

User group involvement in the development of a virtual city

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ABSTRACT

In April 1997 the Shepherd School, Virtual Reality Applications Research Team (VIRART) and the Metropolitan Housing Trust joined together to develop a Virtual City, which would help people with learning difficulties learn independent living skills. The Virtual City would be made up of many parts and each would be a Virtual Learning Environment.

At the end of the first year the Virtual City includes a house, a cafe, a supermarket and a transport system. People with learning difficulties can use a computer in a game playing way to learn lifeskills in these four learning environments.

Often when computer programmes or learning schemes are devised for people with learning difficulties, no one asks them what they would like to be included. However, in the Virtual City from the very beginning, the views of people who might use the programmes guided the whole project. This paper will examine in detail the User Group involvement in the development of the Virtual City.

1. ORGANISATION OF THE VIRTUAL CITY PROJECT

Overseeing the whole project was the **Executive Group**. This consisted of one representative from Metropolitan Housing, one from the Shepherd School, one from VIRART and one Business Consultant.

The Executive Group were also members of a **Steering Group**, together with other individuals representing organisations interested in helping to develop the Virtual City. The User Group and people who were building the Virtual City also sent representatives to each meeting of the Steering Group. The main role of the Steering Group was to advise the Shepherd School, VIRART and Metropolitan Housing as to the development of the Virtual City and to monitor the work that was carried out.

At the very centre of the project was the User Group. People in the User Group had learning difficulties and they were representative of people who might use the Virtual City to gain lifeskills. Their main role was to decide :

- a) what they wanted in the Virtual City;
- b) what they wanted to learn from the Virtual City;
- c) how they wanted the Virtual City to be designed.

They were also involved in writing articles and publicity.

A group involved in building the virtual city attended meetings of the User Group and they were then responsible for ensuring that Virtual Learning Environments were built according to the User Groups wishes. Once the initial Virtual Learning Environments were built, in order to find out whether people with learning difficulties could learn lifeskills from them, a **Testing Group** of five people with learning difficulties was set up.

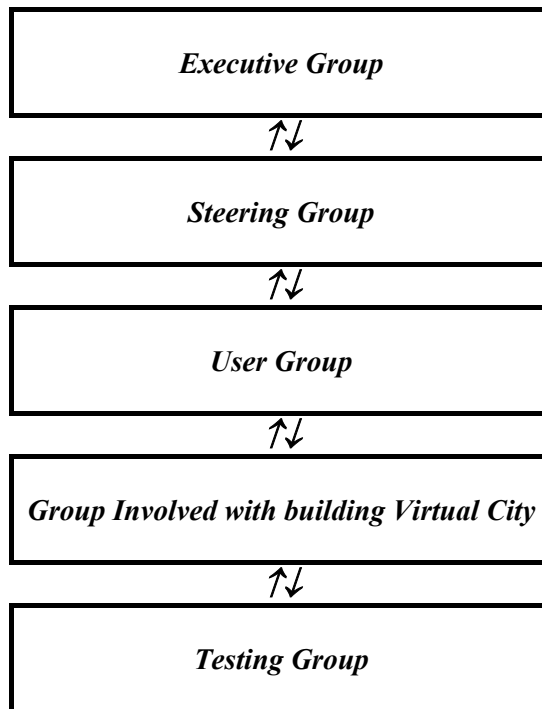


Figure 1. *Organisation of the Virtual City Project*

2. THE USER GROUP

Initially twelve volunteers with learning difficulties formed the User Group :

- One man lived with his grandmother and he did not attend college or any other placement.
- Two people lived at home and attended a course for people with learning difficulties at a College of Further Education.
- Three people lived at home and attended a unit in the Shepherd School for people aged sixteen to nineteen years with learning difficulties.
- Six people were tenants, who received support from Metropolitan Housing Trust projects, of these :
 - One woman lived with her husband;
 - a) Two men had part time jobs working in a restaurant;
 - b) One man had an allotment that he tended daily;
 - c) Two women attended college.

The group were aged between seventeen years and fifty five years and they felt that between them they had understanding and knowledge of a wide range of areas.

"I use a wheelchair"

"I don't hear very well and I wear an hearing aid".

"I can't see very well and I wear glasses"

"Sometimes people don't understand what I'm saying"

"Reading and number are too hard for me"

"I'm from a mixed race family - my dad's from Jamaica".

"I live on my own with just a bit of support".

The User Group did not receive payment for their input to the project, but all transport costs were paid and substantial refreshments were provided.

3. SUPPORT FOR THE USER GROUP

Each member of the User Group made their own decision as to whether they needed individual support. At the beginning of the project three members each had a Support Worker, who accompanied them to meetings, helped with social and communication problems and gave emotional support. After attending three meetings one other man found it difficult to continue due to personal problems. However, after investigation, a Support Worker was provided and he has remained with the project until the present day.

4. FACILITATOR PROVISION

Before the User Group was formed a facilitator was employed in order to:

- Initially give information about the role of the User Group to possible members.
- Ensure meetings were accessible to the User group by ordering taxis, providing lifts and arranging suitable times and venues.
- Keep the User group informed about times, venues and agendas of meetings.
- Organise materials and refreshments for meetings.
- Enable the User Group to put forward their ideas and views and to make their own decisions.
- In agreement with the User Group take minutes of the meetings and make written reports.
- Accompany representatives of the User Group to Steering Group meetings and feedback information from User Group Meetings.

The User Group valued the help provided by the facilitator.

"I'm glad you do things for us and help us with what we want to say".

"You make things nice for us".

"You help us to get here and buy food for us".

"You're very chatty and help us to talk"

5. USER GROUP MEETING

The User Group met approximately once per month with additional meetings held whenever necessary. The first meeting was felt to be very important. The facilitator wanted everyone to feel comfortable with each other, to have an enjoyable time and to be motivated to attend further meetings. In addition, it was felt that the first meeting should help the User Group become aware of their importance in the project. A Cocktail Party was felt to be appropriate.

The Cocktail Party was very successful and everyone was keen to come to further meetings.

"I had a great time - it was really good"

"I liked meeting all the new friends"

"The food was alright - I liked it"

"I can't wait for the next meeting"

During the Cocktail Party a full explanation of the project was given and members of the User Group discussed the organisation of the meeting - the following decisions were made:

- Meetings would always be on a Monday between 5 and 7 p.m.
"It's easier to remember if they're on the same day"
- Three different venues would be tried out for meetings and then the User Group would make an informed choice as which they preferred.
- The following timetable would take place for each meeting :
 - 5.00p.m. to 5.15p.m. - Coffee and Greetings.
 - 5.15p.m. to 6.15p.m. - Working on the Project
 - 6.15p.m. to 7.00p.m. - A Party Meal

"It makes it better if you have a party".

"I don't mind working, but its boring if you talk for too long".

- Dates for meetings would be decided on an ongoing basis as people did not know what they would be doing too far in advance.

“I never know what I’m doing - I could be on my holidays or going out”.

All future meetings did in fact follow these initial guidelines made at the Cocktail Party. At every meeting there was themed or party food varying from meat pie parties to birthday parties and these proved very successful. At the end of the first year only two people had stopped attending meetings. One of these now had a regular girlfriend and the other finished college late and felt too tired. All other members of the group were highly motivated to attend and their commitment to meetings was excellent.

“I should be going to a Youth Club - but I’d rather come here”.

“I am tired as I go to College, but I don’t want to miss the meeting”.

The Project Manager and people building the Virtual City also attended each meeting of the User Group.

6. USER GROUP INVOLVEMENT IN THE STEERING GROUP

Meetings were held monthly between 1.00p.m. and 2.30p.m. Throughout the Project two people from the User Group were keen to be involved in the Steering Group, but one had difficulty speaking in front of a large group

“There are too many people and I get scared”.

and the other man had a tendency to speak when other people were talking.

Three people, who never attended a steering group meeting said they did not like meetings, where people talked all the time. Three people attended two or three meetings, but had other things to do during the afternoon and were loathe to give up other activities. One man said he did not want to attend because the meetings were too boring and long. The facilitator spoke for the User Group at meetings of the Steering group with a little input from the representatives.

Towards the end of the development of the first phase of the Virtual City, it would seem that the User Group involvement in the Steering Group could be improved. This might be by altering the times and the style of the Steering Group and/or by improving the communication skills of the User Group representatives.

7. USER GROUP DECISION MAKING REGARDING CONTENT OF THE VIRTUAL CITY

The first decision made by the User Group was to choose all the different areas they wanted in a Virtual City. Their ideas were creative and thoughtful and forty six areas were chosen .

<i>City</i>	<i>Skiing</i>	<i>Bowling</i>	<i>Cinema</i>	<i>Pub</i>
<i>Football</i>	<i>Cricket</i>	<i>Post Office</i>	<i>Station</i>	<i>Snooker</i>
<i>Police Station</i>	<i>Fire Station</i>	<i>McDonalds</i>	<i>Hospital</i>	<i>Fairground</i>
<i>Housing Trust(Metro)</i>	<i>Disco</i>	<i>Driving</i>	<i>Jobs</i>	<i>Swimming</i>
<i>Health & Beauty</i>	<i>Cycle Track</i>	<i>Motorbike</i>	<i>Airport</i>	<i>College</i>
<i>Pizza Hut</i>	<i>River</i>	<i>Office</i>	<i>Leisure Centre</i>	<i>Roller Skating</i>
<i>Workshops</i>	<i>Bank</i>	<i>Shops</i>	<i>Supermarket</i>	<i>Dentist</i>
<i>Doctor</i>	<i>Hairdressers</i>	<i>Restaurant</i>	<i>Stadium</i>	<i>Day Centre</i>
<i>Houses</i>	<i>Church</i>	<i>Gym</i>	<i>Night Club</i>	<i>Theatre</i>

8. USER GROUP MEETING - WHAT THEY WANT IN THE VIRTUAL CITY

This was achieved by a process of brainstorming and then by eliminating any areas not agreed by the majority of the group

The User Group then decided upon ten priority areas:

- City layout (include transport)
- House
- Supermarket
- Post Office
- Leisure Centre
- Cafe/bar
- Health Centre
- College
- Emergency Services (police, fire)
- Facade of other buildings

"These are the ones I use the most".

"We wanted everything that was in Nottingham".

"I chose places I might find difficult to use".

"I chose places I go to".

"I do not go to all the places, but I'd like to learn how to"

At a meeting of the Steering Group, after taking into account building considerations, it was decided that the first Virtual Learning Environments would be:- Transport - The Cafe Bar - The Home - The Supermarket.

9. USER GROUP DECISION MAKING REGARDING LEARNING OBJECTIVES IN THE VIRTUAL CITY

The next task for the User Group was to decide upon specific learning objectives for each of the learning environments. It was agreed that a different environment should be discussed each time the group met. The Group were very confident and sure and they had no problems in deciding what lifeskills should be learnt in the different environments. Occasionally they were too general, but if the facilitator helped to expand their ideas, they quickly responded with more details,

Example *"We want to learn about safety".*
 Facilitator - *"What sort of things would you like to learn about?"*
 - *"Burglar Alarms"*
 - *"Electricity"*
 - *"Gas"*
 - *"Fires"*

If there were any disagreements, the User Group members were noticeably ready to compromise or change their minds.

A typical example:

User 1 *"We would like to learn about burglar alarms"*
 User 2 *"Nobody has burglar alarms"*
 Facilitator *"Some places do - like group homes or schools or hospitals"*
 User 1 *"Yes, they do"*
 Facilitator *"So, do you want to learn about burglar alarms?"*
 User 1 *"I don't mind"*
 User 2 *"I don't mind"*
 Facilitator *"What does everybody else think?"*
 User 1 *"Lets have a vote"*

The User Group chose to use voting when they had different views.

If ever the vote was equally divided, the User Group had their own simple strategy to settle issues. One man stood in the middle of the room with his eyes closed and he spun around with one arm pointing out. Everybody changed position and when the man stopped spinning, the suggestion of the person nearest his pointed arm was the one taken up. During the time the User Group met, nobody ever had cross words and

all agreements were reached amicably. Consequently, there were no problems in regards to agreeing learning objectives for the environments in the Virtual City

Example of Learning Objectives for the Virtual City - Cafe Bar

1. Making choices and decisions - ordering drinks from a list for self and others.
2. Social skills when ordering
3. Communication with staff and public
4. Money handling - paying for drinks
5. Appropriate behaviour - table manners, etiquette.
6. Appropriate dress.
7. Toilet use in public situation
8. Dealing with alcohol
 - What drinks you can order, at what ages
 - What affects these drinks have on you

10. USER GROUP DECISION MAKING REGARDING DESIGN OF THE VIRTUAL CITY

The User Group led the design of the Virtual City. Story boards were used to achieve this. As each design or detail was verbally described by the User Group, these were pictorially illustrated on large sheets of paper to form visual images of each environment or part of environment. The group especially liked using the story boards.

"I like using pictures, because I can't read"

"It's easier because you can see what people mean"

"If it's not right, I can say so and then it can be changed"

"I've made a storyboard to say what sort of house I'd like to live in"

Steady progress was made in all areas, until food for the supermarket shelves was discussed. The User Group described the items they would like on the shelves, but did not mention any multi-cultural foods or products. The Facilitator asked if they had forgotten about them, but the User Group refused consistently to give them any consideration. The Facilitator explained that some people liked different foods from other countries. Also that the families of some of the User Group were from Jamaica and Italy and they might like different foods. The User Group then compromised by agreeing to have pizzas, but they did not want to extend this.

User 1 *"I never have Chinese or Indian food or anything like that.*

User 2 *"We don't want it - we just want ordinary food"*

Facilitator *"Would anybody like any other foods?"*

Everybody *"No - No - No"*

The Facilitator was concerned, but since it was a majority decision, it was taken back to the Steering Group. The Steering Group suggested that a wider sample of people with learning difficulties should be asked about their food shopping. The User Group agreed with this decision and one User Group member volunteered to do a research with the Facilitator.

A small study of the food shopping of 20 adults with learning disabilities from a nearby Day Centre took place. The results of this study were used to decide food items on the supermarket shelves.

11. CHANGE OF USER GROUP DESIGNS AND CONTENT

Although the views of the User Group were usually followed, there were occasions when the Steering Group felt obliged to change them. In the example of the Supermarket food, the Steering Group had committed themselves to a visually multi-cultural city and this had to be paramount in the design and content. Most of the design and content of the Virtual City was, however, guided by the views of the User Group.

12. PUBLICITY

At the end of the first year of development, the User Group were fully involved in publicising the Virtual City. They submitted an article to a magazine designed to provide new information about disability. More importantly, they were key speakers at an afternoon conference on the Virtual City. Three hundred people listened to their presentation and they all spoke extremely well, even though it was an unnerving experience.

"Its the hardest thing I have ever done"

"I was really scared"

"My hands went all sweaty"

"I wanted to go home"

After their presentation the User Group also demonstrated the use of the computer programmes and talked to people about the advantages of the Virtual City.

"When I use the Virtual City programmes, it helps me to learn before I go out and then I can do things properly"

"You can practise choosing a bus and if you get it wrong, its safe"

"The programmes help you with going out. It helps you to walk into a cafe and feel comfortable"

"Using the programmes is fun so its easier to learn"

13. THE IMPORTANCE OF INVOLVING THE USER GROUP IN THE VIRTUAL CITY

Very rarely do people with learning disabilities provide input to computer programmes or learning schemes. However, in this project they proved without doubt that they do have valuable opinions about their own needs and desires. Instead of a Virtual City based on the assumptions of other people, the User Group involvement has meant that the whole project has been built with informed input from real experts in the field of learning disabilities. The Virtual City has developed in response to the needs of people with learning difficulties, not the assumed needs. Consequently this is a valuable step forward in this field.

"Because its doing it for yourself - thinking of yourself - not others doing it for you"

"We know what we need"

"We have our own things to do - the programme can help us to do these things - not things other people do"

"When other people do things - it's for them, not us"

14. THE ADVANTAGES OF BEING A MEMBER OF THE USER GROUP

Although the User Group was of great advantage of the Virtual City Project, it was a two-way process and the project was also very beneficial to the User Group. Whilst they all put a great deal of effort into the work, it was seen by them first and foremost as an enjoyable social event.

"I love coming to the User Group - it's good fun"

"I'd rather come to the User Group than go to the Youth Club"

"I never go out anywhere else, so I like coming"

"Its somewhere to go and meet new friends"

The User Group all took pride in their appearance for the meetings and three of the group were extremely fashion conscious. Their clothing was usually the focus of conversation for the first few minutes of each meeting.

The User Group realised their importance to the project and this gave them a sense of self esteem and worth.

"I know I'm useful here"

"I can't read or write, but it doesn't matter here - I can still help"

It was noticeable as the year progressed that the User Group became more self assured. At the time of the Virtual City Conference, most of the group were confident enough to speak in front of a large audience.

Only two women said they preferred not to speak, but they wanted to attend the Conference and individually talk to people about the Virtual City.

The group dynamics were very amenable to the requirements of the group. Everyone was friendly and at ease and social conversations took place between all members of the User Group.

15. THE FUTURE OF THE USER GROUP

The User Group will meet again in July 1998 at a large party for everyone involved in the Virtual City Project. After this time, officially the group will not exist. However, six members of the group will attend a Conference in September 1998 and three members will join a new User Group for a Housing Options section of the Virtual City. It may also be that as the Virtual City continues its development, members of the group will again be involved.

All members of the User Group have exchanged addresses and phone numbers and it is arranged that in three months time, the group will meet again purely on a social friendship basis.

The User Group have all expressed regrets at the ending of their meetings, but they all are pleased with their involvement and some of them feel it might influence their lives in some way.

“Since the User Group, I am ready to go back to College - I don’t just want to sit at home any more”

“I liked helping in the User Group and I want to help people again now”

“When I leave school I am going to phone everybody and visit them”.

16. CONCLUSION

The original decision of the executive group to have user participation in the design of the Virtual City proved to be a great success. The User Group worked co-operatively and creatively together to provide the guidance and specialist information necessary for the building of an effective learning environment for people with learning difficulties. The project organisation enabled the User Group to make their own decisions and support workers and a facilitator helped in this process.

Although the User Group worked on a voluntary basis, party food and social time formed part of the User Group’s meetings and this ensured their motivation and willingness to give their time and expertise to the project. The User Groups motivation to attend Steering Group meetings was less effective and it may be that a different approach to meetings would have been preferable. The use of story boards proved an ideal method to assist understanding and recording for people with learning difficulties and the User Group themselves devised techniques for solving problems of decision making.

The success of the User Group was beneficial to themselves in terms of personal achievement and to the Virtual City project in ensuring that the content, learning objectives and design were all appropriate and necessary to the people who would be using the programmes.

The leading role played by the User Group in developing the Virtual City gives respect and understanding to people with learning difficulties by empowering them to play the fullest possible role in producing materials for themselves.

“Because its doing it for yourself - thinking of yourself - not others doing it for you”

Written by the facilitator on behalf of and with full agreement of the User Group. All quotes provided by the User Group.

CAFE/BAR - CONTENT AND FEATURES

ITEMS

- Well displayed signs (toilets)
- Clean tables

- Staff (friendly, helpful)
- Food and Drink
- Menu Board and Prices
- Menus on Tables
- Seating – Comfortable
- Tables and Chairs
- Space between Chairs
- Moveable Chairs
- Glasses, Crockery