From Mass Consumption to Mass <Cultural> Production

The explosion of user-created media content on the web (2005-) has unleashed a new media universe. On a practical level, this universe was made possible by free web platforms and inexpensive software tools which enable people to share their media and easily access media produced by others; rapidly fallen cost for professional-quality media capture devices such as HD video cameras; and addition of cameras and video capture to mobile phones. What is important, however, is that this new universe was not simply a scaled up version of 20<sup>th</sup> century media culture. Instead, we moved from media to social media.¹ (Accordingly, we can also say that we are graduated from 20<sup>th</sup> century video/film to early 20th century social video). What does this shift mean for how media functions and for the terms we use to talk about media? There are the questions this essay will engage with.

Today “social media” is often discussed in relation to another term “Web 2.0” (coined by Tim O'Reilly in 2004.) While Web 2.0 refers to a number of different technical, economical, and social developments, most of them are directly relevant to our question: besides social media, other important concepts are user-generated content, long tail, network as platform, folksonomy, syndication, and mass collaboration. I will not be summarizing here all these concepts: Wikipedia, which itself is a great example of Web 2.0, does it better. My goal here is not to provide a detailed analysis of social and cultural effects of Web 2.0; rather, I would like to put forward a few questions and make a few points that I have not seen expressed by others and that directly relate to video and moving image cultures on the web.

To get the discussion started, let us simply state two of the important the Web 2.0 themes. Firstly, in 2000s, we see a gradual shift from the majority of Internet users accessing content produced by a much smaller number of professional producers to users increasingly accessing content produced by other non-professional users. Secondly,

if 1990s web was mostly a publishing medium, in 2000s it increasingly became a communication medium. (Communication between users, including conversations around user-generated content) take place through a variety of forms besides email: posts, comments, reviews, ratings, gestures and tokens, votes, links, badges, photo, and video.\(^2\)

What do these trends mean for culture in general and for professional art in particular? First of all, it does not mean that every user has become a producer. According to 2007 statistics, only between 0.5% – 1.5% users of most popular social media sites (Flickr, YouTube, Wikipedia) contributed their own content. Others remained consumers of the content produced by this 0.5 - 1.5%. Does this imply mean that professionally produced content continues to dominate in terms of where people get their news and media? If by “content” we mean typical twentieth century mass media - news, TV shows, narrative films and videos, computer games, literature, and music – then the answer is often yes. For instance, in 2007 only 2 blogs made it into the list of 100 most read news sources. At the same time, we see emergence of “the long-tail” phenomenon on the net: not only “top 40” but most of the content available online - including content produced by individuals - finds some audiences.\(^3\) These audiences can be tiny but they are not 0. This is best illustrated by the following statistics: in the middle of 2000s every track out of a million of so available through iTunes sold at least once a quarter. In other words, every track no matter how obscure found at least one listener. This translates into new economics of media: as researchers who have studied the long tail phenomena demonstrated, in many industries the total volume of sales generated by such low popularity items exceeds the volume generated by “top forty.”\(^4\)

Let us now consider another set of statistics that show that people increasingly get their information and media from social media sites. In January 2008, Wikipedia has ranked as number 9 most visited web

\(^2\) Ibid.
site; Myspace was at number 6, Facebook was at 5, and MySpace was at 3. (According to the company that collects these statistics, it is more than likely that these numbers are U.S. biased, and that the rankings in other countries are different. However, the general trend towards increasing use of social media sites – global, localized, or local - can be observed in most countries.)

The numbers of people participating in these social networks, sharing media, and creating “user generated content” are astonishing – at least from the perspective of early 2008. (It is likely that in 2012 or 2018 they will look trivial in comparison to what will be happening then). MySpace: 300,000,000 users. Cyworld, a Korean site similar to MySpace: 90 percent of South Koreans in their 20s, or 25 percent of the total population of South Korea. Hi4, a leading social media site Central America: 100,000,000 users. Facebook: 14,00,000 photo uploads daily. The number of new videos uploaded to YouTube every 24 hours (as of July 2006): 65,000.

If these numbers are already amazing, consider a relatively new platform for media production and consumption: a mobile phone. In Early 2007, 2.2 billion people have mobile phones; by the end of the year this number is expected to be 3 billion. Obviously, today people in an Indian village all sharing one mobile phone do not make video blogs for global consumption – but this is today. Think of the following trend: in the middle of 2007, Flickr contained approximately 600 million images. By early 2008, this number has already doubled.

These statistics are impressive. The more difficult question is: how to interpret them? First of all, they don’t tell us about the actual media diet of users (obviously these diets vary between places and demographics). For instance, we don’t have exact numbers (at least, they are not freely available) regarding what exactly people watch on sites such as YouTube – the percentage of user-generated content versus commercial content such as music videos, anime, game

trailers, movie clips, etc.\textsuperscript{11} Secondly, we also don’t have exact numbers regarding which percentage of peoples’ daily media/information intake comes from big news organization, TV, commercially realized films and music versus non-professional sources.

These numbers are difficult to establish because today commercial information and media does not only arrive via its traditional channels such as newspapers, TV stations and movie theatres but also on the same channels which carry user-generated content: blogs, RSS feeds, Facebook’s posted items and notes, YouTube videos, etc. Therefore, simply counting how many people follow a particular communication channel is no longer tells you what they are watching.

But even if we knew precise statistics, it still would not be clear what are the relative roles between commercial sources and user-produced content in forming people understanding of the world, themselves, and others. Or, more precisely: what are the relative weights between the ideas expressed in large circulation media and alternative ideas available elsewhere? If one person gets all her news via blogs, does this automatically mean that her understanding of the world and important issues is different from a person who only reads mainstream newspapers?

**The Practice of Everyday \(<\text{Media}>\) Life: Tactics as Strategies**

For different reasons, media, businesses, consumer electronics and web industries, and academics converge in celebrating content created and exchanged by users. In academic discussions, in particular, the disproportional attention given to certain genres such as “youth media,” “activist media,” “political mash-ups” – which are indeed important but do not represent more typical usage of hundreds of millions of people.

In celebrating user-generated content and implicitly equating “user-generated” with “alternative” and “progressive,” academic discussions often stay away from asking certain basic critical questions. For instance: To what extent the phenomenon of user-generated content

\textsuperscript{11} According to research conducted by Michael Wesch, in early 2007 YouTube contained approximately \%14 commercially produced videos. Michael Wesch, presentation at panel 1, DIY Video Summit, University of Southern California, February 28 <http://www.video24-7.org/panels>.
is driven by consumer electronics industry – the producers of digital cameras, video cameras, music players, laptops, and so on? Or: To what extent the phenomenon of user-generated content is also driven by social media companies themselves – who after all are in the business of getting as much traffic to their sites as possible so they can make money by selling advertising and their usage data?

Here is another question: Given that the significant percentage of user-generated content either follows the templates and conventions set up by professional entertainment industry, or directly re-uses professionally produced content (for instance, anime music videos), does this means that people’s identities and imagination are now even more firmly colonized by commercial media than in the twentieth century? In other words: Is the replacement of mass consumption of commercial culture in the 20th century by mass production of cultural objects by users in the early 21st century a progressive development? Or does it constitutes a further stage in the development of “culture industry” as analyzed by Theodor Adorno and Max Horkheimer in their 1944 book The Culture Industry: Enlightenment as Mass Deception? Indeed, if the twentieth century subjects were simply consuming the products of culture industry, 21st century prosumers and “pro-ams” are passionately imitating it. That is, they now make their own cultural products that follow the templates established by the professionals and/or rely on professional content.

The case in point is anime music videos (often abbreviated as AMV). My search for “anime music videos” on YouTube on February 7, 2008 returned 250,000 videos. Animemusicvideos.org, the main web portal for anime music video makers (before the action moved to YouTube) contained 130,510 AMVs as of February 9, 2008. AMV are made by fans who edit together clips from one or more anime series to music, which comes from a different source such as professional music videos. Sometimes, AMV also use cut-scene footage from video games. In the last few years, AMV makers also started to increasingly add visual effects available in software such as After Effects. But regardless of the particular sources used and their combination, in the majority of AMV all video and music comes from commercial media products. AMVs makers see themselves as editors who re-edit the original material, rather than as filmmakers or animators who create from scratch.

13 Conversation with Tim Park from animemusicvideos.org, February 9, 2009.
To help us analyze AMV culture, let’s put to work the categories set up by Michel de Certeau in his 1980 book *The Practice of Everyday Life*. De Certeau makes a distinction between “strategies” used by institutions and power structures and “tactics” used by modern subjects in their everyday life. The tactics are the ways in which individuals negotiate strategies that were set for them. For instance, to take one example discussed by de Certeau, city’s layout, signage, driving and parking rules and official maps are strategies created by the government and companies. The ways an individual is moving through the city, taking shortcuts, wondering aimlessly, navigating through favorite routes and adopting others are tactics. In other words, an individual can’t physically reorganize the city but she can adopt itself to her needs by choosing how she moves through it. A tactic “expects to have to work on things in order to make them its own, or to make them ‘habitable’.”

As De Certeau points out, in modern societies most of the objects which people use in their everyday life are mass produced goods; these goods are the expressions of strategies of designers, producers, and marketers. People build their worlds and identities out of these readily available objects by using different tactics: bricolage, assembly, customization, and – to use the term which was not a part of De Certeau’s vocabulary but which has become important today – remix. For instance, people rarely wear every piece from one designer as they appear in fashion shows: they usually mix and match different pieces from different sources. They also wear clothing pieces in different ways than they were intended, and they customise the clothes themselves through buttons, belts, and other accessories. The same goes for the ways in which people decorate their living spaces, prepare meals, and in general construct their lifestyles.

While the general ideas of *The Practice of Everyday Life* still provide an excellent intellectual paradigm available for thinking about the vernacular culture, since the book was published in 1980s many things also changed in important ways. These changes are less drastic in the area of governance, although even there we see moves towards more

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transparency and visibility. But in the area of consumer economy, the changes have been quite substantial. Strategies and tactics are now often closely linked in an interactive relationship, and often their features are reversed. This is particularly true for “born digital” industries and media such as software, computer games, web sites, and social networks. Their products are explicitly designed to be customized by the users. Think, for instance, of the original Graphical User Interface (popularized by Apple’s Macintosh in 1984), which allows the user to customize the appearance and functions of the computer and the applications to her liking. The same applies to recent web interfaces – for instance, iGoogle which allows the user to set up a custom home page selecting from many applications and information sources. Facebook, Flickr, Google and other social media companies encourage others to write applications, which mash-up their data and add new services (as of early 2008, Facebook hosted over 15,000 applications written by outside developers.) The explicit design for customization is not limited to the web: for instance, many computer games ship with the level editor that allows the users to create their own levels.

Although the industries dealing with the physical world are moving much slower, they are on the same trajectory. In 2003 Tayota introduced Scion cars. Scion marketing was centered on the idea of extensive customization. Nike, Adidas, and Puma all experimented with allowing the consumers to design and order their own shows by choosing from a broad range of show parts. (In the case of Puma Mongolian Barbeque concept, a few thousand unique shows can be constructed.)\(^\text{16}\) In early 2008 Bug Labs introduced what they called “the Lego of gadgets”: open sourced consumer electronics platform consisting from a minicomputer and modules such as a digital camera or a LCD screen.\(^\text{17}\) The recent celebration of DIY practice in various consumer industries is another example of this growing trend.

In short: during the time since the publication *The Practice of Everyday Life*, companies have developed new kinds of strategies. These strategies mimic people’s tactics of bricolage, re-assembly and remix. In other words: the logic of tactics has now become the logic of strategies.

Web 2.0 paradigm represents the most dramatic reconfiguration of strategies/tactics relationship to date. According to De Certeau original


analysis from 1980, tactics do not necessarily result in objects or anything stable or permanent; “Unlike the strategy, it <tactic> lacks the centralized structure and permanence that would enable it to set itself up as a competitor to some other entity... it renders its own activities an "unmappable" form of subversion.”\textsuperscript{18} Since 1980s, however, consumer and culture industries have started to systematically turn every subculture (particularly every youth subculture) into products. In short, the cultural tactics evolved by people were turned into strategies now sold to them. If you want to “oppose the mainstream,” you now had plenty of lifestyles available – with every subculture aspect, from music and visual styles to cloves and slang – available for purchase.

This adaptations, however, still focused on distinct subcultures: bohemians, hip hop and rap, Lolita fashion, rock, punk, skin head, Goth, etc.\textsuperscript{19} However, in 2000s, the transformation of people’s tactics into business strategies went into a new direction. The developments of the previous decade – the Web platform, the dramatically decreased costs of the consumer electronics devices for media capture and playback, increased global travel, and the growing consumer economies of many countries which after 1990 joined the “global word” – led to the explosion of user-generated “content” available in digital form: Web sites, blogs, forum discussions, short messages, digital photo, video, music, maps, etc. consumer industries. Responding to this explosion, web 2.0 companies created powerful platforms designed to host this content. MySpace, Facebook, Orkut, Livejournal, Blogger, Flickr, YouTube, h5 (Central America), Cyworld (Korea), Wretch (Taiwan), Orkut (Brasil), Baidu (China), and thousands of other social media sites make this content instantly available worldwide (except, of course, the countries which block or filter these sites). Thus, not just particular features of particular subcultures but the details of everyday life of hundreds of millions of people who make and upload their media or write blog became public.

What before was ephemeral, transient, unmappable, and invisible become permanent, mappable, and viewable. Social media platforms give users unlimited space for storage and plenty of tools to organize, promote, and broadcast their thoughts, opinions, behavior, and media to others. You can already directly stream video using your laptop or

mobile phone, and it is only a matter of time before constant broadcasting of one’s live becomes as common as email. If you follow the evolution from MyLifeBits project (2001-) to Slife software (2007-) and Yahoo! Live personal broadcasting service (2008-), the trajectory towards constant capture and broadcasting of one’s everyday life is clear.

According to De Certeau 1980 analysis, strategy “is engaged in the work of systematizing, of imposing order... its ways are set. It cannot be expected to be capable of breaking up and regrouping easily, something which a tactical model does naturally.” The strategies used by social media companies today, however, are the exact opposite: they are focused on flexibility and constant chance. (Of course, all businesses in the age of globalization had to become adaptable, mobile, flexible, and ready to break up and regroup – but they rarely achieve the flexibility of web companies and developers.20) According to Tim O’Reilly who originally defined the term Web 2.0 in 2004, one important feature of Web 2.0 applications is “design for ‘hackability’ and remixability.”21 Thus, most major Web 2.0 companies - Amazon, eBay, Flickr, Google, Microsoft, Yahoo and YouTube - make available their programming interfaces and some of their data to encourage others to create new applications using this data.22

In summary, today strategies used by social media companies often look more like tactics in the original formulation by De Certeau – while tactics look strategies. Since the companies which create social media platforms make money from having as many as users as possible visit them (they do so serving ads, by selling data about usage to other companies, to selling ad-on services, etc.), they have a direct interest in having users pour as much of their lives into these platforms as possible. Consequently, they give users unlimited storage space to store all their media, the ability to customize their “online lives” (for

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20 Here is a typical statement coming from business community: “Competition is changing overnight, and product lifecycles often last for just a few months. Permanence has been torn asunder. We are in a time that demands a new agility and flexibility: and everyone must have the skill and insight to prepare for a future that is rushing at them faster than ever before.” Jim Caroll, The Masters of Business Imagination Manifesto aka The Masters of Business Innovation” http://www.jimcarroll.com/10s/10MBI.htm>, accessed February 11, 2008.
instance, by controlling what is seen by who) and expand the functionality of the platforms themselves.

This, however, does not mean strategies and tactics have completely exchanged places. If we look at the actual media content produced by users, here strategies/tactics relationship is different. As I already mentioned, for many decades companies have been systematically turning the elements of various subcultures developed by people into commercial products. But these subcultures themselves, however, are rarely develop completely from scratch – rather, they are the result of cultural appropriation and/or remix of earlier commercial culture by people. AMV subculture is a case in point. On the other hand, it exemplifies new “strategies as tactics” phenomenon: AMVs are hosted on mainstream social media sites such as YouTube, so they are not exactly “transient” or “unmappable” (since you can use search to find them, see how others users rated them, and so on). On the other hand, on the level of content, it is “practice of everyday life” as: the great majority of AMVs consist from segments lifted from commercial anime shows and commercial music. This does not mean that best AMVs are not creative or original – only that their creativity is different from the romantic/modernist model of “making it new.” To use De Certeau’s terms, we can describe it as tactical creativity which “expects to have to work on things in order to make them its own, or to make them ‘habitable.’”

Conversations through Media

So far I discussed social media using the old familiar terms. However, the very terms, which I was evoking so far – content, a cultural object, cultural production and cultural consumption – are redefined by Web 2.0 practices.

We see new kinds of communication where content, opinion, and conversation often can’t be clearly separated. Blogs is a good example of this: lots of blog entries are comments by a blog writer about an

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23 See very interesting feature in Wired which describes a creative relationship between commercial manga publishers and fans in Japan. Wired story quotes Keiji Takeda, one of the main organizers of fan conventions in Japan as saying “This is where [convention floor] we’re finding the next generation of authors. The publishers understand the value of not destroying that.” Qtd. in Daniel H. Pink, Japan, Ink: Inside the Manga Industrial Complex, Wired 15.11, 10.22.2007 <http://www.wired.com/techbiz/media/magazine/15-11/ff_manga?currentPage=3>
item that s/he copied from another source. Or, think about forums or
comments below a web site entry where an original post may generate
a long discussion which after goes into new and original directions,
with the original item long forgotten.

Often “content,” “news” or “media” become tokens used to initiate or
maintain a conversation. Their original meaning is less important than
their function as such tokens. I am thinking here of people posting
pictures on each other pages on MySpace, or exchanging gifts on
Facebook. What kind of gift you get is less important than the act of
getting a gift, or posting a comment or a picture. Although it may
appear that such conversation simply foreground Roman Jakobson’s
emotive and/or phatic communication functions described already in
1960, it is also possible that a detailed analysis will show them to
being a genuinely new phenomenon.

The beginnings of such analysis can be found in the work of Adrian
Chan. As he points out, “All cultures practice the exchange of tokens
that bear and carry meanings, communicate interest and count as
personal and social transactions.” Token gestures “cue, signal, indicate
users’ interests in one another.” While the use of tokens in not unique
to networked social media, some of the features pointed by Chan do
appear to be new. For instance, as Chan notes, the use of tokens is
often “accompanied by ambiguity of intent and motive (the token's
meaning may be codified while the user's motive for using it may not).
This can double up the meaning of interaction and communication,
allowing the recipients of tokens to respond to the token or to the user
behind its use.”

Consider another very interesting new communication situation: a
conversation around a piece of media – for instance comments added
by users below somebody’s Flickr photo or YouTube video which do not
only respond to the media object but also to each other. (The same
is often true to comments, reviews and discussions on the web in

26 According to a survey conducted in 2007, %13 of internet users who watch
video also post comments about the videos. This number, however, does not tell
how many of these comments are responses to other comments. See
Pew/Internet & American Life Project, Technology and Media use Report,
7/25/2007 < http://www.pewinternet.org/PPF/r/219/report_display.asp>,
general – the object in question can be software, a film, a previous post, etc.) Of course, such conversation structures are also common in real life: think of a typical discussion in a graduate film studies class, for instance. However, web infrastructure and software allow such conversations to become distributed in space and time – people can respond to each other regardless of their location and the conversation can in theory go forever. (The web is millions of such conversations taking place at the same time). These conversations are quite common: according to the report by Pew internet & American Life Project (12/19/2007), among U.S. teens who post photos online, %89 reported that people comment on these photos at least some of the time.27

Equally interesting is conversations which takes place through images or video – for instance, responding to a video with a new video. This, in fact, is a standard feature of YouTube interface.28 (Note that all examples of interfaces, features, and common uses of social media sites refer to early 2008; obviously details may change by the time you read this.) Why social media sites contain huge numbers of such conversations through media, for me the most interesting case so far is a five minute theoretical video Web 2.0 ... The Machine is Us/ing Us posted by a cultural anthropologist Michael Wesch on January 31, 2007.29 A year later this video was watched 4,638,265 times.30 It has also generated 28 video responses that range from short 30-second comments to long equally theoretical and carefully crafted long videos.

Just as it is the case with any other feature of contemporary digital culture, it is always possible to find some precedents for any of these communication situations. For instance, modern art can be understood as conversations between different artists or artistic schools. That is, one artist/movement is responding to the work of produced earlier by another artist/movement. Thus, modernists in general are reacting against classical nineteenth century culture; Jasper John and other pop-artists react to abstract expressionism; Godard reacts to Hollywood-style narrative cinema; and so on. To use the terms of YouTube, we can say that Godard posts his video response to one

28 The phenomenon of “conversation through media” was first pointed to by Derek Lomas in 2006 in relation to comments on MySpace pages.
30 Ibid.
huge clip called “classical narrative cinema.” But the Hollywood studios do not respond – at least not for another 30 years.

As can be seen from these examples, typically these conversations between artists and artistic schools were not full conversations. One artist/school produced something, another artist/school later responded with their own productions, and this was all. The first art/school usually did not respond. But beginning in the 1980s, professional media practices begin to respond to each other more quickly and the conversations are no longer go one way. Music videos affect the editing strategies of feature films and television; similarly, today the aesthetics of motion graphics is slipping into narrative features. Cinematography, which before only existed in films, is taken up in video games, and so on. But these conversations are still different from the communication between individuals through media in a networked environment. In the case of Web 2.0, it is individuals directly talking to each other using media rather than only professional producers.

**Is Art After Web 2.0 still possible?**

Do professional artists (including video and media artists) benefited from the explosion of media content online being produced by regular users and the easily availability of media publishing platforms? Is the fact that we now have such platforms where anybody can publish their videos and charge for the downloads means that artists have a new distribution channel for their works? Or is the world of social media – hundreds of millions of people daily uploading and downloading video, audio, and photographs; media objects produced by unknown authors getting millions of downloads; media objects fluently and rapidly moving between users, devices, contexts, and networks – makes professional art irrelevant? In short, while modern artists have so far successfully met the challenges of each generation of media technologies, can professional art survive extreme democratization of media production and access?

On one level, this question is meaningless. Surely, never in the history of modern art it has been doing so well commercially. No longer a pursuit for a few, contemporary art became another form of mass culture. Its popularity is often equal to that of other mass media. Most importantly, contemporary art has become a legitimate investment category, and with the all the money invested into it, it is unlikely that
this market will ever collapse. (Of course, history has repeatedly has shown that the most stable political regimes do eventually collapse.)

In a certain sense, since the beginnings of globalization in the early 1990s, the number of participants in the institution called “contemporary art” has experienced a growth, which parallels the rise of social media in 2000s. Since the early 1990s, many new countries entered the “global world” and adopted western values in their cultural politics. Which includes supporting, collecting, and promoting “contemporary art.” Thus, today Shanghai already had has not just one but three museums of contemporary art plus more large-size spaces that show cotemporary art than New York or London. A number of starchitects such as Frank Gehry and Zaha Hadid are now building museums and cultural centers on Saadiyat Island in Abu Dhabi. Rem Koolhaus is building new museum of contemporary art in Riga. I can continue this list but you get the idea.

In the case of social media, the unprecedented growth of numbers of people who upload and view each other media led to lots of innovation. While the typical diary video or anime on YouTube may not be that special, enough are. In fact, in all media where the technologies of productions were democratized (video, music, animation, graphic design, etc.), I have came across many projects which not only rival those produced by most well-known commercial companies and most well-known artists but also often explore the new areas not yet touched by those with lots of symbolic capital.

Who is doing these projects? In my observations, while some of these projects do come from prototypical “amateurs,” “prosumers” and “pro-ams,” most are done by young professionals, or professionals in training. The emergence of the Web as the new standard communication medium in the 1990s means that today in most cultural fields, every professional or a company, regardless of its size and geo location, has a web presence and posts new works online. Perhaps most importantly, young design students can now put their works before a global audience, see what others are doing, and develop together new tools (for instance, processing.org community).

Note that we are not talking about “classical” social media or “classical” user-generated content here, since, at least at present, many of such portfolios, sample projects and demo reels are being uploaded on companies’ own web sites and specialized aggregation sites known to people in the field. Here are some examples of such sites that I consult regularly: xplsv.tv (motion graphics, animation),
coroflot.com (design portfolios from around the world), archinect.com (architecture students projects), infosthetics.com (information visualization). In my view, the significant percentage of works you find on these web sites represents the most innovative cultural production done today. Or at least, they make it clear that the world of professional art has no special license on creativity and innovation.

But perhaps the most conceptual innovation has been happening in the development of Web 2.0 medium itself. I am thinking about all the new creative software tools - web mash-ups, Firefox plug-ins, Facebook applications, etc. – coming out from both large companies such as Google and from individual developers who are creating and so on.

Therefore, the true challenge posed to art by social media may be not all the excellent cultural works produced by students and non-professionals which are now easily available online – although I do think this is also important. The real challenge may lie in the dynamics of Web 2.0 culture – its constant innovation, its energy, and its unpredictability.