# **ACCESS TO CULTURE**



A fundamental right of all citizens

# Education and access to digital culture: The current situation and future directions for European culture

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### I. Overview of current digital practices

There is now a broad consensus that technologies worldwide provide an unparalleled opportunity for the dissemination and sharing of data and knowledge, for facilitating relations among individuals and developing economic activity. The growth of the sector also contributes very significantly to creating jobs and businesses, and to innovation and overall productivity: digital technologies are continuing to spread rapidly.<sup>1</sup>

This growth of "digital production" and its economic potential has led to the development of a dominant and remarkably consensual public discourse about the "technological miracle" or "digital paradise." One characteristic of this discourse is that it is shared by individuals and businesses and also communicated by a large majority in the academic world. Public opinion, the media, the literature of economics and sociology — everyone, or almost everyone, is in agreement on the substantial benefits and potential of the digital sphere, a bias that is very seldom questioned or disputed either in civil society or in research and cultural institutions.

This belief system has been developed and spread by the same groups who were the first to acquire computing equipment: the managerial grades and the upper intellectual and social groups living in the most highly developed countries or in countries with high economic and technological growth rates. These social groups and dominant countries were, for obvious reasons to do with their purchasing power and educational levels, the first to acquire, learn to use, and benefit from the rich potential of the new digital tools.

One of the immediately obvious reasons for this very positive attitude derives from the belief that extremely rapid growth, first in home-based computing equipment and then in mobile devices (laptops, smart-phones, tablets, etc.), would by itself lead to widespread dissemination of knowledge, resources, and practices, and that the mere fact of the existence and rapid dissemination of these tools would bring overall improvement with virtually *no effort*, with the rapid adoption of technologies and their potential by all the individuals who gradually acquired them.

Indeed, the growth in acquisition of computers, smart-phones, and internet access has been much faster than any equivalent changes in the past, such as when television and then the VCR were introduced. For example, in French households the increase in ownership from 10% to 20% saturation took nine years for a landline phone, seven years for a dishwasher, and three years for a black and white TV, compared with two years for internet access and only one year for a mobile phone.<sup>3</sup> Today, according to the World Bank, 75% of the world's population has a mobile phone, and there are apparently five billion subscribers to mobile services in developing countries.

<sup>&</sup>lt;sup>1</sup> In 2011, 32.7% of the world's population had access to the internet, for a total of 2.28 billion individual users. Current forecasts indicate that by 2015 the percentage will rise to slightly over 40% of the world's population (source: *Internet World Stats*).

<sup>&</sup>lt;sup>2</sup> However, longitudinal research and studies that make use of structural variables do not necessarily present positive conclusions about these effects (Stryszowski, 2012). In its recent report, the OECD observes that "interestingly, most of the positive evidence was found for US data, and it is more difficult to find evidence in Europe."

<sup>&</sup>lt;sup>3</sup> Régis Bigot - CREDOC, La diffusion des technologies de l'information et de la communication dans la société française. Presentation to the meeting on "Cohésion sociale et culture numérique" organised by the Ministry of Culture and Communication, Paris, 29 November 2010.

### Inequalities in the distribution of digital technology

Has there been a digital revolution? Has access to technology made it possible to overcome divisions and inequalities in the "real world" with respect to information, knowledge, practices, and social benefits? In particular, what digital developments have been observed and what lessons can be drawn today about access to culture, the dissemination of cultural goods, and more generally the use of information technology and communication for education and training?

We can begin to answer these questions by considering the relationship between supply and demand and offering a socio-economic analysis in terms of the level of market penetration of digital devices. There is no doubt that on the supply side, we are witnessing major growth in digital tools and other products (applications, websites, and media) and major growth in technical equipment (physical devices for access to home-based and mobile digital resources). However, there still remain very wide disparities across continents, countries, and social groups. The level of internet penetration is very uneven: for example, 61.3% of Europeans had access to it in 2011, compared to only 13.5% of Africans. To put it another way, in the world as a whole more than 67% of individuals have no access to the internet, a percentage that rises to more than 86% in Africa, compared to "only" about a third of Europeans.

Not surprisingly, the traditional markers of social inequality account for variation in access (or lack of access) to digital equipment and in its use. <sup>4</sup> The "culture" of technology varies greatly from one country to another. Thus, simply among European Union countries, the presence of computing equipment in the home ranges from 94% in the Netherlands to 62% in Italy, with an average of 73% for the Member States. 5 The level of frequent use of the internet varies from 92% in Sweden to 49% in Bulgaria. In France, a country where an average of 76% of households has an internet connection, disparities in access and use are very marked: for example, 97.1% for students, 72.9% for the unemployed, and 33.4% for pensioners. With respect to the use of digital technology, education levels are a factor of severe discrimination: in France again, 91.1% of those with a higher education qualification have internet access at home, compared to 29.1% of those with only a school leaving certificate or no qualifications at all. Moreover, individuals' use of the internet as a source of information exhibits significant differences in perception of the legitimacy and trustworthiness of the sources, according to social status and level of education: the managerial grades and those with a higher education qualification put more trust in legitimate sources (institutional and official information), while the less educated more readily trust the information provided by the internet. This result leads to a secondary but significant observation: the ability to select and evaluate information and its sources is also unequally distributed.8

<sup>&</sup>lt;sup>4</sup> This leaves out of account other variables that might explain the major proportion of the variation relative to the digital divide – the effect of the equipment available, regulatory policies, and their character in different countries. See Menzie D. Chinn, Robert W. Fairlie, The determinants of the global digital divide: a cross-country analysis of computer and internet penetration, *NBER Working Paper Series*, National Bureau of Economic Research, Cambridge, August 2004.

<sup>&</sup>lt;sup>5</sup> Eurostat, Enquête communautaire sur les TIC 2011.

<sup>&</sup>lt;sup>6</sup> European Commission, Direction générale Communication. Les habitudes médiatiques dans l'Union Européenne, Eurobaromètre Standard 76, automne 2011, étude réalisée par TNS Opinion & Social.

<sup>&</sup>lt;sup>7</sup> Vincent Gombault, Deux ménages sur trois disposent d'internet chez eux. *Insee Première*, No. 1340, March 2011.

<sup>&</sup>lt;sup>8</sup> Eurobaromètre Standard 76, automne2011, *Ibidem*.

### Disparate and incomplete data world

Another important limitation relates to the study and measurement of digital practices and uses of technology. What exactly do we know today about the demand side – that is to say, about user profiles and practices and in particular the effects of computer use on access to culture and education? We can note the increase in academic research and analysis of these issues, but at the same time the significant difficulty of measuring usage (data is collected by robots which do not provide reliable measures of actual usage, significant bias is associated with online surveys, etc.).

Any general view of the state of knowledge about the effects of digital equipment on cultural accessibility and education is at present partial and imperfect. To take only one example, studies of the practices of internet users are overwhelmingly focused on the "instrumental" tasks associated with the technologies in question, but much more rarely address user aims or social, cognitive, and education benefits - in other words, the creation of social capital. 10 But these are the variables that would make it possible to measure whether and how computer use contributes (or not) to individual empowerment. These variables are also much more difficult to measure than simple functional tasks. While numerous studies have measured the skills required to perform basic technical or instrumental functions (such as the ability to send a message, use a peer-to-peer network, make an online purchase, download films or music, or to create a web page, a personal website, or a blog), they only rarely and with difficulty measure the qualitative benefits of computer use for the individual, whether it be finding information that is useful socially or professionally, getting a job, passing an examination, increasing knowledge and resources - in other words, to measure how technologies increase life chances, and whether individuals are equal with respect to the uses of technology and its richer functions. 11 Thus, when it comes to barriers to the use of digital technology, the internet in particular, French studies have shown that these barriers stem primarily from the perceived complexity of the tools (32%), their cost (21%), and the lack of a sense of its usefulness (19%). 12 While all social groups express a sense of the high cost of internet access, it is the unemployed, older people, and those without educational qualifications who find the internet complicated to use and, in the case of the last two of these three groups, do not see the internet as useful for their daily lives.

#### A world divided and fragmented in its use of digital technology

What conclusions can we draw from this? In the context of this article, we can summarise two of the chief results of studies conducted internationally. Even if the "digital divide" is narrowing with respect to hardware, the use of the technology continues to be extremely discriminatory. Despite strong growth in acquisition of physical devices, we must ask whether, contrary to the generally accepted view, computing is in the process of

<sup>&</sup>lt;sup>9</sup> Régis Bigot, Patricia Croutte & Fanette Recours, Enquêtes en ligne: peut-on extrapoler les comportements et les opinions des internautes à la population générale ? CREDOC, *Cahier de recherché n° 273*, December 2010

<sup>&</sup>lt;sup>10</sup> Vincenzo Spiezia, Does Computer Use Increase Educational Achievements? Student-level Evidence from PISA, *OECD Journal: Economics Studies*, OECD Publishing, vol. 2010 (1).

<sup>&</sup>lt;sup>11</sup> Paul DiMaggio & Eszter Hargittai, From the 'Digital Divide' to 'Digital Inequality': Studying Internet Use as Penetration Increases, *Working Paper #15*, Center for Art and Cultural Policy Studies, Princeton University, 2001.

<sup>&</sup>lt;sup>12</sup> Vincent Gombault, op.cit.

increasing inequality among individuals and, correspondingly, reinforcing the downward social mobility of those most disadvantaged educationally, culturally, and economically.

Research thus shows that the ability to use digital tools is at present very unevenly distributed. Lack of this ability is perceived psychologically as an obstacle by the more disadvantaged social groups, and objectively as a barrier to social life and individual empowerment, because there is such a difference in the practices of the digitally educated, who can make use of the full potential of the internet, and the digitally marginalised, who utilise computing resources in a much more limited way for relatively "poor" types of use, primarily leisure and entertainment. 13 For example, in 2009 (only) 49% of French people considered themselves competent in the use of a computer, a percentage that rises to 82% among university graduates compared to only 21% of those with no educational qualification. 14 Whether they are novices or advanced users of the computer and the internet or of digital tools for dealing with administrative or tax-related matters online or getting help with finding a job through the internet, it is the uneducated, the low-paid, the unemployed, the unskilled workers, those aged over 40, and also women and single-parent families in general, who feel the most disadvantaged with respect to computing. These results are comparable to those of the survey of cultural practices in France conducted by the French Ministry of Culture and Communication 15: in asking about online document searching - an activity engaged in by 84% of the representative sample of the French population surveyed — it was (unsurprisingly) found that this was performed by 92% of those with four or more years of higher education, compared to 67% of respondents with no school leaving certificate or only a primary school certificate; alternatively, it was performed by 94% of heads of households who were from the managerial or professional class, compared to 75% of heads of households who were ordinary workers. In the same survey, those who reported that they were taking online courses or training - only 6% of total respondents - were (unsurprisingly) chiefly university or secondary school students (15%), young adults aged 20 to 34 (10%), but also residents of Paris proper (9%), and the managerial and professional grades (10%).

A study conducted in 2010 by the Kaiser Family Foundation<sup>16</sup> confirms that this same divide by social origin and education is true for children aged 8 to 18 in the United States. While within the age range studied internet access in the home actually increased from 47% in 1999 to 84% in 2009 (33% of the American children surveyed had internet access in their bedrooms), it was found that there was a greater use of media - including digital media - among African-Americans and Hispanics than among Euro-Americans. For the former of these groups, the most active users of digital media received the highest percentage (47%) of average or poor grades in school. The survey reveals that children from poorer or less formally educated families spend more time watching television (90 minutes more each day than children from families of a high socio-economic level); they use digital media more for playing games or interacting on social networks; the use of their time is focused on leisure and entertainment activities that are less "useful" for academic achievement or workplace and social integration than the more varied activities, overseen by parents and more oriented towards formal or informal learning, 17 which are engaged in by the children of the middle and upper classes. These findings have led the US government, via the Federal Communications Commission, to consider establishing a programme, at an estimated cost of 200 million dollars, to develop cohorts of

<sup>&</sup>lt;sup>13</sup> The distinction made here between "educated" use and leisure use does not of course imply a judgment about their relative value but is simply one way to analyse the types of usage observed.

 <sup>&</sup>lt;sup>14</sup> Vincent Gombault, op.cit.
 <sup>15</sup> Olivier Donnat, Les pratiques culturelles des Français à l'ère numérique : enquête 2008, La Découverte / Ministère de la Culture et de la Communication, 2009.

<sup>&</sup>lt;sup>16</sup> The Henry J. Kaiser Family Foundation, Generation  $M^2$ . Media in the Lives of 8- to 18-Year-Olds, 2010.

professionals who would give instruction, in schools and libraries, in the "productive" uses of computers for parents, students, and job-seekers. Although the initial challenge of furnishing American schools with computer hardware has now achieved most of its original goals, it is also true that while no less than 65% of Americans already have broadband service at home, this rate drops to 40% among households with less than \$20,000 in annual income, while half of Hispanics and 41% of African-Americans have no access to broadband. The goal of developing digital skills and training in the complex and rich use of the technology, in other words digital literacy, is thus a project in which investment is urgently needed. From the perspective of social capital and civic involvement, other studies examining the many possible uses of digital media also confirm these inequalities: "The informational and communicative uses of media may prove beneficial to the health of society, whereas recreational and entertainment uses may erode public involvement." 19

All the major European programmes designed to promote social inclusion in the digital sphere highlight the amount of progress yet to be made in terms of access. Several key areas are concerned, including the reduction of inequality in internet use and of geographical inequalities in access and digital coverage, and the improvement of access to public computing sites and services and of individual computing skills. While geographical inequalities and access to public sites are improving significantly, progress seems much slower with respect to reaching the most disadvantaged groups and improving their individual skills.

# II – The relations between education, access to culture, and the world of computing

We need to adopt a commonly agreed-on concept of digital cultural education, reserving the right to include all aspects of learning, formal and informal, that can be implemented, directly or indirectly, wholly or partly, by means of technology. In the 1980s the question of the potential of computer use for education and training was raised as a major challenge in the dissemination and mastery of information and communication technologies. At the same time, digital production was also undergoing considerable development in the realms of culture and heritage. This fact raises many questions, rarely addressed by academic research in the area that interests us here, the relationship between education and culture. Are all cultural institutions really equal in digital resources and equipment? Do the means at their disposal allow them to continue to develop and upgrade this equipment under optimal conditions? At the same time, in the worlds of culture, education, and social and volunteer work, have we not seen decisionmakers giving priority to digital demands at the expense of other functions, including user relations, education, and cultural interpretation, as well as the abandonment of some scientific, educational, and cultural programming - especially since the financial and economic crisis of 2008?

<sup>&</sup>lt;sup>18</sup> Other initiatives aim at creating partnerships with major family- or community-based organisations to give instruction in numerical literacy using "Digital Literacy Trainers."

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19 Pippa Norris & David Jones, Virtual Democracy. Harvard International Journal of Press/Politics, 3(2), 1-4, 1998, cited by Dhavan V. Shah, Nojin Kwak & R. Lance Holbert, "Connecting" and "Disconnecting" with Civic Life: Patterns of Internet Use and the Production of Social Capital, Political Communication, 18:141-162, 2001.

<sup>&</sup>lt;sup>20</sup> European Commission, DG Information Society and Media, *Measuring progress in e-Inclusion, Riga Dashboard 2007*.

#### Insufficient research

Whatever changes have taken place in the uses and forms of communication introduced by technology into the domain of culture, it is remarkable that almost no research programme is investigating the "digital" audience and its use of cultural digital technology. Studies of the practices and profiles of cultural internet users are still rare, or are based on samples that are too small to be statistically significant. Moreover, to save on costs and simplify the methodology, studies are more and more often based on self-selecting samples from online questionnaires, which are very prone to bias (over- or under-coverage bias, self-selection by respondents, etc.). There are also no studies of economic models of computer use and of the human, economic, and skills resources associated with the introduction of these new tools into cultural institutions<sup>21</sup>: whatever country we look at, few studies today explore the impact of the spread of computer use on cultural organisations, management, jobs, and professions.<sup>22</sup>

# From the mission of cultural education to the marketing of digital relationships?

A second event, which directly affects cultural institutions – and cultural industries most of all - is the transformation we can now see happening in the technology of culture, which promotes a variety of sites and mechanisms largely devoted to the marketing of the goods and services on offer (personalised newsletters, online spaces for members or communities, promotions and special offers, ticket and other sales online, fundraising, etc.). When the internet first began to be used by cultural institutions, in the mid-1990s, sites were primarily notice-boards for the "real" institution, its collections, and its educational and cultural activity. The vast majority of websites have gradually become the more and more complex instruments of cultural digital marketing and sophisticated methods of "customer relationship management" in which the educational aspect tends to occupy - or may soon occupy - an ever more marginal and diminished position.<sup>23</sup> Mounting evidence shows that this trend is occurring in the context of the global financial crisis, which means that cultural institutions are being urged to seek new sources of funding. We are seeing more support for approaches to digital communication which may be described as community-directed and experiential, as cultural institutions allocate more and more room to input and participation by their users, sustaining the principle of commitment on the part of citizens, and improvement of relations with them - and also of the image of the cultural institution – through a new understanding of the relationships between powerful institutions and audiences for culture. But these approaches may well also be designed, on a more prosaic level, to promote the "product" and increase the traffic and financial resources of these cultural institutions. It is obvious that the economic and financial crisis is tending, in the name of creating virtual communities, to support the development of digital cultural schemes whose mantra is that communication exists to increase sales and visibility - as is demonstrated, in particular, by the growing presence of cultural institutions on the dominant social networks.

<sup>&</sup>lt;sup>21</sup> Michela Negrini, Paolo Paolini, Elisa Rubegni, The Learning Museum Network Project, *Report 1 - The Virtual Museum*, 2012, pp. 69-81.

This is a research topic that remains to be explored, especially by the fields of the sociology of organisations and management science. Wendy Duff, Jennifer Carter, Costis Dallas, et al., Museum Knowledge Workers for the 21th Century, Canadian Heritage / University of Toronto – Faculty of Information, 2009 and Culture 3.0. Impact des technologies numériques émergeantes sur les ressources humaines du secteur culturel, Conseil des ressources humaines du secteur culturel, October 2011.

<sup>&</sup>lt;sup>23</sup> The Learning Museum Network Project, Report 1 – The Virtual Museum, 2012.

# A general transformation in structures of authority and legitimacy with respect to the transmission of knowledge

Significant changes have been noticed and studied with respect both to the role of museums and culture in society and to that of the educational system. Numerous academic studies in the fields of psychology, sociology, and educational theory have shown that the one-size-fits-all, top-down, "authoritarian" model inherent in traditional methods of learning has gradually been superseded by one that is more open and less subject to authority, where styles of learning and forms of relationship enable interactions that are richer, more varied, and horizontal rather than vertical. The decline of traditional types of authority in forms of learning has proceeded in sync with changes in the educational system and the sphere of the traditional family, which have both lost some of their power to regulate intergenerational transmission as intra-generational peer learning expands.<sup>24</sup> This transformation of the learning model has affected not only the educational system and parent-child relationships, but social relations as a whole. The same clearly holds for relations between audiences and cultural institutions. It is, then, obvious and natural that technologies - which are inherently multi-sourced - are helping to strengthen and speed up the process of transformation of the structures that give knowledge its authority and legitimacy.

While it may not be technology as such that has changed the nature of relations between individuals and forms of learning, technology has supported and accelerated the processes that were already having an impact on society, particularly via the disappearance of spatio-temporal constraints and the multiplying of resources and sources of information. But all the same, these significant transformations do not eliminate the problems of access to digital benefits, nor the problem of inequalities in types of use, nor that of the forms of domination in the digital world – linguistic disadvantage, dominance of English, cost barriers with respect to hardware costs and user access fees; not to mention the superabundance of content available and the increasing difficulty of picking out truly relevant and useful information, and the question of the trustworthiness of the information sources – to mention merely the most obvious issues.

#### No alteration in the paradigm of cultural practices

The (still all too scarce) studies that provide solid information about the practices and profiles of cultural internet users also seem to confirm that there are no significant differences between "real" visitors and "cultural internet users," and that they have the same habits and same "taste" for cultural activities — with the difference that the virtual audiences for culture are often larger, due to the power of the dissemination of multimedia resources. <sup>26</sup> Thus, from the study of cultural practices in France cited above

<sup>&</sup>lt;sup>24</sup> Sylvie Octobre, Pratiques culturelles chez les jeunes et institutions de transmission : un choc de cultures? *Culture prospective*, January 2009.

Many advantages have been demonstrated, including the saving of time by the consumer and the reduced cost of goods and services, as well as access to information, academic articles, and databases, and the dissemination of educational and training resources. See especially Piotr Stryszowski, "The Impact of Internet in OECD Countries", OECD Digital Economy Papers, No. 200, OECD Publishing, and Fiona Scott Morton, "Consumer Benefit from Use of the Internet," Innovation Policy and the Economy, Vol. 6, The MIT Press, August 2006.

Louvre Museum, studies and research department, Les pratiques réelles et "virtuelles" du Louvre, research report, 2011; Florence Caro & Anne Krebs, Louvre Museum, Yves Evrard, HEC Paris, Analysing two

(Pratiques culturelles des Français) we learn that the French people who report that they have visited an online museum or exhibition (only 12% of total respondents) mainly belong to the groups that include people aged 55 to 64 (23%), Parisians living in Paris proper (22%), those with a university degree (21% of those who completed at least four years of university education); in the case of respondents currently in the workforce, 21% were in managerial grades or the professions, with an ever larger percentage among retired people, regardless of their previous occupations. Of the virtual visitors to museums and exhibitions, 23% are French women aged 46 to 62, with the same percentage of men aged 63 or more. In other words, internet users living in France who have an interest in virtual visits to museums and exhibitions share the same overall socioeconomic profile as visitors to "real" museums.

### III - Challenges for Europe in the domain of culture

Everyone recognises that the value contributed by the digital sphere in today's knowledge society is first and foremost its capacity to manage data and knowledge. In this regard, social inequalities are extreme: how to make education and culture contribute to the reduction of inequalities and of digital disadvantage ought thus to represent a major focus of activity for cultural institutions and their partners in educational and social intervention.

Now that the trend towards "New Public Management" gives institutions the obligation to develop tools for evaluating and measuring their performance, and the economic and financial crises reduce their freedom to manoeuvre, educational and cultural institutions are more than ever expected to demonstrate that they are carrying out their mandate with respect to the public. This increased pressure to prove that the resources allocated are being properly used and their activities are being performed efficiently will naturally also extend to digital management policies, since institutions are supposed not only to expand and retain their audiences but also to contribute to education and access to cultural benefits.

In this context, how can we best promote access to culture and education through the use of digital technologies? We ought to be thinking in terms of several complementary approaches, so that discussions by professionals in the areas of education, social intervention, and culture can lead to the development of common goals for increasing access to knowledge, cultural benefits, and the use of technology. Whatever the approach, the goal of *digital inclusion* should take into consideration both physical access to hardware and appropriate content and services, and also the types of use that make it possible to acquire and access content and services both conceptually and in practice. The necessity of digital inclusion, a notion that embraces participation, social relations, and professional and economic opportunities, means that participation in digital culture takes on primary importance as a way to contribute to the reduction of inequalities, the improved management of the environment, and the greater empowerment of individuals.<sup>27</sup>

modes of access to art museums: the real/virtual orientation scale, 11th International Conference on Arts and Cultural Management (AIMAC 2011), Antwerp, Belgium, 3-6 July 2011.

<sup>&</sup>lt;sup>27</sup> Initiative européenne i2010 sur l'insertion numérique, *Participer à la société de l'information*, Communication de la Commission au Parlement Européen, au conseil, au comité économique et social européen et au comité des régions, résumé de l'analyse d'impact, 2007.

Leaving aside for now the major concerns around hardware and physical access, the provision of resources, and the legal status of digital cultural property, we focus here on three essential ways in which equal access for all to digital culture can be promoted more effectively.

### Developing research and assessment programmes

Research on the relationship between cultural assets and types of computer use is still generally absent. Cultural facilities and organisations need to develop relationships with academia in order to develop mechanisms to measure the impact of technology on access to the arts and culture, on their dissemination, and on the kinds of learning and participation they bring about. A key goal is the development of more precise quantitative and qualitative indicators for monitoring the activity undertaken and generating dialogue at management level about the policies to be implemented.

### Defining high-priority social groups and populations more precisely

The research and analysis already conducted on the most marginal populations and the ways in which they come to be disadvantaged can lead to highly targeted forms of intervention with respect to digital policies, addressed to the most marginal groups both socio-economically and in terms of their use of digital resources (the low-skilled, unemployed, rural populations, unemployed or young workers, etc.), but also the groups most noticeably disadvantaged in contemporary society: older people, school dropouts, single-parent families, and people living with restrictions (the disabled, hospitalised, imprisoned, etc.).

## More generally, abandoning the idea that simply designing and marketing new digital media is enough to improve cultural activity and its dissemination

The major challenges have to do with the introduction, starting with the design of digital culture tools and projects, of methods for facilitating access to and use of the technologies in question. This is essential to reducing the divide between those who possess digital competence and those who lack it, entirely or partly. This situation specifically means that educational, social, and cultural organisations and networks must become aware of a key prerequisite: that they have to contribute to increasing the level of digital competence when they design or update their digital tools.

In addition to their own specific artistic and cultural goals, they should also promote the role of cultural institutions, organisations, and networks in education for *digital savoir-faire*, including knowledge of how to use the tools, ability to select information, competence in dealing with technology, mastery of the technical side, information and resource management, and so on. From the outset, the design of projects in culture and the arts should incorporate the principle of "digital literacy" so as to be sure of reaching those who do not have the skills to select and make use of the resources on offer. It is thus essential to design and plan the creation and dissemination of cultural digital media using a conceptual framework and *value chain* that takes into account the encouragement of digital inclusion, training in the use of digital media, and management of digital resources.

This kind of support and guidance is an essential step towards the equitable sharing of cultural property. With it the innumerable questions that the users of digital resources still need to keep asking can be given answers. Guidance in the use of digital equipment splits into three issues: the access to resources ("how do I get to it?"), the organisation of content ("what do I do with it?"), and the understanding of its possible uses ("what's the point of doing it?"). It is by fulfilling this responsibility – because digital technology is so often adopted and used independently, being self-taught or picked up through peer exchange, with little direction from authorities and few shared standards of practice – that digital cultural policies can more equitably play their part in the knowledge society. Through this role, value can be created by providing everyone the means to improve their life chances in the domains of education, society, culture, and economics.

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<sup>&</sup>lt;sup>28</sup> Louvre Museum, studies and research department, *Expérimentations multimédia et usages par leurs publics*, Research Report, June 2012.

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