

Cultural Coding and De-Coding as Ways of Participation: Digital Media for Marginalized Young People

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ABSTRACT

Like literacy itself, access to digital media both reflects and shapes the ways people *play and learn*, and more generally, how individuals and groups *perceive themselves, relate to others, treat things, and occupy space*. We see both opportunities and risks in today's infatuation for all things digital. As organizers of the IDC 2009 workshop on "Digital Technologies and Marginalized Youth: Reducing the Gap", our focus is on the empowerment and successful integration of marginalized youth. We look at how marginalized youth adopt digital media and what's in it for them. We summarize all the accepted position papers in an attempt to draw lessons useful to researchers, educators, and practitioners. To conclude, we draw from Paulo Freire's "pedagogy of the oppressed" as a framework to rethink some of the prerequisites that may help marginalized youth to find their voices while, at the same time, not ignoring the tongues of others (in particular those in power). Getting "lost in translations" is what paves the ways to many youngsters social exclusion.

Categories and Subject Descriptors

K.3 Computer Uses in Education
K.4 Computers and Society
K.4.2 Social Issues

General Terms

Design, Human Factors

Keywords

Marginalized Young People, Inclusion, Digital Divide, Paulo Freire, Participation, Empowerment.

1. INTRODUCTION

Pierre Bourdieu [1] stressed the importance of "social and cultural capital" as a key to gaining a voice—and finding a place—in modern societies. Even where formal barriers are torn, hidden factors such as linguistic abilities, cultural attitudes, and a loss in motivation and so-called "positive mindsets" create exclusion. In modern societies, social

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cohesion and power arise by a public that is increasingly represented through the Internet. The Internet becomes a centre of affiliation and participation.

As Nancy Fraser states when speaking of the public sphere: "Subordinate groups sometimes cannot find the right voice or words to express their thoughts, and when they do, they discover they are not heard. [...] [They] are silenced, encouraged to keep their wants inchoate, and heard to say 'yes' when what they have said is 'no'." [2]

From the beginning, the emergence of new practices afforded by electronic networks was filled with hopes that individuals, groups, and nations that are excluded could gain a voice to express themselves. This view holds great potential yet it often suffers from a techno-deterministic bias that has proved wrong on many occasions. ICT itself is coming to life through people who interpret its promises to fulfil their own needs and desires, and who integrate it into their personal lives. Media by themselves don't create accesses and opportunities, let alone for all! Exclusion mechanisms are stubborn, and more often than not, existing divides shift or deepen instead of disappearing. But new circumstances also allow to see old mechanisms more clearly and to reflect on the design of new paths in order to overcome traditional inequities.

This is what we want to invite the IDC community to do. Beyond interaction design in a narrow, technological sense, we seek a joint reflection and intellectual commitment on economical, cultural, political and technological conditions likely to breed the exclusion or inclusion of the marginalized.

The IDC 2009 workshop "Marginalized Young People: Inclusion Through ICT" is the second on this topic at IDC. The call for papers brought a rich variety of approaches to the subject. The 10 accepted papers, of which two appear in the proceedings, describe the interplay between social factors and technology, as seen by different authors in the field. The IDC community has to take a broad and holistic perspective in order not to fall into the trap of techno-centrism.

In our contribution as workshop organizers we will give a short insight into the great variety of contributions submitted for the workshop. We focus on the contexts of use of digital media by marginalized youth, and how preferred usages may offer chances of empowerment and participation. In the end, we take some steps toward a theoretical framework to help us move beyond the description of singular cases or good practices. Drawing from the contribution of Brazilian theorist and educator for the oppressed, Paulo Freire, we suggest that "cultural coding and de-coding" are a step toward the explicit

recognition that learners can and do transform the world in various ways within the normal course of their daily lives.

2. YOUTH CULTURE: RISKS AND CHALLENGES

In a seminal paper, Henry Jenkins describes the advent of “participatory cultures” among youth in the United States that is characterized by:

“Affiliations — memberships, formal and informal, in online communities centred around various forms of media [...] *Expressions* — producing new creative forms [...] *Collaborative Problem-solving* — working together in teams, formal and informal, to complete tasks and develop new knowledge [...] *Circulations* — Shaping the flow of media” [3].

This sounds very promising as a means to open up new possibilities for individual development and a chance for democratization. The question however remains: how to ensure that the growing digitalization in modern societies won’t widen the gap between nations where the Internet is at hand for most everyone and other nations that lack even basic infrastructure like electricity? The same holds true of the more ‘invisible’ gaps between social groups inside countries where some can embrace these new potentials whereas others cannot because they do not own the manners of speech, or the sets of motivation to make their voices heard.

To this day, there is not enough empirical data to shed light on the differences in media access and activities of youth around the world. What we can derive from statistics is that youth in most poor countries are still far from having reliable access to ICTs. The One-Laptop-Per-Child initiative (see <http://laptop.org/en/>) in particular aims at this, addressing the needs of multitudes of children in poor regions. The project is designed to offer children an opportunity to develop their own participatory cultures, based on affordances for self-expression and networking. There seem to be a lot of drawbacks, starting with economical and political resistance, but also doubts with regard to compatibility and practicability in poor regions that decelerate the implementation of this great vision. A well-informed, critical and constructive reflection is needed to gauge the value of such initiatives.

In wealthy nations the question of access seems a minor problem. Here we face mainly a divide between those for whom the Internet is an increasingly rich, diverse, engaging, and stimulating resource for participation on all levels [4] and those for whom it remains mainly a medium to escape from, rather than change their reality, or to communicate among trusted peer groups. The digital divide appears as a cultural, not mainly as a technical or economic issue, where “the importance of skills, informed choice, content and community [are] creating new contours to the digital divide in the early years of the 21st century” [5].

In what follows, we refer to some important findings from a study in Germany that investigated media activities among young people between the ages of 10 to 16, using quantitative as well as qualitative methods [6]. In Germany, school tracks are essentially split between “good” and “bad” learners, starting at the age of 10. “Hauptschule” is the lowest level of schooling. Pupils who are channeled into this track typically have less opportunities to get a job at the end of their schooling, their chances to switch to a higher level school are

slim, and the proportion of students with migration background in sample of the study here referred to is 75%.

The study also shows that young people from “hauptschule” are to a high degree engaged with digital media. Main activities include gaming, entertainment (music, videos), communicating, and also chatting and mingling on-line. The students use digital media in every-day-life and in informal contexts, independent of school support. The peer-group and the immediate social environment (building online communities) are crucial factors in how media skills are acquired and passed on. The ways the young people communicate about technology are often characterized by their own language codes, which are different from the official parlance or technical terms. Their communication partners in the electronic networks are usually limited to peer-groups, who stick together to strengthen a feeling of belonging. The world of the Internet is lived and described as a conscious dissociation from the world of adults. When the students access content or upload their own content to the Internet they use mostly visual over textual expression. Seeking information is a neglected activity among this group. Surprisingly, many of these young people do not see much relevance in becoming computer literate for their future job perspectives (maybe because they do not see any at all).

If these results are indicative of digital activities among youth in Western countries, some first conclusions could be drawn with respect to risks but also to novel opportunities and challenges: The Internet is embraced by the youth as a medium for entertainment and communication; they are interested in the medium and give it a strong meaning in their lives. They rely on peer-groups to gain the technical skills needed to access different tools. On the down side, their knowledge, gained through informal learning, often cannot be communicated and become visible outside these communities (i.e. at school) because it gets expressed in their own “jargon”. Adults seem to not play a role in their Internet culture (one could even assume that they are happy to keep adults out). The usage of the Internet in strengthening their own community could have the negative effect of contributing to self-segregation and preventing the occurrence of new and intercultural experiences. What Nancy Fraser emphasizes as the multiplicity in net-cultures, the openness to deal with differences, diversity, and communication across differences is unlikely to blossom by itself if the youth remain isolated. Whilst the Internet opens up access to a wide variety of information in world-wide libraries or for usage in every day problem solving, young people with lower educational background do not always use these possibilities to their benefit. The multimedia environments with more *visual* expression possibilities could be used to open new paths for access, and offer a “low floor” [7].

3. EXAMPLES AND PROJECTS

In spite of an abundant literature on youth at risk, little knowledge exists, to this day, on how to overcome the obstacles, let alone imagine and develop educational environments where youth can bring their own social capital into society, and thrive.

Participants in the workshops on “Marginalized young people” at IDC 2008 and 2009 offer a major contribution in addressing some of these issues. During IDC 2008, authors from different fields discussed wonderful projects to overcome

the digital divide. For IDC 2009 we have selected 10 papers for discussion. In the following section we summarize some of the main conclusions from these ten papers. All these papers are published on the workshop's web-site at <http://www.cs.uiowa.edu/~hourcade/idc-workshop/>.

Ilse Marschalek and Elisabeth Unterfrauner report on a European project "ComeIn" that has just started. In their two papers they take a deeper look at the term "marginalization" and analyze the advantages of using mobile phones and participating in online communities for learning. Maria João Silva, Cristina Azevedo Gomes, and Eduarda Ferreira present four most interesting projects, conducted in Portugal, and, like the previous authors, they also see great potential in using mobile phones, in particular geo-referenced data, in making the youngster's voices heard. Community centers for homeless young people in the US are the topic of Jill Palzkill Woelfer and David G. Hendry's article that offers an insight into experiences using ICTs to stabilize their situation and to improve their welfare. The aims of the European project INCLUSO, described by Jan Dekelver and Wouter Van den Bosch in their paper, focus on implementing virtual communities to facilitate interactions between welfare organizations (and young people at risk) in four European countries. Michele Frix, Jay Freistadt, Philip Neff and Joyojeet Pal highlight the potential of computer lab activities and training for youth in poor urban neighborhoods in Guatemala City and Sao Paulo, Brazil. In another paper Heather Underwood, Clint Tseng, Charlotte Robinson, Sunil Garg, Meera Lakshmanan, Richard Anderson, and Joyojeet Pala present a most interesting application that takes into account the fact that many children in developing countries have to share a computer; a ten-key numeric keypad is therefore proposed as a primary input device. Young people with intellectual disabilities are the focus of Emanuela Mazzone's, Emmanuelle Gutierrez', Carmen Barrera's, and Jesus G. Boticario's position paper; the project described here aims to help integrate them into working environments. To propose a method of looking at children as designers of products for children with special needs is the concern of a paper by Janet Read, Matthew Horton, Emanuela Mazzone, Brendan Cassidy, and Lorna McKnight. Another paper that appears also here in the proceedings, was submitted by Nitin Sawhney: It offers an excellent window into the outcomes of a series of workshops held on digital storytelling in Palestinian refugee camps in East Jerusalem during a summer camp.

4. LEARNING FROM THE PEDAGOGY OF THE OPPRESSED

These papers show that much good work is taking place to provide benefits to young people with disadvantaged backgrounds through the use of ICTs. These experiences build a valuable basis for opening and broadening the discourse. What would be needed now is a step towards building a theoretical framework to help gain insights and deeper understanding beyond single projects.

As a very first approach we took a closer look at Paulo Freire's "pedagogy of the oppressed" [8]. Paulo Freire was interested in the question of how the oppressed could "struggle to become free subjects and participate in the transformation of their society" and how they could step out of their "culture of silence". This directly points back to the initial statement in this paper that cohesion and participation in modern societies

is constituted through electronic media. This also connects to Bourdieu's insight that the marginalized cannot bring in their cultural capital. For Freire, a first step in a pedagogy of the oppressed is to recognize and make explicit that everyday activities matter and contribute a great deal to the culture at large: "men and women discover that they are creators of culture".

As an example, adults often know less about computers and the Internet than youngsters. This, in turn, may help youngsters realize that they "know things" they can be proud of and teach to others. Youngsters can learn a lot by telling their stories, and passing on what they are good at to others.

To Freire, cultural expressions need to be encoded—or "re-written"—into representations that are "distanced" from individual problems or conflicts in order to gain influence. In other words, it is only if you step back, reflect, and speak the tongue of others, that will you eventually be heard. "Alfabetisacao," or literacy, was the way Freire used to help "codify" into depersonalized representations a conflict or problem that carries emotional or social impact in people's lives. Its purpose is to promote critical thinking and action. Codes were used to stimulate learners to see themselves as makers of culture, to encourage explicit recognition that they can and do transform the world in many ways within the course of their daily lives and that they can go far beyond.

The post-modernist ways of encoding are software codes that connect physical to virtual worlds and open up transnational public spheres. Knowing how to make these connections, how to transform individual needs and interests into public recognition and relevance, how to use informal activities, learning and communities for job opportunities and enrichment of real life is a key to success, to well-being and to power. This needs practice, but also reflection.

Educational environments can provide both action and reflection, or reflection-in-action. Yet, practices by isolated groups in commercialized networks alone won't do. Nor will so-called "edutainment" packages or programs. What we advocate instead—or in addition—are engaging activities in and out of schools, public spaces to meet and mingle, caring adults and cool peers (e-pals or not), as well as attractive arrangements of hardware, software and facilities that offer a balance between "diving-in" and "stepping-out" [9] for self-directed learning. Here crucial items for discussion arise for the IDC community: "What is currently under-researched, and little understood, is the potential for immersive technologies to be combined with reflective spaces and practices to offer new pedagogical models for teaching and learning." [10]

Accordingly, we must seek today to discover the constitutive elements of a digital culture to open it for access to all, considering the changeability not only of the physical and social world, but technology itself. Within digital cultures, the concept of literacy, as we know it, is challenged as described by many authors. Basic literacy, such as reading and writing change in nature and are supplemented by media literacy, or "literacies beyond print" [11]. We have to make sure we understand these processes and requirements in order to take measures ensuring access to new literacies for all, as we tried to do with traditional reading and writing in activities for democratization.

It is also important to open the codes of digital technologies as programmable and human-made units. The building of easy-

to-access toolkits, as described by Resnick and Silverman [7] and carried out by a couple of projects described in the IDC proceedings could be important steps in this direction.

In classical Freirean pedagogy, codification took the form of graphic representations. An important consideration for digital media design is the use of codifications in the form of visual and audio materials (like sketches, photographs, videos, sound) as objects to mediate critical analysis. How could electronic visual codes be connected to “information” in order to allow access to and production of young people’s own “literate” creations? Today, we have the possibilities to design tangible materials that go beyond traditional graphical interfaces and allow access to ideas [11], making connections between the physical world and the semiotic world accessible. We can even enable “users” to change designers’ ideas by superimposing them with their own design ideas.

It will take some effort and time to detect such “constitutive elements” that can help to generate a voice for marginalized people. Interaction design can contribute and we don’t have to wait for political and educational action. New learning cultures do no longer rely on traditional education and authorities. Media can be used to surpass formal schooling in terms of where and how citizens form.

5. CONCLUSION

The question raised in the beginning of this article was to know if and how digital media can offer new possibilities for participation and empowering of marginalized youth. This question, we showed, cannot be answered in a techno-centric terms. We have to rely on empirical research to gain knowledge about the basic conditions and activities of marginalized youth with digital media. We also have to adapt the theoretical backgrounds that social scientists and pedagogues opened to gain a better understanding of the challenges of the field. In order to design technologies that can contribute to bridge the digital divide, we have to understand new possibilities and frictions to gain momentum for political, educational and technological strategies.

ICT alone will never ensure the successful inclusion of marginalized youth. This being said, some ITC offerings can work as enablers together with an appropriate environment. So, measures in and for the field have to encompass technology *and* context.

Tapping into and exploiting the convergence of multimedia and Internet means finding ways of encouraging “creative communities” and “imaginative milieux” [12]. Using technologies can open up opportunities to be creative, and creative skills can be nurtured at community level.

6. ACKNOWLEDGMENTS

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