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Active participation or just more information?

Young people's take up of opportunities to act and interact on the internet

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Abstract

Given increasing calls for children and young people to participate via the internet in civic and political activities), this article examines how far, and with what success, such participation is occurring among UK teenagers. Findings from a national survey conducted by the UK Children Go Online project show that young people are using the internet for a wide range of activities that could be considered 'participation', including communicating, peer to peer connection, seeking information, interactivity, webpage/ content creation and visiting civic/ political websites.

The findings are closely examined using path analysis techniques to identify the direct and indirect relations among different factors that may explain how and why some young people participate more than others. The results suggest that interactive and creative uses of the internet are encouraged by the very experience of using the internet (gaining in interest, skills, confidence, etc.) but that visiting civic websites depends primarily on demographic factors (with older, middle class girls being most likely to visit these sites). Finally, cluster analysis is used to identify three groups of young people -- interactors, the civic-minded and the disengaged -- each of which is distinctive in its social context and approach to the internet.

Key words: Participation, Young People, Internet, Interactivity, Political, Civic

Young people's participation in society -- can the internet help?

> 'We want children and young people to feel that they can influence the services they receive. We want to see them contributing to and benefiting from their local communities. We want them to feel heard and valued and to be able to make a difference.' (John Denham, Minister for Young People, cited in Children and Young People's Unit, 2001)

> 'Digital technology has important implications for the relationship between citizen and state.' (David Blunkett, Home Secretary, cited in Institute for Public Policy Research, 2004)

There are increasing calls for children and young people to participate in the debates and decisions made concerning their well-being, their education and their communities. These calls are fuelled partly by a growing recognition of children's rights to express themselves, participate and be heard in general[1] and partly by the worrying decline in civic and political participation both generally (Coleman, 1999; van Deth et al., 1999; Eliasoph, 1998; Norris, 1999; Park et al., 2002) and, especially, among young people (BBC, 2002; Kimberlee, 2002; Prout, 2000).

In developing policy to support and facilitate young people's participation, key issues remain unresolved. Should initiatives be directed at children and teenagers, encouraging their civic interests and participatory skills before they are old enough to vote, or should they be concentrated on young voters? Should 'political' be defined narrowly, meaning party politics, interest in government and voting, or should it be defined broadly, including identity politics, civic activities and social movement issues such as environmental protection, animal rights, anti-globalisation, gay rights and community activism? The former may seem more urgent, since it is young people's level of interest and activity in politics with a capital P that is most obviously in decline. Young people commonly declare 'Politics' to be boring, dull, irrelevant to them. As one group of 14--15 year olds from Essex, when asked 'are any of you interested in politics?', replied scornfully, 'No! Don't be silly' (Livingstone and Bober, 2003; Livingstone, in press). Hence, many argue that a broader approach will stimulate interest that can transfer from civic/life politics to a more traditional political agenda (Barnhurst, 1998; Bennett, 1998; Dahlgren, 2003).

Within this broader focus, many hopes are now pinned on the internet as a means of increasing young people's participation (Bentivegna, 2002; Hall and Newbury, 1999; McNeill, 1999; Sundin, 1999). The internet is widely hailed as the technology to bring direct participatory democracy to the masses, enabling citizens to become actively engaged in the political process (Katz et al., 2001; Wellman et al., 2001). Further, young people especially are dubbed 'the internet generation' or 'online experts', labels they themselves relish, although some have challenged this generational discourse (Facer and Furlong, 2001; Sefton-Green, 1998). What is clear, however, is that internet adoption is considerably higher in homes with children than homes without. The UK Children Go Online survey (Livingstone and Bober, 2004a) found that 98 per cent of children and young people aged 9--19 in the UK have used the internet. This figure is around twice that of the adult population: 58 per cent of UK adults aged 16+ had used the internet by

February 2004 (Office for National Statistics, 2004). It should be noted, however, that 'access' is no simple matter, and considerable differences among young people (and adults) persist in terms of the quality of access (e.g. range of access locations, speed of access, freedom to access), these being largely due to socio-economic differences (Livingstone and Bober, 2004a; Rice, 2002; Selwyn, 2004).

Nonetheless, since the internet offers many diverse forms of interactive engagement and participation, the prospects for building on young people's prior online enthusiasm and expertise seem promising. In this article, we examine whether using the internet draws young people into participation. It seems to be widely assumed that the internet can facilitate participation precisely because of its interactivity, encouraging its users to 'sit forward', click on the options, find the opportunities exciting, begin to contribute content, come to feel part of a community and so, perhaps by gradual steps, shift from acting as a consumer to increasingly (or in addition) acting as a citizen. This hope is leading many organisations, mainly but not exclusively in the public sector, to develop websites, online forums, chat spaces, peer networks, and so forth, which aim to encourage young people to make use of a wide range of online opportunities, interacting and participating both with each other and with decision makers (see Montgomery et al., 2004).[2]

Despite this expansion in online opportunities, and the considerable optimism centred on new e-initiatives, there are some good grounds for caution, even scepticism regarding the evaluation of claims for their popularity, uses and effects. Website producers report on the hits they receive, but these may be entirely unrepresentative of the young population. Research with young activists can be highly suggestive of the potential for such initiatives (Dahlgren, 2003), but this is also unrepresentative of the whole population.

Consequently, one must ask not only what kinds of online opportunities, interactivity and what civic possibilities are on offer but also, whether young people embrace all or some of these and, if so, why. Further, the question of which online activities merit the label of 'participation' remains unresolved. What exactly must young people do online before society will judge them 'politically active' or 'engaged in civic participation'? Online opportunities vary greatly, from peer to peer networking to community-oriented, civic and overtly political activities. To address these questions and, more practically, to consider how websites can be improved so as to encourage interaction and participation, this article examines young people's take-up of a range of activities broadly falling under the umbrella of 'participation'.

Research design and methods

The UK Children Go Online (UKCGO) project conducted a series of focus group discussions, followed by a national survey of 9--19 year olds across the UK, examining young people's internet use in detail. The project balances an assessment of two areas of risk with two areas of opportunity in order to contribute to academic and policy frameworks on children and young people's internet use. The risks addressed were first, access, inequalities and the digital divide, and second, undesirable forms of content and contact. The opportunities addressed were first, education, informal learning and literacy, and second, communication, identity and participation.

The survey, designed and piloted by the authors, was conducted as an in-home, 40 minute face to face interview with children and young people aged 9--19, using Random Location sampling across the UK. In random location sampling, interviewers are given very little choice in the selection of respondents. Respondents are drawn from a small set of homogenous streets selected with probability proportional to the population after stratification by their ACORN[3] characteristics and region. Quotas are set in terms of characteristics which are known to have a bearing on individuals' probabilities of being at home and so available for interview, and rules are given which govern the distribution spacing and timing of interviews.

The fieldwork, conducted via multi-media computer-assisted personal interviewing with children, together with a paper questionnaire completed by one parent of the 9--17 year olds, took place between 12 January and 7 March 2004 and was carried out by a reputable market research company (BMRB International). The most sensitive questions in the young people's questionnaire (e.g. those relating to viewing pornographic and hate websites and meeting people through the internet) were contained in a self-completion section in the questionnaire. This ensured that these questions were answered in privacy. Informed consent was obtained from all respondents and, for respondents under 18 years old, from a parent also (see www.children-go-online.net for the project's ethics policy).

In total, 1,511 interviews with 9--19 year olds were completed. 1,077 parents of children aged 9--17 agreed to complete a questionnaire of which 920 paper questionnaires were received and 906 were usable. In this article, percentages have been weighted to data in BMRB's TGI (Target Group Index) and Youth TGI surveys. The weighting efficiency was 91 per cent, and the effective sample size was 1,375. Raw sample sizes are reported as unweighted. Sample characteristics for the children and young people's survey (N=1511) are as follows:

Age: 9--11 years (N=380), 12--15 years (N=605), 16--17 years (N=274), 18--19 years (N=251)
Gender: Boys (N=668), Girls (N=842)
SES: ABC1 (N=682), C2DE (N=829)
Region: England (N=1,232), Wales (N=69), Scotland (N=161), Northern Ireland (N=48)
Ethnicity: White (N=1,333), Non-white (N=169)[4]

Who does what online? A broad view of participation

We first present a picture of young people's use of the internet across a range of activities in order to contextualize the analysis of their response to opportunities for interactivity and participation. Since the most detailed questions on these issues were asked only to the 12--19 year olds who use the internet at least once a week, we report here on this sub-sample of the respondents (N=975). The relevant questions are reproduced in the Appendix (see www.children-go-online.net for the full survey questionnaire).

Insert Table 1 about here

Communicating: As Table 1 shows, among 12--19 year olds who use the internet at least once a week, email is the most popular form of online communication (80 per cent), with more girls (83 per cent) than boys (77 per cent), more middle class (84 per cent) than working class (75 per cent) and more 12--15 (89 per cent) than 16--19 year olds (72 per cent) sending and receiving emails. Instant messaging (63 per cent of all 12--19 year olds) is a little more common among middle class (68 per cent) than working class children (54 per cent) and also more among older (69 per cent) than younger teens (58 per cent). By contrast, chat rooms are comparatively little used among 12--19 year olds (24 per cent), but they are more likely to be used by working class (28 per cent) than middle class children (22 per cent).

Connecting with peers: Playing games online is the most popular of these peer to peer activities (67 per cent of 12--19 year olds) (although games may also be played alone), especially for boys (73 per cent vs. 60 per cent of girls) and younger teens (78 per cent of 12--15 vs. 53 per cent of 16--19 year olds). Half of 12--19 year olds (51 per cent) have also downloaded music from the internet, with more boys (57 per cent) than girls doing so (45 per cent) and more of the older teens (57 per cent of 16--19 vs. 47 per cent of 12--15 year olds). Only one in five (20 per cent) visit websites of clubs they are a member of. This is more common among boys and among 16--19 year olds (24 per cent vs. 17 per cent of 12--15 year olds), and fewer still (14 per cent) show an interest in visiting other people's homepages, though it is more common among 16--19 year olds (16 per cent vs. 12 per cent of 12--15 year olds).

Seeking information: While information uses, including browsing educational and entertainment sites, are near-universal (96 per cent), it is worth noting that one in four (25 per cent) 12--19 year olds who go online at least once a week have used the internet to get personal advice, e.g. for advice related to homework, health, sexual matters, drugs or money. This too is more common among the older age groups (31 per cent of 16--19 year olds vs. 21 per cent of 12--15 year olds). A similar proportion (26 per cent) of 12--19 year olds who go online at least once a week read the news online, with more boys (29 per cent vs. 22 per cent of girls), more middle class children (28 per cent vs. 22 per cent of working class) and, especially, older teenagers (37 per cent of 16--19 year olds vs. 17 per cent of 12--15 year olds) doing so.

Interacting with websites: Around half (48 per cent) report at least one form of interactive engagement with a website (out of sending an email/ SMS to a site, voting for something online, contributing to a message board, offering advice to others, filling in a form or signing a petition online), suggesting a high level of interest and motivation among children and young people to be active online. Yet, on average, the number of ways of interacting is 1.03, suggesting that despite the many invitations to interact, 'to have your say', take-up remains low, especially among working class teenagers.

Visiting civic/ political websites: When it comes to actively seeking out information about political, environmental, human rights or other participatory issues, over half (54 per cent) of 12--19 year olds who go online at least once a week have visited at least one such website, with 27 per cent having visited a charity website, 22 per cent an environmental site, 21 per cent a government site, 18 per cent a site concerned with human/ gay/ children's rights and 14 per cent a site concerned with improving conditions at school/ work. When we add together the different types of civic sites, we find that girls, middle class and older teenagers tend to visit a broader range of civic sites.

On average, however, only one of these kinds of sites (out of a possible five) is visited by each individual, suggesting that overall, visiting civic websites is low on young people's priorities, with only 31 per cent of girls and 23 per cent of boys having visited two or more kinds of sites.

Creating websites: Two in five (39 per cent) of 12--19 year olds who go online at least once a week have tried to set up their own webpage. Web design is an activity undertaken more often by boys (47 per cent) than girls (30 per cent) and more by older teens (39 per cent). Social grade, however, does not seem to make a significant difference here.

Why do some young people participate online while others do not?

The survey findings show that in general, boys, middle class children and older teenagers are more likely than girls, working class children and younger teenagers to engage in online communication, information-seeking and peer to peer connection. There are some exceptions, however, most notably that girls are more likely than boys to visit civic/ political sites and use email and that younger teens are more likely to play games online and working class children more likely to visit chat rooms.

Do these demographic differences provide the best explanation for variation in levels and forms of participation? Or is it, instead, that these demographic variables influence the nature and extent of internet use and that this, in turn, influences participation in online activities? For instance, is it that boys are more likely to make a webpage because they tend to be actively encouraged to be more interested in technical activities, or is it because boys spend more time online and thus become more skilled in using the internet? In other words, could the relatively lower online participation of girls, working class and younger internet users be increased if their experience and confidence with the internet were to be increased, or would this make little difference?

To answer these questions, we must introduce into the picture some general measures of internet use, experience and expertise. In addition to the three demographic variables (age, gender and socio-economic status), six internet use variables were included in the survey: frequency of internet use, average time spent online per day, years of internet use, self-efficacy, number of websites visited last week and number of online activities (see Appendix). These internet use variables are, as expected, clearly related to demographic variables (see Table 1):

Age: Younger teens (12--15 years) have lower self-efficacy, fewer years online, use the internet less often, spend less time online per day and engage in a smaller number of online activities. In general, the older children become the higher they score on the internet use variables, except for the number of websites visited in the previous week.

Gender: Boys use the internet more frequently than girls, spend more time online per day, have been online for longer (in years), have higher levels of self-efficacy, have visited more websites in the previous week and engage in a larger number of online activities.

Socio-economic status (SES): Young people from a working class background (C2DE) have a lower rating of self-efficacy, average time online per day, years of internet use, number of sites visited and number of online activities. However, they use the internet more often than middle class children.

The internet use variables are also related to each other: young people who spend more time online also rate themselves as more expert internet users and vice versa (r^2=.3. p<.00), and young people who have used the internet for longer in years tend to spend longer online per day (r^2=.17. p<.00) and to have a higher self-efficacy rating (r^2=.25. p<.00), and vice versa.

By conducting a path analysis, we then sought to investigate the complex relations among these variables in order to ask which young people respond to the opportunities to participate online. For a given set of variables, among which the correlations have been measured, path analysis allows the researcher to propose a causal model which can then be tested against the data. It is commonly used to assess the relative importance of various direct and indirect causal paths to the dependent variable.

The statistical program AMOS5 was used to build the causal model presented here (see Figure 1).[5]

Insert Figure 1 about here

To focus the analysis, two forms of participation were selected: interacting with websites and visiting civic websites. The former measures young people's response to the general interactive invitation of the world wide web, the latter measures their interest in visiting specifically civic or political sites. Based on the literature and findings reviewed thus far, the model presented in Figure 1 hypothesizes several causal paths, as follows:[6]

1. Demographic variables (age, gender and social grade) have a direct influence on the range of interaction with websites, and they have a direct influence on the range of civic websites visited;
2. Use variables (self-efficacy, average time spent online, years online) also have a direct influence on the range of interaction with websites, and they have a direct influence on the range of civic websites visited;
3. Demographic variables have an indirect influence on both interaction with websites and visiting civic websites, mediated by use variables;
4. Interaction with websites is positively associated with civic website visiting.

Scales to measure the breadth of interaction and the range of civic websites visited were constructed as follows.

<u>Breadth of interaction</u>. A factor analysis of ways of interacting with websites showed that the six items form a single scale. The factor loadings for these six items are shown in Table 2,[7] and a new variable was created (range: 0--6) based on responses to the items: sending email/ SMS to a site, voting for something online, contributing to a message board, offering advice to others, filling in a form and signing a petition online. Although the standardized alpha is not high enough to suggest that these items measure a single construct, the intention was instead to measure breadth of interaction on the internet. Using the eigenvalues as a guide to the construction of the scale in this way was considered acceptable.

Insert Table 2 about here

<u>Breadth of visiting civic websites</u>. Using the same procedure as above, a factor analysis of types of civic websites visited guided the construction of a six-point scale

(range: 0--5). This scale was based on all five of the kinds of civic sites asked about in the survey: visiting websites about human rights/ gay rights/ children's rights etc., about protecting the environment, about improving the conditions at school/ college/ work, about a charity/ organisation that helps people or a government website (see Table 3).

Insert Table 3 about here

The analysis thus allows us to explain each of these activities in order to ask more broadly whether those who take up the invitation to interact are more likely to be drawn into the pursuit of civic or political interests online.

Tables 4 and 5 describe the variables and their correlations.[8]

Insert Table 4 about here

Insert Table 5 about here

How are these two forms of participation related to demographic and internet use variables? The model in Figure 2 was constructed through model trimming methods. It started from a saturated model in which all variables were related to all other variables. Then, with every iteration, the path that contributed least to the model, and which was not significant, was deleted from the model until the model fit reached a p-value closest to, but higher than, p=0.05.

Figure 2 can be interpreted as follows.

Gender. The path analysis shows that gender directly influences visiting civic websites (_=.09) (girls visit a broader range of civic sites) but not interacting with websites. Gender also has a direct effect on years online (_ =-.07) (boys have used the internet for longer). This, however, does not then have an indirect effect on either of the participation variables, meaning that although boys have used the internet for longer on average, they do not necessarily have a higher level of participation online. Similarly, how long girls have used the internet for makes no difference to the finding that they visit a broader range of civic sites than boys.

Socio-economic status. SES directly influences both visiting civic websites (_ =.16) and interacting with websites (_ =.07) (middle class young people visit a broader range of civic websites and also engage in a wider range of interactions on websites). Above and beyond this direct effect, socio-economic status also has an indirect effect on interacting with websites (but not on visiting civic sites) through its relationship with self-efficacy (_ =.14) and time spent online on an average day (_=.21). Hence, children from middle class families are more likely to spend more time online, and they are more likely to rate themselves as internet experts which, in turn, leads them to engage in a wider range of interactions on websites than working class children.

To put this another way, the findings suggest that not only do middle class children interact more with websites than do working class children but also that within the middle classes, those children with higher self-efficacy interact even more (though those with higher self-efficacy are not more likely to visit civic sites). This suggests that

10

increasing self-efficacy levels in working class children would help them 'catch up' in relation to interacting with websites, but not enough to overcome the class difference (because of the direct effect of social class). Further, it is not to be expected that gaining in self-efficacy would affect the range of civic sites they visit, suggesting that interventions based on increasing online expertise will not, in and of themselves, encourage working class children to visit civic sites. To achieve this, a different kind of intervention would be required.

Age. Like socio-economic status, age influences both visiting civic sites ($\_$ =.27) and interacting with websites ($\_$ =.22) directly. It also influences interacting with sites indirectly through its relationship with internet expertise and time spent online. Indeed, age is the strongest predictor of participation, with older teens both visiting a broader range of civic sites and making a broader use of interactive website features. Age also has an influence on all the internet use variables, with older teens spending more time on the internet per day ($\_$=.23), having a higher self-efficacy rating ($\_$=.17) and, most predictably, having used the internet for longer in years ($\_$=.50). Since higher scores on the internet use variables lead to broader participation, age has a double effect on participation, both directly and also indirectly, through its relationship with longer average times of internet use and higher internet self-efficacy.

Visiting civic sites. There is a mutual relationship between visiting civic websites and interacting with websites ($\_$=.29). Young people who visit a broader range of civic sites also tend to make broader use of interactive website features, and conversely, those who interact more with websites are also more likely to visit a range of civic websites. We conclude that visiting a range of civic websites is explained by demographic variables rather than by internet use: girls, middle class children and the older age groups tend to visit a broader range of civic sites.

Hence, these findings provide no basis for expecting that increasing experience or expertise on the internet will lead to more of this activity. Rather, it appears that young people with certain demographic characteristics are more motivated to pursue civic interest participation than their peers, whether they use the internet more or less and whether they feel more or less self-confident.

Insert Figure 2 about here[9]

However, since there is a correlation between visiting civic sites and interacting with websites in general, we may hazard the causal interpretation that, firstly, those who pursue civic interests online may be/ become more motivated to engage with the web in general and, secondly, that those who enjoy interacting with the web may become drawn into exploring civic interests online.

The path analysis also shows that interacting with websites is explained by socio-economic status and by age (with middle class children and the older age groups engaging in a broader use) but not by gender. Both older age and higher socio-economic status are related to higher average times spent online per day and higher self-efficacy, and these, in turn, are related to a broader interaction with websites. The number of years young people have been online does not make a difference to interaction with websites. Thus, age and socio-economic status, besides each having a direct effect, also have an indirect effect on the breadth of interaction through these internet use variables.

A typology of young people online: Interactors, the civic-minded and the disengaged

The analysis thus far suggests that young people cannot simply be divided into those who participate more and those who participate less. Rather, a more complex explanation, based on demographic and internet use factors, leads young people to take up opportunities to participate online in different ways. We end by seeking a more nuanced characterisation of users in order to understand how young people can be meaningfully grouped and perhaps differently addressed by those seeking to enhance their online participation.

Using the data from three key modes of participation -- interacting with websites, visiting civic websites and creating websites -- we conducted a cluster analysis[10] of young people aged 12--19 who use the internet at least weekly (N=975). The cluster analysis was based on the interaction, civic participation and website creation variables. It suggests three distinct groups (or 'ideal types') of young users of the internet:

Interactors. These young people engage the most interactively with websites (especially filling in a form about themselves online, voting for something or someone on the internet, contributing to a message board and sending an email or text message to a website), and although they are not especially likely to visit civic websites, they are the most likely to make their own webpages.

The civic-minded. These young people are not especially likely to interact with websites generally, nor are they especially likely to make their own website. Rather, they are distinctive for being much more likely to visit a range of types of civic websites, most of all charity websites and sites concerned with human rights issues.

The disengaged. These young people are the least active in all three areas of online participation, being much less likely than the other two groups to interact with sites, visit civic sites or make their own webpage.

Other characteristics of these groups are shown in Table 6. This allows us to fill out a description of these three groups as follows:

Interactors. These young people are more likely to be boys and to be middle class. They are also the most privileged in terms of domestic access, and they make the most use of the internet. As a result, they have both developed considerable online skills and discovered considerable advantages of the internet, using it not only for communication, games and music but also for advice, news, content creation and to respond positively to the many invitations to interact online. These young people spread their interests in using the internet widely, apparently ready to take up new opportunities as offered. Yet interestingly, this does not lead them particularly to pursue civic interests online. It cannot be determined on the basis of the present research whether the solution, if one is forthcoming, lies in better design of online opportunities or more creative interventions offline. This remains a key question for the future.

The civic-minded. More often girls and middle class, these young people are well-provided for in terms of internet access, but this does not lead them to make more than average use of the internet. Rather, they make fairly average use of a range of online opportunities, and they consider their internet expertise to be relatively low. However, they are distinctive in being the most likely to use the internet to visit sites of clubs they are a member of and to visit a range of civic or political websites. They are also the least likely to chat online or to download music. It seems unlikely that being presented with

new opportunities on the internet is drawing these young people into new forms of participation. Rather, they appear to have developed specific interests offline and, without feeling especially skilled, they see the internet as a valuable means of pursuing these already-developed interests.

The disengaged. These young people are a little younger and from a lower socio-economic status than either the interactors or the civic-minded. Hence they are less likely to have home access to the internet or a broadband connection which helps to explain why they are generally lower, less experienced and less expert internet users. They visit the fewest websites, communicate less online, and appear to gain least from the internet in a variety of ways. Although they make average use of the internet for information and for music (recall that they do go online at least once a week), they have not yet discovered the potential of the internet for a wide range of forms of participation. They are not simply disengaged as a result of low motivation, but in terms of access and skills they can be described as relatively disadvantaged. These young people, in short, remain marginalized or even excluded from the growing trend towards digital or online participation. They may, nonetheless, participate in other offline forums, a key question for future research being the relation between offline and online participation and, following this, the relative benefits of online participation, if any.

Insert Table 6 about here

Conclusions

This article has adopted a broad definition of online participation in order to examine how children and young people take up (or not) the various opportunities to become actively involved in a range of aspects of society mediated by the internet. Where television permits its audience to 'sit back' and relax, we have asked -- does the internet invite its users to 'sit forward' and become engaged? Some of the opportunities we have examined in this article facilitate peer to peer connection, some provide information needed to participate in society, all require young people to go beyond the content provided for them by others and to seek out, select and judge, even to create content for themselves as part of a community of actors that is larger than any individual.

Looking across the various forms of participation online, most activities are positively, if weakly, correlated among young people. This means that the more young people use the internet for any one of these activities, the more they use it for the others; the reverse also holds. This suggests a positive transfer of skills and interests across online activities, providing moderate support for the possibility that young people who engage with the interactive potential of the internet become drawn into a greater range of participation, including visiting civic and political websites. Furthermore, the overall levels of visiting civic sites and of making one's own web content suggest that young people are enthusiastic about trying out a range of opportunities online.

But such participation appears short-lived. They visit very few types of civic sites, presumably not finding this a promising route to participation. They may not update their personal site or even get it online, again not following through on their initial interest (Livingstone, in press). We suggest that these relatively low levels of participation indicate difficulties in 'following-through' rather than in initial enthusiasm. So, rather

than blaming young people for their apathy, the onus is now on content producers and youth organisations to support and develop these initial interests in the online domain.

Further, the survey findings suggest that although some online activities are widespread among young people (especially email, seeking information in general and playing games), many of the more 'worthy' or 'serious' opportunities are much less commonly taken up. For example, levels of news-seeking and advice-seeking, along with the use of the internet to mediate club-related or other organized social activities are all rather low, being pursued by fewer than a quarter of young internet users. These levels of participation may be lower than those concerned with young people's societal participation (on and offline) would wish.

Again, some ways of interacting with websites (completing quizzes, sending emails) are fairly common -- perhaps because they are already familiar practices in other media (quizzes in magazines, phoning a radio programme, etc.). But others are much less common, and this too may be because young people are not used to receiving and responding to requests to vote, offer advice, sign a petition, and so forth, in their everyday (offline) lives. Given that the take up of such opportunities online is fairly low, attention could be given to increasing young people's online participation by building further on already-familiar and commonplace activities offline.

Also of concern is the finding that online opportunities are not taken up equally. In general, boys, middle class children and older teenagers are more likely than girls, working class children and younger teens to engage in online communication, information-seeking and peer to peer connection though there are some exceptions, most notably that girls are more likely than boys to visit civic/ political sites. The survey also shows that boys, middle class and older teens have higher levels of internet self-efficacy, stay online longer per day and have been using the internet for longer. These demographic differences in internet use are, in certain respects, influenced by parental regulation, this especially acting to restrict the range of internet uses among younger children (Livingstone, Bober and Helsper, 2004). Crucially, however, the path analysis has shown that increasing levels of self-efficacy and online experience may enhance interaction online over and above the effect of demographic variables, but it is unlikely to result in greater visiting of civic sites.

In other words, it appears that online interactivity and, particularly, online creativity can be encouraged through the very experience of using the internet. The same is less the case for visiting civic websites because here the key determinants of visiting such websites are demographic -- age, gender and social class. This suggests that young people's motivation to pursue civic interests online depends on their background and their socialisation, and it is not affected by the amounts of time spent or levels of expertise online. It would seem, therefore, that if young people are to become more engaged with the civic potential of the internet, greater efforts are needed from the producers of civic sites to ensure that young people get something back from these sites. It is beyond the scope of this article to determine whether websites produced for young people are particularly problematic, failing to exploit the design insights from user-centred design work within human-computer-interaction (Large et al., 2003 and 2004; Oostveen, 2004) or whether the challenge to create effective sites for online participation is more widespread. However, based on our qualitative research (Livingstone and Bober, 2003), we note that, other than receiving information, it is unclear to young people what

they stand to gain from the opportunity to 'have their say' online. They wonder who is listening, what happens to their votes and what will follow from their engagement. And it is far from clear to young people that it is 'cool' to take up some opportunities, this being a barrier which is not simply a matter of style but more importantly a matter of identity (Coleman, 2003).

Pursuing this question of identity, this article has found that young people who use the internet regularly fall into three categories. Interactors and visitors of civic websites form two distinct groups, both of which can be clearly distinguished from the low participators in terms of their background and other characteristics. Thus, there are those who respond most positively to opportunities to interact online. Then there are others who are already motivated to follow up on civic and political interests. The last group is disinclined to participate actively online, being, it has been suggested, socially disadvantaged -- on the wrong side of the digital divide in terms of both quality of access and quality of use (Livingstone and Bober, 2004b). We cannot yet know whether they will join one of the other two groups as they gain in age and experience of the internet.

The existence of two groups who participate online, both relatively advantaged but in different ways, confounds the simple hypothesis that once online, a wide range of opportunities will be taken up by young people. Rather, it seems that those with prior civic or political interests find the internet a useful resource for pursing these interests while those motivated to explore the internet creatively do so, resulting in an active and creative engagement with the medium. However, this does not necessarily lead them into greater civic or political interests than before, for interaction and visiting civic websites are not to be regarded as sequenced 'steps' on a 'ladder' of participation (from minimal to more ambitious modes of participation). Rather, there are those who interact with websites but do not necessarily visit civic sites and those who visit civic sites but do not necessarily interact with websites. For those seeking to facilitate young people's participation in society further, different strategies may be needed to appeal to each of these groups.

The present findings suggest some ways forward. These include designing links from popular/ entertainment sites to civic/ political sites, so as to counteract the tendency of entertainment sites to be 'sticky', keeping users on the site rather than encouraging their further exploration of the web (Graber et al., 2004). Producers could develop a more genuinely interactive environment in which young people's contributions are responded to appropriately in such a way that further participation can ensue and that clear benefits are on offer. They might also address the rather dull and worthy appearance of civic sites to ensure a 'youth-friendly' appeal that does not undermine young people's desire to be, and to be seen to be, 'cool'. It would be beneficial to link online participation into curriculum activities in school so that -- as for creating personal homepages -- other forms of participation can also be encouraged by the school (whose key advantage is that of providing skills and support on a more equal basis than exists in the home). Interventions -- whether via online opportunities, through citizenship education or through local community or youth-focused activities -- are also needed for those who are disengaged in order that enhancing online opportunities does not exacerbate current levels of digital exclusion (Coleman and Blumler, 2002; Cutler and Taylor, 2003; Kubey, 2004).

Such strategies are undoubtedly worth developing, however, for the overall conclusion of this article must be that children and young people are far from apathetic. Rather, they are enthusiastically 'putting their toe in the water', with large numbers of them making modest use of the internet, but as yet, rather fewer have found the internet a sufficiently welcoming and stimulating environment to draw them into a richer use of it.

16 March 2005

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Table 1: Internet access, use and different types of participation, by demographics

	All	Boys	Girls	ABC1	C2DE	12--15	16--19
Internet access							
Home access	75%	76%	74%	**87%**	**62%**	74%	76%
Broadband access	35%	34%	36%	**40%**	**27%**	33%	27%
Internet use							
Frequency of use	av.=2.86	av.=2.74	av.=2.97	**av.=2.62**	**av.=3.13**	**av.=2.78**	**av.=2.94**
Average time online per day	av.=3.75	**av.=3.85**	**av.=3.64**	**av.=3.86**	**av.=3.61**	**av.=3.69**	**av.=3.82**
Years of internet use	av.=3.91	**av.=4.10**	**av.=3.70**	**av.=4.03**	**av.=3.75**	**av.=3.35**	**av.=4.61**
Self-efficacy	av.=2.42	**av.=2.46**	**av.=2.36**	**av.=2.45**	**av.=2.37**	**av.=2.38**	**av.=2.46**
Number of sites visited last week	av.=3.58	**av.=3.88**	**av.=3.27**	**av.=3.83**	**av.=3.29**	**av.=3.67**	**av.=3.47**
Number of online activities	av.=2.46	av.=2.56	av.=2.36	**av.=2.77**	**av.=2.12**	**av.=2.03**	**av.=2.95**
Communication							
Use email	80%	**77%**	**83%**	**84%**	**75%**	**72%**	**89%**
Use instant messaging	63%	61%	65%	**68%**	**54%**	**58%**	**69%**
Use chat	24%	26%	23%	**22%**	**28%**	**23%**	**26%**
Peer connection							
Play online games	67%	**73%**	**60%**	65%	69%	**78%**	**53%**
Download music	51%	57%	45%	50%	52%	47%	57%
Visit sites of clubs you're a member of	20%	**21%**	**16%**	20%	20%	**17%**	**24%**

Look at other people's personal homepages	14%	13%	15%	14%	14%	**12%**	**16%**
Information							
Seek information	96%	96%	95%	**97%**	**94%**	**94%**	**97%**
Seek advice online	25%	26%	24%	26%	24%	**21%**	**31%**
Look for news online	26%	29%	22%	28%	22%	17%	37%
Other							
Breadth of interaction with web sites	av.=1.03	av.=1.01	av.=1.06	**av.=1.15**	**av.=0.89**	**av.=0.86**	**av.=1.25**
Breadth of civic sites visited	av.=1.0	**av.=0.9**	**av.=1.11**	**av.=1.17**	**av.=0.79**	**av.=0.78**	**av.=1.28**
Make web pages	39%	47%	30%	41%	37%	**39%**	**39%**

Base: 12--19 year olds who use the internet at least once a week (N=975), with the exception of home access, broadband access, frequency of use and average time online per day, where the base is all 12--19 year olds (N=1,130).

Note 1: See appendix for scales used.

Note 2: Comparisons in **bold** are statistically significant at p<0.05.

Figure 1: General model for demographics, use, interaction and civic website visiting
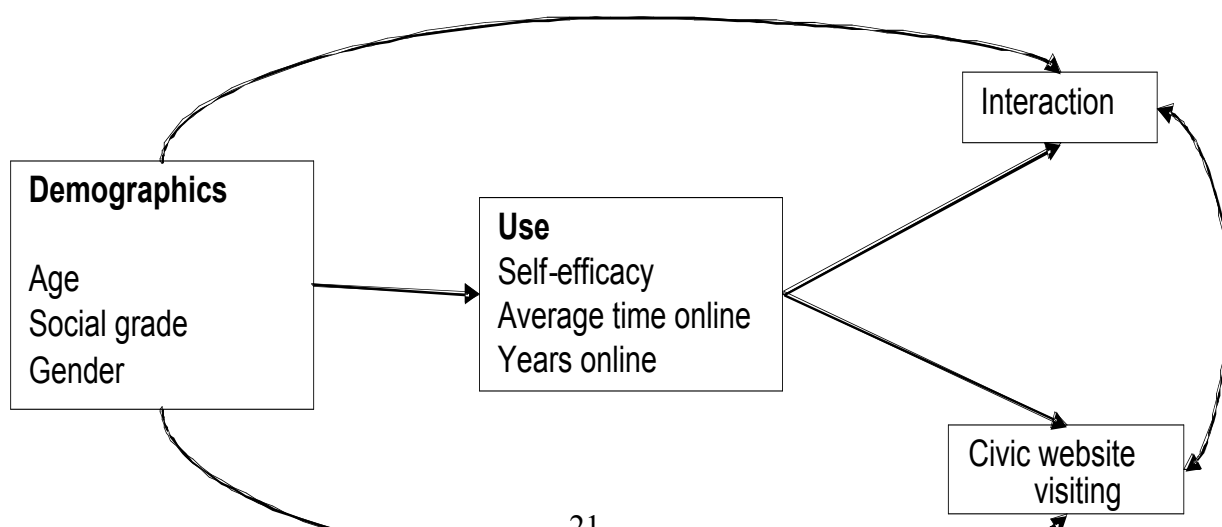
Table 2: Factor loadings for the interaction scale

Scale item	Factor loading	Mean	Std. Deviation
Offer advice to others	0.37	0.10	0.31
Fill in a form about myself	0.51	0.09	0.29
Sign a petition	0.46	0.09	0.29
Vote for something/someone	0.44	0.24	0.43
Contribute to a message board	0.63	0.21	0.40
Send an email or text message	0.42	0.29	0.46
Standardized alpha=.58			

Table 3: Factor loadings for the visiting civic websites scale

Scale item	Factor loading	Mean	Std. Deviation
Human rights/gay rights/children's rights	0.59	0.18	0.38
Protecting the environment	0.52	0.22	0.41
Improving the conditions at school	0.28	0.14	0.34
Charity or organisation that helps people	0.56	0.27	0.44
Government website	0.37	0.21	0.40
Standardized alpha=.58			

Table 4: Descriptive statistics for the variables in the model

|	N	Mean	Std. Deviation	Skewness	Kurtosis
Social grade	1511	2.35	1.07	0.14	-1.23
Age	1511	13.96	3.04	-0.03	-0.92
Years online	1226	3.56	1.88	0.75	0.86
Self-efficacy	1255	2.37	0.69	0.38	0.04
Av. time online per day	1452	3.55	1.55	0.38	-0.42
Interaction	1257	1.48	1.57	1.44	2.13
Civic websites	975	0.96	1.19	1.35	1.42

Table 5: Correlations among variables in the model

	Social grade	Age	Gender	Years online	Self-efficacy	Av. time online	Interact.	Civic websites
Social grade	1.00							
Age	0.05	1.00						
Gender	-0.03	-0.02	1.00					
Years online	0.09**	0.17**	-0.07*	1.00				
Self-efficacy	0.10**	0.22**	-0.06*	0.30**	1.00			
Av. time online	0.11**	0.28**	-0.01	0.25**	0.31**	1.00		
Interaction	0.10**	0.49**	-0.10**	0.25**	0.17**	0.20**	1.00	
Civic websites	0.19**	0.21**	0.09*	0.08*	0.05	0.35**	0.09*	1.00

Note: ** relationships are significant at the $p=.01$ level, * relationships are significant at the $p=.05$ level.

Figure 2: Path model for participation, interaction, internet use and demographics
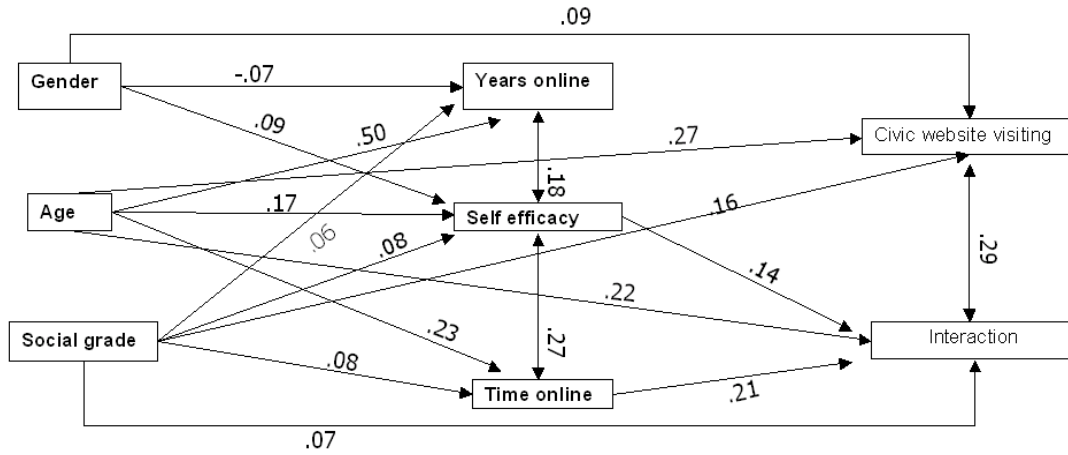
Base: 12--19 who use the internet at least weekly (N=975)
Note 1: All depicted relationships are significant at the p= .05 level. The coefficients are the standardized estimates.
Note 2: $X^2(11)= 18.64$, p=.07

Table 6: Characteristics of the three groups of online participators

	Interactors	Civic-minded	Disengaged
Demographics			
Age	Average of 16 yrs	Average of 16 yrs	Average of 15 yrs
Gender	More likely male	More likely female	More likely male
Socio-economic status	More likely ABC1	More likely ABC1	Less likely ABC1
Internet access			
Home access	Higher	Higher	Lower
Broadband access	Highest	Average	Lowest
Internet use			
Frequency of use	Highest	Average	Lowest
Average time online per day	Most	Average	Least
Years of internet use	Most	Average	Least
Self-efficacy	Higher	Lower	Lower
Number of sites visited last week	Highest	Average	Lowest
Number of online activities	Highest	Average	Lowest
Communication			
Frequency of using email	Highest	Average	Lowest
Frequency of using instant messaging	Highest	Average	Lowest
Frequency of using chat	Highest	Lowest	Average
Peer connection			
Play online games	Highest	Average	Lowest
Download music	Highest	Lowest	Average
Visit sites of clubs you're a member of	Average	Highest	Lowest
Look at other people's personal homepages	Highest	Average	Lowest
Information			
Seek information	Average	Average	Average
Seek advice online	Most likely	Average	Least likely
Look for news online	Highest	Average	Lowest
Other			

Breadth of interacting with web sites	Highest	Average	Lowest
Breadth of civic sites visited	Average	Highest	Lowest
Making web pages	Highest	Average	Lowest

Base: 12--19 year olds who use the internet at least weekly (N=975).
Note 1: See appendix for details of scales used.
Note 2: All group comparisons are statistically significant at least at p<0.05.

Appendix: Survey items and response options

Frequency of use: Respondents were asked whether they use the internet (1) several times a day, (2) about once a day, (3) a couple of times a week, (4) about once a week, (5) a couple of times a month, (6) about once a month, (7) less often or (8) never.

Average time online per day: Respondents were asked to estimate the time they spend online on a typical weekday and a typical weekend day. From this, a composite score was calculated for the average time spent online per day: (1) none, (2) about ten minutes, (3) about half an hour, (4) about an hour, (5) between one and two hours, (6) between two and three hours or (7) more than three hours.

Self-efficacy (or self-rated internet expertise) was assessed on a four-point scale, with respondents being asked whether they think of themselves as (1) beginner, (2) average, (3) advanced or (4) expert in using the internet.

Number of sites visited last week: Respondents were asked how many websites they had visited in the previous week: (1) none, (2) one to four, (3) five to ten (4) 11 to 30 or (5) more than 30.

Number of online activities: We asked respondents, 'Which of these things do you do on the internet nowadays?' A composite score ranging from 0--17 was created for the total number of online activities. Instant messaging, send/ receive emails, use chat rooms, use the internet for school college, to find information for other things, play games, download music, look for products or shop online, go online to do something that someone else has asked you to do, watch/ download video clips, plan a trip, look for cinema/ theatre/ concert listings and what's going on in your area, use message/ bulletin boards, look for information on careers/ further education etc., look for information on computers/ programming/ web design, look for news, look at other people's personal homepages.

The breadth of interaction with websites was measured on a scale from 0--6: sending email/SMS to a site, voting for something online, contributing to a message board, offering advice to others, filling in a form and signing a petition.

The breadth of civic sites visited was measured on a scale from 0--5. We asked respondents whether they had visited websites about human rights/ gay rights/ children's rights etc., protecting the environment, improving the conditions at school/ college/ work, a charity/ organisation that helps people or a government website.

Notes

[1] See the United Nations Convention on the Rights of the Child,

www.unicef.org/crc/crc.htm.

[2] Examples of such sites include youngGov (www.young.gov.uk), the UK government's

new web portal for 11--16 year olds, Children's BBC (www.bbc.co.uk/cbbc), which

encourages creating and disseminating material online and on television, sending

feedback to television programmes, using story circles to engage disadvantaged and

disengaged groups (e.g. disabled children), and the Childnet Academy

(www.childnetacademy.org, part of Childnet International), which runs an annual award

competition for websites made by children and young people that benefit other children

worldwide.

[3] ACORN is a standard classification of residential neighbourhoods used by UK market

research organisations as a segmentation system that enables consumers to be classified

according to the type of area they live in (specifically, by postcode).

[4] Although broadly representative of the UK population, the sample sizes for specific

minority groups were too small to include a breakdown in the analysis (of the 1,511

respondents, 91 respondents were Asian, 35 black, 4 Chinese and 39 of mixed ethnicity).

[5] The model in Figure 1 shows, for example, that socio-demographic variables are

understood to directly influence interaction and civic participation on the internet

(visualized by an uninterrupted arrow from demographics to interaction and civic website

visiting). However, gender, for example, is also assumed to have indirect influences on

participation through the mediating effect of other variables (internet use). Another way

of saying this is that the effects of socio-demographic characteristics on participation are understood to be mediated by internet use variables.

[6] We caution here that using dichotomous and ordinal variables (such as gender and social grade) in path analysis is problematic. However, this is mainly an issue when endogenous (dependent) variables are dichotomous or ordinal (Kline, 1998; Bollen, 1989). In the present study, the only dichotomous and ordinal variables used were gender and social grade, and both are used only as exogenous (independent) variables.

[7] In the survey, we asked about eight interactive activities. As the factor analysis showed that these did not form a single scale (with doing a quiz and sending pictures/ stories to a website being separate from the other six), these two items are omitted from the present analysis.

[8] Kline (1998) notes that a non-normal distribution of the variables inflates the Chi-squared values and would thus lead the researcher to be conservative in the acceptance of a model (i.e. if the Chi-squared value is inflated, the model would not be accepted as a good fit even if in reality it is a good fit). As shown in Table 4, years online, self-efficacy, average time online per day all have a relatively neat normal distribution. However, both interaction and civic website visiting are skewed towards the lower end of the scale and have relatively high kurtosis. The decision was made to use these variables and to accept the more conservative estimate of which models fit the data best.

[9] In path analysis, the desired Chi-squared statistic for the whole model should ideally be as low as possible. The hypothesis is that the model fits the data, and a p-value higher than 0.05 is required if the hypothesis is not to be rejected. In other words, a significant Chi-squared statistic (p<.05) means that the model does not fit. However, for the

individual paths to be included in the model, the relationships between the variables must

be significant because this indicates that the observed relationships are not due to chance.

[10] The cluster analysis used the furthest neighbour technique with standardized values in

the statistical programme SPSS 11.5.