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INNA LYUBAREVA, PIERRE-JEAN BENGHOZI AND TEAIKI FIDELE

Online Business Models in Creative Industries

Diversity and Structure

***Abstract:** In recent times creative industries management seems to have been reshaped by the influence of Information and Communication Technologies (ICTs). Constant experimentation and innovation in the business model (BM) has become one of the key sources of firms' competitive advantage. As a result, traditional BMs, which were dominant and stable in their respective industries, have given rise to multiple disruptive BMs. Little is known about which elements contribute to structure and shape the diversity of new online BMs and why no production sector has established a dominant BM. This article addresses these issues. It is based on the empirical study of 34 cultural content websites accounting for the highest combination of digital output and technology in production processes: music, video, film, book, image, and publishing sectors. By means of Multiple Correspondence Analysis (MCA), three classes of online BMs were identified: the "participative model", "distribution model" and "editorial model." The article discusses these BMs, as well as their influence on creativity and cultural diversity.*

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According to creative industries' definitions the term 'creativity' refers not only to artistic or scientific creativity, but also to economic creativity in business management and governance. Originally, creative and cultural industries¹ were defined as industries involved in entertainment and the arts, specifically dedicated to producing disks, movies, books, cultural services and so on. Nowadays, authors have gradually widened the definition of a creative industry to include almost every industry that relies on creativity as a strategic resource. The Report on Creative Economy (UNCTAD 2008), defines, for instance, "creative industries" as the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as their primary input. Notwithstanding the diversity of conceptualizations regarding the creative economy and their disciplinary origins, all definitions converge towards much the same collection of industries: the creative arts; cultural heritage; audiovisual media; print media and publishing; besides a number of smaller businesses ancillary to these activities (Throsby 2001).

Today, actors in creative industries are facing a constantly changing competitive environment, which they try to adapt to through organizational arrangements and business models (BMs). As a result, traditional BMs, which were dominant and stable in their respective industries (such as media, film and music and publishing) have given rise to a multiplicity of arrangements in business management and to the emergence of disruptive and innovative BMs, which successfully co-exist in the same segments. Moreover, one can see that, in many cases, competition is mainly centered on BM innovation rather than on content itself (hundreds of music and VOD platforms offer similar content).

A body of literature (see for example, Caves 2000; Throsby 2001; and Schlesinger 2007) underlines important current transformations in creative industries on both demand and supply sides, made possible by ICTs. New technologies and the development of online markets have

created opportunities for new dematerialized transactions and services (click-and-brick, mobile), for market extension and globalization, for the design of new offerings (long tail, customization), and for new customer relations (social media, recommendations and comments). However, little is known about which elements contribute to structuring and shaping the diversity of new online BMs in creative industries and, consequently, why no production sector has favored any dominant sustainable BM, the way they used to do. This study addresses these issues. The concepts of diversity and structure relate, respectively, to the multiplicity of available strategies and to the emergence of aggregated classes of online business models. More particularly, this article identifies and puts forward three classes of online BMs: the “participative model”, “distribution model” and “editorial model.” Importantly, these classes distinctively combine the properties of traditional and new BMs and raise different issues related to creativity and cultural diversity in the industry.

To analyse the nature of the current transformations of BMs from the example of creative industries is important for the following reason: previous findings (Chesbrough 2010; Zott et al. 2010; Giesen et al. 2007; Abecassis-Moedas and Benghozi 2012) clearly showed the importance of novelty-centered BMs for firms’ performance and competitive advantages. In this view, analysis of the structural elements and their articulation are an important managerial task. Moreover, creative industries, due to dematerialization and the specificity of content value, serve as an experimental laboratory for new industrial models in the digital age. Innovative BMs in creative industries provide, in this perspective, inspiring patterns for the production of goods and services in other industries.

The analysis is based on the empirical study of 34 cultural content websites. The sectors selected for this study represent the highest combination of digital output and technology in the

production process: music, video, film, book, image, and publishing sectors. The research uses Multiple Statistical Analysis. Although such an approach is rarely mobilized to analyze BMs and creative industries, it proves to be a fruitful method to obtain a typology of BMs and to substantiate their structural elements.

The first section aims at presenting an overview of the main characteristics of BMs found in creative industries that often result in creativity-business tensions. The second section presents the empirical analysis of online BMs. Its goal is twofold: firstly, it presents the methodological approach used in the study; secondly, it demonstrates the wide range of available business solutions and their structural elements. The third section aims at describing the three classes of online BMs that stand out from the results of our analysis. The conclusion section compares the various classes of BMs we have found with the traditional ones, and discusses the issues of creativity and cultural diversity.

Characteristics of creative industries: Art and business

Discussions of creative industries originated from Theodor Adorno and Max Horkheimer (1944) drawing critical attention to the intensified commercialization of art and its eventual absorption by the economy. In recent years, the accelerated growth of these industries has caused policy makers and academics to recognize and study their key role and specific features in the global economy. Three main dimensions in particular deserve developing.

Firstly, these industries stand out from the rest because their output implies symbolic and aesthetic values. This feature has significant consequences for pricing and the labor market. For consumers, the value of such products exceeds their use-value and is not directly linked to production costs. Reference prices are fixed by distributors (rather than producers) who take as a

starting point the “layout” of consumption (movie seat, DVD, online content) and not the products intrinsic quality and production characteristics (Benghozi 2006). In addition, the specific nature of cultural output calls for a specific workforce – a “creative talent” – whose occupation involves an extensive input of creativity (Florida 2002). It requires a particular organization ecosystem that “embraces openness, cooperation and self-management” (Ross 2003). Consequently, the term creativity refers not only to artistic creativity, but also to creativity in organizing production and business management.

Secondly, cultural goods belong to the context of markets with incomplete information since the production of cultural goods, due to their artistic nature, is fundamentally associated with uncertainty and high rates of risk. On the one hand, creative content is often classified as an “experience good” whose utility is unknown to consumers prior to purchase (Throsby 2001). On the other hand, the so-called “nobody knows property” (Caves 2000) is frequently used in the literature to refer to the challenge of uncertainty: when the actual performance of a product is arbitrary and subjective, and creators do not generally have a clear idea of their clients’ tastes, it is extremely difficult to predict a project success or failure, and, hence, its profitability.

“Nobody knows property” becomes crucial when it meets a third important characteristic of creative industries: specific technology and cost structure. Creative industries reproduce and distribute identical units of content (Benghozi 2006). This feature stems from the fact that the production of cultural goods requires substantial investments at the initial stage of content creation. Conversely, subsequent reproduction and distribution costs remain marginal. In these conditions, producers’ main goal is to stimulate massive distribution of the products and benefit from the resulting economies of scale. Moreover, economies of scale and mass production call for significant promotional investments and reliable distribution channels. It comes as no

surprise that distributors occupy central positions and have great power over creative industries: distributors make economies of scale possible, but also act as prescribers by orienting consumers' choices in market conditions with incomplete information and a great variety of products.

Together, the aforementioned characteristics gave birth to renowned tension between creativity and business efficiency. Indeed, producers facing high development and promotion costs, coupled with global uncertainty and riskiness of future profits, are forced to rationalize their BM. Supply is focused on a few "star-products" for which future profits are more secure (Rosen 1981; Benhamou 2002); value is captured by means of exclusive property rights protection (Howkins 2001; Santagata 2002); these products are promoted extensively with consumers; it all results in high industry concentration. Most importantly, such strategy aimed to encourage consumers to have minimal choice and to benefit from economies of scale in supply and manufacturing, erodes originality and the novelty of creative content. It questions the plurality of artistic and cultural expressions produced and offered to consumers: cultural products destined for smaller audiences lose out because it is too expensive and risky to provide for them (Jeffcutt and Pratt 2009). To put it differently, the industrial characteristics of creative industries cause firms to dissociate products' economic and cultural value, and give priority to commercial profitability at the price of artistic success (Throsby 2001).

For a long time, the aforementioned approach was the dominant BM in creative industries. However, recently, creative industries business management has been destabilized under the influence of a changing environment induced by ICTs.

ICTs make it possible to process, extract, copy and transfer creative content at a very low cost. This has significant effects on publishing, promotion and distribution. Firstly, content

digitalization reduces distribution and storage costs and makes it possible to reach a considerably larger number of potential consumers. This has especially far-reaching consequences when marginal costs become low and almost negligible, thus opening substantial advantages to copycats of new content who do not bear the costs of its production and launching. Secondly, great changes occur in technological and media convergence (UNCTAD 2008): i.e. a shift in patterns of media ownership, such as film, television, music and games; the possibility to consume different media at the same time while using a single personal computer; and production and distribution of media and services via a concentrated range of consumer devices, such as distributed network platforms. As a result, ICTs, by means of new information procedures, i.e. reviews and comments on retail web sites or file exchanges on peer-to-peer networks, have refocused publishing and promotion activities on the matching process (Curien et al. 2004).

As for the development or creation stage, one can notice that the process has become approachable and attractive even for non-accomplished artists (Bourreau and Gensollen 2006). At the same time, new modes of interaction and communication, inherent to ICTs, do not only provide actors with new possibilities, but also change the very strategies of content creation, appropriation and development. In particular, the availability of digital technologies has given rise to participative culture, where creative products are “ripped, mixed and burned” (Lessig 2008), where consumers play an active role in the creation and shaping of product differentiation (Porter 2008), and where the value of creative products is realized as a social process (Hughes and Lang 2006). Subsequently, producers in creative industries are led to re-consider their relationship with their audience, which has direct implications for business planning in general and for the design and development stages in particular.

Finally, contrary to traditional BMs, often based on a single revenue model, today the majority of online BMs can find new opportunities in implementing multiple sources of revenue, such as subscriptions, advertising, usage fees, and premium services (Shuen 2008). To sum up, the development and dissemination of new technologies cause the actors in creative industries to re-consider their BMs, which were historically based on the marketing of physical objects and in-house content development. In order to gain access to new markets and to adapt the business to the new context, actors try various innovative solutions.

These solutions address the traditional tension between creativity and business. In particular, they bring into play worldwide distribution, mass production and niche segmentation, as well as challenge the very definition of creative skills and profession. The best-known examples are “the long tail” (Anderson 2006), the “smart mobs” (Rheingold 2002) and the “wisdom of crowds” (Surowiecki 2005; Tapscott and Williams 2006). According to “the long tail” concept, digital content, for which storage and distribution costs are close to zero, make it possible to recoup the investments even for those goods designed for a very small market. The other two concepts point to the ability of new design tools and technologies to attract and coordinate a sufficient “critical mass” of interested parties in one place at a time and to support a distributed creative process (Jeffcutt and Pratt 2009).

Changing business models: Empirical analysis

The BM concept refers to an evolving research area and academic literature provides a number of definitions of the term. For instance, Chesbrough's (2006) definition is based on the distinction between value creation and value capture: “[a business model] creates value by defining a series of activities from raw materials through to the final consumer... The business model captures value by establishing a unique resource, asset, or position within that series of

activities, where the firm enjoys a competitive advantage.” For their part, Johnson et al. (2008) stated that a BM “consists of four interlocking elements that, taken together, create and deliver value.” These elements are customer value proposition, profit formula, key resources, and key processes.

BMs: Definition and variables

Despite certain differences in the concept definitions, previous research agrees on the central role of the following structural elements: value creation, value capture, and value network (Shafer et al. 2005; Teece 2010). In this definition, the terms creation and capturing reflect two fundamental functions that all organizations must perform to remain viable: firms create core competences and achieve positional advantages to perform work activities that are different from their competitors’, and resort to different appropriation strategies of the created value. In turn, value creation and capture occur within a value network that includes suppliers, partners, and distribution channels, extending the company’s own resources.

In this study we use a generic definition while adapting it to particular research perspective: this study focuses on the three main BM dimensions claimed, in the literature, to be the most affected by ICTs. From methodological viewpoint, our analysis relies on the variables directly observable on the web for each of these dimensions.

That way, the first group of variables – value creation – includes the following areas: (1) The actor’s position in the value chain and, namely, original creation activity; (2) The market segmentation: we check whether the content targets some special-interest and avocation categories or the mass market; and (3) The conditions of content exploitation that determine its value: content available online, offline consumption, streaming, temporary access (through

content location), and multiple offerings. The latter point indicates the diversity of offerings as strategic choice such as, for instance, streaming and downloading.

The second group of variables – value capture – describes the mechanisms of generation of digital content revenue. It embraces (1) direct sources of finance as pay per view (PPV) and subscription charges; (2) unearned revenue, such as advertising and selling sponsored links; (3) donations and public financing; and (4) supply of free-of-charge content. In addition, for purposes of analysis, we check for the new use-restriction tools (5), such as the digital rights management (DRM) protection, which are used to re-establish the content competitiveness in the conditions of digitalization.

Finally, the value network comprises information about content suppliers and distribution. In this respect, the first two variables control, respectively, for the presence on the website of content from external producers and for the presence of user-generated content (UGC), including users' reviews and self-production activities. The final characteristic concerns distribution channels. We control whether or not content is distributed via multiple distribution channels. That is to say, available via different platforms as well as physical support. Table 1 summarizes all 15 variables which we mobilize to describe different types of BMs.

INSERT TABLE 1 ABOUT HERE

Multiple statistical analysis

The analysis is based on the empirical study of 34 cultural content websites selected on a convenience sample basis. The selection of the websites was primarily based on the criteria of balance between different sectors of creative industries and variety of French and international

digital BMs. The sample includes the well-known websites from music, video, film, radio, image, and publishing sectors. Appendix presents the list of websites analyzed in the study. For each website, the data for fifteen characteristics, presented above, were collected in January 2012 through website tracking. Each BM characteristic was coded as a binary variable.

To our knowledge, the analytic approach used in our study has never been applied before in the field of creative industries. It consists of a multiple statistical analysis conducted in order to obtain a BMs typology, extract their stereotypes from the database and put forward their structuring elements. The analysis proceeds along three broad phases: construction of association matrix, factor analysis, and cluster analysis. Our data satisfy basic methodological recommendations that the sample size should be at least twice as large as the amount of variables (the ratio of 2.26/1 in our case) and the analyzed individuals (cultural content websites in our case) should be heterogeneous with respect to the measures studied (Kline 1994). However, taking into account the rather small size of our sample, we conduct nonparametric Multiple Correspondence Analysis (MCA), and associated clustering, which is not based on a distribution and, therefore, free from assumptions about the data properties (Greenacre 1984; Clausen 2008). The main assumption of this method is that all of the relevant variables are included in the analysis (Hair et al. 1995). Nevertheless, due to the small size of the sample and exploratory nature of the analysis, the estimation results presented below have only indicative relevance. R, SPAD and Matlab tools were used for the analysis.

To estimate the association between different variables, the Phi coefficient was used. Among different indicators analyzing the degree of association between discrete nominal variables (coefficient C or Cramer's V), Phi coefficient is the most suitable for the specific case

of dichotomous variables, as opposed to ‘multichotomous’ ones (Miller 1998). Its interpretation is quite similar to the correlation coefficient for continuous variables (Ferguson 1966).

INSERT TABLE 2 ABOUT HERE

Table 2 highlights a number of links between variables. For example, it is remarkable that user-generated and self-produced content targets a variety of different market segments (-0.47). In addition, this type of content is associated with advertising and sponsored links as the main mechanisms of revenue generation (0.53). Another interesting point concerns the creation activity: this characteristic is negatively associated with content from external producers (-0.53) and positively associated with multiplicity of distribution channels (0.47). It is also worth noticing that offline consumption often implies paid content, such as subscription, PPV or other payments (0.51). Though these results do not provide complete information, they point to two important facts. First, the overall number of significant associations between variables is not so high. This indicates the lack of a single dominant BM in any of the observed segments. Second, the presence of significant relationships between variables means that this diversity of online BMs in creative industries is somehow structured.

Our analysis proceeds with the identification of principal factors (axes) explaining the diversity and shape of BMs in the creative industries. MCA makes it possible to select the informative variables from the database and regroup those variables forming the same axis (regrouping associated variables). The extraction of the principal axes allows to associate websites in the sample with a small number of dimensions containing rich information about BMs specific features. The sequence of eigenvalues associated with each axis (i.e. the inertia or

variance explained), with higher inertias on the first three axes than on the following axes, leads us to focus the further analysis on these dimensions summarizing 54 per cent of the total variability of the websites' characteristics in the sample. For such a size of sample and number of variables, this percentage expresses a significant structure in the data (Husson et al. 2011).

Table 3 describes the three axes by using a V-Test (Escofier and Pagès 2008). The V-Test indicates the significance of each variable along each axis. For each variable, its weight corresponds to the number of websites in the sample representing the given characteristic. The higher the absolute value of the V-Test, the more the variable characterizes the axis. A V-Test absolute value superior to 1.96 means only 5% of chance to obtain randomly the same proportions of the modalities (Lebart et al. 2005).

INSERT TABLE 3 ABOUT HERE

The first axis is dominated by the following variables: usage restrictions (DRM and others), revenue generation at the end market (subscription, PPV etc.), free-of-charge content, advertising and sponsored links, and streaming. Correspondingly, the second axis is represented mostly by UGC and self-production, creation activity, multiple offerings, content from external suppliers, and segmentation. Finally, for the third axis one finds, for instance, offline consumption, multiple distribution channels, streaming, content from external suppliers, and multiple offerings.

The scope of these elements designates axes' main orientation. On this basis, we conducted a cluster analysis (hierarchical ascendant classification) in order to obtain a typology of online BMs and to put forward the role of specific factors in structuring these models.

This operation implies hierarchical classification of the studied websites according to their respective distances to axes and to other websites in the sample. The dendrogram (Figure 1) presents these results.

INSERT FIGURE 1 ABOUT HERE

It clearly turns out that, regarding the distance between each group of websites, clustering into three groups maximizes intergroup distance. Our results (see Table 4) point to the presence of three distinct classes of online BMs.

INSERT TABLE 4 ABOUT HERE

Discussion: Aggregated classes of BMs

The results of multiple statistical analysis show that three structured classes of BMs clearly stand out in the broad array of business solutions, made possible by new technologies. Figure 2 shows that, while some variables are characteristic of different BMs, others are clearly associated with a specific class.

INSERT FIGURE 2 ABOUT HERE

The structural elements of the first class of BMs include advertising and sponsoring links as sources of revenue, user-generated and self-produced content (completed with content from external producers), multiple offerings of content exploitation (streaming, downloading, etc.),

and the supply of free-of-charge content. We designated the first class of business models as “participative model”, since users’ contributions are crucial for value creation. Previous studies on BMs based on collective user-driven development (e.g., Chanal and Caron-Fasan 2010) emphasized a number of difficulties such organizations face. Among potential problems, special attention is paid to motivations and equitable solutions for value capture.

With respect to these problems, the literature on online communities (Lakhani and Von Hippel 2003; Lerner and Tirole 2002; Lakhani and Wolf 2005) provides some answers. It highlights that content openness, combined with “peering” and “sharing”, is one of the keys to the success of collective creativity (Tapscott and Williams 2006). Therefore, when value creation depends on users’ contributions, it imposes constraints on the mechanisms of revenue generation (second group of variables “Value Capture”, see Table 1).

Although some revenue may be gained from the end market (Figure 2), the presence of free-of-charge content is essential in this class of BMs. Hence, it is not surprising that websites use an advertising-based model where content is given away free of charge to customers and access to audience is sold to advertisers, acting therefore on a multi-sided market (Rochet and Tirole 2006) . Finally, DRM and other types of usage restriction seem to be incompatible with this type of BM.

Quite a different strategic approach is identified regarding the second class of BMs: websites target a precise market segment (special-interest users groups) and develop their original content in house (there is no external professional content or UGC). They generate their revenues mainly at the end market by selling the content to the users under different means. At the same time, some pieces of digital content may be offered for free (Figure 2). This revenue model is sometimes completed by donations and public funding (Figure 2). Yet advertising and

sponsored links are not encompassed due to the specificity of content. Such alternative approaches to revenue generation are attractive for generic content that is likely to attract many consumers; otherwise their range of application is limited. Another important feature of this second class refers to multiple distribution channels (distribution via different platforms and physical supports, Figure 2). To sum up, the cultural content websites described above use the Internet as one of the available distribution mechanisms for their original content. Consequently, we propose categorizing the second class of online BMs by “distribution model.”

Finally, it is worth pointing out that BMs of the third class comply with particular basic principles. This time, offering is almost entirely based on the content from external professional suppliers. That is why we propose designating the last class of business models as the “editorial model”. The scope of the content is offered against payment, and free-of-charge offerings are a rare exception. Selling content for offline consumption, coupled with the rental system (temporary access) and the implementation of mechanisms of usage restrictions (DRM or similar) constitute the main specificity of this class of BMs. Interestingly, as for the previous class, websites rarely turn to advertising and sponsored links to make profits. However, contrary to the “distribution model”, content does not target special-interest user group. This class of BM is closer to the “merchant” mode of intermediation (Hagiu 2007): an intermediary buys from sellers and resells the content to buyers. Therefore, the third class of BMs benefits from the ICTs editorial advantages by aggregating content from different external producers.

Though three ideal types of BMs stand out from the collection, our analysis also substantiates an important number of linkages and shared characteristics between classes. In particular, cluster analysis indicates the presence of cultural content websites that occupy the intersecting positions between classes. For example, some websites offer original content and

supply it for free without relying on external contributions from other producers or users (e.g., M6replay or Arte.tv). Their BMs combine, therefore, the characteristics of the first, participative, model, and the second, distribution, one. Some of them also use UGC in their value network (e.g., Rue89 or Allociné). At the intersection between the distribution and editorial models, some actors supply original content created in-house along with content from external producers. Quite often, this results in the implementation of mixed approaches to revenue generation: value capture at the end market is combined with the supply of some free content by selling audiences access to advertisers (e.g., Pitchfork Media). Following the same logic, some websites base their offering entirely on external contributions, coming from users and professional producers, and generate their revenue at the end market. Such a BM combines the features of the first, participative model, and the third, editorial model (e.g., eMusic or Amazon).

The significant number of shared BM characteristics is in line with the idea that the traditional BM gives way to a multiplicity of business arrangements in creative industries. It also suggests that halfway BMs play a bridging role between classes and are the transitional paths from one BM class to another.

Conclusion and implications

The results presented in this article are still in progress. First of all, the number of observations is quite limited, and, clearly, further research with improved sample size and more detailed data is necessary. As well, the MCA used in this study also has some limitations. While being an exploratory analysis of data, its results have only indicative relevance. In addition, the quantitative analysis provided in this study needs to be completed with a qualitative study in order to improve the data scope and quality.

Despite these limits, this study substantiates a number of important methodological and theoretical points that may serve as a basis for future studies on the theme. The article underlines the radical changes in BMs nature, which are based today, to a great extent, on learning strategies, test error and adaptation to new competitive environments. Moreover, the emergence of new players and the innovation on offering, monetization and services support the multiplication of, and strong competition between, existing BMs.

The variety of BMs raises important issues regarding the alternative faced by economic actors of these fields : investing and innovating in the business model (combining new production processes, new customer relations and new technological infrastructures) or allocating resources and means in the distinctive creation process (outsourcing technological innovation, production development, distribution, etc. to a wide range of intermediaries). Our analysis identified three classes which turn out to be particularly inspiring in terms of the original characteristics of the prevailing dynamics of creative industries in the digital era. The “participative model” illustrates the renewal of traditional media models (radio/TV) by substituting consumers’ inputs to editorial decisions and production costs, thanks to UGC. The “distribution model” reflects the formalization of prescription models, based on exclusivity of contents, compression of the distribution channel (i.e. manufacturers reach buyers directly), and control over their monetization and consumer relationships. Finally, the “editorial model” exhibits the consolidation, marketing, and sales by different publishers; the corresponding BM implies control over content quality and pricing.

On the one hand, these results indicate that online BMs provide new opportunities for creativity and cultural diversity in creative industries. For instance, ICTs make possible original forms of matching and interaction between creators, content providers and potential users.

Content development becomes the result of joint efforts by various actors, professionals and amateur users. This makes it possible to share out the initial design, publication and promotion costs. This last point stems from the reduction of the general uncertainty about content utility due to communication between consumers, and from the improved suitability of content to users' needs. In addition, the disintermediation phenomenon is evidenced since new technologies and delivery platforms bypass traditional distribution channels by means of direct servicing, self-publishing and digital downloads. The drop in distribution costs and the removal of intermediaries in a supply chain open important opportunities for content producers targeting specific niche markets. This disintermediation is coupled with new – and specific – reintermediation movements in creative industries: digital markets and aggregating publishing platforms are displacing traditional retailers and physical sales. In some cases, such intermediaries (Amazon, iTunes, etc.) are given increasing bargaining power and may control content quality and pricing, as well as influence the selection process. However, they may be counterbalanced by alternative distribution and promotion channels, making new actors adopt more subtle and flexible approaches than did traditional intermediaries.

On the other hand, one can observe the phenomenon of transfer from traditional creative goods generating revenues, towards a bundle system of services providing actors with particular competitive positioning. From this viewpoint, the very originality of different suppliers' creative contents might eventually be put at stake. In addition, the collective nature and structuring process of contents may cause the place and role of creators, whose creativity used to be the major competitive advantage, to be different nowadays. To summarize, though many of the same tendencies take place in other areas operating in digital content, we suggest that the transformations of BMs in creative industries are specific as they concern innovativeness in

combination with various resources within the creation process, such as skills, talent, technology, and organization.

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Notes

¹ The historical meaning and the articulation between the terms “cultural” and “creative industries” has been discussed for some time in the literature (cf. Garnham 2001; Schlesinger

2007; O' Connor 2009; or Bouquillon 2010, for instance). Since the debate is still open, we make no distinction in this article, between “cultural” and “creative industries.”

Table 1
The Study's Variables

BUSINESS MODEL COMPONENTS	VARIABLES
1 Value creation	
Position in the value chain	Creation activity
Target market	Segmentation
Product exploitation	Online
	Offline
	Streaming
	Temporary access
	Multiple offerings
2 Value Capture	
Revenue generation and margins	PPV, subscription charges
	Advertising, sponsored links
	Donations, public financing
	Free-of-charge content
Usage restriction	DRM
3 Value Network	
Flows between content suppliers	Content from external suppliers
Flows between content providers and content consumers	UGC and self-production
Distribution	Multiple distribution channels

Appendix

List of Cultural Content Websites

Allociné, Amazon.com, Arrêt sur Images, Arte.tv, Dailymotion, Deezer, D-Fuzz, emusic, Fairtilizer, FilmoTV, Flickr, FNAC, France24, InaMediaPro.com, iTunes Store, Jamendo, jimihendrix.com, Le Figaro.fr, Le Monde.fr, livemetallica.com, M6replay.fr, Mondomix, Myspace, Napster, Pitchfork Media, Plateforme SFR Jeunes Talents, Quinlan Road, radiohead.com, Rue89, Theauteurs.com, TotalVOD.com, Vimeo, Warner Bros France, YouTube

Table 2
Associations Matrix

	Free-of-charge Content	Streaming	Segmentation	DRM	Multiple distribution channels	Creation activity	Contents of external suppliers	UGC, self produced	Online	Offline	Temporary access	Multiple offerings	Advertising, sponsored links	PPV, subscription charges	Donations, public funding
Free-of-charge Content	1														
Streaming	0.21	1													
Segmentation	0.15	0.03	1												
DRM	-0.47**	-0.26	-0.21	1											
Multiple distribution channels	0.11	-0.13	-0.26	0.03	1										
Creation activity	0.21	0.16	0.03	-0.26	0.47**	1									
Contents of external suppliers	-0.28	0.06	-0.18	0.31	-0.35*	-0.53**	1								
UGC, self produced	0.31	0.13	-0.47**	-0.18	-0.06	-0.35*	0.12	1							
Online	0.36*	0.37*	0.16	-0.24	0.06	0.03	-0.08	0.11	1						
Offline	-0.18	-0.70**	-0.08	0.23	0.19	-0.34*	0.00	0.05	-0.18	1					
Temporary access	-0.44**	-0.14	-0.10	0.79**	0.02	-0.14	0.18	-0.20	-0.11	0.12	1				
Multiple offerings	0.10	-0.10	-0.20	0.23	-0.05	-0.34*	0.12	0.41*	0.33	0.27	0.31	1			
Advertising, sponsored links	0.31	0.36*	-0.35*	-0.34	-0.06	0.01	0.12	0.53**	0.27	-0.31	-0.20	0.29	1		
PPV, subscription charges	-0.36*	-0.47**	0.24	0.30	0.22	-0.21	-0.13	-0.35*	-0.09	0.51**	0.24	-0.02	-0.61**	1	
Donations, public funding	0.17	-0.07	0.18	-0.14	-0.09	0.14	-0.31	0.09	0.13	-0.16	-0.11	0.05	0.09	-0.25	1

Significance level, Chi2: *p-value<0.05, **p-value<0.01

Table 3
Description of the Axes

AXIS 1		AXIS 2		AXIS 3	
Variables	V-Test	Variables	V-Test	Variables	V-Test
DRM 1	4.15	UGC, self-production 0	3.85	Offline 0	3.46
PPV, subscription charges 1	4.14	Creation activity 1	3.75	Multiple distribution channels 0	3.31
Free-of-charge content 0	3.83	Multiple offerings 0	3.63	Streaming 1	2.80
Advertising, sponsored links 0	3.79	Content from external suppliers 0	3.62	Content from external suppliers 1	2.67
Streaming 0	3.60	Segmentation 1	3.07	Multiple offerings 0	2.38
Offline 1	3.51	Advertising, sponsored.links 0	2.93	UGC, self-production 0	2.21
Temporary access 1	3.46	Multiple distribution channels 1	1.86	Free content 0	2.00
Central Zone		Central Zone		Central Zone	
Temporary access 0	-3.46	Multiple distribution channels 0	-1.86	Free content 1	-2.00
Offline 0	-3.51	Advertising, sponsored links 1	-2.93	UGC, self-production 1	-2.21
Streaming 1	-3.60	Segmentation 0	-3.07	Multiple offerings 1	-2.38
Advertising, sponsored.links 1	-3.79	Content from external suppliers 1	-3.62	Content from external suppliers 0	-2.67
Free-of-charge content 1	-3.83	Multiple offerings 1	-3.63	Streaming 0	-2.80
PPV, subscription charges 0	-4.14	Creation activity 0	-3.75	Multiple distribution channels 1	-3.31
DRM 0	-4.15	UGC, self-production 1	-3.85	Offline 1	-3.46

Figure 1
Results of Cluster Analysis

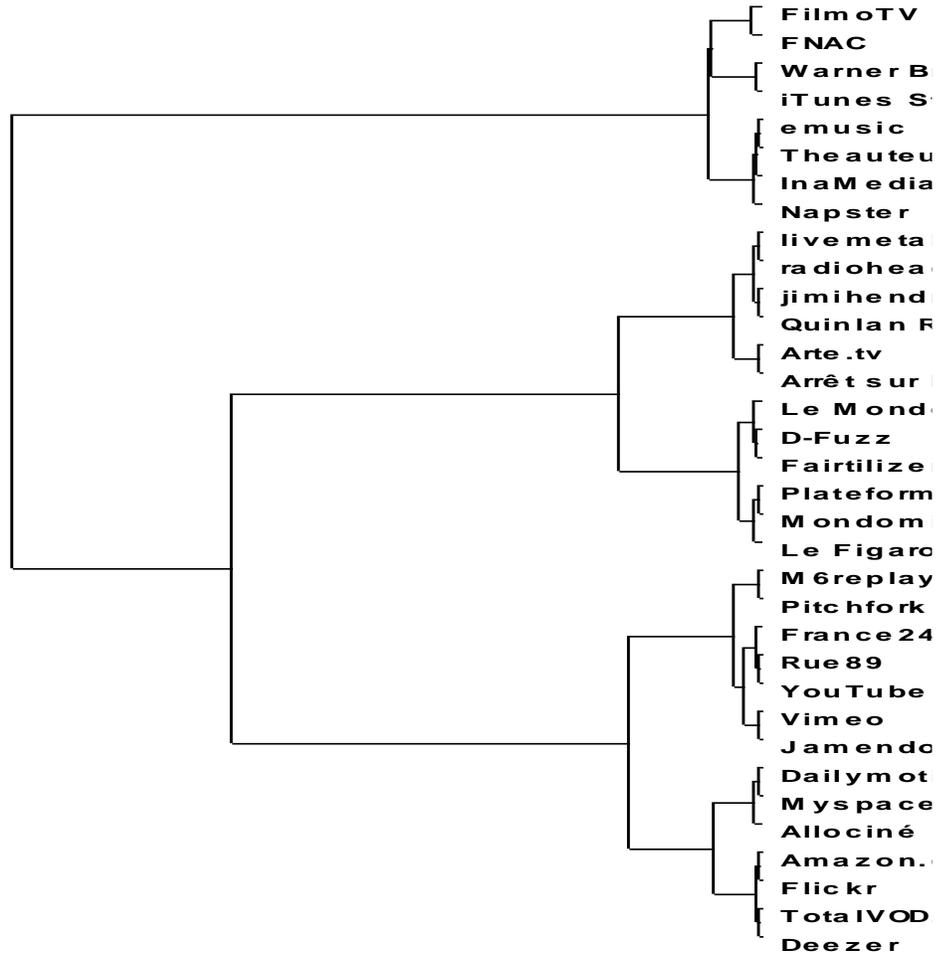


Table 4
Three Classes of Online BMs

Cluster 1	Cla/Mod	Mod/Cla	Global	p.value	v.test
Advertising, sponsored links_1	77.78	93.33	52.94	0.00	4.04
UGC, self-production_1	77.78	93.33	52.94	0.00	4.04
Multiple offerings_1	65.00	86.67	58.82	0.01	2.64
Free-of-charge content_1	57.69	100.00	76.47	0.01	2.64
PPV, subscription charges_0	80.00	53.33	29.41	0.02	2.36
DRM_0	53.57	100.00	82.35	0.04	2.05
DRM_1	0.00	0.00	17.65	0.04	-2.05
PPV, subscription charges_1	29.17	46.67	70.59	0.02	-2.36
Free-of-charge content_0	0.00	0.00	23.53	0.01	-2.64
Multiple offerings_0	14.29	13.33	41.18	0.01	-2.64
UGC, self-production_0	6.25	6.67	47.06	0.00	-4.04
Advertising, sponsored links_0	6.25	6.67	47.06	0.00	-4.04
Cluster 2	Cla/Mod	Mod/Cla	Global	p.value	v.test
Multiple offerings_0	71.43	90.91	41.18	0.00	3.80
UGC, self-production_0	62.50	90.91	47.06	0.00	3.28
Creation activity_1	60.00	81.82	44.12	0.01	2.73
Segmentation_1	61.54	72.73	38.24	0.01	2.48
Content from external suppliers_0	52.94	81.82	50.00	0.03	2.23
Content from external suppliers_1	11.76	18.18	50.00	0.03	-2.23
Segmentation_0	14.29	27.27	61.76	0.01	-2.48
Creation activity_0	10.53	18.18	55.88	0.01	-2.73
UGC, self-production_1	5.56	9.09	52.94	0.00	-3.28
Multiple offerings_1	5.00	9.09	58.82	0.00	-3.80
Cluster 3	Cla/Mod	Mod/Cla	Global	p.value	v.test
DRM_1	100.00	75.00	17.65	0.00	4.10
Free-of-charge content_0	75.00	75.00	23.53	0.00	3.28
Temporary access_1	100.00	50.00	11.76	0.00	2.97
Advertising, sponsored links_0	43.75	87.50	47.06	0.02	2.26
Content from external suppliers_1	41.18	87.50	50.00	0.04	2.06
Content from external suppliers_0	5.88	12.50	50.00	0.04	-2.06
Advertising, sponsored links_1	5.56	12.50	52.94	0.02	-2.26
Temporary access_0	13.33	50.00	88.24	0.00	-2.97
Free-of-charge content_1	7.69	25.00	76.47	0.00	-3.28
DRM_0	7.14	25.00	82.35	0.00	-4.10

Figure 2
Distribution of Variables

