ABSTRACT
Given the importance of new technologies in the classroom, especially in today’s information and communication societies, and following European Union recommendations to promote media literacy, this article reflects the need to educate not only in technical and efficient applications of communication technologies but also in their civic and responsible use, thus promoting participatory and deliberative processes which are the lifeline of a functioning democracy. The Greek dream of «isegoria», everyone’s right to speak, can become a reality in a digital culture, yet the highly selective use of communication technology can have the opposite effect: new forms of socialization can contribute to the expansion of «echo chambers» or «digital niches», shrinking communication spaces in which the right to speak dissociates itself from the responsibility to listen critically to what arises from a more open, plural and public sphere. One of the goals of education in a digital culture is precisely to diminish this trend that authors such as Sunstein, Wolton and Cortina have detected in recent years. This article proposes educational guidelines to avoid this bias by using communication technology to promote digital citizenship and the ethical values sustained by democratic societies.

RESUMEN
Asumiendo la importancia de las nuevas tecnologías en las aulas, especialmente en las actuales sociedades de la información y la comunicación, y siguiendo las recomendaciones de la Unión Europea a favor de la alfabetización mediática, el presente trabajo reflexiona acerca de la necesidad de educar no sólo en los usos técnicos y eficientes de las tecnologías comunicativas, sino también en el uso responsable y cívico de las mismas, favoreciendo así los procesos participativos y deliberativos que son el sustento de una democracia viva. El sueño griego de la «isegoría», del igual derecho de todos al uso de la palabra, puede hacerse realidad en la cultura digital, si bien es cierto que un uso hiperselectivo de la tecnología comunicativa puede producir un efecto contrario: las nuevas formas de socialización pueden contribuir a la expansión de «cámaras de eco» o «nichos digitales», es decir, espacios discursivos cada vez más reducidos en donde el derecho a decir se desvincula de la responsabilidad de escuchar críticamente lo que procede de un espacio público más abierto y plural. Una de las metas de la educación en la cultura digital es precisamente frenar esta tendencia, detectada en los últimos años por autores como Sunstein, Wolton o Cortina. En el presente artículo se proponen orientaciones educativas para evitar estos sesgos y para fomentar, mediante la tecnología comunicativa, la ciudadanía digital y los valores éticos propios de sociedades democráticas.

KEYWORDS / PALABRAS CLAVE
Media literacy, citizenship, digital culture, audiovisual education, democracy, values, public sphere, social networks. Alfabetización mediática, ciudadanía, cultura digital, educación audiovisual, democracia, valores, esfera pública, redes sociales.

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1. Digital Niches: an obstacle to democratic citizenship in information societies

Given the communication flow that is flooding our technically advanced societies, the need to learn habits or cognitive mechanisms to filter and select messages is increasingly evident. Developing such mechanisms, if based on good criteria, is one of the clearest indications of autonomy in communication, in other words media or audiovisual citizenship (Conill & Gozálvez, 2004).

Internet triggers our active, selective nature the moment we connect to the medium. However, an excessive interest in building and preserving personal selection devices can be counterproductive especially if the habit is solipsistic. The cognitive revolution attributed to the Internet can foment cognitive regression if our only information sources in the world are those we extract from cyberspace or an audiovisual space after restrictively selecting the type of information we had previously wanted to receive.

From the comfort of our homes, the Internet allows us to receive an audiovisual supply of information (entertainment, services...) that we requested beforehand. The Net opens up a personal world of predefined communication. A range of people from MIT researcher N. Negroponte to Bill Gates predict the arrival of a «Daily Me», a newspaper that will be sent to us via Internet; a communications package whose components (local news, sports events...) will have already been chosen in advance. The «Daily Me» will be followed by the «TV Me», and within a few years we will walk into our living rooms and say what we want to see, and a screen will pop up to help us choose a video that interests us¹. The convergence of TV and Internet will make traditional television as we know it redundant; phone companies are already building the appropriate infrastructure that will impose flexibility and individual selectivity on a fully on-demand television.

The audiovisual skills of Internet users will be so customized that, according to Sunstein (2003), our cognitive system will disregard the option of checking and evaluating heterogeneous knowledge and unpredictable information, which will undermine the building of shared, debated social experiences and democratic citizenship. The Internet propitiates individualization and immersion in «digital niches», («ever-smaller niches») or countless media bubbles. These niches are transforming us into cells isolated from a huge web of information that we find quite foreign, strange and distant.

C. Sunstein examines the threats to a deliberative democracy that arise from a selective capability powered by the Net. The possibility of such a negative outcome is shown in the latest research: the Net is transforming television in such a way that teenagers interviewed by the «Center for the Digital Futures» do not even understand the idea of watching TV via scheduled programmes, given that they watch it on their computer screens and, increasingly, on portable devices (Castells, 2009: 100). These devices make viewing more comfortable and entertaining, but the increasing ability of the audiovisual consumer to filter what gets through to him spells danger for the smooth running of any system deemed to be democratic. A plural, democratic society should not only promote freedom when faced by overreaching government (by limiting its ability to censor and ensuring that it respects individual choice to the utmost). Freedom requires public initiatives, education and training measures to limit apparently reasonable individual decisions (to digitally customize and filter the extensive audiovisual flow) that could eventually deteriorate the social web and the freedom of citizens.

Sunstein also says that individual filtering of information may lead to loss of access to public information of general interest, which is cause enough for reflection on our democratic responsibilities.

As Moeller states (2009), technology is changing the way we receive and understand information. The Internet is reinforcing the current trend to know exactly what it is that a person wants to see, read or hear rather than stick to what editors and producers have chosen. However, Moeller continues, «the fascination with the transformational effect of all this allows you to forget that old journalism is expensive yet still essential» (Moeller, 2009: 72). Organizations defending press freedom have seen their authority and influence decline worldwide and their very existence questioned. So-called old journalism might be reports filed by, for example, Anna Politkovskaya or the German journalists who died on the same day in Afghanistan. These journalists who fought to guarantee freedom of expression cannot readily be replaced by «citizen journalists», even though they deploy photographs, videos and blogs, and may post significant news items on the Net (such as blogs that reported the U.S. government’s disarray in the wake of Hurricane Katrina in New Orleans).

A free democracy works, paradoxically, because citizens come into contact with news and material they had not previously seen (Sunstein, 2003: 20). Unplanned encounters without prior appointment, so to speak, are essential to democracy because they put
the person in contact with significant points of view or issues that may be important for human and civic education, but which had not been selected or filtered "a priori".

A democracy also requires the majority of citizens (or a large number of them) to have common, similar communication experiences. Cultural and informative diversity –postmodern multiplicity– is a significant value but with limitations: it loses value if it leads to social fragmentation and prevents citizens from facing up to ordinary problems in a civic way. The dangers of fragmented communication (digital or audiovisual) are bigger as nations become more global, and are also affecting the construction of a cosmopolitan citizenship.

Filtering technologies that allow you to screen information specific to the network society can dangerously undermine the two fundamentals of any political system of freedom: civic participation and deliberation for social and human development. A functioning democratic order will be in serious trouble if the filtering processes of communication are radicalized and spread indiscriminately across the Net. If citizens restrict their digital consumption, they are giving up exposure to different opinions, especially those that deal with common issues (political, socio-moral, cultural...) necessary for public life or for sound public opinion. The new forms of online socialization are often new ways of strengthening existing social ties by direct relationships with friends, family or old acquaintances (Castells, 2003). They are also a constant opportunity to contact like-minded people about hobbies, ideologies, different tastes and cultural preferences. Such forms of socialization (as developed with the help of social networks) boost «network-empowered citizenship» provided the user does not bury himself in a particular social group and succumb to a kind of techno-socializing experiment that will isolate him from the general social problems or challenges that our global world requires us to confront.

The danger of misuse of social networks is made clear when the conditions for democratic citizenship are destroyed, and the communication flow leads to the setting up of «digital islands» in which people only share experiences with those who have similar interests, and ignore other issues that directly or indirectly affect them as members of a global, pluralistic society. Plurality is undoubtedly one of the axiological foundations of mature democracies which can degenerate into a type of «multiple digital inbreeding».

As Bilbeny (1997) said of our digital age that actions aimed at selection and filtration on the Net could lead to a general or partial cognitive regression rather than a cognitive revolution. It is essential to be aware of this danger and fight it on the educational front.

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The Internet provides effective filtering systems to select only the opinions you want to hear, read the articles and comments of politicians in line with your own ideological thinking, and use the type of communication (sports, arts, politics, economics...) that will reaffirm and reinforce your symbolic universe.

In a subsequent work, Sunstein (2007) insists on the precautions to be taken with the expansion of the blogosphere. The study refers to an interesting experiment in the state of Colorado (USA) in 2005 in which they chose some 60 adults from different states to form groups of five or six people. The groups were asked to deliberate on three controversial, political and social issues: Should states allow civil unions between same-sex couples? Should employers initiate positive
action to give preference to members of traditionally disadvantaged groups? Should the U.S. sign an international agreement to combat global warming?

The groups were organized according to the mainstream ideology of their home state, divided into groups of liberals and conservatives. The results went according to plan: the discussions and dialogues acted as a springboard for more extreme views instead of moderating them. In almost all cases, people became entrenched in more uniform positions after talking with like-minded people («like-minded others»). Disagreements lessened or disappeared after a mere 15-minute dialogue. The experiment also highlighted a second effect: aside from intensifying differences, it homogenized similarities. Liberal and conservative groups similarly outlined their different beliefs, after taking them to more extreme positions.

The Internet (rather than traditional media) makes it much easier for citizens to repeat the Colorado experience, says Sunstein. For example, anyone who doubts the credibility of global warming (or the Holocaust...) can find extensive material to justify his doubts on the Internet and confirm (strengthen or radicalize) their beliefs, to the exclusion of opposite or alternative opinions. However, it is also true that the Internet is a home for different viewpoints and news that would otherwise remain invisible, silenced or crushed beneath the general debate, as I will discuss later. One of the main tasks of education in digital and audiovisual culture is, I believe, to fight against «multiple digital inbreeding» created by digital niches or electronic echo chambers. Inbreeding in this context refers to the tendency to cluster in virtual families that are more or less stable through new technologies. These families group together according to partial, sporadic beliefs or ideological preferences, and thus neglect those common issues that form the core of public interest. Educational institutions, by contrast, can harness the vast argumentative potential of communication technologies to promote learning in a plural, autonomous and civic form.

The fascination for new technologies as political utopia, as an agent of social change, can be a false dream since it is not the technology itself but the social, cultural, educational and political projects that guide its uses; only these projects can produce desirable social change. From the point of view of personal relationships, the abuse of the Internet is an interactive incentive for solitude coupled with a certain degree of narcissism rather than for moral and civic autonomy (Twenge & Campbell, 2009).

However, are the new technologies really responsible for the bleak outlook we portray for modern, post-conventional citizenship? Could it be that they open us up to a new form of relationship, a new socialization process, which requires us to treat them with special care in the educational sphere?

2. Media literacy and civic values: some educational proposals

It is not our intention to portray an apocalyptic scene tinged with defeatism, among other things because dwelling on the pessimistic gives rise to the bad omens that will only encourage apathy and inactivity.

Moreover, sociologists specializing in the social impact of the Net, such as Castells, argue that new technologies do not lock people up at home but activate their sociability, and are a key element in users’ personal, political and professional autonomy (Project Internet Catalonia, 2007).

Yet, it is best to be warned, especially from an educational viewpoint, against the hazards and technologically amplified biases denounced by authors...
like Sunstein (2007), A. Cortina (2003), Sartori (2005) and Wolton (2000). It never hurts to develop educational initiatives against threatening and socially harmful prejudices, and civically responsible uses of new communication technologies to foment moral, democratic autonomy in a younger generation.

Castells recognizes that the Net produces a certain autism in «mass self-communication». Castells (2009: 102) quotes a study by the «Pew Internet & American Life Project», whereby 52% of bloggers write primarily for themselves, while 32% do so for their audience. So, «to some extent, an important part of this form of mass self-communication is more like electronic autism rather than real communication».

How can the dangers of autism or antisocial individualism in a network society be diminished? How can one prevent autism and «multiple digital inbreedings»? What are the educational conditions necessary for the network-empowered citizenship to become an audiovisual, digital citizenship?

The proposals for innovations in formal education that our new global and technologically communicated environment demands are the following:

2.1. Reinterpretation of the concept of education

Digital culture provides the conditions for a new interpretation or revision of the concept of education, surpassing technical instruction and old- or new-style encyclopedism (De Pablos, 2003), and in line with the classic movements of educational renewal (Aznar & al., 1999; Trilla, 2001, Nuñez & Romero, 2003; Gimeno Sacristán & Carbonell, 2003). Education in the ethical and civic values of democratic societies, and within new information and communication societies, means revitalizing cooperative educational programmes (Torrego, 2006); this education needs to update models that rely on activity (or interactivity) and student experiences, once teachers’ academic authority and function are redefined (Colom, 2002). It is vital to raise teachers’ capability and involve stakeholders, parents as well as students, in the educational process. It is most to educate learning minds in a constant, imaginative invitation to action so that students feel positively compelled to take part in the adventure of knowledge and personal skills development. This will help them take control of the critical assimilation of knowledge or the reflexive assumption of norms and regulated values of co-existence.

The School 2.0 has to be seen as a renewed commitment to this form of educational thinking (Sancho & Correa, 2010).

2.2. Learning 2.0 and integrated digital literacy

Since School 2.0 assumes the revision of the concept of knowledge and access to it (more horizontal, interactive and reciprocal), it can simultaneously act as a platform for a richer understanding of the public sphere, that which concerns us all on a social, global level. School 2.0 can help by educating on the public sphere, connecting students on matters of common interest. To counter the danger of a restrictive or endogamous use of social networks, the school may seek to impart knowledge of a broader social reality, increasing sensitivity and experience from other points of view. Knowledge of others through the Net can be exploited to favour a global, cosmopolitan citizenship, encouraging critical and creative thinking, awakening student activity for cooperation and interaction (Gutiérrez, 2003). The European Commission has established resolutions that urge all member states to promote media literacy «one of the prerequisites for full and active citizenship, and to prevent and reduce the risk of exclusion from the community» (Aguaded, 2010). In this regard, the Salzburg Academy on Media and Global Change has developed a media literacy programme in conjunction with universities worldwide, and media organizations and international institutions such as the UN and UNESCO (Moeller, 2009).

2.3. Empowering audiovisual citizenship

Educational institutions should evidently be open to new communication technologies, not only as mechanisms for learning and the pursuit of knowledge, but as an opportunity to reflect on the social uses of such technology, with the means to strengthen audiovisual and media citizenship in this field (Conill & Gozálvez, 2004). For examples, school curriculums should allow discussion of blog content, video games or advertisements that diminish the quality of democracy, or which are questionable from the civil rights perspective (gratuitous acts of violence, contradictory content that undermines the dignity of certain social sectors...). Likewise, schools should be a platform for detecting the standard image that the media portray of children and the youth. Schools can evaluate media perceptions of young people as they become more involved with communication technology; they are no longer passive receivers but are actively reconstructing their identities based on relationships with their surroundings (Buckingham 2005; 2008). Schools, in their attempt to spread critical thinking, cannot miss this opportunity to introduce into the classroom good life models, images
of identity and ways of perceiving and valuing the world that are hidden by media discourse, to make these models more explicit and to encourage reflection and dialogue on them.

Since formal education also includes the analysis of social networks to avoid bias and prejudice, it can also warn against the criminal uses of networks that threaten users’ dignity and privacy; the school deploy its new technological resources to encourage global contacts of a cognitive and socio-moral interest, with schools that are near or far, as well as with other educational or supportive organizations. In short, the necessary introduction of communication technology in elementary or high schools should not focus on purely technical aspects, as its social scope is equally important and affects vital aspects of society such as interpersonal relations and democratic, civic values.

To empower audiovisual or media citizenship is to educate citizens not only in the autonomous use of media whose applications can bring us closer to freedom, for example through the ability to identify and address new forms of servility, but also to educate citizens in the media (including, of course, the Net as an interactive medium of communication). This involves reinforcing the condition of the individual citizen through the use of media and new technologies, because communication technology is undoubtedly a valuable tool for the healthy democratic condition of nations, promoting civic participation and critical information. In short, appealing to citizens in this context is to talk about citizenship in the media or digital field, but also about how citizenship is achieved or enhanced thanks to the use of communication technology. Although the terms are closely related, it is necessary to distinguish between being an audiovisual citizen and a citizen with (of, through, with the assistance of) communication technology. These two dimensions need to be taken into account in the elementary or high school spheres, and require urgent attention in our media society.

2.4. Inclusion of the ethical dimension: human development and global justice

Expanding on the previous point, educational innovation will necessarily encourage «third-level empathy», that is, an assumption and understanding of other broader points of view in accordance with the concept of reversible, universal dignity (beyond empathy with the other direct contact, or the next one in the same social surrounding). 2.0 Learning relates to a model of key cosmopolitan justice linked to the new concept of sustainable human development, for the educational dimension of a human being that is so crucial and unavoidable for an emancipatory transformation to take place. Including the ethical dimension in techno-communicative training breathes life into digital or media citizens, and disseminates the values of civic ethics that are profoundly democratic in audiovisual and digital culture.

In reference to discursive ethics (Cortina, Escámez & Perez-Delgado, 1996), and based on current UN proposals for human development, and hermeneutic and critical methodology, we present some guidelines on the education of an integral, civic use of communication technology. Elementary and high schools are great places to foster human development and an overall global sense of justice, integrating values such as:

- Freedom, a classroom analysis of digital spaces for civic and, of course, peaceful engagement (freedom as participation), considering the consequences for privacy and the freedom of others, reflecting on the dangers to one’s own privacy or integrity arising from certain Net practices (freedom and independence), encouraging students’ critical thinking, searching for and analyzing news of public interest in an online newspaper (freedom as autonomy), studying how access to information and communication technology increases people’s capacity to build on projects and live better lives (freedom as development, as proposed by A. Sen, 2000), understanding the extent to which access to certain socially relevant information is a mechanism for avoiding servility or new forms of servitude (freedom as a non-denomination, according to the concept of freedom coined by Ph. Pettit, 1999).

- Equality, prompting awareness of and closing the digital divide by facilitating access to communication technologies (equal opportunities), as the 2.0 School aims to do by: exposing websites, blogs or YouTube videos that impinge on the people’s dignity and propagate the inferiority of cultural or ethnic groups, the disabled, the elderly or women (equality in dignity).

- Solidarity, involving a school with a local association for cooperation and development via the Internet, starting with e-mail correspondence between students of different backgrounds; discussing ways to use social networks that connect the needs and rights of others, by e-mail campaigns to demand justice in a particular case, or collaborating online with initiatives for sustainable development and preservation of nature.

- Dialogue and respect, reflecting on the benefits
and limits of tolerance in democratic societies, especially concerning digital culture, encouraging active listening, openness to different views or to those not previously selected by the student in their Internet interactions, assessing the consequences of copyright infringement on the Internet, or quoting text without crediting its author, reflecting on the new concept of friendship that arises in different social networks, and the minimum standards of courtesy to those who make it worthwhile to use them.

3. Conclusion
Civic education in a digital culture attempts to adapt the flow of technological communication by opening minds to others, in the constant search for new experiential and mental horizons, especially with regard to civic participation, social interest and key cosmopolitan justice. Education that is technologically blended is an opportunity for expansion and enrichment in the experiential field, but it has yet to fully engage the student citizen, the future builders of our social and human reality. In the end, technology has to be seen for what it is, a medium, a tool for pursuing very different aims and purposes, ranging from solipsism or «digital inbreeding» to a network-empowered citizenship that is completely democratic, a kind of citizenship that relies on the intensification of communicative human beings.

Notes
1 Statements by Bill Gates gathered by C.R. Sunstein (2003). In 2007, Gates reaffirmed these predictions, as reported by Reuters. He said that this revolution would be possible thanks to the explosion of video content on the Net and the alliance between computers and televisions. In 2010, Spain took its first steps to market the TV model «Sony Internet TV».
3 Progressive enclaves, according to a related category.
4 The «echo chamber» metaphor is significant: it is a chamber in which only one person hears what he utters or what those around him utter.
5 www.ouc.edu/in3/pic/esp
6 Other interesting resources for digital literacy, the critical understanding of media and education for active use are: www.understandmedia.com; www.educomunikacion.org; www.euromedialiteracy.eu.

References