Open Source, p2p, social innovation and clothing

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What is p2p and how it is connected to social innovation?

Peer to peer (p2p) is a concept, derived from Internet file sharing, that has inspired new visions of human relations based on egalitarian social networking enabled by Internet technologies.

According to many thinkers, nowadays it's emerging a "third way of production" (p2p economy) which is different both from traditional capitalism and socialism; p2p economy is clearly visible in the fields of Open Source software and in DIY communities.

Bauwens is convinced that p2p processes

"*produce use-value through the free cooperation of producers who have access to distributed capital: this is the P2P production mode, a 'third mode of production' different from for-profit or public production by state-owned enterprises. Its product is not exchange value for a market, but use-value for a community of users.*"

"*are governed by the community of producers themselves, and not by market allocation or corporate hierarchy: this is the P2P governance mode, or 'third mode of governance'.*"

"*make use-value freely accessible on a universal basis, through new common property regimes. This is its distribution or 'peer property mode': a 'third mode of ownership,' dif-*

ferent from private property or public (state) property." (Bauwens 2005)

P2p economies actors produce creative value (a string of software code; a song; a clothing pattern) and share it with their communities believing that they will individually benefit, in terms of quality, knowledge and/or wealth, by the collective enrichment. This is exactly the vision that inspires our project.

It's fundamental to underline that p2p developments are affecting almost all the sectors of society. It's not necessary to accept the whole paradigm in order to agree with the fact that an increasing number of social fields are adopting such kind of organizational model.

Which are the social sectors we are looking at?

Recent transformations in craft and design (and, more generally, in all the sectors of creative economy) have considerably reshaped the social words of production and their relationship with all the other aspects of social life. As observed in OECD's report on creative economies:

"*In the developed world during the 1990s, the creative industries grew faster than other sectors, including services and manufacturing. One of the major drivers of this growth was the extraordinarily rapid pace of technological change in multimedia and telecommunications that occurred during this period. In particular, digital technology opened up a range of new media through which cultural content could be delivered to consumers, and the creative industries responded by supplying an ever-widening array of creative products to the market. On the demand side, rising real incomes among consumers in developed countries, coupled with changing preferences for modes of cultural consumption, helped to sustain the growth of the creative economy. By the middle of the first decade of the new millennium, the proportion of GDP contributed by the creative industries in developed countries averaged around 3 to 6 per cent. For example, recent estimates collated by OECD for member countries indicate that the creative industries in France and the United States made up about 3 per cent of gross value added in 2002-2003 and almost 6 per cent of gross value added in the United Kingdom*". (United Nations Development Programme. 2008:203)

For all these reasons, the social sectors we are looking at are extremely differentiated. Considering this, there are some main trends that we have to take into account.

First of all, labour markets are in a process of constant flexibilisation that leads to a precarisation of life careers. These dynamics are particularly clear in some sectors of production, while in others they have been much more hard

to identify for a long period. This is mainly related to methodological problems in the description and analysis of some workers profiles, that are often tangled in a multiplicity of diverse contract forms and that, for this reason, tent to be underestimated (or not represented at all) in statistical reports. Many sectors of creative economy have been hit particularly serious by the process of flexibilization. Even if there are considerable differences among countries and professions, now it's clear that these dynamics can be considered as a general trend (Gill and Pratt 2008; Gill and Pratt 2008; Christopherson 2008; Hesmondhalgh and Baker 2008; Neilson and Rossiter 2008; Ross 2008).

Secondly, there is an increasing amount of students that choose educational paths related to creativity, design and fashion. This process brings to the diversification and specialization of learning but, at the same time, it clashes with a labour market that is often not ready to absorb all the workers and that tents to react lowering labour cost (Naro, Arvidsson and Malossi 2010; Niessen 2009).

Thirdly, it's emerged that the culture of project in work environments is strictly related to power strategies that renounce to an explicit manifestation of control. According to Sennet (Sennett 1998) such dynamics tent to parcel the production processes, making more difficult also the construction of a meaningful pattern of self-representation.

As fourth, there is a strong emotional involvement of creative workers into production processes, an involvement that passes through the superimposition between the self-representation as "creatives" and the gratification for the (material or immaterial) piece produced. Looking at this, it's interesting to consider that recent researches have underlined how many creative workers language itself tents to use a terminology traditionally linked to the spheres of love and affectivity (Lovink and Rossiter 2007).

Finally, in this situation passion becomes a mean of production itself:

> *"(this situation) has coincided with the rise of brand-centered business models and the corresponding internalization and rationalization of immaterial production. 'Passion', it appears has become a means of production, systematically promoted and put to work as part of the institutional framework within which brand values are produced."* (Naro et al. 2010)[1].

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1 Another interesting quotation that highlights this phenomena from another perspective is the following:
"We suggest that this productivist orientation can be identified as the emergent 'working society of leisure', a society in which leisure is composed of self-determined work and where, in place of the old work/leisure divide, there is a continuum of work practices that throughout people's lives offer a mix of social, psychological and financial rewards. "(Gilchrist and Ravenscroft n.d.:2)

2008 financial crisis is a recent element that is still difficult to put in the right analytical perspective, also because most part of researchers efforts are still in progress; anyway, the most realistic hypothesis is that the whole picture is getting worst because of its consequences.

Profiles of the target groups

It's clear that in Edufashion we are looking at an unforeseen intersection among diverse social fields that in the past were not necessarily connected, at least from the point of view of collaboration in production processes: fashion professionals; other kinds of creative workers not connected to fashion; cratfivists.

A) Fashion professionals

An increasing number of fashion professionals is experiencing serious difficulties in finding a satisfying positioning in the labour market. Their social backgrounds are extremely differentiated, because of the great variety in terms of age, gender, class and educational path. We can hypothesize that there are three main sub-categories:

- young professionals that have acceded only in recent times to the market labour (that it's becoming increasingly aggressive)[2];
- women that have left the main career because of family care;
- more aged workers that have been excluded from the labour market by outsourcing politics and, more recently, by the financial crisis.

Given such differences it's hard to focus on specific values shared by all the actors. Nevertheless, we can preliminary observe that the value of independence is a fundamental dimension. For example, most part of the persons we have met was part of the mainstream fashion system as traditional figures (as designers or craftsmen) and, now, they are in search of new forms of independent work. Often such kind of needs are under-represented from the point of view of quantitative data because there is a lack of statistical tools able to track such highly unstable careers (O'Connor 2007)). This point is increasingly now clear even

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2 Here it worths to consider the ambiguous relationship that occurs between the previously exposed problems in flexible labour markets and the perverse loop of internship, educational offer and the ideology of "self management". On one side, it has been demonstrated that internships can work if the city is able to become a system (or "creative field", in the view of Alen J.Scott (2001, 2001, 2004, 2006a, 2006b)) that studies enables the exchange across educational institutions and fashion industries (see the studies of Rantisi on New York (2002; 2004)). On the other side, when this connection is missing (Hauge 2006) the result can be a total lack of communication between the two spheres that drives to the conception of interns as free non-qualified replaceable and anonymous workers.

for many statistical offices that are involved in the mapping of creative workers:

> *"For us it's very difficult to understand what's going on. The main traditional re-sources that we have are fiscal data, but it's almost impossible to use them to track the paths of small creative or craftsmen. After a few months they disappear, going down in the black economy".* (A conversation with a researcher of the statistical office of a main administration in the Northern Italy)

These nearly invisible subjects are interested in independence but ,at the same time, they do not necessarily perceive themselves as entrepreneurs.

> *"I do not want to grow. I want to stay small, and I'm ok if I earn 1000 euro month-ly. I don't want to get involved with all the bureaucratic stuff that entrepreneurship brings you. I've worked in the fashion system for years with many big names. But it's an unhealthy environment. You're totally exploited"* (A conversation with a taylor in Milan)

So, what we can observe here is a clash between the neo-liberist ideology of "self made man" and "self-entrepreneurship" and the economic sustainability of everyday life: growth is not necessarily interesting for micro-business. From the point of view of our project general philosophy, this is a great challenge: we are called to find practical answers in order to give symbolic representation and eco-nomic sustainability chances for an under-represented typology of workers.

B) Creative workers that are not professionally involved in fashion or crafting

We have already discussed reasons and transformations paths in creative econo-my of the last decades. One of the main consequences of such processes is that an always increasing number of creative workers feels the necessity for symbolic investments in terms of self-representation as "unique" and "creative" people (Niedzviecki 2006). Often, this request is not satisfied at all by the routinized working practices, at the point that some scholars are going to identify processes that (at least to a certain extent) can be compared with Marxian alienation (Hes-mondhalgh and Baker 2008).

A data that emerges clearly from our web communities analysis is that an in-creasing number of creative workers are looking, in their free time, at crafting and sewing activities as a way to regain the enthusiasm of creative experience, lost in the daily work. In other terms, this process can be seen as a re-appro-priation of the relationship among creativity, subjectivity, produced object and production process.

C) Craftivists

Craftivists are a relatively new kind of social actors that emerged at the begin-ning of 21st century, mixing values of leftists new social movements with prac-tices of crafting and DIY. According to Bridget Dearie Clegg,

> *"Craftivism aims to increase activism that improves what works in a community and draws attention to community problems through the individualized craft skills and craft projects of people living in that community. "Craftivists" are the socially conscious crafters who enact that positive change."* (Clegg 2010:10).

Craftivist can hardly be considered as an homogenous group. Their degree of organization, their production and their influence in local contexts are highly variable, according to geographical, social and political differences. Neverthe-less, they are important because thay often act (and are perceived) as avant-gard trendsetters for wide sectors of progressive society .

Values of the target groups

It's clear that these groups are rooted in so extremely variegated social and economic backgrounds that is difficult to talk about a common set of values. Nevertheless, considering the ecologies of fashion systems for micro-entrepre-neurs, craftivists, artisans and small designers, we can focus on a reasonably restricted list.

Here we consider the following values, putting them in relationship with the concepts that are more relevant for our analysis:

> a) creativity, that can foster the interpretation of the fashion system as a peer-to-peer ecology;
> b) reputation, which is strictly related with features such as reputation and identity;
> c) quality, that has to be seen as a situated definition.

A) Creativity, intellectual property and the p2p

Bollier and Racine (Bollier and Racine 2005) conducted an extremely interesting study on the concept of creativity sharing in the fashion industry. Despite usual beliefs, copyright protection can be claimed on very few elements of the fashion production: fabric designs, specific ornamental features and manmade fabrics (ibid, :10); and, most important, the logo is strictly copyrighted, because it's the part of the brand that produce the value in the fashion system.

On the contrary, people use to think that clothes design, being the expression of the designer's creativity, is the main source of the value in fashion. But, from this point of view, the fashion system is much more similar to electronic music or hip-hop than to other forms of cultural production: sampling, citation and

other forms of original contents bricolage are not only tolerated, but they are at the core of the production process:

"(…) Elite brands are not frozen in amber; they repeatedly have been built and re-built around an ethic of homage, the respectful referencing and imitation of other people's creativity. The great designers of today routinely incorporate and adopt aspects of their mentors' work, refining basic elements and adding new design aesthetics. Ungaro was the protégé of Balenciaga; Lagerfeld drew upon Chanel. Tom Ford incorporated the traditions of Gucci, and Alexander McQueen recognized the style of his sponsor, Givenchy (…) In an environment of constant emulation, it can be difficult to separate "originality" from "imitation." The two blur together so seamlessly that it often doesn't make sense to try to sort them out. Such conclusions are jarring to anyone steeped in the orthodoxy of copyright law, which presumes that it is in fact possible – and perhaps urgently necessary – to ascertain the authorship and "originality" of a work." (ibid, :13-14)

If citation is an ordinary practice among the top levels of fashion, also the practice of appropriation of smaller designers productions from big names is nothing extraordinary. From Miuccia Prada to Nicholas Ghesquière (a star designer at Balenciaga), fashion history it's plenty of cases of direct appropriations of other's work (ibid, :26). The word "stealing" here is unappropriated exactly because the whole system is based on a continuos sharing of forms and contents.
From a general point of view, it worths to consider wide parts of the fashion system as an Open Source economy and many of its production as a common. As highlighted by Sinnreich and Gluck (Sinnreich and Gluck 2005), this is strictly related with the core mechanisms of innovation itself.

"As with music, fashion encompasses a large gray area between the extremes of consumers and producers. This gray area, in which creative thinkers draw upon an ever growing and constantly circulating pool of common memes, is arguably the source of new ideas and trends within the fashion industry. Sociological literature on innovation describes it as an interactive process, dependent upon cumulative knowledge and the capacity for interchange between individuals, institutions and organizations. Academic research on fashion echoes this definition." (ibid,:14-15)

The same mechanism is driven in an opposite direction by many small companies (i.e. ABS, AnyKnokoff and Victor Costa), that constantly copy the haute couture models worn by cinema and music stars on the the main premiers and events red carpets, and place them in more ordinary markets (ibid, :26). At another level, big fast-fashion brands like H&M commonly get something more then a general inspiration from other (famous or unknown) designer's work.

Finally, the practice of cool-hunting is used by designers at all levels, from students to top stylists. The symbolic productions of subcultures, countercultures and ethnic groups are (directly and indirectly) one of the main sources of inspiration for all kinds of designer.
The main path for the production of value, at higher levels, is the brand and its capacity to sanction counterfeits:

"here is value – for companies and for innovation – in sanctioning imitation. The elite designers can charge a premium for their perceived superiority and "originality," and imitators can make money by catering to mid-market and lower-tier consumers who are not likely to buy the elite brands. (…) A brand name is, in essence, the commodification of socially created value ". (Ibid, :25-26)

Here it emerges again the distinction rooted in common sense between individual creativity and collective innovation. Due to the social emphasis given by actors to the values of genius, creativity and originality, there is still a strong belief in the fact that a cultural product created by an individual is directly originated by its personal genius despite of (or, sometimes, against) its wider social and cultural environment. In other terms, the cultural product owns an "aura" (Benjamin 1963) that it's inherited by the direct relationship between the product itself and the object. This relationship is embedded in the realms of sacrality, art and ineffability. To buy a good that incorporates such values means to be recognized as legitimate owner of a part of this aura[3].

As it's clearly demonstrated by Bollier and Racine for fashion, and by many other scholars for other fields of production (see for example the seminal work of the GREMES group leaded by Maffesoli on bricolage in music (Tessier 2003; Berthou 2002)), such kind of distinction is much more blurred, at the extent that it makes sense to say that there is no individual creativity without social collective innovation.

"The legal distinction between a counterfeit and a knockoff is crucial. It is what enables the fashion world to sustain its wide-open creative ethic while maintaining its profitability. A counterfeit dress is one that falsely bears the label of another

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3 It's important to underline that this is not the only way of value creation in fashion, even if it's the most interesting for the path that we are following: other analysis suggest diverse and complementary mechanisms. In an extremely synthetic way, we can say that all the classical studies on fashion in sociology, from Simmel and Veblen to Bourdieu (BIBLIO) have focused with diverse lenses on the capacity of fashion to produce at the same time processes of social distinction and social cohesion, representing the uniqueness of the taste of certain social groups and ratifying their status. This allure, that can be seen as a materialization in clothing of the social relationships of power, it's a fundamental mode of production of value in the markets.

designer even though no license has been paid. A knockoff is a dress that may be almost identical to a brand-name dress, but it does not purport to be anything but what it is: a nearly identical knockoff produced by someone else. Counterfeiting is wrong not because it imitates design elements, but because it steals from the repository of value in fashion – the trademarked name and logo. Designers have credibility, stature and profitability because their name comes to represent a look and an artistic standard." (Sinnreich and Gluck 2005:23)

B) Reputation, symbolic capital and p2p

In this ecosystem, some actors at the high level have the possibility to use legal tools to protect creations from counterfeiting, but this not affects inspiration, imitation or knockoffs. This makes sense because for such actors the root of the value itself is rooted in their brands.

The more an actor is small, the less this kind of legal protection of the brand makes sense. The reputation of small designers, craftsmen and micro-entrepreneurs is based on totally different logics. Since they are tangled in small and specific (even if not necessarily in spatial terms) networks where face to face communication (or its digital equivalent) is the dominant mode of interaction, they are called to responsibility through different means. This involves mainly what, in sociological terms, can be defined as a mixture of social capital and symbolic subcultural capital (Bourdieu 1979, 2000; Thornton 1996; Harvey 2002; Niessen 2009).

In its theory of the capitals, the french sociologist Pierre Bourdieu identified a quadripartite system: economic capital, which is the direct and indirect set of material resources that an individual or group can use; cultural capital, constituted by the formalization of the knowledge through educational institution; social capital, that can be synthesized in the quality and quantity of significative social relationships that can be mobilized to reach specific goals; symbolic capital, a more volatile set of resources that has to do with the possibility to accumulate and show certain symbolic traits that are referred to desirability within specific social groups[4].

Considering our *groups* in their local contexts, their main source of value is located in their social capital ("who do I know, who does know me and how we can do thing together") and in the located subcultural symbolic capital they can accumulate and use. Here, we are using the term "subcultural" not referring necessarily to spectacular styles like punks and mods but, in a wider sense, to lifestyles that

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4 Someone may say that this is a quite brutal simplification, but it works to the extent of our purposes in this chapter: complexity and depth of Bourdieu's thought are certainly wider.

express values and practices that differ sensitively from the ones accepted by the majority of the social body. Nevertheless, subcultures in the sense of "alternative movements" are very important. As highlighted by Claire Bridgett Dearie,
"Craft's marriage with political statements originated with the Arts and Crafts movement of the 19th century, which stood in opposition to the Industrial Revolution. In the 1960s and '70s, counterculture once again embraced craft as a way to reconnect to the earth at a time when pop art praised commercialization and consumerism. (...) In the early 1990s in Olympia, Washington, the roots of the riot grrrl movement spread and jumpstarted a DIY culture in music, writing, fashion and feminism. (...) Riot grrrls planned social events, workshops and eventually entire conventions to bring about social and cultural change." (page 11)

Subcultural symbolic capital is strictly connected with identity and reputation: certain social actors have gained a particular kind of credibility that is recognized by all the members of their networks. It's important to underline that such credibility is necessarily not linked to the same values and practices in all the contexts. At the contrary, it's strictly local and situated: it not only differs on a national base, but also on a micro-regional one; at the same time, in the same spatial context should coexist many different subcultural networks that recognize desirability, and value, to different kinds of symbolic capitals, expressing different set of values. A higher degree of complexity is given by trans-local subcultural networks, that detach the process of symbolic creation from spatial limitations and aggregate subjects through technological means.

One of the driving ideas behind Bourdieu's theory of capitals is that, to a certain extent, is possible to convert some parts of certain kinds of capitals in others: so, for example, it's possible to use the formalization of knowledge given by cultural capital in order to find better jobs that will increase the economic. Symbolic capital can work in the same way: it's possible to exchange the reputation acquired within certain networks with economic income. This exchange can happen at two different levels.

The first one is very similar to the one that we have already took in exam for the mainstream fashion system: the reputation of certain designers or craftsmen can generate an "aura" of uniqueness that can be embedded in cultural/material products (clothes) and sold. The main problem with this process is that such kind of productions usually cannot benefice of the main features of economies of scale: mass purchasing (materials bulk buying facilitated by long-term contracts); managerial specialization; better financial options for borrowing or other financial products and instruments; advertisement and marketing; and ac-

cess to capillar distribution systems.

Another fundamental obstacle is that most part of the potential buyers of micro-fashion are not ready to pay high prices for clothes, because it's not affordable or because this is not considered a socially desirable behavior, regardless the real amount of time and specialization invested by the producers. This means that another key mechanism of the fashion system, luxury, is excluded.

The model known as Long Tail Economy can be seen as an alternative to economies of scale for small productions. We have already described this phenomena and its mechanisms in the first chapter. Here, it worths while to consider that the most famous and successful on-line community for crafting e-commerce, Etsy, has opted exactly for this strategy (Abrahams 2008)

Basically, Etsy has built a community of "crafty people" mainly focused on selling; apart from this, its main successes are constituted by the capacity to build micro-narrative around micro-businesses. Many sections of Etsy's website are dedicated to a constant monitory of what's going on in the word of craft, to tell the stories of the most active crafters and most successful micro-entrepreneurs. Far from being only a marketing strategy, this can be seen as a proper process of community-building (Wiertz and de Ruyter 2007; Jankowski 2007; Koh et al. 2007; Brown, Broderick, and Lee 2007) that enhances the identity construction process of groups and individuals. It's important to underline that on Etsy all the participants conceive themselves mainly as individual (and individualized) small entrepreneurs or part-time crafters. The community is strong, but it's a community that aggregates individuals that produce on their own and then promote their products on a web platform.

Considering the open source nature of the fashion system and the micro size of the actors we are taking into account, it's reasonable to consider the whole field with the lens of peer-to-peer economy. The fashion system is characterized by abundance and distribution, the two conditions that Bauwens identifies as necessary for the emergence of peer production:

> "Abundance refers to the abundance of intellect or surplus creativity, to the capacity to own means of production with similar excess capacity. Distribution is the accessibility of such abundant resources in fine-grained implements, what Yochai Benkler has called modularity or granularity. Again we could talk about the distribution of intellect, of the production infrastructure, of financial capital." (Michel Bauwens 2006:2)

As we have seen, abundance of signs is a keyword in the world of fashion: all the actors are constantly involved in processes of creating, re-creating, transforming and mixing. Distribution is fostered by the general trend of User Generated Con-

tents and the Blogosphere is documenting and making accessible this whole amount of creativity.

In a P2P perspective, both these aspects have to be implemented and systematized. Re-appropriation and bricolage can be seen as the first steps in a path towards the establishment of a conscious co-design process oriented towards a commons perspective. At the same time, distribution has to be implemented not only by technical means but also through a narrative work able to represent the transformations in identities and production processes.

A P2P business model for fashion has to take into account the partially non-monetary nature of certain kinds of micro-economies; if an important part of the value is obtained by the actors through the enhancement of their subcultural symbolic capital, the business model should help them firstly to work on this and, secondly, to establish networked forms of derivative monetary resources; finally, it has to help them to earn directly monetary value from the sell of co-created products.

Writing about derivative monetary resources we are referring to the whole economy that revolves around the simple activity of sewing and selling: micro-realities are very often involved in parallel activities like teaching, organizing and taking part into events. The more they are active in their own local networks, the more such events will not include merely fashion. This drive us back to a wide definition of fashion system that includes not only fashion actors and institutions but that also overlaps with sectors of art, design, music, etc.

C) Quality and the local context

Quality is at the core of all the crafting activities. As highlighted by Richard Sennett in his seminal work "The craftsmen" (Sennett 2008), craftsmen can be defined as individuals that feel to be part of specific social communities that basically shares two core values: delivering quality and working good[5]. Such definitions of quality are mainly implicit, because they are linked to material practices characterized by a low degree of verbal formalization; according to Sennett, explicit criteria of quality (i.e. quality control) are often in conflict with the implicit knowledge shared by the communities.

In the traditional industrial framework, there are four main kinds of quality:

> "- Quality of the construction or structure: set of product properties built in the design that becomes apparent both in the production process and use (e.g. grain of shoe upper or leather goods, composition of athletic footwear's soles).

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5 A side consideration of Sennet's theory is that the building of this ideology is linked to institutions that work on co-operation. For this reason, the planning of a successful crafting network has to be based on collaboration and not on bureaucracy or competition (2008).

- Functional quality expressed by the product's suitability for its intended use, reliability, security and comfort (e.g. geometry of travel goods vis-à- vis storage capacities, dimensions of shoe lasts, water-vapor permeability of shoes and gloves).
- Production/execution quality determined by workmanship and technology precision, absent of faults, realization of the (aesthetic) design (e.g. symmetry of left and right shoes and gloves, evenness of seams and overlaps, finishing consistency).
- Realization/recognition quality that plays extremely important role in marketing of fashion goods (e.g. compliance with avant-garde trends)." (Flynn, B. B., R. G. Schroeder, and S. Sakakibara. 1994)

In our project, it's important to think in a flexible way to this different kinds of quality in relation with the implicit ones, because each Local Context and Subculture will demand for different kinds of quality. For example, in many contexts of grassroots fashion, the absence of imperfections is not important; at the contrary, imprecisions are often seen as a distinctive mark of authenticity. This is not something that we can choose but it's more a structural limit: each local producer will produce the collection without our supervision in terms of material quality, responding to the inner logics of the local scenes. Far from being a problem, this can be seen as a way to get in touch with the specific symbolic capitals of local contexts.

What is the specific knowledge that we want to share?

Trough the analysis of blogs and communities it has emerged a clear discrepancy between the forms of knowledge provided by most part of educational institutions and the ones requested by the real economic world. As a matter of fact, while the content of learning seems to focus mainly on project culture and on technical skills, the labour market requires increasing competency in terms of self-entrepreneurship, management, financial and fiscal design and management. At the same time, the uprising individualization process requires an hyper-adaptive learning capacity that enables workers to become quickly proficient in new technologies, both in the field of production (i.e. CAD softwares) and in that one of communication (just think about e-mail communication or at blogging and social networking).
Here it's necessary to make a reflection on the general project philosophy. Considering the fashion workers as isolated and monadic entities in the depressurized empty space of economic relations, to focus on learning means to give emphasis to the skills needed to become efficient entrepreneurs. But considering them as integrated parts of social networks means to help them to develop skills in order to be efficient members of such networks; so, technical and managerial

skills are important, but it's more important to develop skills in order to understand their position in local contexts and global markets on the basis of their own needs and values.
In order to proceed, it makes sense to analyze some of the most recent technological developments that are related with knowledge sharing in the worlds of fashion and crafting.

A) Instructables

Instructables, and other similarly inspired websites, are platforms that encourage the creation of multimedia instructions generated by the users themselves, driving the audience through prefixed steps to the realization of material (and sometimes immaterial) products. The general philosophy is that one of the broadening of the meaning of the traditional "How To" section in DIY magazines and websites. Instructables do not focus exclusively on sewing but includes a wide set of topics (from robotics to cooking, from woodcrafting to electronics) with a broad range of difficulty levels (from the entry level to the hyper-qualified one) (Meyers, LaMarche, and Eisenberg 2010; Rosner and Bean 2009; Cavallo and Nichols 2007).
The main positive features of Instructables can be identified in the following points:
   a) knowledge organization and communication is highly informal and often funny; this encourages also not well educated users to learn;
   b) the implementation of the discussions around a certain "How To" does not frozen the specific knowledge in a fixed product, but ,on the contrary, it develops it continuously thanks to the community;
   c) since many diverse fields of production are taken into account, Instructables seems to encourage the cross-fertilization among different practices and knowledge.

We can also observe some criticisms[6].
   a) Even the more detailed "How To" are not able to communicate the whole amount of implicit knowledge that is embedded into certain crafting skills; and the more this skills are professionals, the more it's hard to communicate them (this doesn't avoid very complicated sewing Instructables like "How To Make a Neo Victorian Ball Gown" http://www.instructables.com/id/How-To-Make-A-Neo-Victorian-Ball-Gown-Advanced-Se/).
   b) This problem is amplified by the barriers of language; even if there is a
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6 This makes sense only for the specific purposes of this writing and don't affect the whole project, that can be considerably coherent in the relationship between its purposes and their pursuing.

wide and sharp use of multimedia contents, the main core of this kind of instructions is constituted by written and/or recorded words.

B) Spyn

Spyn is a prototype that have recently thrilled communities of researchers and crafters (Rosner and Ryokai 2009, 2008; Rosner 2010). It was realized by two researchers of the School of Information at the University of California, Berkley, Daniela Rosner and Kimiko Ryoka. In their own words,

"Spyn (is) a system for knitters to virtually weave stories into their creations. Using Spyn, a knitter can record, playback and share information involved in the creation of hand- knit products. Spyn uses patterns of infrared ink printed on yarn in combination with computer vision techniques to correlate locations in knit fabric with events recorded during the knitting process. Using Spyn, knitters can capture their activities as audio, image, video, and spatio-temporal data. When users photograph the knit material, the Spyn system analyzes the ink patterns on the material and visualizes events over the photograph of the knit." (Rosner and Ryokai 2008:1).

The main interesting points in Spyn are:
1. it facilitates the emergence of a tacit knowledge related to an activity that is usually seen as "minor" in despite of its high degree of complexity;
2. it encourages a rich contextual documentation of craft practices; far from being merely a gadget, it lets come into view the emotional complexity of DIY practices: this is a decisive factor in the production of subcultural capital;
3. the data obtained through the tool can be shared through a wide range of web tools and platforms.

The main problems that we can highlight in Spyn are:
a) even if it can be considered as a simple tool, Spyn requires an interaction with hardware and software technology; this can be seen as a major barrier for many member of the target group, that are nearly non-literate from a technologic point of view;
b) storytelling, which is the main value of the tool, is a practice that requires considerable efforts in order to be efficient;
c) at the moment, the tool has been developed only for knitting; even if it's extremely interesting, there are no evidences that it can be enhanced also for sewing or other craft related practices.

C) Web 2.0 Tools

Social Networks are becoming much more popular and diffused than all the previous forms of the internet. Even if the mass use of social networks is producing an unforeseen amount of communication trash in the history of man on Hearth, at the same time it's also creating a promising set of tools for new kinds of learning.

In this section we're not taking into account a specific tool or set of tools, but more generally the logic of web 2.0 itself; the reason is that specific platforms and tools tent to became obsolete very quickly[7]. Nevertheless, the intrinsic logics of web 2.0 can be considered as valid and we can expect that in the narrow future they will be expanded more than overcame.

From the point of view of the groups that we take into account, web 2.0 environments offer many interesting features (Ullrich et al. 2008) Clothing is a highly sophisticated activity that requires face to face interaction in order to transmit physically the implicit knowledge embedded in gestures and other kinds of non-verbal communication. We cannot expect that such kind of knowledge will be communicated via internet, especially considering the supposed degree of web-literacy of our target. But they can use our platform to let emerge the elements that connote their identity as members of specific sub-cultural local communities; in other words, they can use it for the enhancement of their sub-cultural symbolic capital.

As it has been shown by other researches (Niessen, 2009) and by our qualitative fieldwork, there are many difficulties for professionals, tangled in specific local contexts, to understand how to do this fundamental step. Very often, institutions are seen as alien actors that speak an incomprehensible bureaucratic language and that use to appear only to limit the activity of micro-entrepreneurs with fines and penalties. At the same time, there is often a tendency to self-segregation into the comfortable borders of their own communities, seen as "safe" places where common values, languages and practices are given for grant. If this "protective" approach can be successful when small networks are beneficing of the enthusiasm given by novelty or by particular circumstances, on the long term it tent to bring the networks to some sort of implosion.

From this point of view, online sociability enhanced by web 2.0 can be seen as a way to implement a more sustainable path for micro-producers. More precisely, it can provide tools for 4 main dimensions: self-representation, acknowledgement, sharing and networking.

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7 Just consider, as an example, how MySpace has been overtaken by Facebook in a couple of years.

"Self-representation" means the construction of a personal and professional identity able to recognize and empower individual and collective narratives. Here, when we talk about identity we are talking about values, symbols and practices.
"Acknowledgement" means mutual recognition of identities produced in other sub-cultural contexts. Recognition leads to a public reputation and this leads to trust[8].
"Sharing" means the chance to exchange symbolic capital thanks to the two previous features. Sharing is not only a techno-optimistic ideology that uses plastic words from the internet; in a more sociological framework it's also the gate for social innovation.
"Networking" means the possibility to act pragmatically with other actors with a common view.

Even if these steps seem quite simple, they take into account the possibility to act at the same time at the symbolic and material levels.

Learning, web 2.0 and local contexts

We can define a *Local Context* as a spatially determined set of social networks of actors related to our target users, with specific priorities in terms of values, practices and skills. It's fundamental to always remember that the success of Openwear is strictly connected with the importance given to different Local Contexts.
The main reason of this importance is that we are going to menage an online community that will group actors deeply routed in their territories and used to produce clothes in a material (offline) world that is locally defined.
It has been demonstrated that fashion is one of the sectors of creative industries with the higher importance of off-line meetings (D'Ovidio).
At the same time, we have to remember that some cities (at least: Berlin, London, Amsterdam, Milan, Barcelona, Madrid) are crucial in the definition of contemporary styles; this means that we have to develop site-specific strategies in this regard.

Each Local Context has different assets from the point of view of Local Fashion Systems; Local Scenes, Subcultures and Gatekeepers; Social and Economic Environment; Local Hubs.

Each *Local Fashion System* has a different structure, according to: the different kind of historical productions; the presence or absence of small producers at different steps of the production process; the networks in which the area is involved; the kind of educational and non-educational institutions rooted in the area; the size of the context and its rural or urban nature.
Local Scenes are related to the world of *Subcultures*. In the common sense, subcultures are often related to spectacular styles and attitudes like the ones of punk, mods, hippies, etc. Nowadays it has been observed a tendency to post-subcultural identities: it means that people are going to integrate different values, icons and elects of styles in a less structured way. At the same time, most consumers and users communities can be partially seen as subcultures.
This is a crucial point: in order to get in contact with the local contexts we have to establish direct connections with *Subcultural Gatekeepers* (local actors with a notable subcultural symbolic capital).

Social and Economic Environment differs conspicuously from one contest to another. The main variables from this point of view are:
- *Gender and Age Inequalities* (different chances to access satisfying positions in the labour market can drive to different approaches to the idea of career);
- *Local Welfare Systems* (a conspicuous support to unemployment can establish wide groups of high skilled unemployed, especially in the creative sectors);
- *Real Estate Market* (prices to high for dwellings, studios and laboratories can drive to the choice of a more "regular" career);
- *Local Economic Structures*.

Local Hubs are the physical spaces relevant for networking. According to the characteristic of different local contexts (or specific subcultures) they can be shops, laboratories, associations, cultural institutions, schools, markets, art centers, informal aggregation centers.

Given this general definitions, the consequent question is: how can web 2.0 tools help in sharing knowledge that will drive to an enhancement of symbolic capital for our target users? And what is the more practical knowledge that can be integrated with the previous one?

From our research, it's clear that there is the need to improve the following dimensions:

a) Knowledge on the existence of other similar actors at the local and translocal level. This cannot be considered as a simple list of addresses, but it has to be a cross-referable environment able to explain which are the values of the single actors and of their networks. Such strategy can be seen as a process of community building, with a clear and specific focus on symbolic capital. Here informations about Local Hubs are crucial; here an incomplete list of data that should be provided:

- What are the Local Hubs in my area?
- Who is who? Where I can find people that share my interests, my values and my position in the labour market?
- What kind of activities, people, facilitations, machineries can I find in these places?
- Can machineries be rented, or shared?
- Are there some actors that acts as gatekeepers with other sectors of societies?

b) Clear, simple and detailed informations on key persons and roles in all the main educational and economic structures. Very often people is confused by the superimpositions of similar roles at different administrative levels (i.e. city level, district level, regional level, etc) and by an excessively bureaucratic language.

c) Clear informations on the best fiscal and economic practices for micro-actors: very often there is a great confusion about rights and profiles that they can assume.

To conclude, we can observe that a local contexts-based web 2.0 platform for knowledge sharing has to be configured as an effort to de-institutionalize knowledge in order to let emerge, share, enhance and transform the specific symbolic capitals of the actors.

"In premodernity, knowledge is transmitted through tradition, through initiation by experienced masters to those who are validated to participate in the chain mostly through birth. In modernity, as we said, validation and the legitimation of knowledge is processed through institutions. It is assumed that the autonomous individual needs socialization, 'disciplining', through such institutions. Knowledge has to be mediated. Thus, whether a news item is trustworthy is determined largely by its source, say the Wall Street Journal, or the Encyclopedia Britannica, who are supposed to have formal methodologies and expertise. P2P processes are de-institutionalized, in the sense that it is the collective itself which validates the knowledge." (Bauwens, P2P Foundational Manifesto at http://p2pfoundation.net/index.php/3._P2P_in_the_Economic_Sphere)

Crowdsourcing, peer-production and fashion

In order to proceed it's necessary to clarify some concepts that are related to new ways of production and new business models in many sectors of creative production, included fashion. Co-design, crowdsourcing and peer production are definitively different processes, but very often they are confused one with each other. The situation is complicated by the continuous proliferation of neologisms related to these kinds of new economic practices. The following map is an excerpt of a wider one exposed on the web site of the P2p Foundation (http://p2pfoundation.net/Category:Business#What_we_Know_about_Open.2FFree_and_Commons-Based_Business_Models); there is no space here for analyzing all the concepts, but they can be searched on the website itself.

Crowdsourcing

Crowdsourcing is a neologism composed by the words "crowd" and "outsourcing" that indicates the act of taking tasks usually performed by contractors (or employees) and outsourcing them to a specific community of people (the "Crowd") (Howe 2006) in systems of mass-production. In other terms, crowdsourcing opens up companies processes of innovation without necessarily questioning their power structures, nor the issues related to copyright and intellectual property. It worths while to cite Howe's seminal article that focus very clearly on this point:

"Just as distributed computing projects like UC Berkeley's SETI@home have tapped the unused processing power of millions of individual computers, so dis-

tributed labor networks are using the Internet to exploit the spare processing power of millions of human brains.

For the last decade or so, companies have been looking overseas, to India or China, for cheap labor. But now it doesn't matter where the laborers are – they might be down the block, they might be in Indonesia – as long as they are connected to the network.

Technological advances in everything from product design software to digital video cameras are breaking down the cost barriers that once separated amateurs from professionals. Hobbyists, part-timers, and dabblers suddenly have a market for their efforts, as smart companies in industries as disparate as pharmaceuticals and television discover ways to tap the latent talent of the crowd. The labor isn't always free, but it costs a lot less than paying traditional employees. It's not outsourcing; it's crowdsourcing." (ibid))

Crowdsourcing is particularly interesting for creative industries. Websites like 99design continuously launch competitions for logo design, print design, t-shirt design, web design, etc.

From this point of view, Crowdsourcing is appealing for the business because it allows to rise quickly an impressive amount of immaterial products, often with considerably lower expenses than in usual systems. People participate for a wide set of reasons, but recent researches indicates that, for example,

"the crowd at iStockphoto is motivated by money and the opportunity to develop individual creative skills, not necessarily by the desire for peer recognition or the opportunity to build a network of friends and creative professionals" (Brabham 2008).

The uprise of Crowdsourcing originated very different reactions; on one side, entrepreneurs seems to be enthusiastic. On the other side, professional associations of specialized creative workers, that fear to be replaced by crowdsourced professional amateurs, are organizing campaigns against such "speculation"[9]. The main criticisms can be summarized as follows:

1. crowdsourced creativity has low project design efforts and this can compromise quality;
2. crowdsourcing tent to diminish the economic value of creative work;
3. there are no clear legal patterns for intellectual property[10];

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9   The most famous is "No Spec" (http://www.no-spec.com/

10   These are the three points highlighted by the official critical document of the professional association AIGA (http://www.aiga.org/content.cfm/position-spec-work).

4. crowdsourcing can foster alienation of workers that became totally detached from the "real" meaning of their production;
5. oeuvres produced in crowdsourcing are nearly useless from the point of view of workers careers in terms of portfolios, curriculums, etc[11].

The problem is that the rhetoric of crowdsourcing uses to depict it as an expression of "the power of the crowds"; such definition seems to invoke a more democratic, participative and equal distribution of the production process. But, as it's highlighted by many skeptics[12], things are going in a different way.

Peer-production

Peer-production is a new form of production (of goods, contents or services) that involves members of communities on an organized base. It's a

"coordinated, (chiefly) internet-based effort whereby volunteers contribute project components, and there exists some process to combine them to produce a unified intellectual work" (Benkler 2006:277).

According to Benkler (Benkler 2006), the information production costs lowering is going to reduce the value of strategies based on property and, at the same time, it's going to make commons-based knowledge more important; it's also going to increase the range of motivations to produce in public form[13]. Finally, it's creating the basis for wide cooperative projects that were previously inconceivable.

As summarized by Tom Abate

"Benkler lays out three characteristics of successful group efforts:
"They (the tasks)
1) must be modular. That is, they must be divisible into components, or modules, each of which can be produced independently of the production of the others. This enables production to be incremental and asynchronous, pooling the efforts of different people, with different capabilities, who are available at different times."

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11 Point number 4 and 5 are identified by Jonathan Zittrain in his talk "Minds for Sale: Ubiquitous Human Computing and the Future of the Internet".

12 See http://emahlee.wordpress.com/2010/06/12/the-power-of-design-crowdsourcing-vs-collaboration/ , http://opensource.com/business/10/4/why-open-source-way-trumps-crowdsourcing-way .

13 This is clearly demonstrated by the bibliography on the motivations of open source communities (McLure Wasko and Faraj 2000; Bonaccorsi and Rossi n.d.; Stewart and Gosain 2001; Bonaccorsi and Rossi 2006; Vainio et al. n.d.; Oreg and Oded Nov 2008; Yang and Lai 2010; Brabham 2008; Ekbia 2008; Zehle n.d.; Mikkonen, Vadén, and Vainio 2007; Coleman 2005; Schroer and Hertel 2009; O. Nov 2007; Hars and Ou 2002)

2) "For a peer production process to pool successfully a relatively large number of contributors, the modules should be predominately fine–grained, or small size. This allows the project to capture contributions from large numbers of contributors whose motivation levels will not sustain anything more than small efforts toward the project ...."

3) "... a successful peer production enterprise must have low–cost integration, which includes both quality control over the modules and a mechanism for integrating the contributions into the finished product, while defending "itself against incompetent or malicious contributors"". (http://www.newcommblogzine.com/?p=509)

Here the issue of power is fundamental. On one side, we have a collaborative project that can be seen as similar to the one of crowdsourcing; on the other side, the property of the results of the production joins a common pool where everything will remain public.

So, in other words, we can say that in crowdsourcing the crowd is producing for the wealth of the fews, while in peer production a crowd will benefit of the efforts of a crowd[14].

A survey of crowdsourcing experiences in fashion and clothing

1) Threadless

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14 For a more detailed description of the differences, please see http://blog.p2pfoundation.net/why-crowdsourcing-is-peer-production/2007/03/08

Probably, the most famous crowdsourcing project related to clothing is the Chicago-based company Threadless (http://www.threadless.com/). In the words of its founder, this is the process they use:

"Threadless is an ongoing, online tee shirt design competition. Designers download a template and upload a design. Each design is scored on its own for seven days. The designs are voted on from 0-5 by our community of registered users. Currently, we have a little over 500,000 of them. There's not real set "end date" for a contest as each design is available for scoring for seven days from the time it was submitted. However, each week we release seven new designs and two reprints to sale on our site.

The designer of each winning tee receives $2000 in cash and prizes: $1500 cash, $300 gift certificate to Threadless and a membership to the 12-club, a monthly subscription-based line of tees. We receive about 150 submissions per day and have printed a little over 900 designs. We currently sell about 80-90 thousand tees per month and ship them from our Chicago office/warehouse" (BIBLIO: Ten Questions with Jeffrey Kalmikoff, Chief Creative Officer of skinnyCorp/Threadless http://blog.guykawasaki.com/2007/06/ten_questions_w.html#axzz0tOE46ibf).

Threadless can be defined as a process of "customer co-creation", "user innovation" or "crowdsourcing" working through the mechanism of an on-line auction that rewards the ones are able to match with the community interests (this process is defined as "crowdvoting"). Threadless has progressively extended its production with specific one-shot contests for a wide range of goods. The image of the company highlights elements like: participation; being part of a community; to be out of the fixed patterns (the two founders are defined as "both college dropouts (...) now in demand at the nation's top business schools"[15]); freshness; and coolness.

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15 From: "The Customer is the Company: how Threadless is using crowdsourcin" http://www.inc.com/magazine/20080601/the-customer-is-the-company_pagen_6.html

2) Ryz
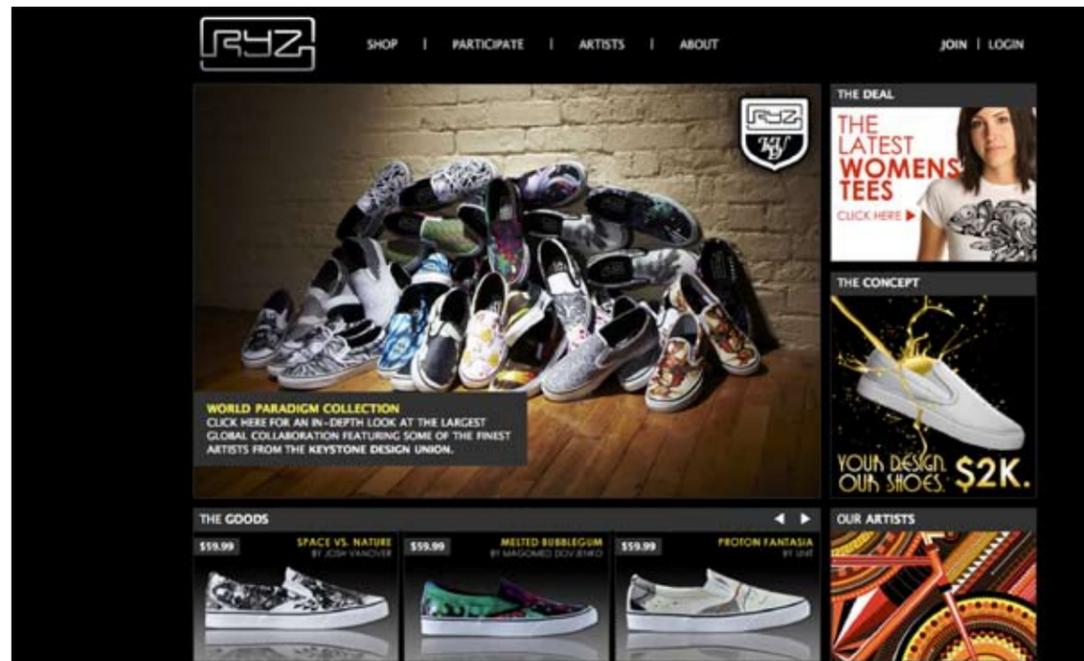
Ryz is a mixture of crowdsourced, and crowdvoted, design for shoes and crowd-voted design realized by famous artists and designers. In their words:

"As an ongoing, open call for design submissions, RYZ welcomes the community to get involved by submitting designs, commenting on designs, or by voting on their favorite designs".
(There are two ways of getting paid):
"1. Every 7 days the most popular design submission in Vote, based on community ratings and critiques, will be deemed Design of the Week. The winning designer banks $100 good towards merch in the RYZ online shop.
2. After carefully watching the progress of a design, RYZ will select a production-worthy design to be officially manufactured and sold both online and around the world in select retail and boutique shops. These designs will have proven the community test and showcase an overall 'above average' quality of work. The selected artist will pocket $2000 cash and $100 good towards merch in the RYZ online shop."
http://www.ryz.com/design/howitworks

The image of the company differs from the others because it's more framed on "art" (notably visual and street art) and "coolness"[16].

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16 Similar project respectively for shirts, female shoes and high heels shoes are Cameesa (http://cameesa.com), Walking Resistance (http://www.walkingresistance.com/) and Dream Heels (http://www.dreamheels.com). The first one is focused on amore "arty" image, the second one is more "young" and the last is more "classical". Substantially, they use mixed processes of crowd-

3) Fashion Stake

At the moment we are writing, the crowdfunding company Fashion Stake (http://fashionstake.com/) is relevant only for its advertisement techniques. Without showing a single part of its platform, it has been able to became a media phenomenon with articles on many relevant business blogs and portals. On one side, the image of the company is absolutely traditional: it focuses on the usual values of the mainstream fashion system (as highlighted by the names of the first scheduled designers: Phillip Lim, Alexander Wang, Donna Karan and Jeffrey Montero). On another side, it tries to follow the path of other successful startup companies, talking about "democratization", "sharing", "power of the crowd" and "community support".
More concretely, Fashion Stake seems to be a crowdfunding platform where the customers can financially support a mainstream designer's collection and suggests some changes in the clothes[17].

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funding, crowdsourcing and mass-customization.

17 Rick Roubin's project seems to be oriented in the pretty same way (http://www.dickyroubin.com/media.asp?t=1).

4) Catwalk Genius
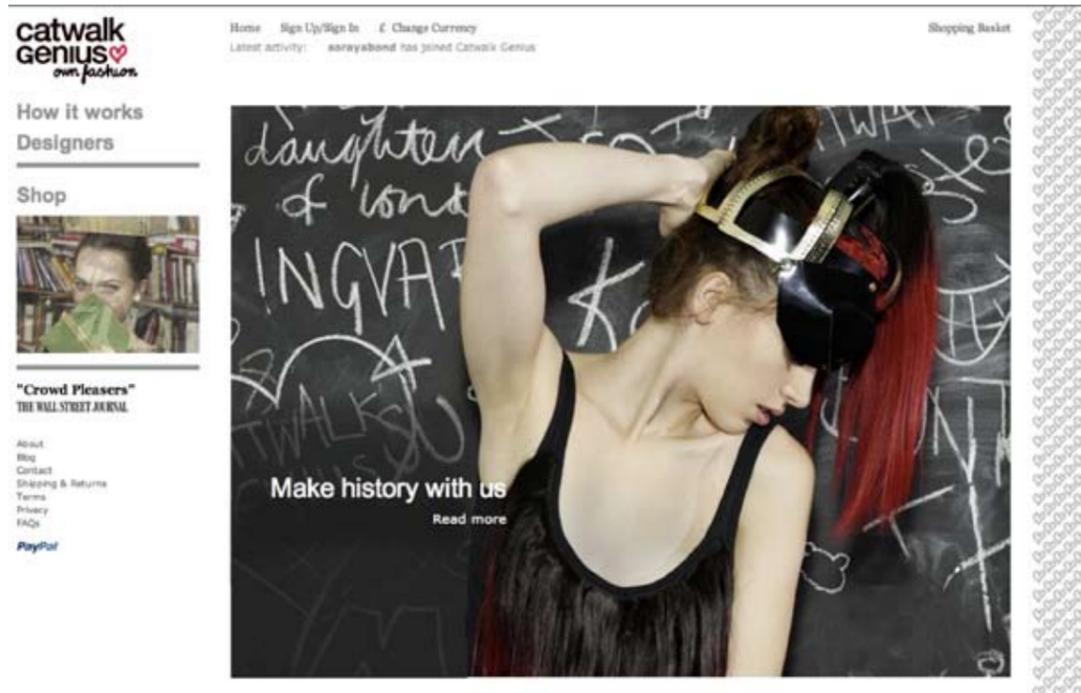
Catwalk Genius (http://www.catwalkgenius.com/) is a crowdfunding platform for traditional mainstream fashion. In its page on Open 100 it's defined as follows:

"Catwalk Genius introduced the concept of 'crowd-funding' to the fashion industry. In short, anyone may buy shares in a new fashion collection. The funding collected is used to create a clothing range and the revenues from its sales are shared equally between designer, supporters and Catwalk Genius. Supporters are given perks in return for their support, such as signed design sketches or seats at a catwalk show."
(http://www.openbusiness.cc/2010/01/13/catwalk-genius/)

Here the whole image is very conventional and seems to be shaped more on fashion blogs style then typical crowdsourcing companies one (bonuses for catwalk shows and mentions on Vogue and Grazia are two good indicators in that sense).

Bibliography

Abrahams, S. L. 2008. "*Handmade online: The crafting of commerce, aesthetics and community on Etsy. com.*" THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL.

Bauwens, M. 2005. "*The political economy of peer production.*" Arthur og Marilouise Kroker (red.).

Bauwens, Michel. 2006. "*The Political Economy of Peer Production.*" post-autistic economics review 33-44. http://www.paecon.net/PAEReview/issue37/Bauwens37.htm.

Benjamin, Walter. 1963. *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit : drei Studien zur Kunstsoziologie.* Frankfurt am Main: Suhrkamp.

Benkler, Yochai. 2006. *The wealth of networks : how social production transforms markets and freedom.* New Haven [Conn.]: Yale University Press.

Berthou, Benoist. 2002. "*Les Moyens du bord, Art contemporain et bricolage.*" LE GREMES (Groupe de recherche et d'Étude sur la Musique et la Socialité),.

Bollier, D., and L. Racine. 2005. "*Ready to share: creativity in fashion & digital culture.*" in A Norman Lear Center Conference, USC Annenberg School for Communication, vol. 29.

Bonaccorsi, A., and C. Rossi. n.d. "*Altruistic individuals, selfish firms? The structure of motivation in Open Source software.*".

Bonaccorsi, A., and C. Rossi. 2006. "*Comparing motivations of individual programmers and firms to take part in the open source movement: From community to business.*" Knowledge, Technology & Policy 18:40-64.

Bourdieu, Pierre. 1979. *La distinction : critique sociale du jugement.* Paris: Ã‰ditions de Minuit.

Bourdieu, Pierre. 2000. *Les Structures sociales de l'économie.* Seuil http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/2020412950.

Brabham, D. C. 2008. "*Moving the crowd at iStockphoto: The composition of the crowd and motivations for participation in a crowdsourcing application.*" First Monday 13:1-22.

Brown, J., A. J. Broderick, and N. Lee. 2007. "*Word of mouth communication within online communities: Conceptualizing the online social network.*" Journal of Interactive Marketing 21:2.

Cavallo, D., and L. E. Nichols. 2007. "*The Idea Melting Pot (IMP): an openly-editable web-based community learning resource for builders.*".

Christopherson, Susan. 2008. "*Beyond the Self-expressive Creative Worker: An Industry Perspective on Entertainment Media.*" Theory Culture Society 25:73-95. http://tcs.sagepub.com/cgi/content/abstract/25/7-8/73.

Clegg, B.C. 2010. "*Craftivista: Craft blogging as a platform for activism.*" http://rave.ohiolink.edu/etdc/view?acc_num=muhonors1271901842.

Coleman, E. G. 2005. "*Three ethical moments in Debian.*" Retrieved May 23:2007.

Ekbia, H. R. 2008. "*Seeking reliability in freedom: the case of F/OSS.*" Computerization movements and technology diffusion: from mainframes to ubiquitous computing 405.

Gill, R, and Andy C. Pratt. 2008. "*Introduction: In the Social Factory? Immaterial Labour, Precariousness and Cultural Work.*" THEORY CULTURE AND SOCIETY 25:1-30.

Gill, Rosalind, and Andy Pratt. 2008. "*In the Social Factory?: Immaterial Labour, Precariousness and Cultural Work.*" Theory Culture Society 25:1-30. http://tcs.sagepub.com/cgi/content/abstract/25/7-8/1.

Hars, A., and S. Ou. 2002. "*Working for free? Motivations for participating in opensource projects.*" International Journal of Electronic Commerce 6:25-39.

Harvey, David. 2002. "*The Art of Rent.*" SOCIALIST REGISTER pages 93-110. http://www.geo.ntnu.edu.tw/faculty/moise/words/information/economy/cultural%20geography/david%20oharvey.doc.

Hesmondhalgh, David, and Sarah Baker. 2008. "*Creative Work and Emotional Labour in the Television Industry.*" Theory Culture Society 25:97-118. http://tcs.sagepub.com/cgi/content/abstract/25/7-8/97.

Howe, J. 2006. "*The rise of crowdsourcing.*" Wired Magazine 14:1-4.

Jankowski, N. W. 2007. "*Creating community with media: History, theories and scientific investigations.*" Handbook of new media. Social Shaping and Social Consequences of ICTs 55-74.

Koh, J., Y. G. Kim, B. Butler, and G. W. Bock. 2007. "*Encouraging participation in virtual communities.*" Communications of the ACM 50:73.

Lovink, Geert, and Ned Rossiter. 2007. *MyCreativity Reader : a critique of creative industries.* Amsterdam: Institute of Network Cultures.

McLure Wasko, M., and S. Faraj. 2000. ""*It is what one does": why people participate and help others in electronic communities of practice.*" Journal of strategic information systems 9:155-173.

Meyers, J., J. LaMarche, and M. Eisenberg. 2010. "*Craftopolis: blending tangible, informal construction into virtual multiuser communities.*" Pp. 242-245 in Proceedings of the 9th International Conference on Interaction Design and Children. ACM.

Mikkonen, T., T. Vadén, and N. Vainio. 2007. "*The Protestant ethic strikes back: Open source developers and the ethic of capitalism.*" First Monday 12:1-12.

Naro, S., Arvidsson, Adam, and Giannino Malossi. 2010. "*Passionate Work? Labour Conditions in the Milan Fashion Industry.*" Journal for Cultural Research

14:295-309.

Neilson, Brett, and Ned Rossiter. 2008. "*Precarity as a Political Concept, or, Fordism as Exception.*" Theory Culture Society 25:51-72. http://tcs.sagepub.com/cgi/content/abstract/25/7-8/51.

Niedzviecki, Hal. 2006. *Hello, I'm special : how individuality became the new conformity.* San Francisco, CA: City Lights Books.

Niessen, Bertram Maria. 2009. "*Going Commercial. L'integrazione degli artisti dall'underground al mainstream..*" Phd. Thesis in Urban Sociology. Università degli Studi Milano- Bicocca.

Nov, O. 2007. "*What motivates wikipedians?.*" Communications of the ACM 50:64.

O'Connor, J. 2007. "*The cultural and Creative Industries: a review of the literature.*" Creative Partnerships, London.

Oreg, Shaul, and Oded Nov. 2008. "*Exploring motivations for contributing to open source initiatives: The roles of contribution context and personal values.*" Computers in Human Behavior 24:2055-2073. http://www.sciencedirect.com/science/article/B6VDC-4R4DFYD-1/2/c932c29128dff00545bf4f95a-880c0a4 (Accessed April 7, 2010).

Rosner, D., and J. Bean. 2009. "*Learning from IKEA Hacking:"I m Not One to Decoupage a Tabletop and Call It a Day.".*".

Rosner, D. K. 2010. "*Mediated crafts: digital practices around creative handwork.*" Pp. 2955-2958 in Proceedings of the 28th of the international conference extended abstracts on Human factors in computing systems. ACM.

Rosner, D. K., and K. Ryokai. 2009. "*Reflections on craft: probing the creative process of everyday knitters.*" Pp. 195-204 in Proceeding of the seventh ACM conference on Creativity and cognition. ACM.

Rosner, D. K., and K. Ryokai. 2008. "*Spyn: augmenting knitting to support storytelling and reflection.*" UbiComp 2008.

Ross, Andrew. 2008. "*The New Geography of Work: Power to the Precarious?.*" Theory Culture Society 25:31-49. http://tcs.sagepub.com/cgi/content/abstract/25/7-8/31.

Schroer, J., and G. Hertel. 2009. "*Voluntary Engagement in an Open Web-Based Encyclopedia: Wikipedians and Why They Do It.*" Media Psychology 12:96-120.

Scott, A. 2006. "*Creative cities: Conceptual issues and policy questions.*" Sage urban studies abstracts. 34:1.

Scott, Allen J. 2001. "*Capitalism, Cities, and the Production of Symbolic Forms.*" Transactions of the Institute of British Geographers 26:11-23. http://www.jstor.org/stable/623142 (Accessed March 10, 2009).

Scott, Allen J. 2004. *"Cultural-Products Industries and Urban Economic Development: Prospects for Growth and Market Contestation in Global Context."* Urban Affairs Review 39:461-490. http://uar.sagepub.com/cgi/content/abstract/39/4/461 (Accessed March 10, 2009).

Scott, Allen J. 2006. *Geography and economy : three lectures.* Oxford; Oxford; New York: Clarendon Press ; Oxford University Press.

Scott, Allen J. 2001. *"Globalization and the Rise of City-regions."* European Planning Studies 9:813-826. http://www.ingentaconnect.com/content/routledg/ceps/2001/00000009/00000007/art00002.

Sennett, Richard. 1998. *The corrosion of character : the personal consequences of work in the new capitalism.* New York: Norton.

Sennett, Richard. 2008. *The craftsman.* New Haven: Yale University Press.

Sinnreich, A., and M. Gluck. 2005. *"Music and Fashion The Balancing Act Between Creativity and Control."*.

Stewart, K., and S. Gosain. 2001. *"An exploratory study of ideology and trust in open source development groups."* in Proceedings of the International Conference on Information Systems. Citeseer.

Tessier, L. 2003. *Musiques et fêtes techno: l'exception franco-britannique des free parties.* Ophrys.

Thornton, Sarah. 1996. *Club Cultures: Music, Media, and Subcultural Capital*. Wesleyan.

Ullrich, C. et al. 2008. *"Why web 2.0 is good for learning and for research: principles and prototypes."* Pp. 705-714 in Proceeding of the 17th international conference on World Wide Web. ACM.

United Nations Development Programme. 2008. *Creative economy report 2008 : the challenge of assessing the creative economy : towards informed policy-making.* S.L.: United Nation.

Vainio, N., T. Vadén, V. Oksanen, and M. Seppänen. n.d. *"Elements of Open Source Community Sustainability."* ESSAYS ON OSS PRACTICES AND SUSTAINABILITY 4.

Wiertz, C., and K. de Ruyter. 2007. *"Beyond the call of duty: Why customers contribute to firm-hosted commercial online communities."* Organization Studies 28:347.

Yang, H. L., and C. Y. Lai. 2010. *"Motivations of Wikipedia content contributors."* Computers in Human Behavior.

Zehle, S. n.d. *"Technologies of the Common: Toward an Ethics of Collaborative Constitution."*.

Performance. Open Source Social Network is the fastest solution out there which uses ressources extremly efficient! Multilanguage. Open Source Social Network is in many languages. You can add as many languages you can. © Open Source Social Network. About Project. Terms and Conditions. Privacy and Policy. Report Copyright Material. The Open Source way. HumHub is a free social network software and framework built to give you the tools to make communication and collaboration easy and successful. It's lightweight, powerful and comes with an user-friendly interface. With HumHub you can create your own customized social network, social intranet or huge social enterprise application that really fits your needs. Boost your business, support your customers, teach your students or organize your football club. It's on you. OPEN HumHub is completely open- source. Take advantage of the work already done and even improve it. Every suggestion or help is welcome. FLEXIBLE With a powerful module system you can extend HumHub by using third party tools, writing your own or connect existing software. The project uses open innovation to create breakthrough medical innovations in Africa through their open source genetic database. Gaining knowledge of different genomes is important, because depending on your DNA, different medicines actually work differently in your body. While traditional ways of medical R&D don't support personalized medicines, the UGP does. The idea for Nivea's B&W deodorant was coined together with Nivea's users through social media. The way Nivea collaborated with its users throughout the R&D process is very interesting. They pretty much said that "okay, we know that our current product can be connected to stains in clothes. Could you share your stories and home remedies so that we can develop a better product?"