

## Picture of Now Research 2006: Mass Participation

Full Research Report: Mass Participation (1 of 3)

WP2.2 Business Modelling

Deliverable 2.2.1

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## Deliverable Identification Sheet

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<b>Abstract (for dissemination)</b>	<p>This report and accompanying web resources have been produced to provide a 'picture of now' of activity for 2006 in this area. The report aims to inform the members of the project and act as a starting point for anyone exploring a similar area. It looks at issues of technology, design and content in previous work. We were particularly interested in identifying barriers to 'going mass'.</p> <p>We investigated over a hundred projects and services that covered at least one of the key aspects listed above. All involved some level of user participation and use of technology, though these could not always be described as 'mass participation' or 'pervasive computing'. Relatively few had explicitly environmental concerns though in many cases 'locatedness'<sup>1</sup> was important.</p>
<b>Key Words</b>	Pervasive computing, environment, mass participation, locatedness

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<sup>1</sup> Users' absolute or relative location in some way affects their experience

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## Executive summary

This report looks at participation, participatory media and the longer-term implications of increasing rates of participation in creative activities.

The study is one of the three core elements of the project 'participation, pervasive and environment'. Each section has been written to be of value on its own though many of the themes recur.

The report is organised as follows:

- Report 1 covers mass participation (this document)
- Report 2 looks at pervasive computing
- Report 3 reviews environmental projects

### Aims of this research

Participate explores convergence in pervasive, online and broadcast media to create new kinds of mass-participatory events in which a broad cross-section of the public contributes to, as well as accesses, contextual content - on the move, in public places, at school and at home.

Participate is a three year collaborative Research and Development project, supported through the Technology Programme with grant funding from the Department of Trade and Industry (DTI) and the Engineering and Physical Sciences Research Council (EPSRC).

Our consortium blends expertise in online services, pervasive computing, broadcast media, sensors, event design and management, and education. Our partners are BT, Microsoft Research Cambridge, BBC, Blast Theory, ScienceScope, University of Nottingham and the University of Bath.

For more information on Participate please visit:

<http://www.participateonline.co.uk/>

For more information on the Technology Programme and EPSRC please visit:

[http://www.dti.gov.uk/innovation/techprioritiesuk/about\\_the\\_programme/index.html](http://www.dti.gov.uk/innovation/techprioritiesuk/about_the_programme/index.html)

<http://www.epsrc.ac.uk/>

The three pillars of Participate are:

- Mass participation
- Pervasive computing
- Environment

### Why should you read this document?

This report and accompanying web resources has been produced to provide a 'picture of now' of activity for 2006 in this area. It aims to inform the project and act as a starting point for anyone starting out in a similar area. It looks at issues of technology, design and content in previous work. We were particularly interested in identifying the barriers to 'going mass'.

This is not however a detailed technical document. For technical information we recommend IEEE Pervasive Computing ([www.computer.org/pervasive](http://www.computer.org/pervasive)) or ([www.ubicomp.org](http://www.ubicomp.org)) as international centres of excellence.

Nor is it a business review of current / future pervasive services. We expect to deliver those findings as we progress as part of one of the work packages.

This study is part of three activities around WP2 Methods & Modelling.

- **Study 1:** User Research - Understanding user motivations in participation – due September 2006
- **Study 2:** 'Picture of Now 2006' - Mass participation, pervasive computing & environment (this report)
- **Study 3:** 'Foresight analysis of Participate project' – Phase 1 interviews and analysis – due October 2006.

Participate expects to publish updates to this research periodically for the duration of the project.

## Methodology

We investigated over a hundred projects and services relevant to at least one of the key aspects listed above. All involved some level of user participation and use of technology, though these couldn't necessarily be described as 'mass participation' or 'pervasive computing'. Relatively few had explicitly environmental concerns though in many cases 'locatedness'<sup>2</sup> was important.

Selected projects were identified by the Participate partners initially. Other projects were identified from other recommendations and by desk research of marketing material, academic work, industry analysis, commentary and speculation on various good, bad or just plain ugly websites. For those services which are run commercially, it was often difficult to access detailed information.

Many people contributed their knowledge and gave access to their projects to the creation of this report and they are listed in the credits. There is also a separate appendix document that gives a brief overview of each of the 120+ projects and services we investigated.

Some questions to ask yourself as you read this document are:

- What are the other 'pervasive' or 'ubiquitous' technologies in 2006?
- What will 'mass' mean in an on demand / long tail world?
- What is participation in the environment?
- Are there other barriers we haven't mentioned?

## A small disclaimer

There is a great deal of current development in our three areas of interest and we have no doubt missed many more examples.

We make no apology for any incompleteness but encourage you to add to our public conversation on the subject at [www.participateonline.co.uk](http://www.participateonline.co.uk)

We hope the results are useful and stimulate more activity in these exciting areas.

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Produced by BBC Research & Innovation for Participate

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<sup>2</sup> Users' absolute or relative location in some way affects their experience

# 1 About Participation

Research agency Sparkler carried out a qualitative study in 2006, on behalf of Participate, into how people take part and why. ("User Research - Understanding user motivations in participation" is publicly available from the Participate website.<sup>3</sup>

The findings are covered in terms of:

- Micro & macro communities
- Impact of location
- Hierarchy of involvement
- Participator journeys & typologies
- Role of media & technology
- Role of the host/theme

Many of the findings of this research are relevant here and they inform this section. However, the full presentation contains far more information than we can summarize here.

## 1.1 What does Participate mean by participation?

The type of activity of interest to Participate has the following characteristics:

- Participation involves submitting something to a host
- There's a conscious intent to take part

### 1.1.1 Hosted

The Participate concept relies on the idea of a 'host' organisation. Participants will provide information to the project team to be collated and used in various ways.

### 1.1.2 Participation is not emergence

People must also know they're taking part and there must be some conscious intent to participate. Providing data for the sort of collaborative filtering used by Amazon (e.g. to make 'perfect partner' product recommendations) doesn't count as participation since it happens automatically as a side effect of using the site in other ways. Posting a book review, or giving feedback on a reseller on the other hand is participation.

Emergence and participation are not the same as the following quote from Tim O' Reilly's "The Architecture of Participation" shows:

*In this context, it's worth noting an observation originally made by Dan Bricklin in his paper, The Cornucopia of the Commons. There are three ways to build a large database, wrote Dan. The first, demonstrated by Yahoo, is to pay people to do it. The second, inspired by lessons from the open source community, is to get volunteers to perform the same task. The Open Directory Project, an open source Yahoo competitor, is the result. (Wikipedia provides another example.) But Napster demonstrates a third way. Because Napster set its defaults to automatically share any music that was downloaded, every user automatically helped to build the value of the shared database.<sup>4</sup>*

<sup>3</sup> <http://www.participateonline.co.uk/> last accessed 26 October 2006

<sup>4</sup> [http://www.oreillynet.com/pub/a/oreilly/tim/articles/architecture\\_of\\_participation.html](http://www.oreillynet.com/pub/a/oreilly/tim/articles/architecture_of_participation.html) last accessed 1 September 2006

It's the second type of involvement that the Participate initiative is hoping to generate.

## 1.2 What is (and is not) participation?

One key finding from the Sparkler research was that hosts and participants may have different ideas on what constitutes participation. Few people in the study regarded activities such as voting on a Big Brother eviction as participating or mentioned this sort of activity when giving examples of their own participation. However, the Big Brother production company (Endemol) and broadcaster (Channel4) would almost certainly consider this participatory TV<sup>5</sup>.

We need to identify activities that both host and participants recognize as participation. The following table provides illustrative examples.

Participation	Not participation
<ul style="list-style-type: none"> <li>• Sending details of a bumble bee sighting to BBC Springwatch</li> <li>• Setting up a page on MySpace</li> </ul>	<ul style="list-style-type: none"> <li>• Using Instant Messaging to contact friends</li> <li>• Commuting to work on public transport</li> </ul>
<b>Possibly participation</b> <ul style="list-style-type: none"> <li>• Joining an anti-war march</li> <li>• Going to the Glastonbury festival Of interest to Participate if people submit pictures, stories or other content.</li> </ul>	

## 1.3 Why do people participate?

The motivations Participate might draw on to encourage an individual to take part might be some, or all, of the list below.

### 1.3.1 Passion / interest

Doing something because it's related to an existing interest such as sport, nature or photography. This was a motivation behind many of the projects e.g. Springwatch or Flickr.

### 1.3.2 Impact

Wanting a particular result which could be to bring about a change or to preserve something of importance. Campaigns such as Jamie Oliver's School Dinners or experiments such as Stardust have a definite outcome in mind.

### 1.3.3 Creativity

Expressing oneself is at least part of the motivation behind amateur choirs and dramatic societies. This motivation is activities such as blogging and many open source development projects. Self-expression was one of the main motivations for people who created stories using the Yellow Arrow tools.

<sup>5</sup> [http://newsvote.bbc.co.uk/1/hi/magazine/3086109.stm?dynamic\\_vote=ON#vote\\_3086109](http://newsvote.bbc.co.uk/1/hi/magazine/3086109.stm?dynamic_vote=ON#vote_3086109)  
last accessed 1 September 2006



### 1.3.4 Reward

Earning some tangible or intangible reward in return for effort. Possible rewards might include prize money, knowledge (e.g. feedback or input on work in progress), access to something unique (e.g. exclusive content or the use of a restricted resource).

Less tangible rewards might include credit, publicity, recognition or simply attention as in the People's War. Curiosity, novelty and pure entertainment are also important especially, for example, in gaming.

### 1.3.5 Altruism

Acting to benefit others, e.g. by doing volunteer work. Many of the BBC's Action Network campaigns were started to help other people in some way.

### 1.3.6 Micro communities

Another reason for participating is to create or strengthen social ties or simply to communicate.

Of particular interest is the importance of micro communities in participation. The Sparkler research found that most people's main motivation for taking part is "asserting one's role in a community". The actual cause is just a catalyst for strengthening community roles and ties. Micro communities coming together can make something go mass but "the energy is ... between people who know each other well". How can we tap into existing micro communities?

## 1.4 Why *don't* people participate?

The main barriers to participation Sparkler identified were:

- Apathy
- Cynicism
- Triviality
- Lack of time
- Lack of personal interest
- Laziness
- Routine
- Too many additional commitments

### Case study: Jamie Oliver's School Dinners

This campaign hit on a magic combination of parents' concern for their children, interest in food, a celebrity chef and entertaining TV to get 271,677 signatories for an online petition and kickstart ongoing improvements in school dinners.<sup>1</sup>

The series used all the levels of engagement though the general public's participation was entirely at the lower levels:

- Starting something: Jamie Oliver
- Giving time: Cooks, production company / broadcaster
- Being there: Kids at school and their parents
- Providing information: Concerned people petitioning
- Giving money: Government / tax-payers
- Watching/listening: Viewers

The campaign also saw increases in participation in related ways, e.g. the number of messages sent to MPs from WriteToThem.com spiked while the series was being broadcast.<sup>1</sup>

Two questions we should ask when looking at campaigns like this are:

- Are we likely to be more successful if we support more levels of engagement?
- Is an activity more likely to go mass if it appeals to more possible motivations?

## 1.5 How do people participate?

Discussions of participation often describe different types of involvement, typically represented as a spectrum going from 'more passive' to 'more engaged'. Below are three examples:

### 1.5.1 'Hierarchy of involvement' - PARTICIPATE

As part of study into user attitudes and motivations into participation, a hierarchy of involvement was created to represent the views of 'mainstream' UK audiences on what constitutes real participation - where technology does not have to play a role.

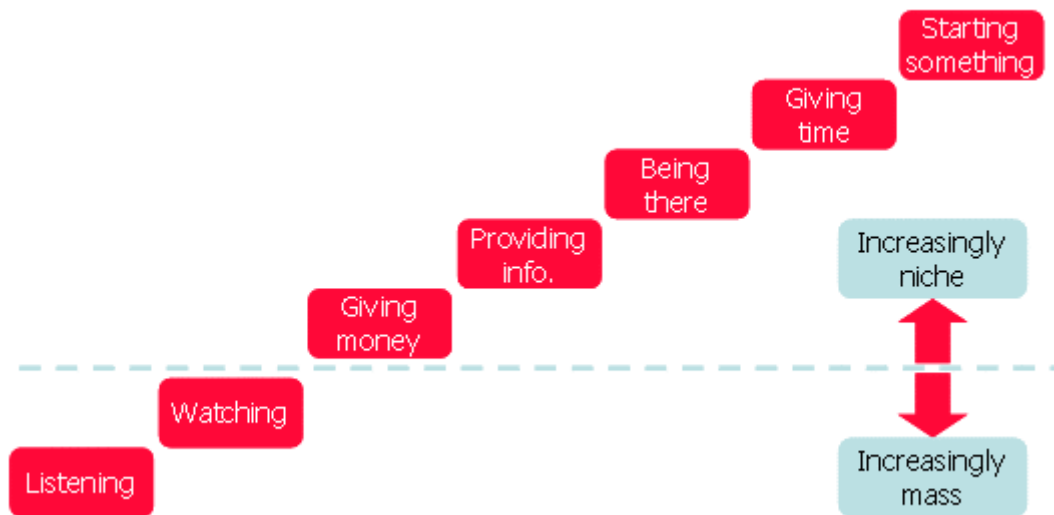


Figure M.1: Hierarchy of involvement (from Sparkler research)

### 1.5.2 'My BBC Radio' – audience engagement

This pyramid was created to as an internal communications tool. It shows the audience engagement strategy of a division within the BBC.

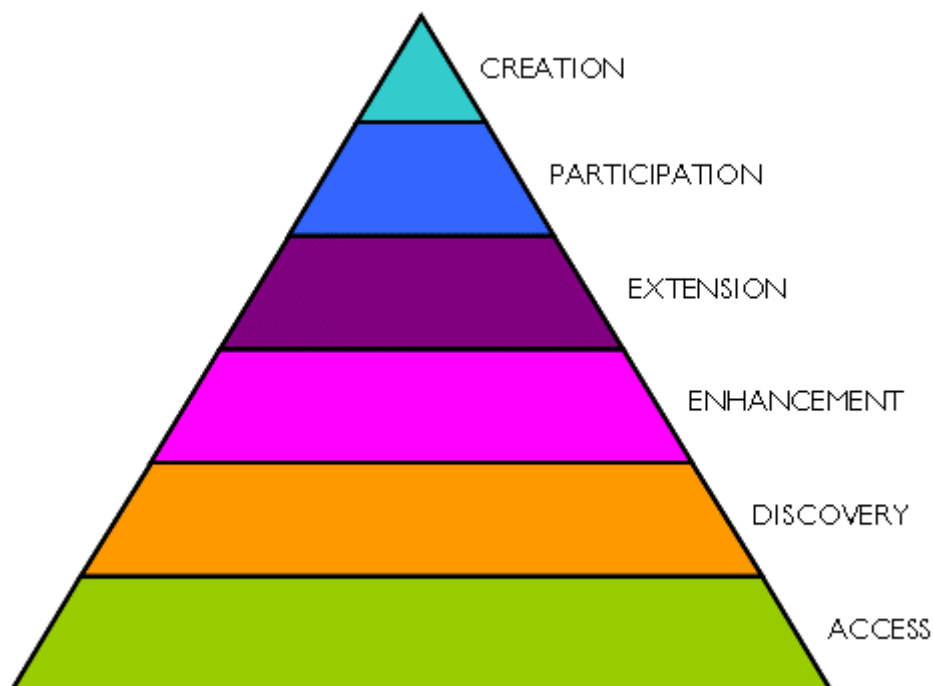


Figure M.2: Levels of audience engagement (courtesy of BBC Radio & Music Interactive)

### 1.5.3 David Wilcox's 'levels of participation' framework

This model was adapted from an original by Sherry Arnstein<sup>6</sup> and is aimed at helping “community activists and professionals seeking to get other people involved in social, economic and environmental projects and programmes”.<sup>7</sup>

- Supporting independent community interests (*community control*)
- **Acting together:** joint decision on options and joint implementation
- **Deciding together:** encourage new options and jointly decide which to do
- **Consultation:** offer options and listen to answers
- **Information:** telling people what's planned (*host control*)

### 1.5.4 Key points

For each of these models, the highest level of engagement is where the participants start something new. Clearly this 'something' might be quite different for BBC Radio than for someone trying to get communities involved in social, economic and environmental projects. However, the key point is that an activity is most participatory when the participants themselves set the agenda.

These models also acknowledge that there are far more people willing to participate at the lowest levels of engagement (where least commitment is needed) than are willing to start new things.

## 1.6 Who participates?

### 1.6.1 Participant roles

Sparkler also identified different possible roles for participants:

- **Instigators:** Close to the cause and proactive
- **Evangelists:** Excited by the cause and vocal
- **Followers:** Engaged by the cause
- **Reluctants:** Forced to join the cause
- **Happy bystanders:** Content to take a back seat

These correspond to the 'hierarchy of involvement' illustrated in figure M.1 – from the instigators who start things to the happy bystanders who are basically the audience – and clearly there are more happy bystanders than instigators and evangelists.

### 1.6.2 Role of the host

Other questions we might ask are:

- If the users are doing most of the work what's the role for a 'host' organisation?
- How do we create a sense of 'hostedness'?

Below is a BT model suggesting different stages of participation (which clearly assumes a particular model of how the Participate projects will be structured). It extends the BBC Stapler concept and introduces the activities that a producer or 'host' will need to undertake.

<sup>6</sup> <http://lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html>  
last accessed 1 September 2006

<sup>7</sup> <http://www.partnerships.org.uk/guide/index.htm> last accessed 27 July 2006

Participant activities	Producer activities
<ul style="list-style-type: none"> <li>• Capture</li> <li>• Create</li> <li>• Annotate</li> <li>• Evaluate</li> <li>• Participate</li> <li>• Spectate</li> </ul>	<ul style="list-style-type: none"> <li>• Captivate</li> <li>• Engage</li> <li>• Facilitate</li> <li>• Stimulate</li> <li>• Collect</li> <li>• Sort</li> <li>• Moderate</li> <li>• Edit</li> <li>• Repurpose and Integrate</li> <li>• Distribute and Broadcast</li> </ul>

The Sparkler research also identified several distinctive benefits the host can bring to an initiative. See Figure M.3 below.

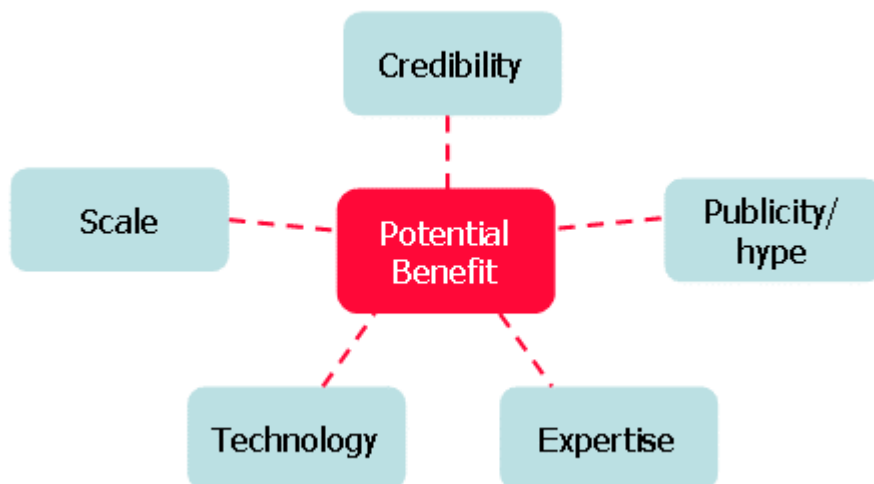


Figure M.3: Role of the host (from Sparkler research)

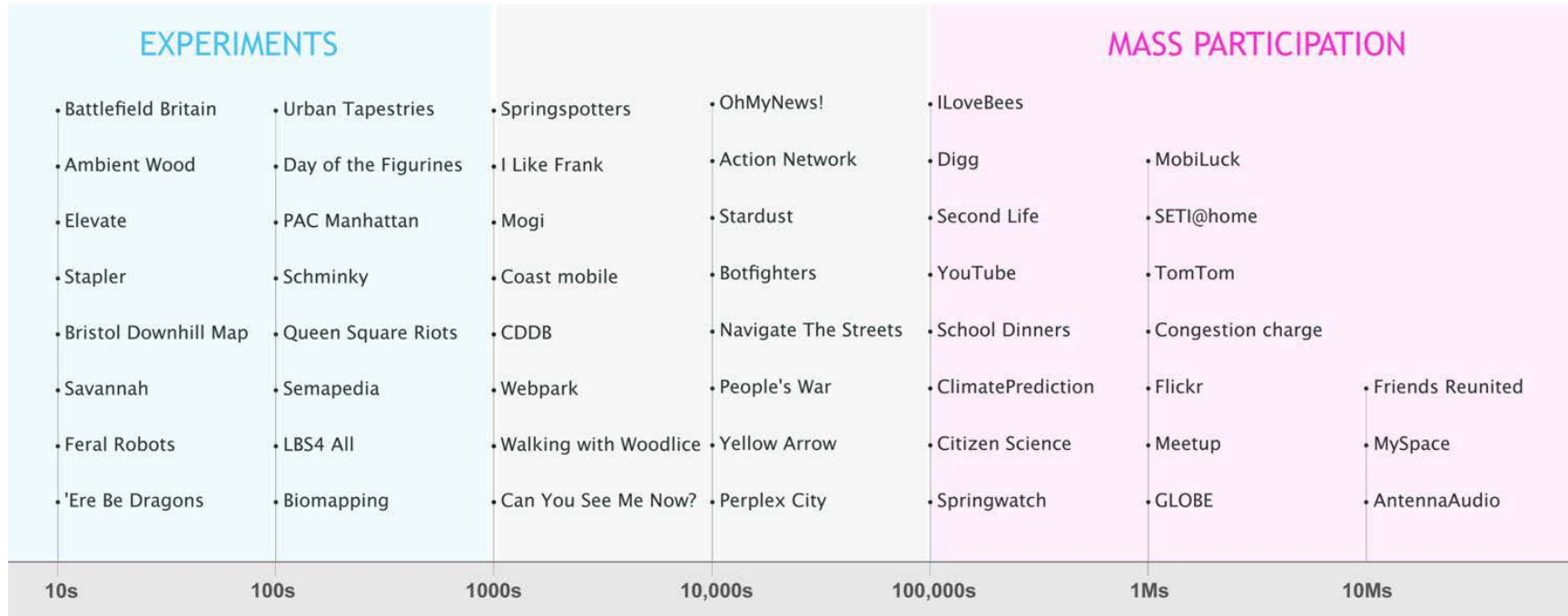
## 1.7 What is the scale of participation?

Not all the activity we examined could be considered ‘mass participation’. The majority of activities that involve all three key aspects of Participate were relatively small-scale: they have typically been research-based, technical trials or local community-based activity whose coordinators have not sought to scale up.

Meanwhile, the popularity of what are termed ‘web 2.0’ services (e.g. Flickr, MySpace) are resulting in truly mass participation.

Figure M.4 shows the scale of sample activities. This is based on ‘above the line’ participation (see figure M.1) so we are not including the numbers who are simply watching or listening. Clearly however, not all of this participation is happening at the same level of engagement. There is much more commitment involved in starting an Action Network campaign than in signing Jamie Oliver’s online petition.

In some cases, we have had to guess the numbers of people who actually contribute in some way. For example, the number of people who have uploaded content to YouTube will be considerably smaller than the number who have watched videos (though there may be more than we have estimated here).



**Figure M.4:** Scale of participation

(Numbers as of August 2006.)

## 2 Outcomes of mass online participation

Over the last few years there's been an explosion in the popularity of "web 2.0" services<sup>8</sup> with high levels of user engagement. Wikipedia, MySpace, Flickr and Second Life are four well publicised examples.

The BBC has identified the following characteristics of successful web 2.0 services<sup>9</sup>:

- Straightforward (simple, uncomplicated)
- Functional (usable, useful)
- Gregarious (sociable, participatory)
- Open (exposed, unguarded)
- Evolving (emergent, growing)

### 2.1 User-generated resources

Mass content creation can result in very useful resources of general interest e.g. the news site Digg, the encyclopedia Wikipedia or the video archive YouTube. Other resources (like The Sea Slug Forum<sup>10</sup>) appeal to very specialist interests. In some cases, it is simply cheaper or more efficient to use a volunteer workforce. More importantly, the use of many people's expertise, opinions and judgement makes these resources qualitatively different from more centrally or editorially created equivalents.

Who's making money from user-generated content? Sometimes, as in the case of Wikipedia, no one is. However, there are many services where users are financially rewarded for their contributions e.g. iStockPhoto, MyNuMo, Lulu.tv and SeeMyTV. The Korean site OhMyNews pays citizen journalists a small amount for each article (more if it becomes a highlighted feature).

MySpace has recently introduced a facility allowing members to buy music. The site owners will get a proportion of each transaction as a commission<sup>11</sup>. It's easy to see how Flickr, for instance, could do the same. Does it spoil services like Flickr if users are contributing partly out of financial self-interest?

### 2.2 Mass observation or experiment

What else is mass participation good for? The Participate proposal focuses on mass observation: collecting information from a wide variety of people to build up a picture of some phenomenon. Mass participation provides coverage and time that would be impossible for professionals alone to achieve

This idea is well established on the internet. The Search for Extra-Terrestrial Intelligence (SETI) initiative has been running the distributed computing project SETI@home since 1999.<sup>12</sup> Participants download software that runs in the background on their computers. The software analyses radio frequency data to look for signs of alien transmissions and reports the results back to the coordinators.

SETI@home demands no active participation apart from the original download. The recently launched Stardust project demands more engagement. Volunteers are scanning over 1,000,000 short films looking for an estimated forty-five interstellar dust particles. Possible matches are submitted for expert

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<sup>8</sup> <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>

last accessed 1 September 2006

<sup>9</sup> Internal BBC research

<sup>10</sup> <http://www.seaslugforum.net/> last accessed 1 September 2006

<sup>11</sup> [http://www.wired.com/news/wireservice/0,71713-0.html?tw=wn\\_index\\_7](http://www.wired.com/news/wireservice/0,71713-0.html?tw=wn_index_7) last accessed 1 September 2006

<sup>12</sup> <http://setiathome.ssl.berkeley.edu/> last accessed 1 September 2006

evaluation. The task can't be automated, but using thousands of volunteers it should take months rather than years to complete.

The section on environment gives more examples of 'citizen science' activities.

These Human Intelligence Tasks (HITs) can also be profitable. The BBC for example, uses a commercial company to check user-submitted photographs aren't pornographic. Amazon's Mechanical Turk site is a market that puts HIT workers in touch with those willing to pay for their services.

## 2.3 Online communities

Another result of mass participation is the development of huge online community sites which enhance people's existing social ties and increase the chances of making interesting new connections. They also gather and identify potential markets (for host and participants).

This kind of service isn't really new. GeoCities had over 1 million 'homesteaders' back in 1997 and the site provided a variety of community tools. But the widespread availability of high-speed internet access and the degree to which the internet has become a part of everyday life has changed radically since then.

Examples of online communities:

- Neopets – almost 130 million 'pet owners' (Aug 06)<sup>13</sup>
- MySpace – over 100 million users and an average 230,000 new users a day (Aug 06)<sup>14</sup>
- Second Life – 1 million user accounts (Oct 06)<sup>15</sup> up from 650,000 (Sep 06)<sup>16</sup> and 290,000 (May 06)<sup>17</sup>

The participants in these communities aren't all teenagers with limited income and too much time on their hands. Broadcasters, retailers and even politicians have all staked claims in Second Life for instance, and there's a growing army of journalists and academics studying the other inhabitants.

## 2.4 Entertainment

One of the motivations most likely to result in mass participation is 'entertainment' and some of the most successful examples using technology are games. In the jargon-heavy realm of gaming, the most significant acronyms for mass participation are MMORPG and ARG.

### 2.4.1 MMORPGs

Massively Multiplayer Online Role Playing Games (MMORPGs) are games where large numbers of people play fictional characters and interact with others in a virtual world.

The best-known example is probably World of Warcraft (WoW). The game had 6 million active subscriptions worldwide by March 2006<sup>18</sup> (up from 1.5 million in March 2005)<sup>19</sup>.

<sup>13</sup> <http://www.neopets.com/petcentral.phtml> last accessed 18 October 2006

<sup>14</sup> <http://news.bbc.co.uk/1/hi/entertainment/5316000.stm> last accessed 18 October 2006

<sup>15</sup> <http://www.secondlifeinsider.com/2006/10/18/sl-hits-a-million/> last accessed 19 October 2006

<sup>16</sup> <http://news.bbc.co.uk/1/hi/technology/5333996.stm> last accessed 18 October 2006

<sup>17</sup> <http://www.trendwatching.com/trends/youuniversalBranding.htm> last accessed 18 October 2006

<sup>18</sup> [http://news.com.com/World+of+Warcraft+hits+6+million+milestone/2100-1043\\_3-6044861.html](http://news.com.com/World+of+Warcraft+hits+6+million+milestone/2100-1043_3-6044861.html)

last accessed 18 October 2006

<sup>19</sup> <http://www.blizzard.co.uk/press/050317.shtml> last accessed 18 October 2006



## 2.4.2 ARGs

Alternate Reality Games (ARGs) in contrast usually don't even admit they *are* games. Gameplay happens across many online channels and often spills out into the real world. For instance, players may get phone calls in the middle of the night or they might have to be in a specific location at a certain time.

The aim is generally to solve a complex puzzle of some kind. Usually some collaboration is needed to do this effectively. There are many smaller missions and puzzles along the way.

ARGs like ILoveBees or The Beast were created as part of a marketing campaign. Perplex City launched in April 2005 (and is now apparently nearing its conclusion) and is a commercial venture in its own right. Players buy and solve puzzle cards and there's substantial prize money for whoever finds the 'Receda Cube'.

With an estimated 45,000 registered players<sup>20</sup> it's not yet clear if the game is commercially successful.

## 2.5 Campaigns

Technology has been used in some very successful campaigns, e.g. helping to improve the quality of school dinners. Sheer force of numbers should increase the chances of achieving the desired end. Services like the Action Network, Pledgebank and Eventful's 'demand' facility all aim to provide people with tools to reach critical mass for a particular outcome.

## 2.6 Participation is good for you (and us)

Some of the classic benefits of any kind of participation are self-development for the individual<sup>21</sup> and stronger community ties<sup>22</sup>. Another benefit is increased commitment to the resulting decisions and resources<sup>23</sup>.

The citizen journalism site OhMyNews was key in the election of South Korean president Roh when the conservative mainstream press refused to cover his campaign. An unsuccessful attempt by parliament to impeach Roh met with large-scale public protests – again covered by OhMyNews<sup>24</sup>. Would this have happened if citizens had been less involved in covering Roh's election campaign?

Although most may not think voting on Big Brother is real participation, the number of complaints received after the reinstatement of contestants who were voted off proves that some people took the process seriously.<sup>25</sup>

<sup>20</sup> <http://www.perplexcity.com/> last accessed 18 October 2006

<sup>21</sup> <http://www.bsos.umd.edu/pegs/mansbrid.html> last accessed 1 September 2006

<sup>22</sup> <http://www.ncl.org/cs/articles/okubo2.html> last accessed 1 September 2006

<sup>23</sup> <http://www.worldbank.org/wbi/sourcebook/sb0100.htm#Commitment> last accessed 1 September 2006

<sup>24</sup> <http://www.msnbc.msn.com/id/5240584/site/newsweek/> last accessed 1 September 2006

<sup>25</sup> <http://www.moconews.net/big-brother-sms-voting-furore.html> last accessed 1 September 2006

## 3 Implications of technology-enabled mass participation

### 3.1 Communities real and virtual

The virtual worlds mentioned earlier were created specifically as online community or networking services. But communities form around anything that engages people sufficiently and digital media can certainly facilitate new communities. Flickr is both a photo library and a community of over three million people<sup>26</sup> who are interested in photography.

We have seen that MMORPGs can attract huge numbers of players. Gameplay doesn't really happen on this vast scale though. Micro communities – usually in the form of 'guilds' – are integral to games like WoW. Missions in the game can involve up to forty players with distinct roles who combine to achieve a common purpose.

The communities that form to solve puzzles in ARGs can persist beyond the original game as the Cloudmakers did after The Beast. Will Perplex City's community disband after the game ends?

There are factions as well as communities. In a recent 'atrocious', players gathered together in the World of Warcraft gameworld to honour a comrade who had actually died in real life. They were wiped out by a rival guild... Was this a moral outrage or just in questionable taste?

Most people probably find this incident amusing but what about when real-world prejudice goes online? Is it disturbing if Korean players of Lineage are "systematically eliminating Chinese teams due to rumors that Chinese players are looting 'dead' avatar bodies"?<sup>27</sup> Or that heavy-handed intervention by WoW administrators tried to ban a gay guild's

#### Case study: Flickr

In one way the actual taking and uploading of photos isn't really participation – most users are doing this anyhow. (In fact, rival Photobucket probably has a bigger userbase in this respect.<sup>1</sup>) However, though it's clearly an exaggeration to say that "Flickr single-handedly invented collaborative photojournalism" it's probably true that "Flickr members are now more inclined to document what they see, knowing that they can share it with others when they get home"<sup>1</sup>.

Why is Flickr inherently more participatory than rival Photobucket? Its appeal for individuals who are more inclined to share online and meet offline (and to opinion formers of various kinds) is partly because the service has been cleverly designed to encourage participation.

What makes Flickr different is the number of ways it facilitates participation rather than simply being a repository for individuals to store their photos:

- 'share' setting as a default
- easy image tagging<sup>1</sup>
- ability for others to comment on and annotate images
- tools to make uploading and tagging images from mobiles and adding location information easier
- ability for users to start new interest groups (taps into existing micro communities and makes the formation of new communities more likely)

Flickr also makes a good spectacle. Obviously the nature of the content helps but there are lots of good ways to explore the content including promoting the best photos by including user inputs of various sorts to calculate 'interestingness'<sup>1</sup>.

On the other hand if things are too easy then is it really participation?

<sup>26</sup> <http://www.flickr.com/groups/central/discuss/72057594120901731/> last accessed 18 October 2006

<sup>27</sup> <http://changewaves.socialtechnologies.com/home/2006/4/26/ashes-to-ashes-bits-to-bits.html> last accessed 1 September 2006

recruitment drive?<sup>28</sup> Or when Digg users form factions to bump stories by people with opposing political views?<sup>29</sup>

## 3.2 Top and bottom

In some ways, the most interesting levels of engagement are the top and bottom levels: it's very hard to recruit the most committed people and they're always going to be few in number while the bottom rung aren't really participating at all.

### 3.2.1 The 1% rule

Online encyclopedia Wikipedia is one of the best known user-generated resources with 1.3 million pages in English alone. But is it really an example of mass *participation*?

Even the classic 80/20 rule seems optimistic in comparison with the 1% rule: very small numbers of people are responsible for most of the contributions on sites like Wikipedia.<sup>30</sup>

The authors of the article don't mean to be pessimistic though. They suggest that:

*“small groups of people often turn out to be the principal value creators of a democratized community. Over time, their work fuels widespread interaction that engages the non-participating community and attracts new ones. If continually nurtured, the community can become a self-sustaining generator of content and value.”*

It takes a lot of effort to create an instigator so it may be better to attract people who already fill that role. This is straightforward in some cases. Teachers, for example, have a natural instigator role that educational projects can draw on.

The original intention of the BBC's Action Network initiative was to inspire people to start new campaigns. This was hard to achieve – it's a big step from finding out about Action Network to starting a new campaign. In practice, the usership of the site is mainly existing campaigners.

It's difficult to know how many people are actually using Action Network indirectly if all interaction is via a single 'instigator' contact: how can we measure the resulting peer to peer activity? The BBC People's War project collected stories from 65,000 people who lived through World War Two. One of the main motivations for people to take part was encouragement by family and friends. Do these people count as participants?

### 3.2.2 Watching the game?

Online gaming seems like an inherently participatory activity. Oddly though, there's increasing interest in spectatorship.

A recent game studies survey<sup>31</sup> cites, as its top research finding, a paper asking “How do we design for spectator as well as player experiences?”<sup>32</sup> The paper suggests a model for comparing gaming to performing. What kinds of interfaces make things fun to watch?

At a very obvious level, TV makes play look interesting. 17% of the world's population (1.2 billion people) is estimated to have watched the recent World Cup final.<sup>33</sup>

In South Korea (where online gaming is hugely popular) TV broadcasts of popular games get good audiences. The US satellite company DirecTV will be showing its 15 million customers the Cyberathlete Professional League 2006 Winter tournament.

<sup>28</sup> <http://news.bbc.co.uk/1/hi/technology/4700754.stm> last accessed 21 August 2006

<sup>29</sup> [http://www.smartmobs.com/archive/2006/09/07/finetuning\\_new.html](http://www.smartmobs.com/archive/2006/09/07/finetuning_new.html) last accessed 8 September 2006

<sup>30</sup> [http://customerevangelists.typepad.com/blog/2006/05/charting\\_wiki\\_p.html](http://customerevangelists.typepad.com/blog/2006/05/charting_wiki_p.html) last accessed 23 July 2006

<sup>31</sup> [http://avantgame.com/mcgonigal\\_GDC2006\\_gamestudiesdownload.pdf](http://avantgame.com/mcgonigal_GDC2006_gamestudiesdownload.pdf) last accessed 8 August 2006

<sup>32</sup> <http://www.mrl.nott.ac.uk/~str/doc/p133-reeves.pdf> last accessed 8 August 2006. Paper was collaboration between Participate partner University of Nottingham Mixed Reality Lab and Bristol University.

<sup>33</sup> <http://www.channelcanada.com/Article1453.html> last accessed 1 September 2006

This doesn't seem very innovative though. How can we design games that are genuinely interesting spectacles?

The Action Network site doesn't cater to lowest levels of engagement – the site doesn't really provide a spectacle. Although awareness doesn't necessarily lead to engagement, if a service is well-known because it's attracting large audiences, it should be more likely to be first port of call when someone does want to start something.

And how can we get spectators to work for us? One of the main features of emergent 'web 2.0' sites is that even the lowest levels of participation add something to the value of the service, e.g. Amazon's collaborative filtering. The BBC News site has recently added a 'most popular' feature to show which stories are attracting the most readers. An important function of emergent features like collaborative filtering is to give a sense of other people 'being there'.

Some of the barriers to participation e.g. apathy and lack of personal interest can be addressed by making something look like fun.

### 3.3 How do we design for participation?

#### 3.3.1 Having an effect

Two of the barriers to participation Sparkler identified were 'pointlessness' and 'triviality'. As an example, the People's War team found that potential contributors often felt their stories wouldn't be valuable.

One way to overcome this type of barrier is if people can see the effect of their contribution. Research shows that first-time contributors to message boards online are more likely to do so again if the first post gets a response – any response.<sup>34</sup>

#### 3.3.2 Initial focus

Many services that encourage ongoing participation typically rely on network effects, i.e. they become more interesting as more people contribute. But if something is *only* interesting if it attracts mass participation that could be a real problem unless contributors have enormous faith in the host. Initial contributions are particularly important and need to have value – to the contributors themselves or to others.

Some initial focus is needed to address this, such as an interest (e.g. MySpace and music) or initial contributors who already know each other (e.g. Facebook concentrating on college students).

It's also important to recognise when it's time for expansion.<sup>35</sup> Interestingly, Flickr is actively stopping people from uploading non-photographic types of image<sup>36</sup>. Is this an opportunity missed for expanding into a related area?

#### 3.3.3 User-made

There's increasing interest in participatory design. This development goes beyond designing digital services. For example, there's renewed interest in forms of participatory democracy.<sup>37</sup> Businesses of all sorts are increasingly turning to their customers for creative input – a phenomenon that's been called "crowdsourcing"<sup>38</sup>.

According to Trendwatching the "Customer-Made" trend is growing in importance:

<sup>34</sup> <http://jcmc.indiana.edu/vol11/issue3/joyce.html> last accessed 1 September 2006

<sup>35</sup> <http://www.insidefacebook.com/?p=6/> last accessed 1 September 2006

<sup>36</sup> <http://drawn.ca/2005/11/27/flickr-cracking-down-on-drawings/> last accessed 1 September 2006

<sup>37</sup> <http://cdd.stanford.edu/> last accessed 1 September 2006

<sup>38</sup> <http://www.crowdsourcing.com/> last accessed 1 September 2006

*“CUSTOMER-MADE ... , co-creating with your customers, is the most important one to watch. Not because everything has to or will be co-created in the future, but because tapping into the collective experiences, skills and ingenuity of hundreds of millions of consumers around the world is a complete departure from the inward looking, producer-versus-consumer innovation model so common to corporations around the world”<sup>39</sup>*

Involving users in designing digital services isn't new. User-centred and participatory design processes are well established in new media for getting ideas and insights for what will and won't<sup>40</sup> work. Involving users is also the best way recruiting advocates for your service (if it's any good) as anyone who has watched usability testing sessions knows.

People can demonstrate what they want from a service simply by using it. The results can be seen directly (as in Google mashups) or inferred from user-generated data (e.g. mobile game Mogi<sup>41</sup>). If user involvement is key, then there shouldn't be too many restrictions on what they can do. One plausible explanation of MySpace's success over competitors like Friendster is that “[it's] easy to use, and [it doesn't] tell you what to do.”<sup>42</sup>

Here's a good description of how this principle might work to explore a new market. The quote relates to TextMarks<sup>43</sup> – a user generated shortcodes service:

*So far, it's a nice, usable site, but there are other players on both sides of the pond doing similar things. But what sets TextMarks apart is that they are squarely aimed at the consumer User Generated Content angle - not the more obvious B2B advertiser route that everyone else goes after. Their thinking is that they don't know how people might find this useful, so let's launch the tool into the wild, give people a few ideas and then sit back and see what they come up with. This strikes me as being a very wise approach, as I'd bet good money that what people end up using this for, won't be what we might think.”<sup>44</sup>*

### 3.3.4 Not a cheap option

Participatory services aren't necessarily cheaper than more 'produced' services. A study by the World Bank comparing forty-two participatory community projects with non-participatory equivalents found that the former cost more overall though they also reaped extra benefits.<sup>45</sup>

### 3.3.5 Design factors

If we are designing for participation, there are many variables to consider. We have already discussed some of these: level of engagement, hostedness and communality. Figures M.5, M.6 and M.7 illustrate other factors.

**Figure M.5: Design v emergence** shows the extent to which an experience is affected by user participation. At the 'designed' end is an experience that's 'canned' i.e. where the user can't affect it at all. Most museum guides and located media are like this e.g. Coast. At the other extreme are emergent phenomena resulting entirely from 'user' activity like moblogging or bluejacking.

Action Network is also highly emergent. The service provides people with tools but few constraints on what can be done with them. Springwatch is somewhere in the middle. It's designed in the sense that the type of contributions the user can make is very prescribed, otherwise its value as a science experiment would be limited. However, without the participants there is nothing to see and we expect some unexpectedness in the results.

<sup>39</sup> <http://www.trendwatching.com/trends/CUSTOMER-MADE.htm> last accessed 1 September 2006

<sup>40</sup> [http://www.smartmobs.com/archive/2006/09/10/facebooks\\_pri.html](http://www.smartmobs.com/archive/2006/09/10/facebooks_pri.html) last accessed 1 September 2006

<sup>41</sup> [http://egsh.enst.fr/licoppe/documents/Recherche/LicoppeMOgi\\_NidoRevisedVersion2.44doc.pdf](http://egsh.enst.fr/licoppe/documents/Recherche/LicoppeMOgi_NidoRevisedVersion2.44doc.pdf)

last accessed 26 August 2006

<sup>42</sup> <http://www.slate.com/id/2140635/> last accessed 1 September 2006

<sup>43</sup> <http://www.textmarks.com/> last accessed 31 August 2006

<sup>44</sup> <http://mobhappy.com/blog1/2006/08/23/user-generated-short-codes/> last accessed 31 August 2006

<sup>45</sup> <http://www2.essex.ac.uk/ces/ResearchProgrammes/pa&caover5.htm> last accessed 1 September 2006

**Figure M.6: Permanent v transient availability.** Another design dimension or factor is how readily available the experience is. The very transient activities are basically events, often needing a lot of coordination. The most permanent allow participation at the user's convenience in services that have no planned end. Those in the middle may be more of a fixed duration, e.g. Springwatch.

Pledgebank and Action Network are an interesting contrast. Both allow participants to gather support for a cause but pledges have deadlines by which they must succeed so there's more of a sense of urgency. Although Action Network has items that relate to events, there doesn't seem to be the same sense of a deadline.

**Figure M.7: One-off v ongoing participation.** At one extreme many activities are designed so participation happens once only. A few people may wish to repeat but that's not the aim of the designers. Other services are designed for ongoing participation and participants will not give or get the most value if this doesn't happen.

An activity might be designed to be one-off for some participants but ongoing for others. For example, if an educational activity like Savannah scales up to become a standard activity for a particular age group, the teachers will need to be ongoing participants. The SETI@home software is designed to work on an ongoing basis but the actual participation (i.e. downloading and installing the software) is usually a one-off.

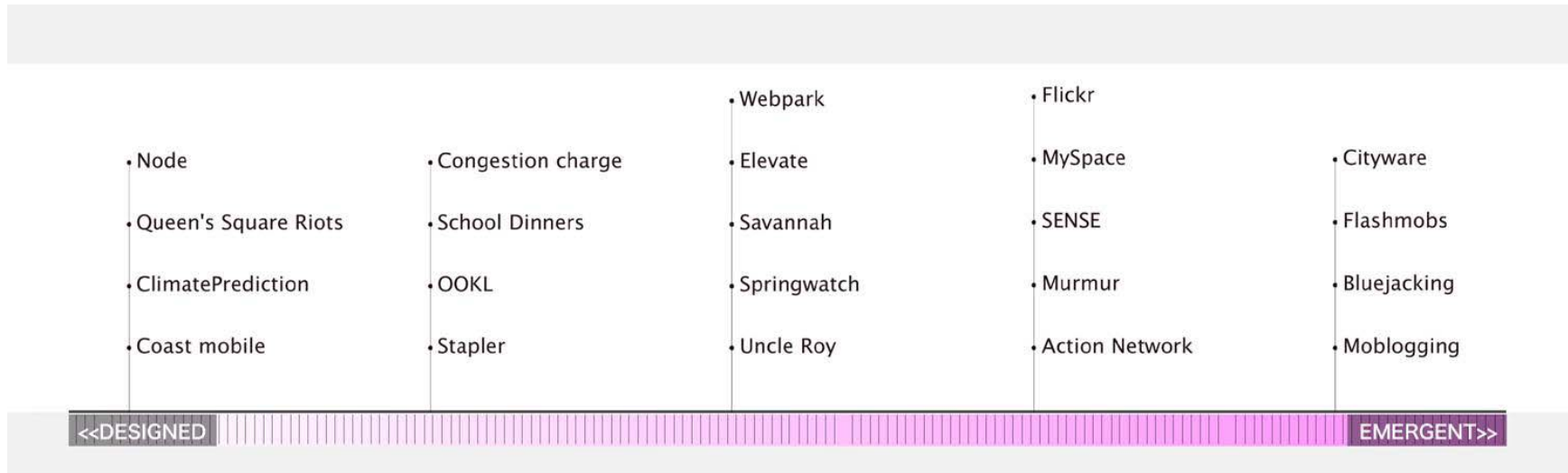


Figure M.5: Design v emergence

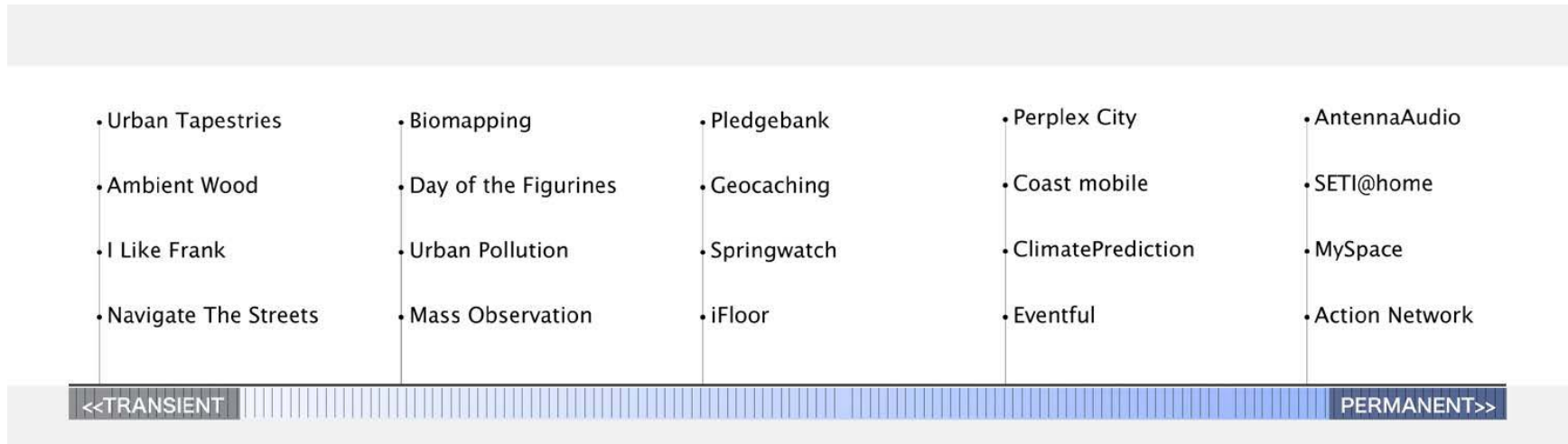


Figure M.6: Permanent v transient availability



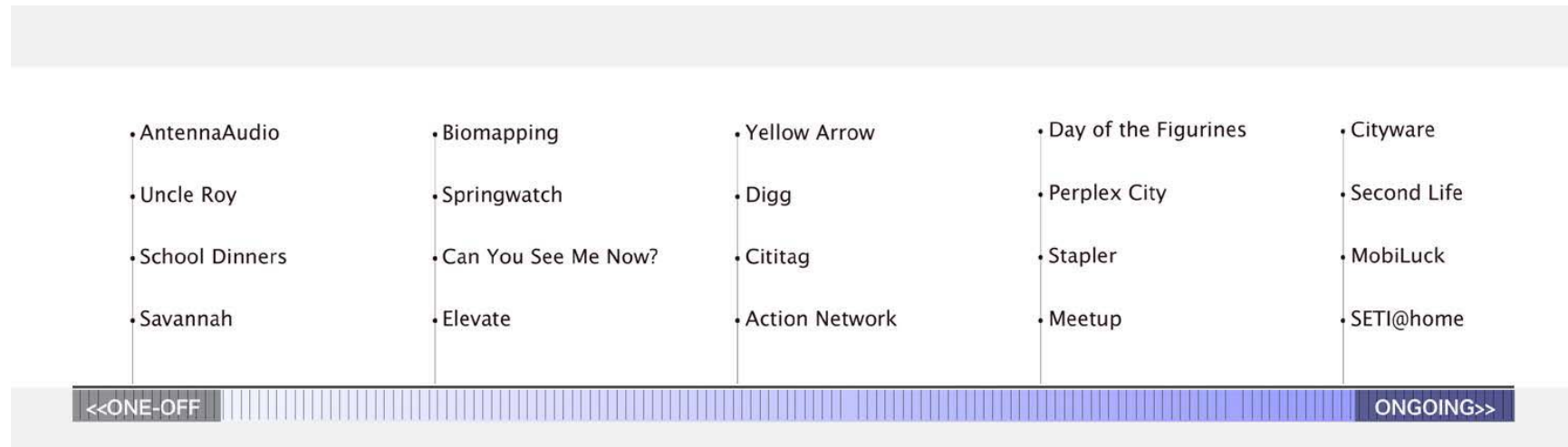


Figure M.7: One-off v ongoing participation



### 3.4 In whose interest?

We've been assuming all along that the benefits of increasingly participatory services will outweigh any disadvantages. Is this true?

#### 3.4.1 Quality

Clearly, if anyone can contribute, a lot of the submissions will not be good. Anecdotally, evidence from the BBC's user experience of UGC suggest that about 10% of contributions will be really good (though far more will be at least justifying their inclusion in an archive like the People's War).

YouTube relies almost entirely on viral marketing to promote the best contributions but that strategy is unlikely to work for broadcasters like the BBC. At the very least, new editorial skills and filter mechanisms are needed for identifying what's worthwhile.

New and interesting conventions are emerging as sites like Digg, Flickr and Wikipedia grapple with ways of promoting the best contributions. Both Wikipedia<sup>46</sup> and Digg<sup>47</sup> are rethinking their quality control mechanisms due to recent abuses which suggests there's still work to be done.

In any case, these mechanisms may not always be effective measures of quality:

*"Law professors now agonize over whether blogging constitutes legal scholarship and what this will do to the legal academy. They needn't bother. The real threat to quality comes not from the medium of blogging itself but from using citation counts, links, page views, and downloads as measures of merit."<sup>48</sup>*

Nor is it clear that the constant urge to contribute is always appropriate as a recent exchange over the blogging of an academic conference shows<sup>49</sup>. Several speakers complained that their talks had been seriously misrepresented by a blogger. The conference organiser's opinion is that blogging academic conferences is not useful because the medium over-simplifies complex ideas when the whole point of having the conference is so that these ideas can be discussed fully and at length.

The author of 'The amorality of web 2.0' believes that what he calls the "cult of the amateur" means we are failing to recognise, value and cultivate genuine expertise and that we are in danger of settling for the second-rate.<sup>50</sup> Is he right?

#### 3.4.2 Experimental error

Some critics of SETI suggest the whole initiative is pseudo-scientific<sup>51</sup>. How do non-expert participants know what's worthwhile?

Even if an experiment is well-founded, what if it's not well tested? A glitch in the initial Climateprediction.net settings meant that the initial experiment was not run as intended. The whole thing was re-set without warning after two months.<sup>52</sup>

These concerns become more important when the 'experiments' in questions are to do with whether and how we, as individuals and communities, act on issues like global warming.

#### 3.4.3 Ownership

The Gracenote music database (as used by iTunes) started as a user-generated resource called CDDB. Users converting their music to mp3 often entered track listing information afterwards for their own use.

<sup>46</sup> <http://news.bbc.co.uk/1/hi/technology/5286458.stm> last accessed 15 September 2006

<sup>47</sup> <http://www.techcrunch.com/2006/09/06/troubles-in-diggville/> last accessed 15 September 2006

<sup>48</sup> <http://www.thepocketpart.org/2006/09/06/balkin.html> last accessed 15 September 2006

<sup>49</sup> <http://webapp.utexas.edu/blogs/archives/bleiter/000455.html> last accessed 1 September 2006

<sup>50</sup> [http://www.rougtype.com/archives/2005/10/the\\_amorality\\_o.php](http://www.rougtype.com/archives/2005/10/the_amorality_o.php) last accessed 1 September 2006

<sup>51</sup> [http://www.crichton-official.com/speeches/speeches\\_quote04.html](http://www.crichton-official.com/speeches/speeches_quote04.html) last accessed 19 October 2006

<sup>52</sup> <http://news.bbc.co.uk/1/hi/sci/tech/4923248.stm> last accessed 1 September 2006

By submitting this information to a central server a very useful resource emerged – with very little extra effort for the contributors.

These people probably thought their contributions would remain freely available but CDDB was sold off and from March 2001 was only available under licence. Will the initial contributors be more sceptical in future?

A BBC news article raises important issues about ownership of user contributions.<sup>53</sup>

#### 3.4.4 Permanence and privacy

When participating becomes very easy, the resulting contributions may seem transient. Members of MySpace and other social networking sites may feel as if they're having private conversations with friends rather than making public statements about themselves. Prospective employers may feel differently.<sup>54</sup> Privacy and safety issues become more immediate when discussing location in the environment section.

Our online trails may be something we need to worry about in the same way as our credit histories. How permanent are the effects of our contributions? How much do we trust the hosts?

#### 3.4.5 New economies

Amazon's Mechanical Turk service puts HIT workers in touch with those willing to pay for their services. The commercial viability of this isn't clear, but there do seem to be people doing the more entertaining tasks for very little money.<sup>55</sup>

Even where user contributions are financially rewarded, isn't this just a way for companies to pay below the odds for creative content? The original crowdsourcing article<sup>56</sup> gave an example where a software development company lost business to a woman who wanted to keep her programming skills current while she looked after her small children. She was doing the work almost for free.

However, new possibilities are emerging. Despite all the press coverage, Second Life is still a minnow compared to worlds like Neopets. However, it's growing fast and has been described as "the most technologically and sociologically advanced" of the virtual worlds.<sup>57</sup> Second Life has its own economy which is growing at 10-15% a month.<sup>58</sup> 'Avatars' can sell merchandise and services to other avatars and the SL's Linden dollars can be exchanged for real greenbacks. Some users even make a living from it.

Overall, it looks as if there is major change ahead for creative professionals. Will the economic opportunities outweigh any losses?

<sup>53</sup> <http://news.bbc.co.uk/1/hi/technology/5224146.stm> last accessed 1 September 2006

<sup>54</sup> <http://www.nytimes.com/2006/06/11/us/11recruit.html?ei=5090&en=ddfbe1e3b386090b&ex=1307678400&pagewanted=all> last accessed 15 September 2006

<sup>55</sup> <http://mechanical-turk.blogspot.com/> last accessed 1 September 2006

<sup>56</sup> [http://www.wired.com/wired/archive/14.06/crowds.html?pg=2&topic=crowds&topic\\_set=](http://www.wired.com/wired/archive/14.06/crowds.html?pg=2&topic=crowds&topic_set=) last accessed 1 September 2006

<sup>57</sup> [http://media.libsyn.com/media/hbsp2/June\\_1\\_HBR\\_IdeaCast.mp3](http://media.libsyn.com/media/hbsp2/June_1_HBR_IdeaCast.mp3) last accessed 19 October 2006

<sup>58</sup> <http://www.sciam.com/article.cfm?chanID=sa003&articleID=D26B10CA0DE48DE1619FCEFC39D00D64> last accessed 19 October 2006

## 4 Food for Thought

We've raised several issues about the nature of participation, examples of mass participation using technology and how to design for increasing participation.

If you want to explore any of these further there are many useful sources available. We hope the following questions and resources act as a useful starting point.

### 4.1 Aperitifs

1. How can we design for participation?
2. How do we tap into micro communities?
3. What does a user-generated culture imply for creative professionals?

### 4.2 Digestifs

1. Tim O' Reilly (2005) "What is Web 2.0". Available online at:  
<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>  
and as companion piece 'Amorality of Web 2.0'  
[http://www.rough.type.com/archives/2005/10/the\\_amorality\\_o.php](http://www.rough.type.com/archives/2005/10/the_amorality_o.php)
2. Sparkler presentation  
available from <http://www.participateonline.co.uk/>
3. Yochai Benkler's 'Wealth of Networks'  
[http://www.benkler.org/wealth\\_of\\_networks/index.php/Main\\_Page](http://www.benkler.org/wealth_of_networks/index.php/Main_Page)

### 4.3 Post-prandial exercises

1. Rate a Digg story
2. Comment on a blog entry
3. Sign up to an Action Network or Pledgebank campaign

## 5 Credits

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## ABOUT PARTICIPATE

Participate explores convergence in pervasive, online and broadcast media to create new kinds of mass-participatory events in which a broad cross-section of the public contributes to, as well as accesses, contextual content - on the move, in public places, at school and at home.

Participate is a three year collaborative Research and Development project, supported through the Technology Programme with grant funding from the Department of Trade and Industry (DTI) and the Engineering and Physical Sciences Research Council (EPSRC).

Our consortium blends expertise in online services, pervasive computing, broadcast media, sensors, event design and management, and education. Our partners are BT, Microsoft Research Cambridge, BBC, Blast Theory, ScienceScope, University of Nottingham and the University of Bath.

For more information on Participate please visit:

<http://www.participateonline.co.uk/>

For more information on the Technology Programme and EPSRC please visit:

[http://www.dti.gov.uk/innovation/techprioritiesuk/about\\_the\\_programme/index.html](http://www.dti.gov.uk/innovation/techprioritiesuk/about_the_programme/index.html)

<http://www.epsrc.ac.uk/>

**BLAST THEORY**

bbc.co.uk  
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Microsoft  
**Research**  
Cambridge



The University of Nottingham logo features a stylized blue castle tower icon to the left of the text 'The University of Nottingham' in a blue serif font.



**dti**

**EPSRC**  
Engineering and Physical Sciences  
Research Council