
Marginalized Young People: Inclusion Through ICT

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Abstract

The paper introduces the field of Interaction Design for Marginalized Young People, which is the matter of discussion during the homonymous workshop held at IDC 2008. We summarize backgrounds, problems, and topics for this emerging field. We argue that awareness for the digital divide in today's societies has to become a major concern, even now when inclusion is no longer a matter of access to computers and the Internet only, but a matter of why and how. The paper gives a short overview on the papers that have been selected for presentation at the workshop. These contributions span from describing projects in developing countries to theoretical aspects of the field to practical software design solutions for overcoming the gap.

Keywords

Marginalized Young People, Inclusion, Digital Divide, Interactive Technologies, Children

ACM Classification Keywords

H.5.2 [User Interfaces]; J.4 [Social and Behavioural Sciences]

The matter of inclusion

Societies all over the world are meanwhile in the process of being covered by what we call "globalization" and "transformation" through worldwide available information, communication, and computing

technology. We are witnessing and experiencing the deployment of ICT at all levels of economic, social and cultural activities. The overall availability of ICT can on the one hand contribute to deepen the gap between the poor and the rich, both inside nations and at worldwide level. On the other hand, it can be used to provide better possibilities to integrate people at risk of exclusion, to empower individuals to become active participants in their societies, and to promote civic involvement.

The IDC community with its multi-disciplinary and user-centred approach is asked to contribute to the exploration of the above issues, and the IDC 2008 workshop “Marginalized Young People: Inclusion Through ICT” represents a step in this direction.

What does “marginalization” mean?

Poverty, not belonging to the mainstream culture and language, lack of competences, and lack of motivation are some of the main factors for *exclusion* of young people from full democratic participation. Societies lose the social capital [2] that could enrich economy, social life and culture. Even though they cannot be treated as a homogeneous group, as their needs and conditions vary drastically, it is important to broach the general issue between policy makers, stakeholders and researchers and to look out for a variety of analysis, recommendations and measures. Their capacities for their own development and for the benefit of the whole society shouldn't any longer lie idle. Pure access to computers and to the Internet has been judged for a long time as the question of *digital divide* and *exclusion* from the benefits of changing societies. But we are no longer in the dawn of information and knowledge societies. For children and young people, the question of unequal access still persists in some regions. In

addition, we need to face another divide among those for whom the Internet is an increasingly rich, diverse, engaging, and stimulating resource for participation on all levels and those for whom it remains a narrow device for consumption [1]

In his seminal article on “Participatory Culture” and media literacy Henry Jenkins points out that the new culture of the Internet asks for new competences that for some youth is acquired by their family background and their surroundings whereas others stay even more behind than before: “Increasingly those who have the education, skills, financial resources, and time required to navigate the sea of cultural choices will gain access to new cultural opportunities... At the same time, those citizens who have fewer resources – less time, less money, and less knowledge about how to navigate the cultural system – will increasingly rely on the cultural fare offered to them by consolidated media and entertainment conglomerates... such citizens will be trapped on the wrong side of the cultural divide.” ([3])

Several national and international studies show that significant differences exist in what young people are doing with digital media and which devices and software they use. It becomes crucial to explore these new kind of *digital divide* that is arising among young generations. But analyzing is only the first step towards taking measures for inclusion. Jenkins is indicating that educational efforts have to be taken in order to bridge the new gaps. The IDC community can play a crucial role in this arena, by investigating and creating ICT solutions for young people that may help them to overcome the gap between “remaining a *user only*” and “becoming a *critical actor*”.

ICT: possible contributions to inclusion

ICT alone cannot solve the problem of marginalisation - it cannot work by itself as a matter of inclusion. Still, some technologies could be useful in facilitating integration and can work as enablers in a suitable environment. So, measures in and for the field have to encompass technology *and* context.

As a first approach for inclusive design in the IDC context we propose four general directions. First, we need to consider that there is a broad *diversity* of demands instead of the white, well-educated (male) youth that is often in designer's mind when developing software and hardware. This approach would be of general benefit, as technology developed with special groups in mind can be of great benefit and interest for a so-called mainstream. In addition, we need to investigate advanced solutions for groups of young people in risk of exclusion. These should get them interested in participation, sustain emotional attachment, enhance job opportunities and act as leverage for civic engagement and participation. For this specific target, interaction design means to invent technologies that unleash youngsters' creativity. Furthermore, we need to explore innovative communication technologies and creative environments that can be shared among marginalized youth and can help them to "get connected", in order to increase self-confidence and relatedness. At the same time these solutions should help youngsters to connect to mainstream communities. Finally, ICT solutions for marginalized young people in mind are supposed to have low barriers of access, but should at the same time evoke willingness to learn and to proceed to the appropriation of higher competences beyond basic media literacies. For example, they should enable

participation in the high valued IT sector or foster self-determined and life-long learning capabilities.

The six contributions of the workshop

Within the broad context outlined in the previous sections, the IDC 2008 workshop on Marginalized Young People": Inclusion Through ICT" has attempted to focus on some key issues: What are main factors of exclusion from constructive exposure to interactive media and positive participation in ICT mediated experiences? How can ICT solutions and learning or edutainment environments for inclusion look like? What success stories/best practices can be told about positive impacts of ICT in marginalized young people's lives?

Six papers have been accepted for presentation at the workshop, involving a multidisciplinary group of authors from major research institutions in US and Europe. These works are available from the workshop web site (<http://hoc.elet.polimi.it/garzotto/idc-workshop-home.html>)

Marco Brambilla, Massimo Tisi, Piero Fraternali and Matteo Silva from Politecnico di Milano (Italy) explore the question of marginalization in developing countries. Their paper titled "ICT education as a key emancipation factor for young people in marginal quarters of developing countries" frames the problem of introducing ICT in the educational system of these nations. It considers how to organize a suitable infrastructure, and investigates the methods that could be used for empowerment. The authors report the experience of the *El Fortin* project, currently being carried on in Guayaquil (Ecuador), one of the poorest and most marginalized areas of South America.

Françoise Decortis and Laura Lentini from University of Liège, Belgium speak about “Semiotics artefacts, space and community: a case study on pinholes”. This paper provides a thoughtful insight on how to bridge the deep involvement of marginalized youth in virtual worlds towards involvement in physical local surroundings, and how to create a sense of communities in youngsters’ real life. A case study on pinholes illustrates these thoughts.

“Can ICT Support Inclusion? Evidences from Multi-Users 3D Worlds Based Educational Experiences” is the question raised in the article by Caterina Poggi (University of Wisconsin-Madison, US) and Nicoletta Di Blas (Politecnico di Milano, Italy). The authors describe a set of edutainment experiences in multi-user, 3D, online worlds that have involved so far over 9,000 students aged 13-19 from 20 countries. The promising message delivered by this project is that well-structured cooperative edutainment activities in 3D online worlds can be a powerful tool to raise interest among youngsters and to promote changes in habits of young people with difficult background.

In her paper titled “A Computer Game on Emotions for Teenagers Excluded from School”, Emanuela Mazzone from University of Central Lancashire (UK) displays with her article a fascinating idea: How about using computer games for children with deviant behaviour for gaining more emotional intelligence? The paper reports the case study of the U-Think project, aimed at pupils excluded from mainstream educational settings.

A different perspective on the role of e-gaming for young people is explored by Constance Steinkühler, Elizabeth King, Dani Fasher-Herro, David Simkins, Elsra

Alagoz (University of Wisconsin-Madison, US), in the work titled “Digital Literacies for the Disengaged: Creating After School Contexts to Support Boys’ Game-Based Literacy Skills”. According to various studies, literacy seems to be in a crisis due to over usage of videogames, especially by adolescents. Still, this paper argues that interactive games could be used for the disengaged to foster interest and knowledge in traditional literacy, and report a project in which these kind of interactive experiences helped adolescents “at risk” to gain literacy skills.

Finally, Christine Blaney and Liam McComish from University of Ulster, Northern Ireland, present an exciting learning environment mixed out of physical play and images/word projected on a screen. This turns out as an interesting and suitable environment for acquiring language skills and literacy competences.

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References

- [1] Livingstone, S. Bober, M. UK Children Go Online. London: Economic and Social Research Council (2005) Available online at <http://personal.lse.ac.uk/bober/UKCGOfinalReport.pdf>
- [2] Jenkins, H. Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. Mc Arthur foundation 2006 www.digitalllearning.macfound.org
- [3] Buckingham, David (2002): Children and Media. London 2002. UNESCO. http://www.chicam.net/media/pdf/DEL1_part2.pdf