing and structuring the photo novellas and served to inform the structure of the Powerhouse presentation. It helped to filter information that was useful in a presentation on Active Citizenship as the analysis stage helped identify themes that

\(^{17}\) This is also the case for data-elicitation projects that use other forms of media to elicit data. For example, Ruth Holliday used video to elicit responses on sexuality with a small number of participants (Holliday, 2004)

\(^{18}\) Wang et al. conducted a photo novella project with 62 women in southwest China (Wang, Burris, Xiang, 1996)
were not directly related to the subject matter (e.g. time). The elicitation process also collected demographic information on participants. Although the photo novellas were analysed to produce themes, this information allows other analysis according to groups and participants. The existing data set can be re-analysed with different approaches and the ‘picture stories’ provide a rich set of data that can be used in other photo-interviewing projects to stimulate further enquiries in the future.

The main intention of the project was to generate content for exhibition purposes. With this in mind, only ‘picture stories’ that were deemed by the researcher to be complete were kept, resulting in a considerable amount of data being discarded because it was unclear or seemed partially complete. However this data is still intact and could also be used in further enquiries on the subject.

Overall the content-generation phase of the project created a considerable amount of data in the form of ‘picture stories’. The analysis and resulting structures offered a unique perspective on power and offered the artist a number of ways to organise and present this information. The stages of the analysis resulted in clear structures and sets of Organising Themes and Global Themes that offer different ways to look at the interpretations of power. From the base unit of the ‘picture story’ to the Organising Themes and over-arching Global Themes, the content-generation phase of the Images of Power project offer a multi-layered view of personal and meaningful stories that are of interest to the artist in designing an exhibition.

5.5.2 www.imagesofpower.net - a unique perspective of power

Powerhouse is a multi-layered and multi-modal presentation of the participants’ perspectives on power, designed by the artist. It uses a mixed-media immersive environment to display the many different ways of viewing the participants’ opinions and stories. The presentation in a physical space provides a platform for expression and debate on the ideas presented in Powerhouse.

In presenting any piece of research, multimedia provides the framework for presenting highly complex information in more accessible formats. Presenting the
complex and diverse representations of power, that were the result of the *Images of Power* project, can be facilitated through mechanisms that support non-linear presentation of information, using a web-like design to indicate the complexities of the problem. The *imagesofpower.net* website presents the complexity and diversity of participants' opinions and insights on power to a wider audience, and through an alternative type of presentation afforded by the Internet, attempts to stimulate thought and raise awareness of power. It is important to note that this organisational structure by the thematic structures is that which arose out of the data analysis. The website therefore presents a large amount of information but in an organised and accessible way.

Another facility on the website is to give people an opportunity to interact and communicate with others by contributing feedback and comments on the images and to offer their own ideas of power. This encourages visitors to the website to offer their comments on the images and comments presented and their own ideas of power, thereby encouraging participation and opening up alternative possibilities for expression to a wider group of people. The dialogue that is possible between participants and visitors to the exhibit is an alternative and novel way to look at participation. Also, the fact that the Internet is accessible outside the space allows visitors access to the 'picture stories' when they have left the exhibit and encourages further dialogue with others. Remote geographical location and lack of physical presence need not be barriers to reaching a wider audience. And very often secure and anonymous participation is also facilitated via these technologies that can be crucial in gathering feedback and creating dialogue. The website is presented as one aspect of the physical installation and provides a unique possibility for further discussion and debate away from the exhibit.

However, the digital divide between different classes and different parts of the globe is real and significant. This divide is acknowledged as is the fact that the Internet is not available to all. In addressing this, *Powerhouse* is an alternative presentation of *Images of Power*, that brings the 'picture stories' and website presentation to the community.
5.5.3 Powerhouse - a space for reflection on power

In presenting any information, an artistic approach to the presentation encourages the visitor to look at and experience the ideas and concepts in an alternative manner. The creation of a physical space for presenting any idea offers an immersive experience that allows visitors space and time to reflect. The space is attractive and engaging and offers many ways to experience the content through the "picture stories", video presentation, audio and a multimedia presentation on the Internet. The photographs are presented in an alternative world, one that is inspired by themes emerging from the material. The design is theatrical, imaginative and engaging and presents a space that is thought-provoking and entertaining for the visitor, using different materials (real and drawn objects) and different formats to present the material. The space offers a unique non-linear presentation of different media that encourages visitors to interact with the participants' perspectives. It creates an alternative space for the visitor to experience Images of Power, a space that encourages the visitor to spend time and reflect on the material presented. The visitor to the space is immersed in the Powerhouse and "immerses" themselves in engaging with Images of Power.

In particular the metaphor of the home environment presents a familiar space for visitors and encourages them to explore and uncover the stories. Through the metaphor of a home, visitors understand the framework that ties the stories together. This allows them to orient themselves conceptually and feel comfortable in moving around the space, thereby creating their own story of power.

The physical space focuses on the physical interface to the media and presents an alternative way for visitors to experience the information using touch. There is a focus on the tactile experience in this exhibit and visitors are encouraged to touch the parts of the home. For example, in the bathroom area of the home, they have to pull back the shower curtain to look at "picture stories" behind it. They are also encouraged to flick through the book of "picture stories" on the coffee table. This encourages a sense of play among visitors and is somewhat unusual for an artistic presentation of photography, where typically visitors are discouraged from touching parts of an exhibit. The focus on the tactile experience encourages the visitor to
interact with the piece and means that the visitor may be brought further into the imaginary world presented to them.

The *Powerhouse* space is large enough to hold groups of up to twenty people at one time. As with *DATAMap*, it was important to design a space that would facilitate a group experience of the content. Visitors to *Powerhouse* interact with the content in a variety of ways and are encouraged to leave their own images and comments on power as a contribution to a dynamically changing view of power expressed by people from the community.

Visitors to *Powerhouse* commented that the expression of power through the voices and images of ‘ordinary’ people gave them an interesting insight into the concepts of power.

“*interesting look at everyday objects in a different way*” (visitor to the *Powerhouse*)

They found the presentation to be imaginative and unusual. It gave them an interesting perspective on ‘everyday objects’ and commented that the design made a strong visual impact on them. A number of people commented that they found the exhibit to be fun and that the design encouraged them to explore the space in order to find more *Images of Power*.

“*I thought it was thought provoking without being provocative so a balance was achieved for presentation to a mixed audience (including children).*”

The overall impression of *Powerhouse* is that the presentation of *Images of Power*, an insight into how ‘ordinary’ people think, provided an engaging and thought-provoking way to raise awareness of power.

5.6 Conclusions

This chapter set out to look at a novel and creative approach to raise awareness of power, which combines social research methods with an artistic presentation using
multimedia. It presented a large-scale project, *Images of Power/Powerhouse*, which uses social research methods to enquire and structure participant-authored content, and applies multimedia and art to create an engaging presentation of this content.

If citizens are to become more engaged, they are required to take part in an active exploration and study of citizenship at all levels – personal, local, national and global. This provides them with a basis to develop knowledge and understanding of the processes that take place at all levels of decision-making in society. Fundamental to this is an understanding of power, where it lies, how it affects their lives and the lives of those around them. Traditional methods in understanding how people think about a complex and abstract notion such as power are somewhat limited. This chapter has presented a fresh approach to engaging the citizen and a new tool that can be added to the repertoire of ways to understand and facilitate engagement with power and power structures.

The exploration offers new ways for multimedia artists to look at the process of creation and presentation and create engaging and unique perspectives on a topic. The combination of methods is a novel approach that informs the design of exhibits to address and engage a public audience. Social research methods offer many interesting ways for the creative work of the artist to be informed and made unique.
6 Conclusions

6.1 Introduction

This chapter presents the conclusions that may be drawn from this thesis, the essence of which is that an interdisciplinary art practice using art and technology offers new tools for the exploration and investigation of an applied social science issue. The goals of the work were a) to create a public artwork that raises awareness of Active Citizenship, and b) through an interdisciplinary approach, to inform and develop interdisciplinary art practice. Section 6.2 presents a summary of the thesis. Section 6.3 presents conclusions and some concerns for future work.

6.2 Summary of thesis

This thesis set out to explore the possibilities that creative applications of multimedia and technology could offer to art practice with a focus on art for social change. Citizenship provides an all-encompassing view of how individuals are, in terms of their environs and society, and provided a worthy subject to focus the exploration. Because of the nature of the study, the exploration of the possibilities of multimedia and technology was considered to be best served by the creation of an artwork, a practical manifestation of the approach and methods explored in the
research. Also, the challenge of designing an artwork for a public audience forces the artist to address the human dimension, how it would be received, and technological aspects in terms of how the technology could be best employed.

Chapter 2 first presented a review of citizenship theory by looking at a selection of theories and histories that serve to a) contextualise modern citizenship and, in doing so, b) define the relevant terms associated with the concept. It went on to look at a definition of citizenship for modern Ireland and, in doing so, presented a brief summary review of indicators of citizen engagement. Citizen engagement is best indicated by participation at voter level and representation in government position. The review showed how Ireland is faring in terms of its health as a democracy and pointed out that there is considerable cause for concern. The concern has resulted in a number of responses, not least of which is the national Taskforce for Active Citizenship. The Taskforce have made a series of recommendations to government but also addressing individuals, groups, community organizations, among others. They have pointed out that traditional media has a role to play in raising awareness of Active Citizenship and that it can be used to create a platform for debate on issues for communities. The Taskforce have also recommended that innovative projects that raise awareness of Active Citizenship while engaging the community should be supported.

With that in mind, the thesis proposed that the artistic approach and practice being explored in this thesis could be applied to the creation of a novel project that could raise awareness of Active Citizenship by presenting it in a more attractive and engaging manner. It proposed that multimedia and technology, used in an artistic way, could present information in an alternative way, one that would compliment current initiatives such as the role of traditional media. It proposed the creation of a platform for debate and discussion on issues relating to the community through the design of a physical space that could be situated in the community and provide a place for people to get information on Active Citizenship. In doing so, it suggested two types of information that could be presented to citizens: a) factual information such as general statistics relating, for example, to politics and b) participant-authored content, created by participants who are giving their perspectives on
aspects of Active Citizenship, society and their own significance therein. It was felt that presenting these different types of information could serve to offer different perspectives on Active Citizenship that would make the issue more personal and attractive to people.

Chapter 3 went on to describe and outline the mixed-method approach that was used in the creation of the artworks. It explained how multimedia was born out of the parallel developments in art and technology and identified the main characteristics of it, and those that set it apart from other media. In doing so, it highlighted the fundamentals of multimedia and an art practice that would be used to inform the design of the exhibits. Of interest to the artist designing artwork for a public audience is the manner in which the public engage with the information both conceptually and physically. The chapter went on to focus on two aspects of developments of art in research that could offer interesting possibilities for the exploration undertaken here. The first of these is work done by artist-researchers to advance information presentation. The work in this chapter displayed the exciting possibilities for the application of multimedia and technology to make complex and voluminous data more accessible and engaging. The role of the artist as author of information and the manner in which they bring their personality to the creation of artwork was made apparent here. The other area of relevance to this thesis is the work done by artists to explore alternative physical interfaces to information that can remove the need to use the conventional mouse and keyboard. All of the methods outlined in this first section offer many possibilities for the artist designing and presenting information to the public. The methods outlined offer new ways to bring factual information to life by making it attractive, accessible and engaging to a public audience. The application of this method was seen later in Chapter 4.

The other approach in the thesis was to look to the community for their perspective on Active Citizenship and allow them express their opinions and insights on the matter. It was felt that this perspective would serve to engage participants in thinking about the issue as well as allow for attractive and personal perspectives that might serve to engage others. With that in mind, the artist looked to social
research methods as a means to generate rich media content that could be presented to the public. The remainder of Chapter 3 described the social research methods that would be used to create content for exhibition. As the focus in multimedia presentation is to use visually and aurally impactful information, the photo novela method used in social research provides a creative and alternative way for the artist to gather people’s perspectives on power. The data analysis methods of content analysis and thematic networks analysis provided a common sense approach of filtering and structuring the resulting data. The mixed-method approach outlined in Chapter 3 therefore provided the artist with a broad palette of tools that could be used in the conceptualization and design of exhibits that followed in later chapters and to present the changing role of the author in the creation of these exhibits.

Chapter 4 presented DATAmap, an impressive and spectacular experience of information in the form of an interactive immersive multimedia environment. The chapter describes the design and creation of DATAmap and how it uses all aspects of multimedia in combination with artistic advances in information visualization and alternative interfaces. DATAmap is a rich and memorable experience of information for the visitor and is a striking way to begin to raise awareness of Active Citizenship. The use of the map of Ireland served as an interface metaphor that allowed participants feel comfortable in the experience of information and quickly able to understand how to access the information. The physical space situated in the community also provides a platform for people to engage with issues and encourages discussion on issues relating to the community.

Chapter 5 presented Images of Power/Powerhouse, an artistic mixed-media environment designed to show off participant-authored content offering their perspectives and perceptions of power. In order to design a personal and engaging presentation of power, the artist looked to the social research methods to generate and organize content. Photo novella was used to allow research participants reflect on power and create visual stories that could be used in presentation. The approach used meant that the enquiry was self-directed as workpacks were sent to participants by post. As part of this process, participants were asked to write down
their thoughts on taking part in the project. Content analysis and thematic networks analysis offered a way to structure the resulting data that was then used to inspire the design of Powerhouse. The Images of Power project had resulted in two datasets: photo novellas and reflections on the process. Both of these datasets were presented in Powerhouse. Powerhouse was designed to present the many perspectives of power that participants had expressed. The space used a variety of formats that allowed visitors access it and create their own personal stories of power. The use of the home metaphor as an interface to the information helped visitors situate themselves conceptually and physically in the space and meant that the experience was attractive, memorable and engaging.

6.3 Conclusions and future work

Overall the thesis contributes to knowledge in three ways. Firstly it integrates artistic concerns with multimedia technology in a complex and innovative way to address an applied social science issue, in this case Active Citizenship. This particular integration of disciplines is unique and will support further interdisciplinary collaboration between these three areas. Secondly, the DATAmapi and Images of Power/Powerhouse exhibits illustrate the potential of technology to implement the various theoretical developments in art for social change and contributes to the body of research illustrating the benefits of the art and technology approach. Thirdly, the empirical work conducted using the photo novella method contributes to our understanding of how people themselves understand an aspect of citizenship which has conventionally been the sole purvey of theorists, as well as illustrating how this can be used to provide tools to potentially enhance citizenship engagement. The work presented here offers exciting possibilities for understanding and raising awareness of Active Citizenship. It presents an approach that offers an innovative way to address the recommendations made by the Taskforce, one that makes Active Citizenship attractive, accessible and engaging.

At a broader level, this exploration has resulted in an approach that could be applied to raising awareness of other issues of social concern, that fall within the broad
spectrum of citizenship. For example, this approach could be used to raise awareness of racism or environmental issues. The technological systems used in the DATAmap and Images of Power are reconfigurable through databases so the systems could be easily duplicated to other locations and community sites. This design makes them a valuable resource for others. However it must be acknowledged that without the funding made available by the Department of Justice, Equality and Law Reform, many of the designs would have remained at prototype and testing stage. DATAmap in particular is an expensive and cumbersome installation and would require considerable investment at a national level to install again. The Images of Power/Powerhouse project, on the other hand, is an approach that could be duplicated with minimal cost.

The interdisciplinary approach plays with authorship by allowing both artist and participant/visitor take ownership of the artwork. DATAmap allowed the artist take full control of the design and creation of the artwork. The presentation of information was entirely created in the artist’s imagination and allowed the artist free rein in terms of the information visualization and organization. It is apparent in this case that the creation of work such as this is not so much about the technological tools but about the imagination of the artist. The tools allow the artist to think differently and imagine new ways to do things, but this imagination can only be supported by technology. In the case of Images of Power/Powerhouse, the role of author is more flexible and both participant and artist collaborate to create the work.

The interdisciplinary approach used in the creation of DATAmap and Images of Power/Powerhouse brings the artwork to the community by offering new ways for citizens to express their thoughts and insights, new ways for citizens to experience information and a new way to create a platform for debate and discussion on Active Citizenship. The notion of the ‘Gesamtdatenwerk’, in which many perspectives of information are integrated into the artwork, is evident here. The artwork is a powerful way to engage people with Active Citizenship. It represents a new
territory of information for citizens to explore and experience and a locus for communication about Active Citizenship.

In terms of art practice the work shown in this thesis shows that the contributions of the artist to research are many. The artist-researcher can offer insights into the significance of research results and the design of research activities, which could lend itself to better understanding of research data and devise subsequent inquiries in a variety of scientific areas. Through an interdisciplinary perspective, the artist-researcher can provide insight on ideas for better addressing the needs and perspectives of the general public. Scientists and technologists often need to communicate outside their disciplines. As is evident in DATAmap and Images of Power/Powerhouse, an artistic perspective can make presentations of research come alive.

The exploration in this thesis has resulted in opening up new possibilities for artistic practice, one that has been informed by exposure to theoretical and methodological concerns from political theory and social research. The exploration has resulted in a hybrid approach to art-making that draws from theory, methods and practice. Exposure to citizenship theory allowed for a deeper understanding of pertinent issues relating to Active Citizenship. Social research methods offered the most valuable ways to aid the artist-researcher by presenting new possibilities for creation and innovation, resulting in a new tool in the artistic palette.

If the artwork and art practices are to become a zone of integration and innovation, the artist must be prepared to do things differently to participate in research. The multimedia artist already has a broad definition of art materials and contexts but to have a valuable role in research, they must become curious about scientific and technological research and acquire the skills and knowledge that will allow them to significantly participate in these worlds. In doing so, they must expand the traditional idea of what constitutes an artistic education, develop an ability to penetrate beneath the surface of subject matter to think about unexplored research directions and unanticipated implications. This presents many challenges as the parameters of the science and technology education required is not yet clear.
Acquiring enough knowledge to engage in research at an appropriate level can prove challenging. Yet, the benefits of engaging at a level other than the novice are apparent in this work. The other disciplines drawn on for this work demonstrate that it is possible to demystify research and this could be considered to be the other accomplishment of this work.

As is evident in Information Arts (Wilson, 2002), artists are moving into research and engaging that world in profound ways. Some challenges for the future of art in research arising out of this exploration are to be considered:

1. Much of the artistic experimentation in research is somewhat superficial in its analysis of research issues. There is no doubt that the freshness of perspective that artists bring makes their involvement valuable. However, as artists continue to explore a research area, they will need to become more penetrating and subtle in their engagement with the area of research. While this thesis represents a step in that direction, these are concerns for others venturing into the area.

2. Evaluation and merit of artwork – much like any discipline, in art, a considerable amount of evaluation of artwork is based on the artistic process and methods employed in its creation. Artworks that are addressing concerns in other areas and moving ‘outside’ the art world into the hybrid area of interdisciplinary research are serving purposes other than simply ‘being’ art. In this project, the evaluation of the artwork in terms of its success as an awareness-raising tool is not addressed. If artworks or art practice are to address other real-world applications, there is a need to move towards a framework for evaluation of the merit of the work.

In summary, this approach brings new ways to think about the notion of the arts as a zone of integration and interrogation, but challenges outlined here need to be addressed.


Gormley, A. 1998. *Angel of the North.* This is an artwork. More information is available online at antonygormley.co.uk. Last date accessed: February 2nd, 2008.


Thompson Klein, J. 1990. *Interdisciplinarity: History, Theory, and Practice,* Detroit: Wayne State University,


Appendix A

Images of Power – Workpack 1
Thank you for your time.

The following information will help us with our survey. Your identity will remain unknown to us.

What age are you?

Are you male or female?

Do you live in a town, a city or the countryside?

What nationality are you?

Do you have a job? If so, what do you do?

Are you in school or college?

Thank you.
There will be 2 exercises in this session - one to be completed here and one to be completed afterwards.

Exercise I:

Write down what comes into your mind when you think about the word POWER. Write down any words, phrases, sentences that come to mind.
Inside envelope 2, you will find a disposable camera that is yours to keep for 2 weeks. You should use this camera to take photographs of POWER.

The photographs should try to represent what you mean by POWER. Think about what you have written in Exercises 1 and 2 and try to capture images that display these ideas. If you find that you can't find images to describe your thoughts, try to describe them in as much detail as possible.

BUT! Before you take any photos, you must complete Exercise 2.

This package should be returned in 2 weeks so that the photos can be developed. Please return the entire contents of this package in the envelope, including this sheet and the camera. In the next session you will be asked to describe the photos so it is very important that you have your ID number in order to claim your photos. You will be given a piece of paper with your ID number when you return the package.

Thank you.

Exercise 2:
Take some time to think about the word POWER. Explore and think about the meaning of the word.

Before you take your first photo, answer the following question:
After spending some time thinking about it, what comes to mind when you think about POWER now?
Appendix B

Images of Power – Workpack 2
Thank you for your time.
Again, there are 2 exercises to be completed in this session.

**Exercise I:**

Please answer the following question:
Since participating in the Images of POWER project, have you noticed any change in what you think about when you consider the word POWER? Has it made you think differently about POWER? Have you noticed POWER in other areas than before? Has the project made you more aware of POWER? If so, how has it changed?
Exercise 2:

Inside envelope 2, you will find 2 sets of your photos. 1 set is for you to keep and the other, we would like you to comment on, and send return to us. Think about why you took these images of POWER and on the My Images of POWER pages below, describe why you took these images of POWER and what you were thinking about when you took them. Add as many details as you can.

Why and how do these pictures describe POWER? Try to describe the pictures in as much detail as you can. Try to remember what you were thinking when you took the photos. If you have any other thoughts, please include them.

When you are finished describing your photos, put the photos and these sheets back in the envelope and return them. You will receive the corresponding ID number for this package.

Thank you.

Instructions for describing the photos:

1. Bear these questions in mind:
   Why did you take this picture?
   Why does this picture suggest POWER to you?

2. Keep the pictures in the order that you find them.

3. Put the number of the picture on the back i.e. Photo 1 and in the following pages, put the number of the photo in the left column and the title/explanation/description for the picture in the right column.

4. If you do not want to include a picture in the series OR the picture is one of the ‘experimental’ photos, please mark it on the back with the letter E.
| Photo 1 | I took this picture because....  
|         | It makes me think of POWER because.... |
| Photo 2 | Power is shown in this picture...... |
| Photo 3 | This picture makes me think of POWER because.. |
Appendix C

Images of Power –
Demographic information
<table>
<thead>
<tr>
<th>ID</th>
<th>Group details</th>
<th>Sent packs</th>
<th>Complete - photo novella dataset</th>
<th>Complete - reflections dataset</th>
<th>Age</th>
<th>Female</th>
<th>Male</th>
<th>Rural</th>
<th>Urban</th>
<th>Socio-economic</th>
<th>Interest in politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Music Technology students, Trinity College</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>18-30</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>educated</td>
<td>Unknown</td>
</tr>
<tr>
<td>B</td>
<td>Teenagers at Risk, Cabra, Dublin 7</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>18-30</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>in school</td>
<td>Unknown</td>
</tr>
<tr>
<td>C</td>
<td>Art of Decision Team member's peers</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>31-45</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>educated and working</td>
<td>Unknown</td>
</tr>
<tr>
<td>D</td>
<td>Women's group - Togher, Co. Cork</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>55+</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>homemakers</td>
<td>Yes</td>
</tr>
<tr>
<td>E</td>
<td>Political party members, TDs, councillors</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>55+</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>working</td>
<td>Yes</td>
</tr>
<tr>
<td>F</td>
<td>Asylum Seekers/Refuge e Group</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>G</td>
<td>Disability Office, Trinity College</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>ID</td>
<td>Group details</td>
<td>Sent packs</td>
<td>Complete - photo novella dataset</td>
<td>Complete - reflections dataset</td>
<td>Age</td>
<td>Female</td>
<td>Male</td>
<td>Rural</td>
<td>Urban</td>
<td>Socio-economic</td>
<td>Interest in politics</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------</td>
<td>------------</td>
<td>---------------------------------</td>
<td>--------------------------------</td>
<td>-----</td>
<td>--------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>H</td>
<td>Art of Decision team member - daughter and peers</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>18-30</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>educated and working</td>
<td>Unknown</td>
</tr>
<tr>
<td>I</td>
<td>Art of Decision team member - friends</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>18-30</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>educated and working</td>
<td>Unknown</td>
</tr>
<tr>
<td>J</td>
<td>Art of Decision team member - daughter and peers</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>K</td>
<td>National Leadership group</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>18-65</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>working</td>
<td>Yes</td>
</tr>
<tr>
<td>L</td>
<td>Active Retirement Group, Clonmel, Co. Tipperary</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>55+</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>M</td>
<td>TCD students - Gender Studies</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>18-30</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>college</td>
<td>Yes</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>79</td>
<td>42</td>
<td>36</td>
<td>34</td>
<td>8</td>
<td>12</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Images of Power Analysis
– Tables 1, 2 and 3
**TABLE 1 – From codes to themes**

<table>
<thead>
<tr>
<th>Step 2: Codes – Categories and issues presented as recurrent words, image content, themes of text and image combination</th>
<th>Step 3: Basic Themes</th>
<th>Number of ‘picture stories’ per Basic Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Smile</td>
<td>Power of individual and group interaction</td>
<td>21</td>
</tr>
<tr>
<td>Sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social gatherings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport</td>
<td>Physical power of humans</td>
<td>6</td>
</tr>
<tr>
<td>Female empowerment</td>
<td>Power of woman</td>
<td>4</td>
</tr>
<tr>
<td>Violence</td>
<td>Negative behaviour</td>
<td>6</td>
</tr>
<tr>
<td>Anti-social behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimidation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing time together</td>
<td>Power of family</td>
<td>9</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passing on stories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared vision</td>
<td>Power of friendship</td>
<td>6</td>
</tr>
<tr>
<td>Understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love</td>
<td>Romantic love</td>
<td>10</td>
</tr>
<tr>
<td>Personal empowerment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-fulfilment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judiciary</td>
<td>Power of law</td>
<td>25</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
<td>----</td>
</tr>
<tr>
<td>Garda</td>
<td>Power of authority</td>
<td>11</td>
</tr>
<tr>
<td>Sanctions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons of authority</td>
<td>Power of authority</td>
<td>11</td>
</tr>
<tr>
<td>Traffic lights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reciprocal power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusion</td>
<td>Negative power of the church</td>
<td>13</td>
</tr>
<tr>
<td>Control of thought and action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patriarchy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churches – in image content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power as a corrupting force on individuals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td>Negative Corporate power</td>
<td>11</td>
</tr>
<tr>
<td>Manipulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unethical behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumerism</td>
<td>Materialism</td>
<td>8</td>
</tr>
<tr>
<td>Brands/logos – seen in text and images</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power dressing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspapers inform &amp; entertain</td>
<td>Positive Power of Mass media</td>
<td>2</td>
</tr>
<tr>
<td>Newspapers destroy lives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV subconsciously drives individual actions</td>
<td>Negative Power of Mass media</td>
<td>4</td>
</tr>
<tr>
<td>Mass media ownership &amp; influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence on behaviour</td>
<td>Power of Advertising</td>
<td>4</td>
</tr>
<tr>
<td>Targeted at children</td>
<td>Negative power of advertising</td>
<td>7</td>
</tr>
<tr>
<td>Eroding values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative influence on behaviour eg anorexia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dangerous subconscious influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abuse of influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Knowledge is power in influencing behaviour</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Knowledge as a capability of the mind</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Knowledge leads to good action</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Self-knowledge</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Knowledge leads to good socialisation</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Knowledge as power over others</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Acquisition of life-skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education gives personal power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education as exclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mis-education/misinformation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education as perpetuating concentrations of power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beauty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leisure resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generative of new life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustaining human life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source of peaceful feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will to survive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature’s destructive capability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative power of politicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bribery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manipulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information as knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge as moral power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge as negative power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education as positive power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education as negative power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Power of Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Power of Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to corrupt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of the EU</td>
<td>Political power</td>
<td>3</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
<td>---</td>
</tr>
<tr>
<td>Power of the parliament</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to vote</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Taoiseach as leader</td>
<td>Leadership</td>
<td>2</td>
</tr>
<tr>
<td>Non-voters</td>
<td>Political power not actuated</td>
<td>4</td>
</tr>
<tr>
<td>Citizens excluded by the political process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-war marches</td>
<td>Power of unorganised groups of people</td>
<td>4</td>
</tr>
<tr>
<td>Public meetings</td>
<td>Power of organised groups of people</td>
<td>2</td>
</tr>
<tr>
<td>Trade unions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revolution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community workers care for others</td>
<td>Power of community</td>
<td>3</td>
</tr>
<tr>
<td>Women's groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to speak out about injustice</td>
<td>Power of the individual to affect change</td>
<td>2</td>
</tr>
<tr>
<td>Paintings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sculptures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Films</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>words</td>
<td>The power to create</td>
<td>8</td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art created by collectives like schoolchildren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The power to move others</td>
<td>Affective power</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>The power of art to annoy others</td>
<td>Art as sharing</td>
<td></td>
</tr>
<tr>
<td>Power to challenge existing power relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power-sharing in music performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time’s power over our lives</td>
<td>Time is inexorable power</td>
<td></td>
</tr>
<tr>
<td>Omnipresence</td>
<td>Power of God</td>
<td></td>
</tr>
<tr>
<td>Love</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life-enriching power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prayer can move mountains</td>
<td>Power of prayer</td>
<td></td>
</tr>
<tr>
<td>Prayer can move mountains</td>
<td>Power of faith</td>
<td></td>
</tr>
<tr>
<td>Mobile phone</td>
<td>Power to communicate</td>
<td></td>
</tr>
<tr>
<td>SMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computers</td>
<td>Power to create and manipulate knowledge</td>
<td></td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military technology</td>
<td>Power to destroy</td>
<td></td>
</tr>
<tr>
<td>Destruction of nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Power to create</td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video surveillance</td>
<td>Power to control behaviour</td>
<td></td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>Power to travel</td>
<td></td>
</tr>
<tr>
<td>Materialism/keeping up with Jones</td>
<td>Peer pressure</td>
<td></td>
</tr>
<tr>
<td>Suburbia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothes</td>
<td>Gender “norms”</td>
<td></td>
</tr>
<tr>
<td>Make-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to do what you want</td>
<td>Power of money</td>
<td>6</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------</td>
<td>---</td>
</tr>
<tr>
<td>Debt</td>
<td>Negative power of money</td>
<td>8</td>
</tr>
<tr>
<td>Bankruptcy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repossession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materialism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expensive cars and designer suits as purchased image</td>
<td>Status</td>
<td>5</td>
</tr>
<tr>
<td>Possessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to do things</td>
<td>Power of energy</td>
<td>21</td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## TABLE 2 – From Basic to Organising to Global Themes

<table>
<thead>
<tr>
<th>Basic Themes</th>
<th>Organising Themes</th>
<th>Global Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power of individual and group interaction</td>
<td>Positive and negative power of Humankind</td>
<td>Connections and Relations</td>
</tr>
<tr>
<td>Physical power of humans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of woman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of family</td>
<td>Power of Love</td>
<td>Connections and Relations</td>
</tr>
<tr>
<td>Power of friendship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romantic love</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of law</td>
<td>Power of State</td>
<td>Legislative Power</td>
</tr>
<tr>
<td>Power of authority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative power of the church</td>
<td>Power of Church</td>
<td>Religion</td>
</tr>
<tr>
<td>Negative Corporate power</td>
<td>Corporate power</td>
<td>Commerce</td>
</tr>
<tr>
<td>Materialism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Power of Mass media</td>
<td>Power of Media</td>
<td>Commerce</td>
</tr>
<tr>
<td>Negative Power of Mass media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of Advertising</td>
<td>Power of Advertising</td>
<td>Commerce</td>
</tr>
<tr>
<td>Negative power of advertising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information as knowledge</td>
<td>Power of Knowledge</td>
<td>Knowledge and Education</td>
</tr>
<tr>
<td>Knowledge as moral power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge as negative power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education as positive power</td>
<td>Positive and Negative Power of Education</td>
<td>Knowledge and Education</td>
</tr>
<tr>
<td>Education as negative power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Negative Power of Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to corrupt</td>
<td>Political Power</td>
<td></td>
</tr>
<tr>
<td>Political power</td>
<td>Legislative Power</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political power not actuated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of unorganised groups of people</td>
<td>People power</td>
<td>Connections and Relations</td>
</tr>
<tr>
<td>Power of organised groups of people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of the individual to affect change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The power to create</td>
<td>Power of Creativity</td>
<td>Connections and Relations</td>
</tr>
<tr>
<td>Affective power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art as sharing</td>
<td>Power of Time</td>
<td>Nature</td>
</tr>
<tr>
<td>Time is inexorable power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of God</td>
<td>Power of God</td>
<td>Religion</td>
</tr>
<tr>
<td>Power of prayer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of faith</td>
<td>Power of Technology</td>
<td>Technology</td>
</tr>
<tr>
<td>Power to communicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to create and manipulate knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to destroy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to create</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to control behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power to travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer pressure</td>
<td>Power of Societal Norms</td>
<td>Norms</td>
</tr>
<tr>
<td>Gender “norms”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of money</td>
<td>Power of Wealth</td>
<td>Commerce</td>
</tr>
<tr>
<td>Negative power of money</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power of energy</td>
<td>Power of Energy</td>
<td>Technology</td>
</tr>
</tbody>
</table>
### TABLE 3 – From Global to Organising to Basic Themes

<table>
<thead>
<tr>
<th>Global Themes</th>
<th>Organising Themes</th>
<th>Themes as Basic Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commerce</td>
<td><strong>Power of Advertising</strong></td>
<td>Power of Advertising</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative power of advertising</td>
</tr>
<tr>
<td></td>
<td><strong>Corporate power</strong></td>
<td>Negative Corporate power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Materialism</td>
</tr>
<tr>
<td></td>
<td><strong>Power of Media</strong></td>
<td>Positive Power of Mass media</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative Power of Mass media</td>
</tr>
<tr>
<td></td>
<td><strong>Power of Wealth</strong></td>
<td>Power of money</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative power of money</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Status</td>
</tr>
<tr>
<td>2. Connections</td>
<td>**Power of Humankind - Positive and</td>
<td>Power of individuals and group interaction</td>
</tr>
<tr>
<td>and Relations</td>
<td>negative power of the individual**</td>
<td>Physical power of humans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of woman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative power of individuals and groups</td>
</tr>
<tr>
<td></td>
<td><strong>Power of Love</strong></td>
<td>Power of family members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of friendship</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Romantic love</td>
</tr>
<tr>
<td></td>
<td><strong>People power</strong></td>
<td>Power of unorganised groups of people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of organised groups of people</td>
</tr>
<tr>
<td>Category</td>
<td>Subcategory</td>
<td>Examples</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Power of Creativity</strong></td>
<td></td>
<td>Power of community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of the individual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The power to create</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Affective power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Art as sharing</td>
</tr>
<tr>
<td><strong>3. Knowledge and Education</strong></td>
<td>Positive and Negative Power of Education</td>
<td>Education as positive power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Education as negative power</td>
</tr>
<tr>
<td></td>
<td>Power of Knowledge</td>
<td>Information as knowledge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowledge as moral power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Knowledge as negative power</td>
</tr>
<tr>
<td><strong>4. Legislative Power</strong></td>
<td>Political Power</td>
<td>Power to corrupt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Political power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leadership</td>
</tr>
<tr>
<td></td>
<td>Power of State</td>
<td>Power of law</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of authority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative Power of Nature</td>
</tr>
<tr>
<td><strong>6. Norms</strong></td>
<td>Power of Societal Norms</td>
<td>Peer pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gender “norms”</td>
</tr>
<tr>
<td><strong>7. Religion</strong></td>
<td>Power of Church</td>
<td>Negative power of the church</td>
</tr>
<tr>
<td></td>
<td>Power of God</td>
<td>Power of God</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of prayer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power of faith</td>
</tr>
<tr>
<td><strong>8. Technology</strong></td>
<td>Power of Energy</td>
<td>Power of energy</td>
</tr>
<tr>
<td>Power of Technology</td>
<td>Power to communicate</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power to create and manipulate knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power to destroy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power to create</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power to control behaviour</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power to travel</td>
<td></td>
</tr>
<tr>
<td>9. Time</td>
<td>Power of Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time is inexorable power</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Images of Power – A selection of ‘Picture Stories’
“All images of banks and corporate logos remind me of the power they have over our daily lives. They are everywhere and at the root of their success and power over ordinary people is money, greed.”

Figure E-1: Commerce - Corporate – Negative Corporate Power
“I took this picture because I felt the power of Institutional protection in the presence of the mounted garda.”

Figure E-2: Legislative Power – Power of State – Power of Authority
“Advertisements influence many people in their decisions; they work more in the subconscious (that is what makes them very dangerous in my opinion).”

Figure E-3: Commerce – Power of Advertising – Negative Power of Advertising
"A powerful influence over our lives especially in magazines and on TV. Up to Christmas, 75% of advertising is aimed at children, attacking their values and those of their parents, causing disharmony at home. Some magazines are responsible for an upsurge in eating disorders with their encouragement of the skinny image."

Figure E-4: Commerce – Power of Media – Negative Power of Mass media
“Trinity College front gate. Tiny aperture in an imposing building. Power of education is not open to everyone. It seems like you have to show credentials before being admitted. Power of an elite.”

Figure E-5: Knowledge and Education – Education – Education as a Negative Power
“to be powerful is to be able to create your own life the way you want it to be”

Figure E-6: Commerce – Power of Wealth – Power of Money
“Homes have been repossessed and families tossed aside, it happened to my brother, the father of 7 children because of 'money'; he didn't have the "money" to pay his mortgage when his business folded. With "money" you can be as weak as you like or as "Powerful" because money talks.”

Figure E-7: Commerce – Power of Wealth – Negative & positive Power of Money
“pink power” “social conventions affecting look, shape of bodies, shaving, make-up”, “social power over the body”

**Figure E-8: Norms – Power of Societal Norms – Gender Norms**
"The Holy Trinity Church in Cork. I frequently attend mass in this church and always find it a most enjoyable encounter with the Lord. The power of God's love enriches my life every day."

Figure E-9: Religion – Power of God – Power of Faith
“any person or thing that can empower other people or make them happy. It could be a piece of music, for example”

Figure E-10: Connections and Relations: Power of Creativity - Affective Power
"This picture reminds me of power in the mirage of colours and beauty. The power of the colony of bees which hover busily through the cluster of flowers is amazing. The flora and fauna is extremely powerful, as it changes a dank and drab scene into a warm and inviting area in which people can relax."

Figure E-11: Nature - Positive and Negative Power of Nature - Positive Power of Nature
“This reminds me of power because time is something that shapes our daily lives and people must adapt themselves at all times to the power of time.”

**Figure E-12: Time – Power of Time – Time is inexorable power**
“Before I learned to drive I lived in the country, far off a main road and was totally reliant on my husband before and after his work. Once I learned to drive I was no longer restricted. My car gave me the power to be free.”

Figure E-13: Technology - Power of Technology - Power to Travel
Figure E-14: Knowledge and Education - Power of Knowledge - Information as knowledge
"This is a photograph of me! I believe I have gained enormous power through education and learning. Through this I have learned that I can adapt myself to many situations and roles, not just that of a wife or mother. Tutors have enormous power over the future of their students and yet appreciate that students too have significant control over their destinies."

Figure E-15: Knowledge and Education – Positive and Negative Power of Education – Education as Positive Power. This image is also categorized as Connections & Relations – Humankind – Power of Individuals & Group Interaction
“Knowledge is power, they need the "tool of life" to give them the "Power" within their hands. To be given all the information necessary to equip young minds with learning all they can, as they grow to young adults and be educated, to take their place in all aspects of life/where Power is used for the good of the country through Education.”

Figure E-16: Knowledge and Education - Power of Education – Education as positive power
“A band joined unexpectedly by another musician. Lovely display of sharing of power between the musicians.”

Figure E-17: Connections and Relations: Power of Creativity – Art as sharing
“a powerful moment of peace, gentleness and enthusiasm. The power of the granddad to instill curiosity, questions and love into his little grandchild. The power to overcome fear, to love and nurture. The child’s understanding of a safe, secure world. The power of passing on and telling the story, folklore, mythology, surprise, goodness.”

Figure E-18: Connections & Relations – Power of Love - Power of family members
"The power of a smile"

Figure E-19: Connections & Relations – Humankind - Power of individuals and group interaction
Figure E-20: Connections & Relations – Humankind - Power of individuals and group interaction
"The power of the great warriors who take to the sports fields early Saturday mornings to teach young children play sports - hail, rain and snow. Their powerful example of selflessness, good will, and belief in young people. Models of generosity and their power in forming the next generation in good spirit."

Figure E-21: Connections & Relations – People Power – Power of community
“This picture reminds me of strength because you are holding up all of your body weight.”

Figure E-22: Connections & Relations – Humankind – Physical power of humans
“Sport has the power to cheer, or depress depending on the result. From experience I know that a county hurling team’s success in the All Ireland Final lifts the spirit of the county for months.”

Figure E-23: Connections & Relations – Humankind – Physical Power of Humans
"This picture reminds me of my childhood, the power of the belt which swooped across my legs. The lack of power which I possessed against my powerful father."

Figure E-24: Connections & Relations – Humankind - Negative power of individuals and groups
"The "POWER" the pusher has on the user; total control!"

Figure E-25: Connections & Relations – Humankind -Negative power of individuals and groups
"Handshake. Power of teamwork, power of collaboration (whole is greater than the parts)."

Figure E-26: Connections & Relations – Humankind - Power of individuals and group interaction
"Love within a family is very powerful. Love in the community where people reach out unselfishly to help each other especially those in need. The Love we have of the "God" who created us. The Love we have of ourselves. We must first Love our self, then we serve others best. Love makes the world go round."

Figure E-27: Connections & Relations – Power of Love - Power of family members
"Two people who are alone and yet in public. Love is powerful in how it leads our emotions."

Figure E-28: Connections & Relations – Power of Love – Romantic Love
"people protesting against war"

Figure E-29: Connections & Relations – People Power – Power of organized groups of people
“A woman's group working with their hands using their skills and talents. So much information passed on to another like a chair linking one to the other, all with one common bond: "Women working together and for each other."”

Figure E-30: Connections & Relations – People Power – Power of organized groups of people
“Community resource centre. In the same area as the flats. Suggests an effort to engage the local community in some kind of activity that might change the way that community understands its place in the city. As a result, power relations might shift.”

Figure E-31: Connections & Relations – People Power – Power of community
"A man protesting against the abuse of power perpetrated on him. He does not have any corporate logos or corporate funding to help him. All he has is a simple placard and his own desire to show passers-by about abuse of power."

Figure E-32: Connections & Relations – People Power – Power of the individual
Appendix F
Images of Power – A collection of quotes from Powerhouse audio
"It has made me more aware when I listen to radio programmes and watching TV."

"I am more aware of images of power now that I am looking out for it. I see it in more ways than commonly thought, for example words, good and bad have powerful consequences, as do images, actions and thoughts."

"In my dealings with people on a daily basis, I think differently since the project. I seem to notice power in a lot of areas I didn't think of before, even reading the newspaper and listening to discussions have alerted me more to "images of power"."

"The key change I have noticed since I completed the first phase of this project is that I am now more aware of power and how important it can be. The primary lesson I have learned is that the correct use of power is so important. I also was not aware enough of how much power I have as an individual over my own life but also how powerful I can be in the way my life influences others."

"My Images of Power filters through everyday through the media. The Project has sharpened my awareness of Power and am noticing how powerful television viewing can be."

"No, my feelings towards power have not changed although in some ways I notice it more."

"It hasn't changed the way I'm thinking about power. But I pay more attention to the exercise of power when I'm walking outside, for example: I see a lot of people exercising power over others, e.g. mothers over children, policemen, guards and so on. So, the project has definitely made me more aware of power in my everyday life."

"The project has changed me even though I always felt I knew what "Power" was. Now I realise it's much more and touches all our lives and affects us differently."
“Doing the photography exercise forced me to make power explicit visually and I guess that this might leave a trace on how I experience my surroundings.”

“Now I see power as less connected to something negative as I saw it before. When you first think of the word it brings up negative images. But actually, I believe power is a good thing. I see power as a good trait in a person, and a man and a woman can both be equally powerful. To be powerful is to have confidence and to be in control of your life. Power is associated with self esteem and assertiveness also. Women can have power just as much as men.”
Appendix G

Powerhouse – photographs
Figure G-1: Powerhouse – visitor looking at photographs on table

Figure G-2: Powerhouse – a caricature of a toilet
Figure G-3: Powerhouse – visitors looking at photographs on the clothesline in the garden
Appendix H

DATAmap – Database of gender composition
<table>
<thead>
<tr>
<th>COUNTY</th>
<th>Institution name</th>
<th>Address</th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
<th>%Men</th>
<th>%Women</th>
<th>Men</th>
<th>Women</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARLOW</td>
<td>Carlow County Council</td>
<td>Carlow County Council Athy rd. Carlow</td>
<td>21</td>
<td>18</td>
<td>3</td>
<td>86</td>
<td>14</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>CARLOW</td>
<td>Carlow County Enterprise Board</td>
<td>Enterprise House, O’Brien Road, Carlow</td>
<td>16</td>
<td>11</td>
<td>5</td>
<td>69</td>
<td>31</td>
<td>business</td>
<td>table</td>
<td>chair</td>
</tr>
<tr>
<td>CARLOW</td>
<td>Carlow County Development Board</td>
<td>Carlow County Council Athy rd. Carlow</td>
<td>28</td>
<td>22</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>large</td>
<td>skyscraper</td>
<td>small house</td>
</tr>
<tr>
<td>CARLOW</td>
<td>Teagasc</td>
<td>Oak park, Carlow</td>
<td>11</td>
<td>10</td>
<td>1</td>
<td>91</td>
<td>9</td>
<td>shovel</td>
<td>fork</td>
<td></td>
</tr>
<tr>
<td>CAVAN</td>
<td>Cavan County Council</td>
<td>Courthouse, Farnham Street, Cavan, Co. Cavan.</td>
<td>25</td>
<td>20</td>
<td>5</td>
<td>80</td>
<td>20</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>CAVAN</td>
<td>Cavan County Enterprise Board</td>
<td>Cavan Innovation and Technology Centre Dublin Road Cavan</td>
<td>13</td>
<td>11</td>
<td>2</td>
<td>85</td>
<td>15</td>
<td>business</td>
<td>table</td>
<td>chair</td>
</tr>
<tr>
<td>CAVAN</td>
<td>Cavan County Development Board</td>
<td>19 Farnham Street, Cavan</td>
<td>27</td>
<td>22</td>
<td>5</td>
<td>81</td>
<td>19</td>
<td>large</td>
<td>skyscraper</td>
<td>small house</td>
</tr>
<tr>
<td>CLARE</td>
<td>Clare County Council</td>
<td>New Road Ennis Co. Clare</td>
<td>33</td>
<td>31</td>
<td>2</td>
<td>94</td>
<td>6</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>CLARE</td>
<td>Clare County Enterprise Board</td>
<td>Enterprise House, Mill Road, Ennis, Co. Clare</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>73</td>
<td>27</td>
<td>business</td>
<td>table</td>
<td>chair</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>-----------------</td>
</tr>
<tr>
<td>CLARE</td>
<td>Clare County Development Board</td>
<td>Quin Road Business Park Quin Road Co. Clare</td>
<td>28</td>
<td>22</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Cork City Enterprise Board</td>
<td>1/2 Bruach Na Laoi, Union Quay, Cork</td>
<td>14</td>
<td>11</td>
<td>3</td>
<td>79</td>
<td>21</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Cork City Development Board</td>
<td>City Hall Cork</td>
<td>27</td>
<td>22</td>
<td>5</td>
<td>81</td>
<td>19</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Bord Gáis</td>
<td>Gasworks Road, Cork.</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>89</td>
<td>11</td>
<td>match</td>
<td>flame</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Cork City Council</td>
<td>City Hall Cork</td>
<td>31</td>
<td>25</td>
<td>6</td>
<td>81</td>
<td>19</td>
<td>mop</td>
<td>mop</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Southern Health Board</td>
<td>Aras Slainte Dennehy's Cross Wilton Road Cork</td>
<td>33</td>
<td>27</td>
<td>6</td>
<td>82</td>
<td>18</td>
<td>bottle</td>
<td>pills</td>
<td></td>
</tr>
<tr>
<td>CORK CITY</td>
<td>Cork City VEC</td>
<td>Emmet Place, Cork</td>
<td>23</td>
<td>19</td>
<td>4</td>
<td>83</td>
<td>17</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>CORK COUNTY</td>
<td>Cork County Council</td>
<td>C/o Community &amp; Enterprise Dept. Floor 9 County Hall, Cork.</td>
<td>48</td>
<td>40</td>
<td>8</td>
<td>83</td>
<td>17</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>CORK COUNTY</td>
<td>Cork County Enterprise Board</td>
<td>C/o Community &amp; Enterprise Dept.County Hall, Cork.</td>
<td>15</td>
<td>13</td>
<td>2</td>
<td>87</td>
<td>13</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>CORK COUNTY</td>
<td>Cork County Development Board</td>
<td>Office of the Director of Community and Enterprise Floor 9 County Hall Cork</td>
<td>38</td>
<td>30</td>
<td>8</td>
<td>79</td>
<td>21</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>CORK COUNTY</td>
<td>Cork VEC</td>
<td>QC House, Cork Business &amp; Technology Park, Model Farm Road, Cork.</td>
<td>23</td>
<td>19</td>
<td>4</td>
<td>83</td>
<td>17</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>CORK SOUTH</td>
<td>South Cork County Enterprise Board</td>
<td>Unit 6A, South Ring Business Park, Kinsale Road, Cork.</td>
<td>14</td>
<td>11</td>
<td>3</td>
<td>79</td>
<td>21</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>CORK WEST</td>
<td>West Cork County Enterprise Board</td>
<td>Kent Street Clonakilty Co Cork</td>
<td>15</td>
<td>9</td>
<td>6</td>
<td>60</td>
<td>40</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>DONEGAL</td>
<td>Donegal County Council</td>
<td>County House Lifford Co. Donegal</td>
<td>29</td>
<td>26</td>
<td>3</td>
<td>90</td>
<td>10</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>DONEGAL</td>
<td>Donegal County Enterprise Board</td>
<td>County House Lifford Co. Donegal</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>83</td>
<td>17</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>DONEGAL</td>
<td>Donegal County Development Board</td>
<td>Donegal County Council Lifford, County Donegal</td>
<td>33</td>
<td>28</td>
<td>5</td>
<td>85</td>
<td>15</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>DONEGAL</td>
<td>Donegal VEC</td>
<td>V.E.C. Offices, Ard O’Donnell, Letterkenny Co. Donegal</td>
<td>20</td>
<td>16</td>
<td>4</td>
<td>80</td>
<td>20</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dun Laoghaire/Rathdown County Council</td>
<td>Marine Road, Dun Laoghaire</td>
<td>28</td>
<td>18</td>
<td>10</td>
<td>64</td>
<td>36</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Fingal County Council</td>
<td>Main street, Swords</td>
<td>24</td>
<td>15</td>
<td>9</td>
<td>63</td>
<td>37</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>South Dublin County Council</td>
<td>County Hall, Tallaght, Dublin 24,</td>
<td>23</td>
<td>18</td>
<td>5</td>
<td>78</td>
<td>22</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dun Laoghaire/Rathdown County Enterprise Board</td>
<td>Nutgrove Enterprise Park Nutgrove Way Rathfarnam Dublin 14</td>
<td>16</td>
<td>13</td>
<td>3</td>
<td>81</td>
<td>19</td>
<td>business</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Fingal County Enterprise Board</td>
<td>Mainscourt 23 Main Street Swords Fingal Co. Dublin</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>67</td>
<td>33</td>
<td>business</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>South Dublin County Enterprise Board</td>
<td>3 Village Square Tallaght Dublin 24</td>
<td>16</td>
<td>11</td>
<td>5</td>
<td>69</td>
<td>31</td>
<td>business</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dun Laoghaire/Rathdown County Development Board</td>
<td>Marine Road, Dun Laoghaire</td>
<td>25</td>
<td>16</td>
<td>9</td>
<td>64</td>
<td>36</td>
<td>large</td>
<td>small</td>
<td>skyscraper</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Fingal County Development Board</td>
<td>Swords</td>
<td>32</td>
<td>21</td>
<td>11</td>
<td>66</td>
<td>34</td>
<td>large</td>
<td>small</td>
<td>skyscraper</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>South Dublin County Development Board</td>
<td>South Dublin County Council, County Hall Tallaght Dublin 24</td>
<td>29</td>
<td>22</td>
<td>7</td>
<td>76</td>
<td>24</td>
<td>large</td>
<td>small</td>
<td>skyscraper</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Eastern Region Health Authority</td>
<td>Mill Lane, Palmerstown, Dublin 20</td>
<td>54*</td>
<td>40</td>
<td>14</td>
<td>75</td>
<td>25</td>
<td>bottle</td>
<td>pills</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Aer Rianta</td>
<td>Dublin Airport</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>86</td>
<td>14</td>
<td>hangar</td>
<td>plane</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Bord Iascaigh Mhara</td>
<td>Dun Laoire (near Ferry Port)</td>
<td>6*</td>
<td>4*</td>
<td>1</td>
<td>80</td>
<td>20</td>
<td>oyster</td>
<td>pearl</td>
<td></td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Irish Sports Council</td>
<td>Blanchardstown, Dublin 15. Ireland</td>
<td>11</td>
<td>8</td>
<td>3</td>
<td>73</td>
<td>27</td>
<td>sliotar</td>
<td>hurley</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Dublin City Enterprise Board</td>
<td>17 Euctace Street, Dublin 2</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>54</td>
<td>46</td>
<td>business</td>
<td>chair</td>
<td>table</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td>Artifacts</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------</td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Dublin City Development Board</td>
<td>Office of Director of Community &amp; Enterprise Dublin City Council, Wood Quay, Dublin 8.</td>
<td>31</td>
<td>26</td>
<td>5</td>
<td>84</td>
<td>16</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Bord Gáis</td>
<td>Foley St. Dublin 1</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>80</td>
<td>20</td>
<td>match</td>
<td>flame</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Dublin City Council</td>
<td>Civic Offices Wood Quay Dublin 8</td>
<td>52</td>
<td>36</td>
<td>16</td>
<td>69</td>
<td>31</td>
<td>mop</td>
<td>bucket</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Food Safety Authority</td>
<td>Abbey Court Lower Abbey Street Dublin 1</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>80</td>
<td>20</td>
<td>fork</td>
<td>knife</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Arts Council</td>
<td>Merrion Sq.</td>
<td>13</td>
<td>6</td>
<td>7</td>
<td>46</td>
<td>54</td>
<td>brush</td>
<td>palette</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Central Bank</td>
<td>Dame St.</td>
<td>12</td>
<td>11</td>
<td>1</td>
<td>92</td>
<td>8</td>
<td>coins</td>
<td>notes</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Civil Service - Senior Grades</td>
<td>Several locations but Kildare St., Merrion St &amp; St. Stephens Gr.</td>
<td>609</td>
<td>465</td>
<td>144</td>
<td>76</td>
<td>24</td>
<td>letters</td>
<td>envelopes</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Crisis Pregnancy Agency</td>
<td>4th Floor 89-94 Capel Street Dublin 1</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td>33</td>
<td>67</td>
<td>baby</td>
<td>bottle</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Dáil</td>
<td>Kildare St, Dublin 2</td>
<td>166</td>
<td>144</td>
<td>22</td>
<td>87</td>
<td>13</td>
<td>flags</td>
<td>poles</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Seanad</td>
<td>Kildare St, Dublin 2</td>
<td>60</td>
<td>50</td>
<td>10</td>
<td>83</td>
<td>17</td>
<td>flags</td>
<td>flags</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Equality Authority</td>
<td>Clonmel Street Dublin 2</td>
<td>12</td>
<td>6</td>
<td>6</td>
<td>50</td>
<td>50</td>
<td>weighing scales</td>
<td>weights</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>Electricity Supply Board</td>
<td>Lr. Fitzwilliam St.</td>
<td>8</td>
<td>6</td>
<td>2</td>
<td>75</td>
<td>25</td>
<td>plugs</td>
<td>sockets</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>HEA</td>
<td>Marine House, Clanwilliam Court, Dublin 2</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>70</td>
<td>30</td>
<td>caps</td>
<td>gowns</td>
<td></td>
</tr>
<tr>
<td>DUBLIN CITY</td>
<td>IBEC</td>
<td>Confederation House 84/86 Lower Baggot Street Dublin 2</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>88</td>
<td>22</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway County Council</td>
<td>County Buildings Prospect Hill Galway</td>
<td>30</td>
<td>24</td>
<td>6</td>
<td>80</td>
<td>20</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway County Development Board</td>
<td>County Buildings Prospect Hill Galway</td>
<td>31</td>
<td>28</td>
<td>3</td>
<td>90</td>
<td>10</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway City &amp; County VEC</td>
<td>Island House, Cathedral Square, Galway, Co. Galway Hynes Building, Galway.</td>
<td>14</td>
<td>7</td>
<td>7</td>
<td>50</td>
<td>50</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>GALWAY CITY</td>
<td>Galway City &amp; County Enterprise Board</td>
<td>Woodquay Court Woodquay Galway</td>
<td>17</td>
<td>15</td>
<td>2</td>
<td>88</td>
<td>12</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>GALWAY CITY</td>
<td>Galway City Development Board</td>
<td>City Hall College Road Galway</td>
<td>31</td>
<td>23</td>
<td>8</td>
<td>74</td>
<td>26</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>GALWAY CITY</td>
<td>Galway City Council</td>
<td>City Hall College Road Galway</td>
<td>15</td>
<td>13</td>
<td>2</td>
<td>87</td>
<td>13</td>
<td>mop</td>
<td>bucket</td>
<td></td>
</tr>
<tr>
<td>GALWAY CITY</td>
<td>Western Health Board</td>
<td>Merlin Park Regional Hospital Galway</td>
<td>40</td>
<td>31</td>
<td>9</td>
<td>71</td>
<td>29</td>
<td>bottle</td>
<td>pills</td>
<td></td>
</tr>
<tr>
<td>GALWAY CITY</td>
<td>Irish Film Board</td>
<td>Rockfort House St. Augustine Street Galway</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>57</td>
<td>43</td>
<td>projector</td>
<td>film</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>-------</td>
<td>---</td>
</tr>
<tr>
<td>KERRY</td>
<td>Kerry County Council</td>
<td>Rathass, Tralee Co. Kerry</td>
<td>26</td>
<td>23</td>
<td>3</td>
<td>88</td>
<td>12</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>KERRY</td>
<td>Kerry County Enterprise Board</td>
<td>Manor West Complex, Ratass, Tralee, County Kerry</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>57</td>
<td>43</td>
<td>business</td>
<td>table</td>
<td>chair</td>
</tr>
<tr>
<td>KERRY</td>
<td>Kerry County Development Board</td>
<td>Office of Director of Community and Enterprise County, Tralee, Co. Kerry</td>
<td>30</td>
<td>27</td>
<td>3</td>
<td>90</td>
<td>10</td>
<td>large</td>
<td>skyscraper</td>
<td>small</td>
</tr>
<tr>
<td>KERRY</td>
<td>Legal Aid Board</td>
<td>Cahirciveen, Co. Kerry</td>
<td>13</td>
<td>5</td>
<td>8</td>
<td>38</td>
<td>62</td>
<td>gavel</td>
<td>hammer</td>
<td></td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare County Council</td>
<td>St. Mary's, Naas Co. Kildare</td>
<td>25</td>
<td>18</td>
<td>7</td>
<td>72</td>
<td>28</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare County Enterprise Board</td>
<td>The Woods, Clane Co. Kildare</td>
<td>13</td>
<td>10</td>
<td>3</td>
<td>77</td>
<td>23</td>
<td>business</td>
<td>table</td>
<td>chair</td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare County Development Board</td>
<td>Office of Community and Enterprise Kildare County Council, Naas, Co. Kildare</td>
<td>30</td>
<td>23</td>
<td>7</td>
<td>77</td>
<td>23</td>
<td>large</td>
<td>skyscraper</td>
<td>small</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------</td>
<td>---------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>KILDARE</td>
<td>Bord na Móna</td>
<td>Newbridge, Co. Kildare</td>
<td>12</td>
<td>11</td>
<td>1</td>
<td>92</td>
<td>8</td>
<td>briquettes</td>
<td>flames</td>
<td></td>
</tr>
<tr>
<td>KILDARE</td>
<td>Horseracing Ireland</td>
<td>Kill Co. Kildare</td>
<td>14</td>
<td>13</td>
<td>1</td>
<td>93</td>
<td>7</td>
<td>rosettes</td>
<td>cups</td>
<td></td>
</tr>
<tr>
<td>KILKENNY</td>
<td>Kilkenny County Council</td>
<td>County Hall John Street Kilkenny</td>
<td>26</td>
<td>21</td>
<td>5</td>
<td>81</td>
<td>19</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>KILKENNY</td>
<td>Kilkenny County Enterprise Board</td>
<td>42 Parliament Street Kilkenny</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>73</td>
<td>27</td>
<td>business</td>
<td>table</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>KILKENNY</td>
<td>Kilkenny County Development Board</td>
<td>County Hall John Street Kilkenny</td>
<td>26</td>
<td>20</td>
<td>6</td>
<td>77</td>
<td>23</td>
<td>large</td>
<td>skyscraper</td>
<td>small house</td>
</tr>
<tr>
<td>KILKENNY</td>
<td>Heritage Council</td>
<td>Rothe House, Kilkenny</td>
<td>17</td>
<td>10</td>
<td>7</td>
<td>59</td>
<td>41</td>
<td>sculptures</td>
<td>paintings</td>
<td></td>
</tr>
<tr>
<td>LAOIS</td>
<td>Laois County Council</td>
<td>Aras an Chontae Portlaoise Co. Laois</td>
<td>25</td>
<td>23</td>
<td>2</td>
<td>92</td>
<td>8</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>LAOIS</td>
<td>Laois County Enterprise Board</td>
<td>IBS House Dublin Road Portlaoise</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>69</td>
<td>31</td>
<td>business</td>
<td>table</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>LAOIS</td>
<td>Laois County Development Board</td>
<td>Aras an Chontae Portlaoise Co. Laois</td>
<td>29</td>
<td>19</td>
<td>10</td>
<td>66</td>
<td>34</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>LEITRIM</td>
<td>Leitrim County Council</td>
<td>Carrick-on Shannon Co. Leitrim</td>
<td>22</td>
<td>20</td>
<td>2</td>
<td>91</td>
<td>9</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>LEITRIM</td>
<td>Leitrim County Enterprise Board</td>
<td>Carrick-on-Shannon Business Park Dublin Road Carrick-on-Shannon Co. Leitrim</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>69</td>
<td>31</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>LEITRIM</td>
<td>Leitrim County Development Board</td>
<td>Carrick-on Shannon Co. Leitrim</td>
<td>29</td>
<td>25</td>
<td>4</td>
<td>86</td>
<td>14</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick County Council</td>
<td>County Hall Dooradoyle Limerick</td>
<td>28</td>
<td>22</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick County Enterprise Board</td>
<td>c/o Limerick County Council p.o. Box 53 79/84 O'Connell Street Limerick</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>67</td>
<td>33</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick County Development Board</td>
<td>Office of the Director of Community and Enterprise County Hall Dooradoyle Limerick</td>
<td>28</td>
<td>23</td>
<td>5</td>
<td>82</td>
<td>18</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick City Enterprise Board</td>
<td>The Granary Michael Street Co. Limerick</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>64</td>
<td>36</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick City Development Board</td>
<td>City Hall Merchants Quay Limerick City</td>
<td>28</td>
<td>23</td>
<td>5</td>
<td>82</td>
<td>18</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>LIMERICK</td>
<td>Limerick City Council</td>
<td>City Hall Merchants Quay Limerick City</td>
<td>17</td>
<td>14</td>
<td>3</td>
<td>82</td>
<td>18</td>
<td>mop</td>
<td>bucket</td>
<td></td>
</tr>
<tr>
<td>LONGFORD</td>
<td>Longford County Council</td>
<td>Great Water Street Longford</td>
<td>21</td>
<td>19</td>
<td>2</td>
<td>90</td>
<td>10</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>LONGFORD</td>
<td>Longford County Enterprise Board</td>
<td>Great Water Street Longford</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>71</td>
<td>29</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>LONGFORD</td>
<td>Longford County Development Board</td>
<td>Great Water Street Longford</td>
<td>29</td>
<td>20</td>
<td>9</td>
<td>69</td>
<td>31</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>LOUTH</td>
<td>Louth County Council</td>
<td>County Hall Millennium Centre Dundalk</td>
<td>26</td>
<td>23</td>
<td>3</td>
<td>88</td>
<td>12</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>LOUTH</td>
<td>Louth County Enterprise Board</td>
<td>Enterprise House The Ramparts Dundalk Co. Louth</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>69</td>
<td>31</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>LOUTH</td>
<td>Louth County Development Board</td>
<td>County Hall Millennium Centre Dundalk</td>
<td>30</td>
<td>21</td>
<td>9</td>
<td>70</td>
<td>30</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>Mayo County Council</td>
<td>Aras an Chontae, Castlebar, County Mayo.</td>
<td>31</td>
<td>29</td>
<td>2</td>
<td>94</td>
<td>6</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>Mayo County Enterprise Board</td>
<td>McHale Retail Park McHale Road Castlebar Co. Mayo</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>83</td>
<td>17</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>Mayo County Development Board</td>
<td>Community and Enterprise Mayo County Council Castlebar</td>
<td>29</td>
<td>23</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>Mayo VEC</td>
<td>Administrative Offices, Newtown, Castlebar, Co. Mayo.</td>
<td>20</td>
<td>17</td>
<td>3</td>
<td>87.5</td>
<td>12.5</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>Mayo</td>
<td>North Western Regional Fisheries Board</td>
<td>Ardnaree House Abbey Street Ballina Co. Mayo</td>
<td>23</td>
<td>19</td>
<td>4</td>
<td>83</td>
<td>17</td>
<td>rod</td>
<td>fishing net</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>MEATH</td>
<td>Meath County Council</td>
<td>County Hall Navan Co. Meath</td>
<td>29</td>
<td>25</td>
<td>4</td>
<td>86</td>
<td>14</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>MEATH</td>
<td>Meath County Enterprise Board</td>
<td>Navan Enterprise Centre Trim Road Navan Co. Meath</td>
<td>13</td>
<td>11</td>
<td>2</td>
<td>85</td>
<td>15</td>
<td>business</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>MEATH</td>
<td>Meath County Development Board</td>
<td>County Hall Railway Street Navan County Meath</td>
<td>27</td>
<td>23</td>
<td>4</td>
<td>85</td>
<td>15</td>
<td>large</td>
<td>small</td>
<td></td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>Monaghan County Council</td>
<td>County Offices The Glen Monaghan</td>
<td>20</td>
<td>18</td>
<td>2</td>
<td>90</td>
<td>10</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>Monaghan County Enterprise Board</td>
<td>Unit 9 M:TEK Building Knockaconny Monaghan</td>
<td>12</td>
<td>11</td>
<td>1</td>
<td>92</td>
<td>8</td>
<td>business</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>Monaghan County Development Board</td>
<td>Office of Community and Enterprise Market Street Monaghan</td>
<td>26</td>
<td>20</td>
<td>6</td>
<td>77</td>
<td>23</td>
<td>large</td>
<td>small</td>
<td></td>
</tr>
<tr>
<td>OFFALY</td>
<td>Offaly County Council</td>
<td>Bridge Street Tullamore, County Offaly.</td>
<td>21</td>
<td>17</td>
<td>4</td>
<td>81</td>
<td>19</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>OFFALY</td>
<td>Offaly County Enterprise Board</td>
<td>Cormac Street Tullamore Co. Offaly</td>
<td>14</td>
<td>12</td>
<td>2</td>
<td>86</td>
<td>14</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>OFFALY</td>
<td>Offaly County Development Board</td>
<td>Bridge Centre Tullamore Co. Offaly</td>
<td>29</td>
<td>24</td>
<td>5</td>
<td>83</td>
<td>17</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>Roscommon County Council</td>
<td>The Courthouse Co. Roscommon</td>
<td>26</td>
<td>22</td>
<td>4</td>
<td>85</td>
<td>15</td>
<td>pot flower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>Roscommon County Enterprise Board</td>
<td>Abbey Street Co. Roscommon</td>
<td>13</td>
<td>12</td>
<td>1</td>
<td>92</td>
<td>8</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>Roscommon County Development Board</td>
<td>The Courthouse Co. Roscommon</td>
<td>29</td>
<td>23</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>Western Development Commission</td>
<td>Dillon House Ballaghaderreen, Co. Roscommon</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>67</td>
<td>33</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>SLIGO</td>
<td>Sligo County Council</td>
<td>County Hall Riverside Sligo</td>
<td>25</td>
<td>19</td>
<td>6</td>
<td>76</td>
<td>24</td>
<td>pot flower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLIGO</td>
<td>Sligo County Enterprise Board</td>
<td>Sligo Development Centre Cleveragh Road Sligo</td>
<td>13</td>
<td>10</td>
<td>3</td>
<td>77</td>
<td>23</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-----------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>SLIGO</td>
<td>Sligo County Development Board</td>
<td>County Hall Riverside Sligo</td>
<td>28</td>
<td>20</td>
<td>8</td>
<td>71</td>
<td>29</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY NORTH</td>
<td>Tipperary North County Council</td>
<td>Courthouse Nenagh Co. Tipperary</td>
<td>21</td>
<td>19</td>
<td>2</td>
<td>90</td>
<td>10</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY NORTH</td>
<td>Tipperary North County Enterprise Board</td>
<td>Connolly Street Nenagh Co. Tipperary</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>73</td>
<td>27</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY NORTH</td>
<td>Tipperary North County Development Board</td>
<td>Courthouse Nenagh Co. Tipperary</td>
<td>27</td>
<td>21</td>
<td>6</td>
<td>78</td>
<td>22</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY NORTH</td>
<td>Tipperary North VEC</td>
<td>Church Road, Nenagh, Co. Tipperary</td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>70</td>
<td>30</td>
<td>pencil sharpener</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIPPERARY SOUTH</td>
<td>Tipperary South County Council</td>
<td>County Hall Clonmel Co. Tipperary</td>
<td>26</td>
<td>25</td>
<td>1</td>
<td>96</td>
<td>4</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY SOUTH</td>
<td>Tipperary South County Enterprise Board</td>
<td>Gladstone Street Co. Tipperary</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>71</td>
<td>29</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>TIPPERARY SOUTH</td>
<td>Tipperary South County Development Board</td>
<td>County Hall Clonmel Co. Tipperary</td>
<td>30</td>
<td>24</td>
<td>6</td>
<td>80</td>
<td>20</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Waterford County Council</td>
<td>Civic Offices Dungarvan Co. Waterford</td>
<td>23</td>
<td>18</td>
<td>5</td>
<td>78</td>
<td>22</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------</td>
<td>----------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Waterford County Enterprise Board</td>
<td>The Courthouse Dungarvan Co. Waterford</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>71</td>
<td>29</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Waterford County Development Board</td>
<td>c/o Waterford County Council Civic Offices Dungarvan</td>
<td>20</td>
<td>16</td>
<td>4</td>
<td>80</td>
<td>20</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>WATERFORD CITY</td>
<td>Waterford City Enterprise Board</td>
<td>Enterprise House New Street Court Waterford</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>71</td>
<td>29</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>WATERFORD CITY</td>
<td>Waterford City Development Board</td>
<td>New Gate Street Waterford City</td>
<td>26</td>
<td>24</td>
<td>2</td>
<td>92</td>
<td>8</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>WATERFORD CITY</td>
<td>Waterford City Council</td>
<td>City Hall The Mall Waterford City</td>
<td>15</td>
<td>12</td>
<td>3</td>
<td>80</td>
<td>20</td>
<td>mop bucket</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>Westmeath County Council</td>
<td>County Building Mount Street Mullingar Co. Westmeath</td>
<td>23</td>
<td>22</td>
<td>1</td>
<td>96</td>
<td>4</td>
<td>pot flower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>Westmeath County Enterprise Board</td>
<td>Business Information Centre Church Avenue Mullingar Co. Westmeath</td>
<td>14</td>
<td>12</td>
<td>2</td>
<td>86</td>
<td>14</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>Westmeath County Development Board</td>
<td>Church Avenue Mullingar Co. Westmeath</td>
<td>28</td>
<td>21</td>
<td>7</td>
<td>75</td>
<td>25</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>COUNTY</td>
<td>Institution name</td>
<td>Address</td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>%Men</td>
<td>%Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>WEXFORD</td>
<td>Wexford County Council</td>
<td>County Hall Spawell Road Wexford Town</td>
<td>21</td>
<td>16</td>
<td>5</td>
<td>76</td>
<td>24</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>WEXFORD</td>
<td>Wexford County Enterprise Board</td>
<td>16/17 Mallin Street Cornmarket Wexford</td>
<td>15</td>
<td>14</td>
<td>1</td>
<td>93</td>
<td>7</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>WEXFORD</td>
<td>Wexford County Development Board</td>
<td>County Hall Spawell Road Wexford Town</td>
<td>29</td>
<td>24</td>
<td>5</td>
<td>83</td>
<td>17</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>WEXFORD</td>
<td>Wexford VEC</td>
<td>Iberius House, Common Quay Street, Wexford.</td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>70</td>
<td>30</td>
<td>pencil</td>
<td>sharpener</td>
<td></td>
</tr>
<tr>
<td>WEXFORD</td>
<td>Environmental Protection Agency</td>
<td>Johnstown Castle Estate, Co. Wexford.</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>60</td>
<td>40</td>
<td>poles</td>
<td>wind vanes</td>
<td></td>
</tr>
<tr>
<td>WICKLOW</td>
<td>Wicklow County Council</td>
<td>County Buildings, Wicklow, Co. Wicklow.</td>
<td>24</td>
<td>21</td>
<td>3</td>
<td>87</td>
<td>13</td>
<td>pot</td>
<td>flower</td>
<td></td>
</tr>
<tr>
<td>WICKLOW</td>
<td>Wicklow County Enterprise Board</td>
<td>Main Street Wicklow Town Co. Wicklow.</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>71</td>
<td>29</td>
<td>business table</td>
<td>chair</td>
<td></td>
</tr>
<tr>
<td>WICKLOW</td>
<td>Wicklow County Development Board</td>
<td>County Buildings, Wicklow, Co. Wicklow.</td>
<td>29</td>
<td>23</td>
<td>6</td>
<td>79</td>
<td>21</td>
<td>large skyscraper</td>
<td>small house</td>
<td></td>
</tr>
<tr>
<td>WICKLOW</td>
<td>Coillte</td>
<td>Newtownmountkennedy, Co. Wicklow</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>78</td>
<td>22</td>
<td>tree</td>
<td>leaves</td>
<td></td>
</tr>
</tbody>
</table>
Appendix I

Art of Decision exhibition – Questionnaire
favourite piece

piece you liked least

any other comment

overall rating (1 – 10, 10 being the best)

please put any comments about individual rooms here – we welcome feedback
<table>
<thead>
<tr>
<th>gender</th>
<th>F</th>
<th>M</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>age</th>
<th>under 18</th>
<th>18 – 25</th>
<th>26 – 40</th>
<th>41 – 55</th>
<th>56 – 70</th>
<th>over 70</th>
</tr>
</thead>
</table>

**how do you get information about politics?**
(tick as many boxes as you like)
- newspapers
- news programmes on radio
- news programmes on TV
- political programmes on radio
- political programmes on TV
- through being a member of a political organisation
- through discussion with friends
- political websites
  - example
  - other
  - specify
- I pay no attention whatsoever to anything to do with politics

This work is part of an ongoing research project on women in decision-making. Feedback is very important to us and we greatly appreciate the time you take to fill in this form. We are interested in doing some follow-up research and if you are happy to be contacted and asked a few more questions in a few weeks time can you please leave your contact details here (phone no., address or email address – whichever suits). All personal details will be kept confidential.
The datamap gives statistics of representation by gender on state bodies. Where you already aware of these types of statistics?
If yes, in what context have you come across them?

Do you think the way in which the information is presented in the datamap will make people take more notice of the facts presented?

How did you use the datamap? (looked at everything? selected a few areas, looked at bodies in your own area only, et.c.)

Can you give details of some facts you remember from the datamap?

This work is part of an ongoing research project on women in decision-making. Feedback is very important to us and we greatly appreciate the time you take to fill in this form. We are interested in doing some follow-up research and if you are happy to be contacted and asked a few more questions in a few weeks time can you please leave your contact details here (phone no., address or email address – whichever suits). All personal details will be kept confidential.
powerhouse – (for those people who participated in Images of Power)

Did you enjoy participating in the Images of Power project?

What do you think of the way in which the images are presented? Do you like it? (just get general feedback and any comments at all about powerhouse)

Do you think the major impact of Images of Power comes through participation (i.e. taking the photos) or do you think the exhibition of the images so that others can see them can also have an impact?
for contributors to the powerhouse

gender   F □   M □
age   under 18 □, 18 – 25 □, 26 – 40 □, 41 – 55 □, 56 – 70 □, over 70 □

Did you enjoy participating in the Images of Power project?

What do you think of the PowerHouse? Do you like the way the images have been exhibited?

In terms of the Images of Power project, does it matter that the images are exhibited so that a wider audience can see them?

Any other comments?