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1 EXECUTIVE SUMMARY

The space of possibility for the reuse of digital cultural resources is potentially very wide and constantly increasing due to a set of on-going transformations. These include the constant advances in ICT and the rising penetration, affordability and usage of personal devices and broadband connection that on the one hand improve the efficiency of processes and on the other hand enable new activities between producers (content holders) and users. In parallel, the digitization of more and more products and services plus the fragmentation of production chains on a global scale provide the basis for transforming value chains with new forms of value creation and appropriation. As a result there is an explosion of user-generated content and new potential for matching differentiated niches on the basis of the 'long tail' phenomenon (that is, selling 'less of more' becomes economically feasible).

However, identifying concrete avenues to monetize assets implies a careful selection of the most promising routes while taking into account the conditions for successfully implementing specific business models. This report provides an overview of the market for the six areas involved in the Europeana Space project (TV, photography, dance, games, open & hybrid publishing and museums) with attention to key trends and dominant and emerging business models.

The context of TV sees a convergence across multiple devices with a growth in second-screen (multi-screen) activity among consumers. Main business models involve: second-screen apps (with a variety of revenue models) and content production targeting educational sectors.

In PHOTOGRAPHY, much potential lies in looking beyond the image stocking market and creative industries can seize opportunities to reuse content i.e. supporting institutions such as archives or museums to provide greater interaction (custom apps, augmented reality). The possibilities for developers to find new ways to use this content are going to be enabled by the APIs developed by Europeana.

DANCE is seeing growing interest and developments can target both professionals (researchers, choreographers) and non-professionals (dance fans). Mobile applications are already commonly used and with increasing usage of mobile devices opportunities should increase.

For GAMES, a very dynamic field, much content in terms of images, text, video, sounds and 3D format can be used by creative industries. The key target consists in video gamers and players, mainly social gamers and casual gamers, but also educational or cultural institution interested in enhancing the learning experience with gamification (edu-games) or interested to promote their content through games.

In OPEN & HYBRID PUBLISHING possibilities lie along three kinds of business models: open writing (mainly in the educational sector), self-publishing and e-book sales.

MUSEUMS are currently striving to regain customer appeal by improving their capability to entertain and to educate. Potential lies in tools aimed at deepening visitors' knowledge (provided in the software-as-a-service mode) and apps to link artworks.

2 INTRODUCTION AND METHODOLOGY

The Europeana Space project (more info at www.europeana-space.eu) focuses on the spaces of possibility for the re-use of digital cultural resources, with reference to six areas (TV, Photography, Dance, Games, Open and Hybrid Publishing, Museums). It aims at enhancing the potential for re-using existing content from various providers (therefore not just Europeana's), giving way to innovative applications, through the development of metadata and APIs (Application Programming Interfaces). One of the key objectives is to raise the awareness of the creative sector and of its players with respect to the breadth and richness of digital cultural content that is available so that innovative applications can be generated through its re-use.

A driving thrust constituting the foundation of the project is the assumption that the digital cultural heritage has opportunities that could be tackled and that could translate into business developments with positive fallout. The exploration of innovative options across different domains can trigger an increase in skills and in jobs within the cultural heritage sector and enhance or open new markets. Within the Europeana project, this task will be addressed through the setup of hackathons and monetizing workshops that will allow a fine-tuning of the exploration of innovative applications, while grasping any opportunity for dissemination activities throughout the project. Among the key activities featured in the early stage of the project there are the development of pilot applications for each area plus the importance of carrying out an initial market analysis, that is the focus of this output, aimed at providing some perimeter of the business potential plus identifying the key conditions for successful implementation (business models).

This market analysis is first and foremost intended to be useful for the specific activities planned by Europeana Space that is: the development of the pilots, the hackathons and the monetizing workshops. However, such analysis can be useful also for a wider audience that is creative industries and cultural heritage institutions that have an interest in producing marketable products. This analysis has been carried out looking at the range of business opportunities for each of the six thematic areas. Each area has been investigated carrying out a market scan that takes into account the most recent developments by best-in-class experiences, by keeping into account both the specific direction undertaken by the pilot(s) and a broader range of opportunities. A preliminary stage of desk research (carried out with a considerable use of digital sources) has been complemented by a set of interviews with key players capable of providing some insights and information on the topics under investigation.

It must be pointed out that given the very wide scope of the domain, it has been necessary to make some critical choices in shaping the market analysis activity and therefore the structure of this report. In other words, without some choices related to narrow down the analysis one would have ended up with a too generic output with little use for the project. Also, the nature and choices of the pilots have been taken into account, so to achieve better coordination with the other streams. These choices have been informed on the basis of currently available information and on the basis of the expertise of the authors, looking for a satisfactory trade-off between breadth and depth, business potential, and coordination with pilot applications.

3 THE MARKET FOR THE RE-USE OF DIGITAL CULTURAL RESOURCES

The Europeana Space project focuses on a domain that is quite peculiar. On the one hand it is very vast, with boundaries that are often unclear and a considerable degree of overlapping across industries. On the other hand it is very dynamic, that is undergoing some major transformations that are creating the basis for an interesting stage of innovative potential that can feed into a possibly virtuous circle.

Some of the key dimensions that have an impact on the digital cultural domain are the following:

- the continuous development of ICT (information and communication technologies);
- the emerging knowledge economy;
- the constant pace of globalization linked to the fragmentation of production and service chains.

Technological developments have constantly accelerated with dramatic consequences in terms of efficiency and effectiveness parameters that profoundly alter the nature and dynamics of many industries, marketplaces and consumer processes. These transformations consists on the one hand of higher level of efficiency (i.e. a given process can be carried out with a considerable reduction of the resources involved such as cost, time, etc. – one of the clearest examples lies in personal and company communication through the Internet, with costs that become largely invariant of quantity and times collapsing to nearly zero). On the other hand, changes bring along new levels of effectiveness, by enabling new activities and processes that were previously not possible (i.e. user-generated content can provide the basis for a social network that affects many instances of daily lives and consumer attitudes). On the technological side, the combination of technology (such as features and connectivity of smart-phones, including location-based services) and the rate of adoption among consumers (that are not limited to a small number of early adopters but extend to sizable segments of the whole population, at least in developed countries) create an explosion of applications, new experiments and new avenues for business generation with an unprecedented pace. All this makes a combination of affordability and possibility that opens up new spaces.

The *knowledge* economy, largely enabled by the technological developments previously outlined, marks a new dynamic relationship between the physical dimension of a product (or service) and its digital content. What happens on the one hand is the digitization of products (i.e. music becoming files in streaming, means of payment becoming digital, etc.) and on the other hand a different ratio in the driving factor of value of a given product/service (i.e. a greater share of the value is linked to the intangible dimension of the product/service – that is the knowledge embedded – versus its physical components). While this has repercussions in the wider context of branded products, consumer trends and advertising, within the digital cultural domain it is linked to the possibility to valorise and therefore monetize cultural assets with

new forms of consumption and delivery of contents on a remote basis (these aspects will be explored later on in more detail). This leads also to varying forms of appropriation, that do not limit to selling ownership (as in a classical transaction) but stretch to a wide array of forms of providing access to knowledge (e.g. licensing, etc.).

The constant pace of *globalization*, meaning markets and production processes becoming more global, is strictly linked to the *fragmentation* of production and service chains across many individual players. The new economic avenues enabled by digital technologies are making it attractive to open up what were traditionally highly integrated processes. In other words, more and more frequently there are many firms contributing to the development of a product, from the conceptual design through marketing, sourcing and producing components, selling, and so on. Technological platforms that allow sharing of knowledge, expertise and information become the basis for opening up production chains that are broken up in a wide set of players, each of which can contribute for a portion of the value.

The combination of technological developments, a knowledge economy plus the globalization and fragmentation of chains produce economic transformations that are manifold. Among some of the key consequences we can outline:

- the long tail phenomenon;
- the vast diffusion of user-generated content.

The *long tail* phenomenon implies a redefinition of markets since new parameters of efficiency and effectiveness, coupled to the ability to manage one-to-one relationships and therefore high levels of segmentation among customers, create new opportunities of “selling less of more”. To be clear, traditional markets lay in the possibility to offer a selected number of items that were interesting to a sizable enough number of customers. In other words, when a sufficient number of customers are looking for a specific product then this makes it economic to produce it and offer it in the market. But technological advancements made it possible for very small segments of customers (almost tending to one) to express their preferences and for providers to cater to their needs. This phenomenon is visible in developments such as YouTube, where users can find a very specific content (for example a video related to the behaviour of a very rare animal in a secluded location) that would typically fall outside the range of content provided in a standard thematic channel. Such long tail phenomenon has important implications in the digital cultural domain as it provides the basis for more potential to bridge demand and supply for specific content, at least in principle; provided that the business sustainability of such activity is then achieved (this aspect will be explored when discussing the notion of business models).

User-generated content is another major development of current times, as citizens can upload and share a variety of content (their emotions, information on their location, their plans, their evaluations on given product service or other form of content, their ideas and design, etc.). All this wealth of input produces an immense scale of content on a worldwide scale, laying the basis for some companies to leverage it and make business models sustainable. One can think for example of Facebook, a company that

has managed to make its customers their “workers”, meaning that each user of the social network contributes to the production of content by uploading, tagging, sharing, etc. The combination of each individual producing and sharing his-her content becomes a massive business opportunity for leveraging its value through monetization strategies such as for example targeted advertising.

This report contains six sections referring to each of the six Pilot areas, with each section split into two parts. The first part provides an overview of the area dealing with some definitions and drawing a perimeter of the area with some assessment of the market potential and key trends. The second part explores in more detail the aspect of the potential for monetization, by looking at which business models can be put in place. Business models are presented using the structure of the ‘business model canvas’ that is currently a widespread tool for mapping the strategies pursued by firms in the international scene. Whenever relevant, examples of key players who are currently adopting similar approaches are discussed.

In the future development of the Europeana Space project, elements provided in the business models section should help in evaluating where to steer the developments while identifying avenues for monetization of digital cultural content.

4 TV

4.1 GENERAL OVERVIEW OF THE AREA

4.1.1 Introductory overview & key definitions

Television is still one of the main media through which people reach information and leisure or entertainment in the world. While staying broadly the same for almost half a century, TV has recently featured a high degree of innovation. This was mainly driven by the connection to Internet services. Internet TV (or iTV) is a phenomenon that not only affects the device, but also the whole network that comes along, that plays a central role. Internet-based developments, such as YouTube and mobile apps, allow users to enjoy a huge breadth of contents while, at the same time, promoting new ways of collecting information and entertain themselves. Within this picture, TV is evolving and showing a constant trend of growing interactivity with Internet, because TV is not a stand-alone platform any longer.

Interconnection through different platforms is required in order to satisfy people's needs and better penetrate the market. People are more and more often using TV as a second-screen instrument, adopting smartphones, tablets and other devices to make more things simultaneously. A hybrid TV, also known as connected or smart TV, technologically integrates Internet/Web 2.0 features into set-top boxes and television sets. Such devices primarily focus on Internet TV, on-demand streaming media, over-the-top (OTT) content and online interactive media. Over the top television refers to any type of linear/non-linear media content delivered to a television set without using the cable delivery or conventional broadcast methods. To provide a general definition, interactive TV is categorized by the ability of users to use apps, mobile websites, and social media to engage with what they are watching, being more involved into the show. The Interactive Advertising Bureau defines it as "a participatory television viewing experience that allows a user to send or request information back to the programmer or advertiser" [IAB – platform status report an interactive television advertising overview (2011)]. ITV should also include the opportunity to interact with others and with programmes in general. In fact social networking is a proven trend on how people can increase the content provided by a TV to their connections, determining a growth of interest for some channels or services. This is true especially, but not exclusively, in news and leisure sectors.

Professional researchers defined 2014 as the year of the convergence [Ges, 2014], because marketers, designers and technology are becoming everyday closer to becoming a common market, through the use of app and devices. This statement shows the growing importance of tablet, smartphones, netbook and in these recent years, also TV. The interactive TV world is not only limited to the broadcasting industry, but it should consider all the complementary set that makes TV the centre of an interconnected context. So, second screen is the possibility to use a second (or even more) monitor while watching TV. Connected devices: tablet, smartphone or netbook, deeply changed the entire world. Those instruments, through dedicated apps, are the

key to receive additional information or give the opportunity to the audience of being interactive with the show watched, or videogame and movie. The device becomes in such way the ideal companion of the TV, enhancing the opportunity offered by it, integrating more devices into a unique set of complementary assets. Everything is then concentrated into the deepening of all the information that the audience could be involved in, as thousands of app can offer a wide range of opportunities. These are not just concentrated on receiving information on the show, but also offering services such as marketing, contests, shopping, games, social, interactive etc.

4.1.2 Market size and potential: macro-data and key figures

Top producers play an important role in Internet TV penetration: Apple, Google, Samsung, LG and Sony comprise several of the very well known leaders in the field. What is relevant is that 14% of all US broadband households owned an Apple TV, a Roku box or another kind of dedicated streaming device in 2012, and 25% owned a smart TV with an embedded app platform [Defining the In-Home CE and Network Ecosystem, 2013]. The ownership of Smart TV in US has more than doubled in 2012, with 25% of broadband households owning at least one Smart TV, compared to the 12% of 2011. Dedicated streaming devices, on the other hand, grew slower, inching up from 12% in 2011 to 14% in 2012. Up to now, the main device for Internet video streaming still remains the game console, with 62% of broadband households owning a next-generation game console such as the Sony PlayStation or the Microsoft Xbox. And almost a fourth of the time spent with these consoles is spent on online video viewing. Altogether, 56% of broadband households now have at least one TV connected to the Internet [gigaom.com, 2013/05/02]. One of the top trends in smart TV context is the second screen activity.

This means that people can discover new content, enhance their viewing experience and enable a shared, social experience. 40% of US people watching TV [Parker, second screen society] are experiencing the second screen potential and persons are now giving more importance to the exploitation of the opportunity given by enhancing the experience of “simply” watching TV. An example of second screen activity is an app on a tablet or smartphone, able to reproduce extra content being also interactive with the programme. This is widely used in sports, where there are firms providing contents that are useful for a better understanding and enjoyment of the event. For instance, in the case of American football, tactics and statistics are often explained through apps, with this process enriching the offer of the “simple” TV content. This is an opportunity that can be transposed to the creative industry domain as for example documentaries could be enhanced by the use of existing digital resources such as images, video or else. In 2012 the second screen activity measured by 2nd Screen Society and Mobovivo on English-speaking countries (UK and US average), was fluctuating between 70% and 80% (40% of which do it on a daily basis), with an increasing market size estimated to be at 490\$ million and capable to reach 5.9\$ billions by 2017. People aged 25-34 and 55-64 seem to be the most attracted by second-screen activity and 36% of them are mainly using tablets to search for more information about the programme they are watching. The rest of the people use it to surf the net and social networks, even for

researching information on the programme, or send email, but mainly during TV commercials. 41% of people engaged in second screen activity prefer to use tablet, while smartphones are used by 39% of them. Documentaries are watched in a second screen device in 22% of cases, film hover at 23% and news and sport lead this attitude with 30%.

In a report given by 2nd screen society [2012] it was demonstrated how there is a strong basis of people deeply interested in second screen technology hence the market potential is there. This statement is then confirmed by those partial results that are showing a constant growth trend of the second screen activities. 40% of people were using a companion screen while watching TV in April 2012, increasing to 63% in May, jumping to 86% in June and getting stabilized in the end of the year at around 75%. The same report shows how the market size in USD was 490M in 2012 and it is forecasted to be at around 5,911M in 2017. Causes will be the growth of users, usage and engagement. This forecasting considers English-speaking countries (so mainly UK and the USA). App, tablets, smartphones, in this scenario, will strongly enhance the potential of the television.

4.1.3 Forms of consumption

The digital world market includes a lot of devices. Computers, smartphones, mobile phones, desktop computers, digital cameras, tablets, hi-fis, audio, in-car entertainment and navigation systems and so on, are part of consumers' life on a daily basis. It is then not possible to not consider the role of TV. In the whole world the percentage of retail revenue coming from the entire digital market is shaped into different sectors, as above delineated, but the one concerning TV is very different from country to country. Starting from a 7% of market revenues in the digital environment coming from TV in the Middle East and Africa, where TV are difficult to be reached, and people prefers to buy mobile pc (21%), smartphones (22%) and mobile phones (16%). Passing through the 8% of North America, where people prefer to invest on smartphones (22%) or mobile pc (13%). In Western Europe the share is fixed at 15%, while in Asia-Pacific countries it is 16%. The remaining areas of the world constitute 17% of Central Europe and 22% of Latin America, where people seem to be more attracted by investing in TV [GFK retail and technology research, April 2012]. What seems important to remark is the evidence of a market that is still growing, even if in a less dynamic way. Since 2010 LCD TV Global TV share is constantly increasing, starting from 191M units sold, reaching 212M units in 2011 and 225M units in 2012. LCD TV has grown from a 40% market share to the 86% at the end of the 2012. The global TV market still shows an increasing trend, even if less consistent, as for an economic law, it is not possible to always grow and always selling more without innovating.

Environment still matters: in 2007 193m TVs were sold; in 2008, with a trend of +12% with respect of the previous year, 217m TVs were sold which again grew in 2009 (224m, +3%). The big step was in 2010, when there was a +13% increase in the number of TVs sold, reaching 254M of units, and following that jump, during the following two years there was a small growth with a trend that is levelling at around 260M units.

Among the drivers of these trends there is the fall of interest for some of the oldest technologies in the field that reached a saturation of the market: CRT, Plasma and LCD (-40%, -15%, -3%). We are probably in a period of transition, where people who are curious for new technologies (those who are considered “pioneers” in marketing, so the early adopters of new product, identified by high incomes and strong attitude to discover new products for first) are buying more LED, Connected and 3D TV (+33%, +56%, +122%), substituting the old devices. The rest of the population is maybe waiting for a more consolidated *status quo* in order to change their devices.

Trends are also showing how the market is moving more into emerging countries more than into developed ones. This means that there is space for exploiting the opportunities offered by new devices, with the adoption of content dedicated to those countries.

Customers seems to prefer the adoption of large screen more than small ones: people prefer 50+ inches screen especially in US/Canada, with a market share of 9.6%, in Western Europe (4.2%) and in Eastern Europe (3.1%), more than other countries. This means that there is a global development trend to large screen-sizes.

3D TVs are also showing an important trend of market share, even if it is still not common: in US and Canada it reached 8% of the market, while in Europe seems to be more interesting, as Western Europe shows an 11% and Eastern Europe 8%. This means that there is space, for Europeana, to try to focus also on this path for next development services.

What really seems to be highly relevant for the opportunities to reuse digital resources is the trend of Smart TV, being TV that enables web content access, an integrated app store, a web browser to surf the net, VoIP call possibilities through the adoption of webcams. All this takes place via fast Internet connection and Wi-Fi services. This was a consolidated trend TV already in 2012. The market share by country on total Smart TV sold was: 32% of Smart TV over the whole TV market in US and Canada, 22% in Western Europe and 13% in Eastern Europe [GfK Panel Digital Markets. GfK Retail and Technology research, April 2012]. Between 2012 and 2016 the Global Smart TV households (in millions) are forecasted [Global digital forecast workbook, Perks Associates, Rovi White Paper] to spread the gap in favour of Western Europe against North American market: 95M against 87M in 2016. The main driver of today’s share is brought by Internet fast access that in North America is quite a standard, while in some zones of Europe is still not fully exploited. Clearly, any business application relying on Smart TV should focus first and foremost on target market lying in areas with highest penetration of broadband. The European market share for connected TV is [GfK, 2012] attested at around 20%, with Switzerland, Germany and Sweden leading with 54%, 47% and 45%, while Eastern countries and Portugal at the lower rate of Internet TV usage (Turkey, Ukraine and Portugal at 12%, 11% and 8%). The rest of Europe hovers on an average of 20%.

4.2 BUSINESS MODELS

4.2.1 Main business models

The Smart TV environment is a fluid market, showing constant changes and for this reason we have highlighted the potential driven by the diffusion of smart TVs. The industry is mainly focused on three different aspects, each divided into different modes of implementation.

The first one is the use of second screen technology that helps the TV environment to enlarge the potential of users through devices that enable the interactivity, more than the achievement of information or even social networking. There are different business model applicable to this particular market, depending on the typology of the app.

Another relevant aspect of the market is the production of TV programs. In relation with Europeana contents it is important to underline the possibility to produce documentaries that could exploit the opportunities offered by the digital resources of the project. It is then investigated the possibility to create documentaries. For the same reason, as the pilot suggests, there is evidence coming from the tool building. SaaS could be a useful way for the exploitation of business opportunity in the field, as it helps in creating contents and being easily accessible through the exploitation of metadata and APIs.

The following parts will deal with the market potential for the TV environment, analysing three different aspects of the market that are considered to be relevant. For each area one or more business examples will be provided.

4.2.1.1 Second screen

In 2007 Apple released the first iPhone triggering the full era of smartphones. What is the difference between a smartphone and a standard cell phone? They are two completely different products: the first is a small-size computer, while the second is a telephone with some advanced function. The smartphone, as any computer, has vast possibilities for customization for the user thanks to the option to install software that are called “App” (applications).

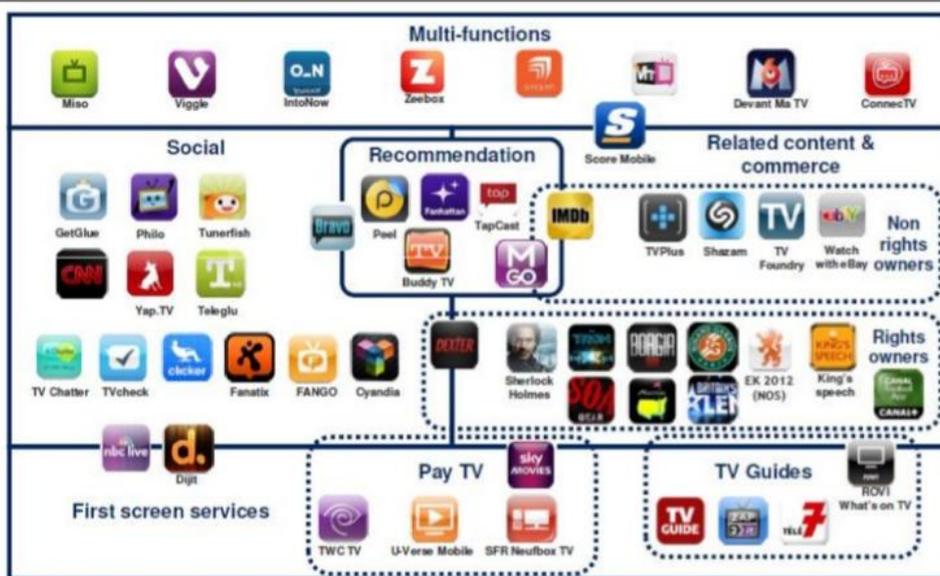
Hence a totally new market of software dedicated to smartphone has originated. The opportunity to generate business with these type of apps are numerous: one can create paid Apps, free Apps (with purchases inside the software itself) or freemium apps (some functions are free while some others, more advanced, imply a cost), just to name a few.

We can identify, along the lines of a study provided by Ericsson, which are the different typologies of second screen app, according to their focus and their sponsors:

- **Multi-functions:** Provide a variety of service from marketing to customer attraction through social content and evaluation of programmes. An example is Viggle that offers the possibility to complete questionnaires and receive points, to be used to receive gifts (and at the same time profiling customers) using gamification tools;

- Recommendations: used for people who wants to find more about content they are watching;
- Social: allow the creation of communities of users and the exchange of opinion being social with the peers with whom people are getting in contact;
- Sponsor-related (owners and not owners of the rights): allow users to find more information about commercial they are watching;
- First-screen: provide the streaming of the content brought by the broadcaster;
- Pay-tv: are first screen app that allow people to buy extra shows;
- Tv-guides: are app that gives a panorama on what's on TV.

5 TYPES OF APPS WITH DIFFERENT FOCUSES AND SPONSORS



Source: Ericsson analysis.
| Ericsson Public | Page 7

Figure 1: Five types of apps with different focuses and sponsors

What is emerging is a strong correlation between the multi-screen activity and the main TV device. It is important to note how second screen is a top mobile market but will not be a stand-alone platform [Business Insider, September 2013], existing only if correlated to TV. Also profitability index are showing growing trends in dedicated advertising, as they follow the Facebook or Google model, being capable to understand the people attitudes and interests, through traffic generated analysis, and customer profiling.

A worldwide research, based on 180 TV, coming from more than 50 countries, including different target of audience, provided by Technicolour, highlights the importance of various business models, differentiated by activities.

- **First screen devices and social network:** apps that stream contents or make a connection between users that share the same interests, and are mainly based on a sponsorship/advertising business model;
- **Recommendation:** apps that define and evaluate contents provided by TV broadcasters. Their business model are based mainly on commerce, providing links on where to find the products showed during the show, or selling extra contents;
- **Multi-function:** apps that are used for providing a wide range of services, from social networking to questionnaire acquisition, through which there is the possibility to acquire points useful to receive gifts. Those are apps that showed fluid business models, starting from advertising, passing through commerce and, especially social ones, profiling customers, and then showing direct advertising.

These apps can work under the application of several business models, depending on the peculiarity of each one:

- Subscription: the user can pay a price for using or getting access to contents;
- free-ad supported: the app is sold for free but includes several kind of advertising, as banners, videos, offer walls and interstitials;
- freemium (in order to attract customers): the basic tools are provided for free, more contents will be available after paying a “premium” price;
- revenue sharing: incomes are divided between the parts that makes content available;
- micropayment: is a payment generally less than 10-12 USD, used to unlock services or access to specific contents;
- profiling customized ad: the app can monitor the consumption and buying behaviour of the people interested in the app. Through this, it is then possible to directly display dedicated, more efficient, advertising;
- click on objects that are present in movies to receive info on where to buy them: a new frontier comes from advertising, with links, contents that are showed into the programme;
- community creation: creating niches of interested generate space for business opportunity through those people that are involved in the field.

GetGlue, an example of second screen success

The most relevant case of second screen success app is tvtag or GetGlue. This is recognized as a leader social network app for entertainment and a clear example of second screen. It was one of the pioneering companies in the second screen context, exploiting the first mover advantage. The founder of the company was able to reply the success of foursquare into a new, changing and challenging, environment: the TV sector. Users can check-in and share the show/sport event/movie/documentary they are watching, listening and reading with other users or friends. Being social is one of the key driver in receiving fresh recommendations or exclusive stickers, discounts and other rewards from their favourite shows and movies. This allows people to be part of the show, feeling embraced by what they are watching, as well as being active

marketing partner for the sponsoring firm. GetGlue, at January 2012, has 2M users that checked-in over 100M times in 2011. 75 major networks and 10 movie studios use GetGlue to promote their shows and movies to fans. The NYC based company has received funding from Union Square Ventures, RRE Ventures, Time Warner, RHO Ventures and a number of prominent angel investors for the amount of 24M\$ until now and had an earlier deal worth \$70 million fall through earlier in 2013 [techcrunch.com, 2013/11/05].

The pilot example “Elderly in living room” could give way to second screen apps for tablet and smartphones.

4.2.1.2 Tern TV brings two distinct business models: Television and multimedia production

Founded in the 1980s, Tern TV is a television and digital content producer with offices in Glasgow, Aberdeen, Belfast and London. Tern, with approximately 50 employees plus freelancers, focuses on lifestyle and factual content for television and storytelling for digital platforms [Nicola Searle, “Changing business model in creative industries: the cases of television, computer, game and music”].

Overview

Tern has two business models: television production and digital content production. Tern receives public funds and in 2010 was offered £400k from the Scottish Screen (now Creative Scotland) Digital Media IP fund.

Tern holds onto IP rights in the majority of its commissioned work. The ownership of this IP provides Tern with a bargaining tool in contract negotiations. Furthermore, Tern develops its own original content in most cases, as opposed to work-for-hire or tender driven deals. A final IP note is that brands can be key to the performance content, hence the success of Tern’s complimentary digital content is tied in with the branding of the original content.

Business Model: Television Production

Tern’s primary business model is that of television production under the name of Tern TV. Indeed, Tern TV is specialised in lifestyle and factual content. In television production, Tern works with broadcasters including BBC, Channel 4, Discovery and Sky. Tern operates a fairly flexible structure in terms of human resources, freelancers are brought in and work is outsourced as and when needed.

TERN TV: PRODUCING TELEVISION PROGRAMMES

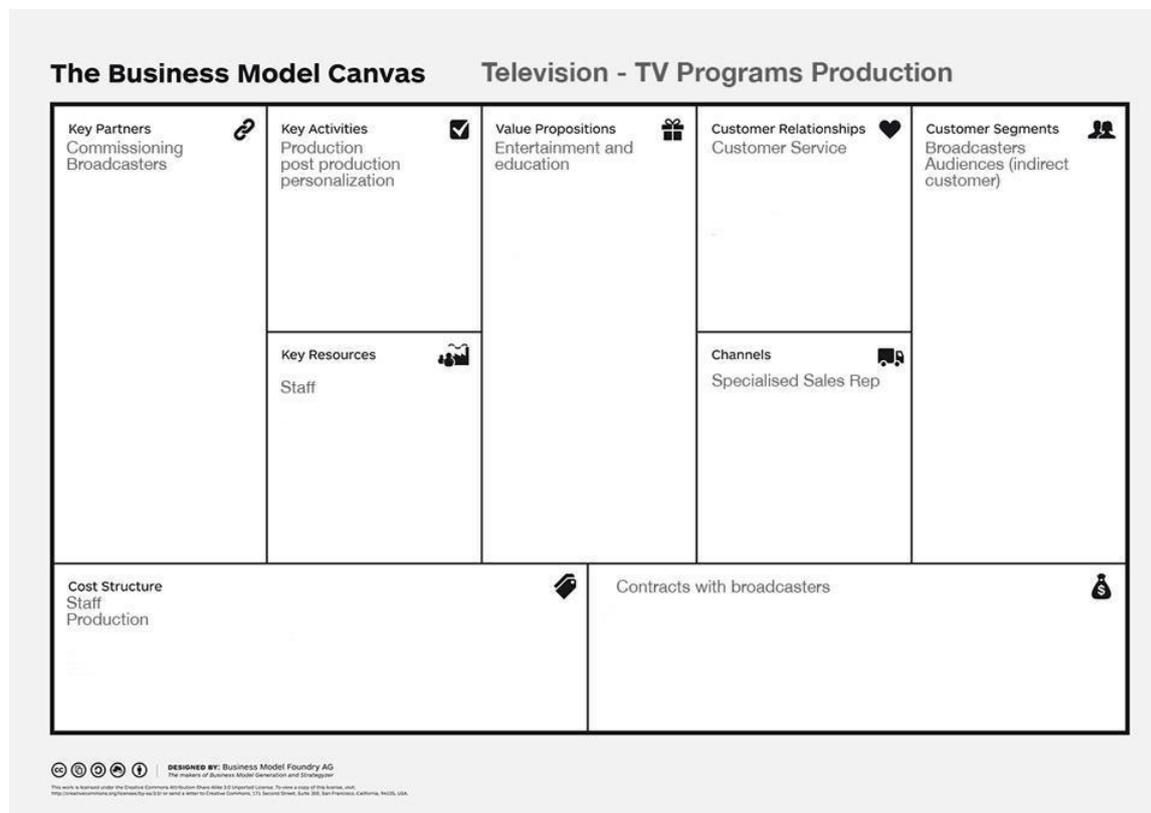


Fig.1: Business Model Canvas for the Producing TV Programmes

Business Model: Tern Digital - Multimedia Production

Tern’s second business model is that of Tern Digital, which produces companion, multimedia and storytelling digital content. Tern works with games companies, television broadcasters, literary publishers, theatres and other contractors. Content produced includes websites, online communities, games and digital adaptations. This content is either complementary, in that it is content designed to further enrich audiences’ experiences with primary content (e.g. companion websites), or stand-alone content.

Two projects further illustrate the evolving business model of Tern Digital. The first is Slabovia, commissioned by Channel 4 Education. Designed for a teenage audience, the project seeks to educate about science, philosophy and sex.

A second project is the Tern’s new digital adaptations project. This involves taking existing stories and adapting to them to a digital, interactive platform; or, as Tern puts it, “reworking the world’s greatest books as experiences on gaming platforms.” Adaptation included a mix of audio, visual, gaming and video content, which can be used on tablets and smartphones.

TERN DIGITAL: PRODUCING COMPLEMENTARY AND MULTIMEDIA DIGITAL CONTENT

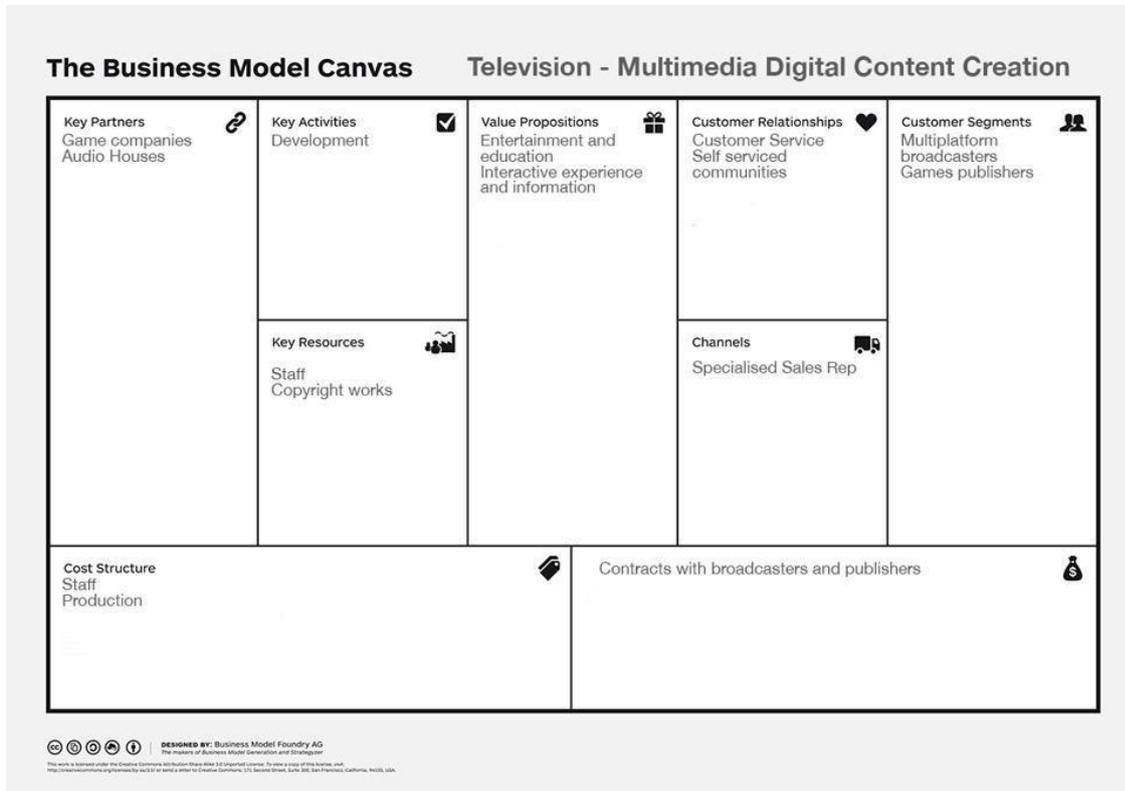


Fig.2: Business Model Canvas for the Producing complementary and multimedia digital content

In terms of rights management and IP issues, Tern did not report significant concerns on the copying of its content as it assumes that audiences will copy some content. Furthermore, unlicensed distribution may lead to increased audiences for content. However, the copying of content creates an increased risk profile for Tern if it impacts revenues. Tern also reported that co-creation with other firms can be a challenge, not because of rights issues, but because of the high operating costs associated with multiple firms.

As a case study, Tern TV provides illustrate how existing business models (television production) can adapt and grow into new business models (digital content).

4.2.1.3 Broadcast and local business model

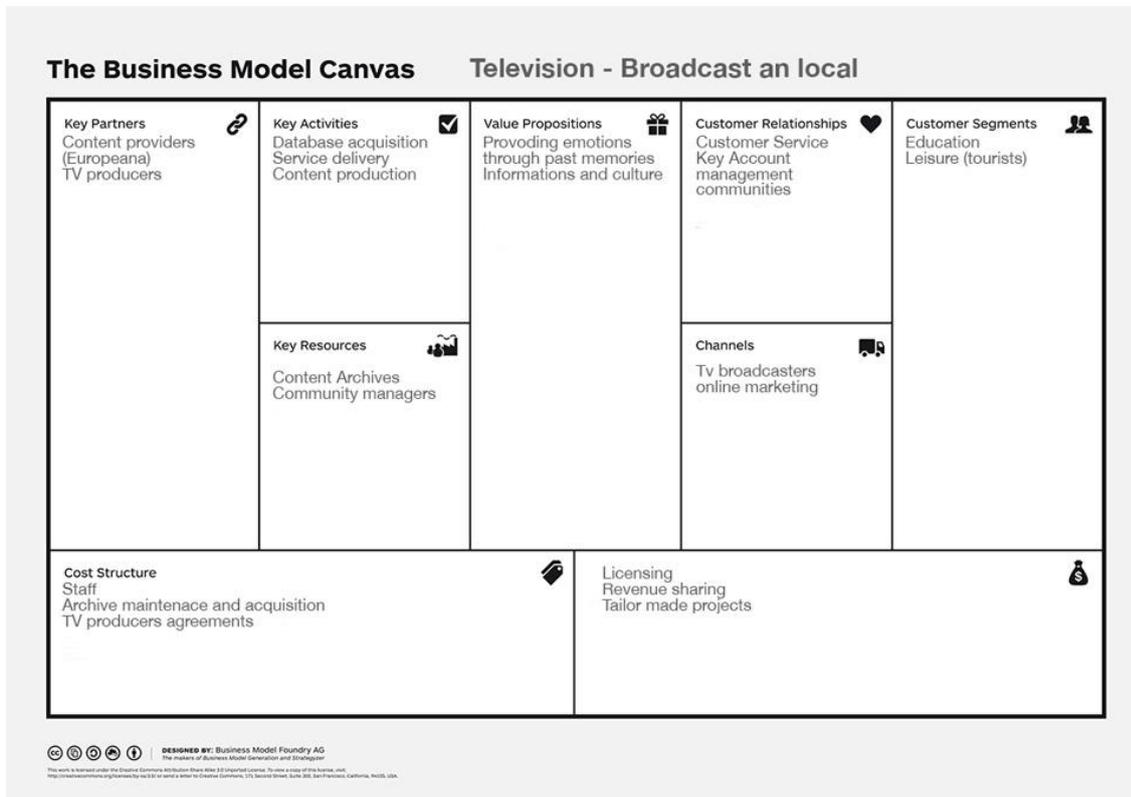


Fig.3: Business Model Canvas for the Broadcast and Local business model

There is the possibility, highlighted by the pilot, to develop a platform, able to enrich, through metadata acquisition, the content of videos available by Europeana’s API. Europeana video contents are enriched with metadata (i.e. author, year of shooting, place of shooting, etc.) and consequently they are made available to third party developers through API calls. Those developers are allowed, then, to create their own projects using Europeana partner’s video contents. Videos will need a licence that allows re-use and a link to actual video, but metadata will be used freely as it is CC0. Those projects can, then, be sold on third party platforms or directly inside the platform. The developers can even create their own Smart TV App that includes all the contents created.

This platform can achieve monetization in 3 ways:

- Advertising inside the final videos;
- Over the top subscription;
- Licensing of the software.

Using this platform even Europeana content’s suppliers can monetize their own content: for example every time a content, provided by the partners is used, through a platform of the provider site, the related revenue stream could be divided between Europeana itself and the partners, when able to track.

The complexity of the project, with the several different ways of generating revenues, led to the decision of looking in more detail at the business related to the Smart TV App builder. There are examples such as Rample that do it. The Rample case shows that there is the possibility to develop standardized smart TV app or also tailor made services, paid on the basis of the offers. Target of the platform are all potential owners of digital cultural assets (libraries, archives, etc.) or service brokers interested in revenue sharing business models for profiting from their resources. Similarly to collaborative publishing process, the platform could make available optional services for the different uses that are enabled by premium offers. In the future, it will be highly desirable to consider the adoption of this developing platform for other devices, as tablet and smartphones, exploiting also the opportunities offered by the interconnection of second screen options.

Rample, an example of making money with the app developing process

Rample is a case of a firm that develops app for smart TV. Its business model is currently the sale of services through some options: 300€ for a Samsung TV app, 500 for a Samsung and Lg app, customized services. The firm's monetization process comes from ads or selling app and/or services included in the app. This is an example of inclusion of digital contents such as images/videos/written contents in an app.

As the growing importance of Smart TV it is still not defined, being a fluid market, as showed before, a possible index will come from a parallelism with YouTube users of documentaries. The main channels provide useful indication for the possibility of attracts potential customers. On YouTube the most important documentary channels are 3: National Geographic that counts on 4M subscribers, more than 80,000 videos, 12 channels and 1.4 billion views. Discovery channel has 201 channels, offering more than 75,000 videos for almost 24M subscribers and 7 billion views and History channel, offering 20,000 videos to 1M subscribers and 47M views. The premium users, those who are willing to pay for watching documentaries with extra contents, are generally indicated in 1% up to 5% of free users. This means that there are sustainable numbers to make reasonable this market.

Independent producers as well could have interest in accessing the resources of Europeana and its partners.

Examples of TV producers

- <http://www.besomproductions.co.uk/>
- <http://www.doublebandfilms.com>
- <http://www.nervecentre.org>
- <http://www.waddellmedia.com> (cooperates with national geographic)
- <http://www.palmpictures.com/> (Mandela)
- <http://www.quickfirefilms.com>

Those are producers that between their services include the production of educational/arts/documentaries. E.g. Bloody Sunday diary (besom) is a documentary on Irish famous Bloody Sunday from victims' perspective. Providers, via Europeana, could provide their videos as important digital resources to those producers that are in touch with broadcasters or also sell their works in DVD.

- <http://www.greeninc.tv>

Produces documentaries like Keeping The Castle, that is a factual programme in which they explain the history of Viscount Crichton, son of the sixth Earl of Erne and heir to the historic family home of Crom Castle in County Fermanagh. With unique access, cameras follow the Viscount as he opens his home for weddings, tours and TV filming in a determined bid to keep the castle for the Crichtons.

- [Europeana TV pilot \(Istituto Luce, Noterik, NTUA, RBB, Proton Labs\)](#)
The Fall of Berlin Wall proposed by the Pilot as "broadcast scenario" is potentially interesting for communities and broadcasters given that during the 25th anniversary people could be interested in historical or creative videos.

4.2.2 Overall Considerations

When trying to exploit all opportunities offered by the market potential it is important to focus on the key trends within the TV world. Branded TV also drives web growth content e.g. people are now starting to watch full episodes produced by web TV on YouTube or TV websites. This means that there is a shift from TV consumption to Internet consumption of TV services. Smart TV could have an important role in trying to retain customers allowing producers to focus on its own market analysis and its deep segmentation of who watch TV, dealing with the opportunity to profile and tailor made advertise services. That obviously means profits. Smart TV ads, combined with advertising on traditional TV, increases the advertising effect of TV campaigns, with nearly a third (31%) of people across the world engaged in an action as a result of a Smart TV ad, according to LG research [rapidtvnews, 2013].

The big screen appears to be in fashion as the study reveals that over 75% of Smart TV in the UK are more than 40 inches in size [rapidtvnews, 2013]. According to the same study Smart TV users across the world, this big screen, coupled with interactive ad formats, are key reasons that Smart TV ads are so effective. Interactive ads drive activation for brands. Smart TV advertising prompts interaction with eye-catching content, as over two thirds of Smart TV users interviewed stop to watch interactive ads and have a positive attitude towards advertising on the platform. Half of Smart TV users in the study said that they have already interacted with an ad and 31% of people engage in an action as a result of watching a Smart TV ad; 24% search for more information on the product or brand and 20% talk about the product or brand to others. This is the reason why TV will still remain an important player in the sector, not

being supplanted by other streaming devices, even if, of course, it would be myopic to do not care about new technologies and new services.

The web is then offering more options to TV, not supplanting it but strongly enhancing it. If it is true that people use YouTube to get access to content when they prefer, and not following linear programming, it is even true that playing YouTube on a TV could be widely different for a person, who will enjoy the pleasure of a TV relax with on-demand content. Sky in Italy is now showing an interest in thematic and temporary channels, as happened for Star Wars series, 007 series, and sport. The two sides are not then divergent, but convergent: smart TVs are offering new opportunities to achieve contents without losing the possibility to choose traditional channels. The natural way of spreading the content should be that mainly used in the today net: apps. Having an app with streaming content is a must for TV broadcaster, so then, following the trend and providing an app for the TV market place should be a must for Europeana Space. This could also deal with an opportunity of exploiting tablet and smartphones app, lowering costs and profiting from the economies of scale concept of those who are considered part of the world of “second screen devices”. Providing an app for all those stores: TV and tablet will certainly be good deal for Europeana Space, through the selling of the content driven by in-app purchase institute. Despite multi-device adoption, the research [journalism.org, 2014/03/26] reveals that the TV is regarded as the unifying device driven by connectivity, and able to interconnect all devices in one. Time Warner Medialab found that second screen apps and experiences designed to parallel TV viewing could increase response to advertising and programming. Turner Broadcasting System observed that viewer emotional engagement was 1.3x higher when using social media like Twitter or GetGlue while watching TV. Similarly, when using a sync app, a viewer’s emotional engagement was 1.2x higher. Then it must be considered all the wide options offered by social networking and communities, as the news sector teaches, it is important to spread the contents in those ways. It is of full evidence how people today get news via social network, thanks to *retweets* on Twitter, or posting links on Facebook or LinkedIn. This new way to access content should be of high importance for the project, as it is a new way to get advertising and, at the same, profiling people through “who posts what”. If then it is considered that social networks are a marketplace where finding data on “who is who”, it is relatively easy to make a connection between people and their needs/likes. Attention should be paid to the fact that, even if the economic benefits are uncertain, digital video will clearly be a part of how consumers get content, and the options for online video are now vast.

A research [journalism.org, 2014/03/26] on how televisions are moving shows that there is deep interdependence between investments in this sector and streams on the net. Costs are increasing, as we are in an investment period. But nearly half of the local TV outlets studied in Pew research – 14 out of 32 – included live streams. Offering live video streams carries an additional cost, requires more bandwidth than streaming other videos, and with data caps becoming more common among broadband providers, stations may feel users do not want to incur those limits on web usage.

Despite all, there is a significant interest into connected TV sector. While many of these recent developments have come from news outlets native to the digital space, the biggest source of news video by far remains television – local and national broadcast, along with cable. More than half (55%) of U.S. adults say they get news on television, according to Pew Research survey data [journalism.org, 2014/03/26]. There is the feeling that interactive TV experiences will continue to grow and evolve as consumers will desire more and more engagement with live events (awards shows, sporting events, etc.) and standard TV shows. As marketers continue to analyse how consumers respond to interactive TV experiences, it is then considerable that the demand for engaging, innovative, and exciting second screen experiences will continue to grow and target audiences more effectively based on consumer preferences. In fact it is important to follow interactivity path that is somehow affecting TV. In the gaming world, starting from Nintendo Wii, the other top leader of the market, Sony PlayStation and Microsoft Xbox, followed the trend of remote controlling. And even Samsung provided a TV with remote control through body movements. This trend shows interdependency between human being and TV, trying to make TV at the centre of the device world.

So TV should be considered as part of a broader context. And as we are becoming a society in which we do a lot of things simultaneously, multi-screen activities are taking off. The motivation is given by the fact that doing many things at the same time, with the help of e-devices, induces in our mind the idea of becoming “time finder” more than “time consumer”. US trends show that 90% of all media interactions are screen based, and the other 10% are based on magazines, radio and newspaper. On average, 4.4 hours per day are spent on leisure time [Google, Sterling Brands and Ipsos research]. The interaction is shaped in 4 primary media devices: smartphones (17mins), tablet (30mins), laptop (39mins) and TV (43mins). Computers are used mainly to find information (40%) and keep up to date (29%), 69% of the time elapsed on a computer is at home or office, for a daily media of 24%. Smartphones are mainly used for communicate (54%) and entertainment (33%), in 60% of the cases at home and for a total of 38% of our daily media interactions. Tablets are mainly used for entertainment, with a percentage of 63% of use, while 32% of their use is due to communication activities. Tablets are mainly used at home (79%) for a total amount of 9% of activities with respect to other devices. TV has still a too low rate to be considered as consistent; this demonstrates how TV potential is still not yet fully exploited. Multi-screen activities are based mainly on smartphones and TV, counting for 81% of cases, while smartphones and pc or pc and TV are considered on 66% of the cases. The same research points out the fact that while we use a TV, we use, in 77% of the cases, another device that is in 49% it is a smartphone and in 34% it is a laptop. If we then consider multitasking activities, then there is a trend that shows how in around 90% of cases, TV is often associated with an e-device. This rate falls down at around 35% of cases if the activity is based on complementary assets. But TV it is still an important source of inspiration for information search activity: the percentage of search occasion prompted by TV are, for the smartphones, around the 16%, for the laptop, around the 7%.

The reality of the multi-screen is nowadays trusted by the continuous flow of statistics showing that people are using other screens while watching TV. Also the multiplication and the deep spread that app that can be used as second screen are facing, is an important sign of the viability of the trend. TV players are seriously taking into consideration this phenomenon. Peel has reached 40m+ downloads, with an agreement with Samsung. Apple bought Matcha. Zeebox signed a partnership with Sky. DirecTV acquired a piece of i.TV (Getglue) and Viggle. Comcast launched "SEE iT" and Xbox SmartGlass app was downloaded 17m+ times.

The monetization will come mainly from 3 strategies that are:

- Advertising: sponsorship, display advertising, in-line video advertising, interactive advertising, native advertising;
- Ecommerce: subscription & paid for, sale of user's data, retail sales and commission fees;
- Indirect Monetization: delivering the connected home experience – CE manufacturers, engaging the audience: broadcasters and film studios, improving the remote control and TV everywhere (pay TV operators), video games and films.

Forecasting by 2nd screen society [2012] show an increasing size of the market share, defining the e-commerce at around USD 783M in 2015 to 1,732M in 2018. Advertising is estimated to grow from 3,438M in 2015 to 7,152M in 2018.

This shows how the top 3 main strategies for the reuse of digital content could find an important deal with the central role of advertising process. As it was for websites, as the beginning of Internet, today, at the beginning of smart TV explosion, there should be some potential for replicating this success in the app world.

5 PHOTOGRAPHY

5.1. GENERAL OVERVIEW OF THE AREA

5.1.1 Introductory overview and key definitions

Since Europeana links back to large image archives is important to understand the stock image market dynamics. We define the stock image market as the business of licensing pre-produced visual content for specific uses.

The value chain of this industry includes image creators (photographers, cinematographers, graphic designers and archives), image users (news media, advertising and publishers) and intermediate suppliers who provide the commercial trade of usage rights in return for royalty payments.

The photographic content provided and managed by those suppliers could be used also by creative industries in many ways. As Europeana provides access to cultural and historical photographic content held by memory organisations (or content providers), we will focus on the possibility to use this kind of photographic content for Museums or Educational intent.

In the stock image market there are mainly three types of suppliers: **agencies** that trade images on behalf of creators, **archives** which preserve collections of primary image sources (as Europeana could be), and **photographer alliances** or **cooperatives** that only trade their own images: 60% of the suppliers in the sample are agencies, while the remaining 40% are split nearly equally between picture archives and photographer cooperatives. We are going to deepen the global division of labour in order to discover the characteristics of the different value stage-based agencies models.

According to the study made by the University of Heidelberg, which published *The global stock image market - Global survey* in 2013, by cross tabulating the sources of image collection (*original creators and supplier partners*) with the sales targets (*image users and sales partners*) in possible to define four types of agencies that correspond with four distinct value stages in the stock image value chain: **Classic**, **Collector**, **Distributor** and **Go-Between** agencies.

	<i>Selling to image users</i>	<i>Selling to partners</i>
<i>Collecting images from creators</i>	Classic	Collector
<i>Collecting images from partners</i>	Distributor	Go-Between

Table 1: Source: Heidelberg University - The global stock image market - Global survey, January 2013

Classic agencies receive the relative majority of their images from original creators and generate more than 50% of their revenues with final image users. Collector agencies also receive the relative majority of their images from original creators but realize the

majority of revenues through sales partnerships with other agencies. In contrast, distributor agencies receive the relative majority of their images from partner agencies and generate more than 50% of their revenues with final image users. The final group consists of go-between agencies that receive and sell the majority of images from and through partner agencies. This typology includes all image suppliers in our sample that are involved in the trade of visual content subject to external property right.

Agency types (worldwide)

	Classic	Collector	Go-between	Distributor
<i>on total (100%)</i>	43%	18%	4%	35%

Table 2: Source: Heidelberg University - The global stock image market - Global survey, January 2013

Classic agencies comprise the vast majority with 43% of all image suppliers. In accordance with their value stage, classic agencies maintain the fewest number of sales alliances with other agencies among all types of agencies.

They maintain direct relations with creators upstream and with image users downstream the value chain. This classic intermediary position implies that agencies have good access to content creators and image users at the same time. This position permits them to flexibly adapt to customer needs by quickly transferring customer requirements to creators.

In addition, almost 30% of all classics in the survey used search histories to provide customized search results in future picture searches by the same clients. Since classics are the only intermediary between creators and image users, they only need to share revenues from royalties with creators, while all other agency types have to share their royalties with creators and additional sales partners.

Collector agencies represent about one fifth of all agencies. They are located upstream the value chain. They specialize on sourcing original photography mostly from creators and leave the marketing of their content to distributors or go-betweens by means of partnership.

While classic agencies value their contact with image users significantly higher than their few sales partners, collector agencies clearly depend on their downstream sales partners to learn about current and future market requirements. This is also reflected in the fact that none of the collector agencies pursued any technique of customizing search results, while this practice has been adopted by between a quarter and a third of those agencies operating downstream the value chain (classics and distributors). Instead, the core business proposition seems to focus on the novelty, originality and uniqueness of content: in 2011, 99% of all new images that collectors registered in their stocks was original content from creators. Hence, collectors are niche players who focus on unique image portfolios.

Go-betweens are a less frequent phenomenon and seem to represent a highly focused business model. Go-betweens are deep intermediaries between collectors and distributors. This implies that they are farthest away both from creators and from image users. Consequently, go-betweens are the type of agency that has added the least amount of original content to its stock in 2011, both measured as a percentage of total new content and in absolute terms. Jointly with collectors, they depend on their sales partners to learn about new market trends and opportunities. Their business model seems to rest on the idea of wholesaling, i.e. the resale of content received from agencies to agencies abroad. Their contribution to the trade of original content is rather limited. Instead, go-betweens are relatively big image suppliers. On average, they hold the second largest image stock of more than 110,000 images.

Hence, their business model seems to be based on scale economies and the bridging of disconnected market regions.

Number of images on stock by agency type

	Classic	Collector	Go-Between	Distributor
# of image on stock (median)	90k	55k	110k	1,500k

Table 3: Source: Heidelberg University - The global stock image market - Global survey, January 2013

Original images on stock by agency type

Agency	Classic	Collector	Go-Between	Distributor
share of original image in new content	91%	99%	5%	9%
total # of new original images	2,300k	350k	45k	3,000k

Table 4: Source: Heidelberg University - The global stock image market - Global survey, January 2013

More than one third of all agencies are classified as **distributor** agencies. This is the second largest group of agencies just after the classic agencies. They are characterized by a strong orientation on final image users while sourcing the majority of their content through collector or go-between agencies. They are the type of agency that have the highest average number of sales partnerships through which they receive visual content while, at the same time, they have only few partners whom they provide with own content.

As a consequence of this broad sourcing strategy, distributors are the largest enterprises as measured by employment and total image stock. The average distributor reports 1.5 million images on stock and almost ten people on their payrolls. The business model of the distributor agency rests on its immediate relation with image users and its exceptional size of image stocks.

This makes distributors highly sensitive and responsive to customer needs: nearly one third of all distributors customize search results on the basis of previous search histories, more than any other group of agencies. In addition, distributors report the highest focus on their image users among all types of agencies.

Although only 9% of new images are original content from creators, this low proportion translates into an absolute number of over three million original images that distributors offered to the global market in 2011. It is the sheer scale that allows distributors to offer extensive, highly diversified image portfolios to image users.

5.1.2 Market size and potential: macro-data and key figures

According to *The Global Stock Image Market - Global Survey*, the global market estimate is the sum of two components.

The first component is a projection of the revenues reported in the survey to the global population of image suppliers. Based on the measure of median rather than mean revenues, the model predicts individual revenues for different segments of firm-sizes. According to this estimate 460 micro (single-member) companies generate \$17 million; another 1,077 micro firms achieve \$272 million, and 397 small firms gain \$1.03 billion. The combined revenues of these micro and small businesses add up to \$1.32 billion.

The second component includes financial reports on the large players as well as moderate estimates for ten medium-sized firms in our sample. Based on media reports and expert estimates, the four largest suppliers (*Getty, Corbis, Shutterstock* and *Fotolia*) account for a total of \$1.4 billion. In addition, medium-sized photo agencies (such as *Dreamstime, Alamy*) and several anonymous respondents in the survey make up for another \$156 million.

As a result of this composite estimation approach, they calculate \$2.88 billion gross global revenues in the stock image market.

In addition, a significant portion of revenues is generated between agencies rather than by final sales to image users. Subtracting an estimated 30% of inter-agency trade from gross revenues, we calculate that image users bought image licenses at a volume of \$2 billion. In conclusion, the global market for stock images – pre-produced visual/audio visual content – is assessed at gross global revenues of \$2.88 billion.

The growth of image stocks is driven generally by non-original content from sales partners rather than by original content. Image suppliers enlarge their stocks fundamentally by adding existing images from partners rather than from original content creators.

Agencies in the global triad (Japan and the Southeast Asia, Western Europe and North America) account for 70% of all new images added to global stocks. In addition, agencies in the triad also make up for the vast majority of original new images.

Especially European suppliers have an outstanding position in adding original content: 23% of all new images in 2011 are original content from creators. In contrast, original content made up for 19% in North America and only 6% in Asia in all new stock. Asian image suppliers, in particular, amplified their stocks predominantly by representing existing content from partners around the world. On average, they added four times more images to their stocks than European suppliers and more than 16 times more than North American suppliers.

As the target potential of historical pictures selling could be mainly Museums and Educational industry, we also have to explore the market in those areas.

In Europe, according to EGMUS and Eurostats there are 19,153 museums with 471.4 millions of visits per year and € 15,974 millions of revenue.

5,731 are *Art, archaeology and History* Museums and could be a potential target for a product, like an app developed with the Europeana's photographic content that enhances the experience of visiting a museum or participating an exhibition.

For example The British Museum app includes photos and descriptions of important works in its collection. Audio clips describe the Museum's 10 key works such as the *Rosetta Stone*, the *Parthenon Sculptures*, the *Mexican Mosaics* and the *Benin Bronzes*.

In addition, maps highlight places to visit in the area of the Museum, making this app a useful tool also for visiting London.

Besides being useful for tourists, the app is educational as it contains details such as being able to read the hieroglyphics of the *Rosetta Stone*.

The Louvre has its own museum app, which shows with each artwork, several close-up photographic details and a brief text. An interior map also shows where the artwork is installed, thus making easier to visit the museums.

Both are example of app using images and photographic content to give a more interactive and appealing experience for visitors.

Some museums are also experimenting Augmented Reality (AR) technology to give real time information on a masterpiece exposed or historical information on a place. This can be done by some technological advanced creative industries which can use content from museums and archives to develop custom AR app. Aurasma for example is a platform that allows businesses and organisations, from companies to museums to create and publish their own AR app.

Most AR experiences that are based on image recognition use two types of images. First there is the marker image. This is an image of the object or location for which the AR experience is created (for example a picture in a museum or a monument in a square). The system uses this image to recognize the location/object.

The overlay is the second image or a content provided by the platform, which took it from a content supplier, as an image stock agency we saw before, or directly through a digital archive API, such as Europeana, and also from user generated content.

5.1.3 Forms of consumption

The vast majority, an 88% of the worldwide suppliers, are located within the global triad including North America, Europe, and Japan. Three quarters of all suppliers are

located in Europe, 14% in North America, 6% in Asia and only 1% in Australia/Oceania, Latin America and Africa.

The same is true for the three largest markets, Germany, the United Kingdom and the United States: two thirds of all image suppliers are located in these three markets. Measured by the number of image suppliers, one third of all image suppliers are based in Germany, and almost 20% each in the UK and the US.

The geographical analysis of the global market demonstrates how strongly image trade is concentrated in Europe. Although the global lead-firms Getty, Corbis, etc. are all headquartered in the United States and although they account for about half of all global revenues, the vast majority of small and medium sized image suppliers is located in Europe.

European agencies source more original content and from more diverse regions in the world, they are involved in the large majority of international sales partnerships and are net exporters of images.

Editorial usage involves the image being used to illustrate a story or article, such as in a newspaper, magazine or book. In other words its primary use is for education and information as opposed to commercial usage, which seeks to use the image to promote a product or service. As prices paid for editorial usage are lower than for commercial usage, buyers are usually required to credit the photographer and agency when using the image. This is seen as a trade-off and a way of promoting the photographer and agency in compensation for the lower rate.

Magazines often use stock photography to illustrate articles. Magazines cover numerous genres of publishing including news, leisure and trade. Each genre requires different types of images and photographers that pay attention to the needs or the magazine market can start to anticipate the needs and produce images accordingly. Most **books** produced are text only and so only require images for their covers. There are, however books such as coffee table books that make good use of stock photography.

The **newspaper** market on the whole does not have much budget for stock photography and so tends to rely mostly on the photographers that they employ full time to produce both news images and stock-type imagery for their leisure or feature pages. Having said that, there is still a market here and some of the larger international newspapers purchase stock, often as part of a subscription to a picture library.

News and editorial **websites** make some use of stock photography, but on the whole people do not pay for web usage. It can be useful to allow usage of low res images on websites in exchange for links from the images back to your site where rights to that image can be purchased.

The markets for stock photography in **film** and **television** have been growing. This is a particularly true historical image that illustrates important events or periods in history.

5.2. BUSINESS MODELS

5.2.1 Main business models

Stock Photos

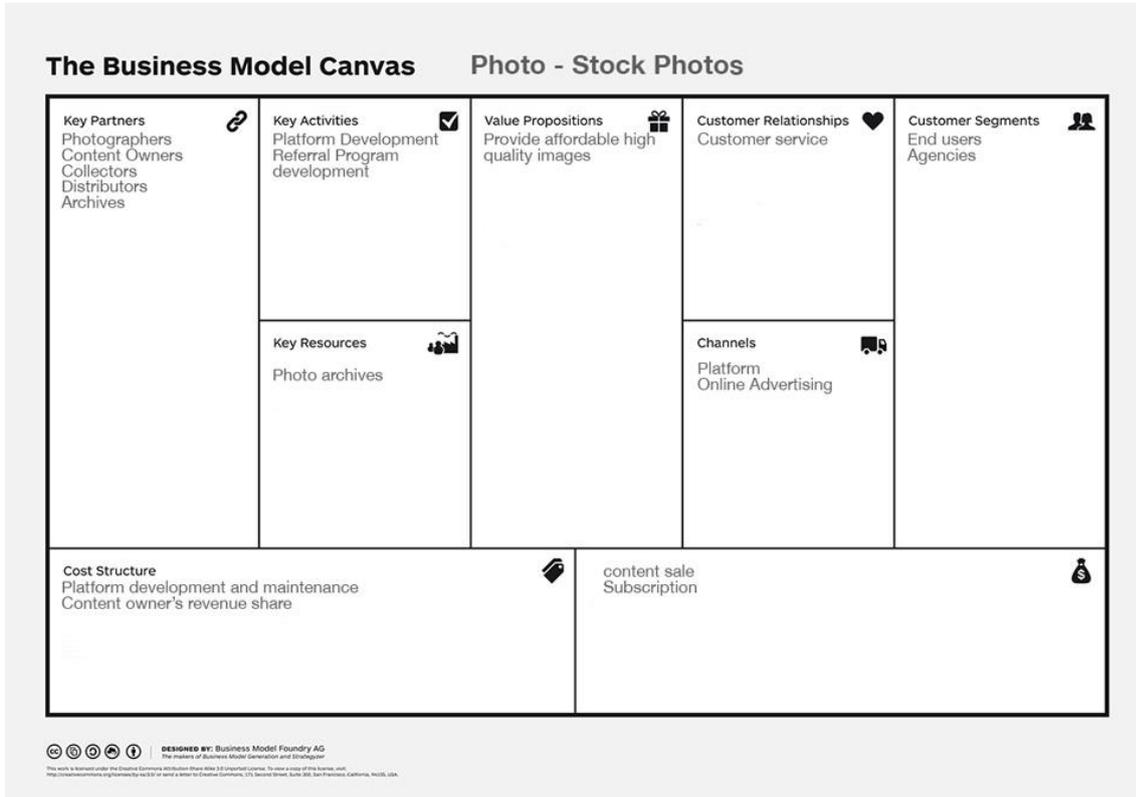


Fig.1: Business Model Canvas for the Stock Photo

As the stock photography industry has evolved, different licensing models have emerged. The industry does not have set norms that all sellers of stock have to adhere to, so various models of licensing have emerged with different stock suppliers looking for ways to increase their sales by making the licensing simpler, cheaper and more attractive to picture buyers.

In stock photography, rights are sold to use an image. The sale of use rights is known as licensing. There are two main types of licenses used in stock-photography: **Rights Managed** and **Royalty Free**. A Rights Managed license gives the user permission to use an image for a specific purpose only and the price charged relates to this usage. A Royalty Free license gives the user the right to use an image for any purpose and the price relates to the particular size of file that is purchased.

Sellers of stock photography use these two license types and package them in various ways to attract buyers. **Subscriptions** and **microstock** are two ways in which Rights Managed and Royalty Free licenses are packaged for sale.

The basic principle of **Rights Managed** (RM) model is that images are paid for according to the usage required. Each usage is calculated separately and an image is sold for a 'single use'. Agencies use complicated formulas to calculate the price for the usage based on factors such as:

- details of use - billboards are charged higher than books;
- editorial or commercial - with commercial use such as advertising claiming higher rates than editorial;
- print run - how many brochures or newspapers will be printed;
- position - an example would be the cover of a book or the inside of a magazine;
- size - is it used quarter page or over a double page spread;
- duration - how long an image will be used, for example, at a trade show;
- territory - will it be used locally or worldwide;
- client - is the client a multinational bank or a not-for-profit.

The second licensing model is known as '**Royalty Free**' (RF) and was developed after Rights Managed. Royalty Free images are sold by file size. A high-resolution version of an image with a large file size (such as 60 MB) would cost more than the low-resolution version of the same image with a small file size (such as 1 MB). No restriction is placed on the use of these images once the client has purchased the file other than any terms and conditions agreed in the license. Royalty Free licenses are easier for clients to work with, as they do not need to come back and renegotiate if the image they used on a brochure is now needed for a poster. As the supplier of the image is not informed of every use of the image, however, there is less control over the same image being used by competitors at the same time. Buyers purchasing Royalty Free licenses understand this risk.

Using the rights managed and royalty free licenses as a base, picture suppliers have created all types of models for selling images; one popular model is to sell **subscriptions**.

Subscriptions can work on either a rights managed or royalty free basis. A subscription is simply an agreement with a supplying stock agency that a client may use a certain number of images, or an unlimited number of images for a certain fee, over a specified time frame. As the number of images used is usually higher than if the buyer was purchasing one image at a time, the price per image tends to be significantly lower. So if a buyer is committing to purchase a subscription, which ties him or her in to buying a large amount regularly, the resultant cost per image tends to be quite low.

Subscriptions work well for clients who need to use large numbers of images. In general only large picture libraries can offer subscriptions, as smaller libraries will be unlikely to be able to supply enough new images to clients month after month.

A number of factors have affected the pricing of images to a point where images are sold on some sites for \$1 or less. These cheap images are known as microstock. **Microstock** has emerged as a significant force in the stock industry over the past decade. The model usually works using the Royalty Free license and buyers, more

often than not, have to buy a subscription to access the images. Images are offered for very low prices. The factors influencing this included:

- the number of digital images available since digital cameras have made it possible for keen amateurs to take professional quality images;
- the ease of using online databases to manage images;
- the entry of the “man-on-the-street” into publishing and image usage through blogs.

The advent of microstock has had an impact on all the licensing types with pressure to reduce rates to compete against them.

The prices generated from all these licensing models differ from one picture library to another based on the country the library is based in (for example prices in Germany are higher than in China) and the individual policy of each picture library. Certain professional stock industry organisations have produced guidelines to try to standardize pricing; this, however, remains variable and often the final price is a result of some amount of negotiation with the client.

In terms of license models, rights-managed photography (RM) takes the share of 62%, while royalty- free photography (including microstock) (RF) contributes for 22% to total sales.

The four different agency models (Classic, Collector, Distributors and Go-Between agencies), offer distinct opportunities to create and capture economic value from the trade of usage rights in visual content. Therefore, we do not pretend that any business model proves superior to all others. However, each of them is accompanied by distinct risks and opportunities that are reflected in measures of firm performance. The biggest group of image suppliers is still represented by classic agencies that directly bridge creators and image users and realize a mean Gross Value Added (GVA) of \$90,000 per agency.

In contrast, the new business models of creator-focused collectors and customer-focused distributors realize more than double a Gross Value Added per agency of \$200,000. In part, this difference is a result of firm sizes, although collectors are amongst the smallest agencies in this respect 14.

GVA by Agency type

<i>Agency</i>	Classic	Collector	Distributor
<i>GVA per agency</i>	\$90,000	\$205,255	\$200,710
<i>GVA per new image</i>	\$12.45	\$23.20	\$1.00

Table 7: Source: Heidelberg University - The global stock image market - Global survey, January 2013

The real difference becomes apparent when relating GVA to total image stock and to the number of new images added to the stock in 2011: the large distributors achieve

the smallest GVA per new image added in 2011 of just \$1.00, whereas Classic agencies realize twelve times the value added per new image (\$12.45).

It has to be underlined that collectors realize the highest GVA from the smallest image stocks and thus achieve a GVA per new image added in 2011 of \$23.20. These findings suggest that, on average, both new business models outperform the incumbent benchmark of the classic agencies, yet in different ways. Collectors realize high GVA through a quality niche strategy that yields high earnings per image, whereas distributors realize a high GVA by pursuing scale advantages. Unfortunately, we cannot rigorously assess the performance of go-betweens due to the low number of cases observed in the survey.

The table summarizes the main characteristics of the four business models identified and illustrates how diverse the business opportunities and specialization strategies have become in this industry.

	<i>Selling to image users</i>	<i>Selling to partners</i>
<i>Collecting images from creators</i>	CLASSIC <ul style="list-style-type: none"> • Creator and customer focus • Largest group of agencies • Original content • No royalty-sharing with partners - customized image stocks • Moderate GVA but high value added per image 	COLLECTOR <ul style="list-style-type: none"> • Exclusive creator focus • Quality niche: unique content • Distribution through partners • Royalty-sharing with creators and partners • High GVA and highest value added per image
<i>Collecting images from partners</i>	DISTRIBUTOR <ul style="list-style-type: none"> • Exclusive customer focus • Economies of scale: largest firms with largest image portfolios • Royalty-sharing with partners • Pronounced market intelligence • High GVA but lowest value added per image 	GO-BETWEEN <ul style="list-style-type: none"> • Exclusive partner focus • Redundant content • Small enterprises with large image stock • Royalty-sharing with partners at both ends of value chain

Table 8: Summary of the main characteristics of the four business models

Augmented Reality

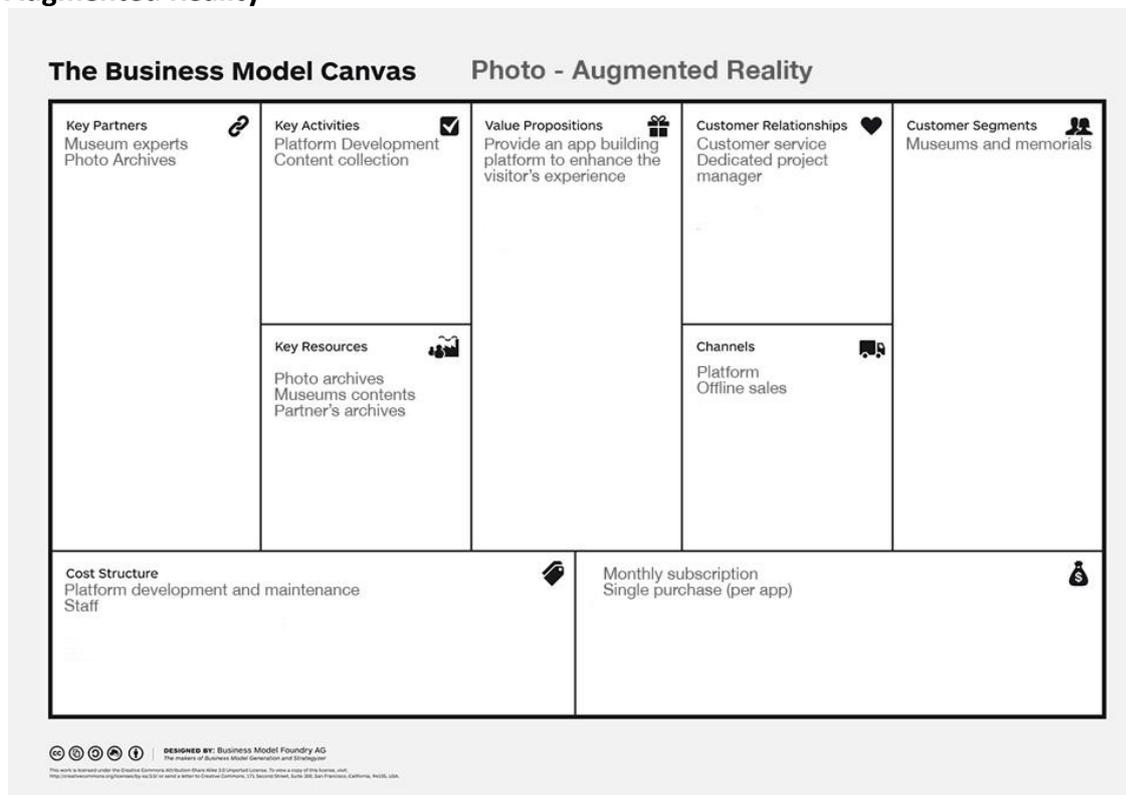


Fig.1: Business Model Canvas for the Augmented Reality

An archive like Europeana needs to find more than selling his own content, directly or through agency to exploit his potential.

There are many way to reuse of its photographic content: many creative industries develop applications or platforms for museums or exhibitions in order to add layers of knowledge (with computer graphics and narration) simply framing some works of art, view additional information and multimedia content overlapping (video and 3D animations) at certain points of interest, see reconstructions of monuments and 3D environments, where there are only ruins, and much more.

Products like custom museums apps (like the British Museum or The Louvre app) or other apps (as the Blinkster app in the first scenario of the Photography pilot) can be developed by creative industries mashing up the museum content with Europeana content giving the possibility to enrich the content of a specific museum with the one provided by Europeana.

For a detailed analysis on business models, which can use content for museums, signposted by Europeana, please see the section on Museums in this report (section 9). In the spring of 2008 the National archives of the Netherlands decided to experiment with making a small selection of its extensive image database available to the public through 'Flickr the Commons' (<http://www.flickr.com/commons>). The goal of this pilot was to encourage user participation and to experiment with making materials available. The results were remarkable. Over six months the 800 photographs have

been generating more than one million page views, nearly 2,000 comments and more than 6,800 tags. These results led the archives to decide (after a detailed evaluation) to include this experiment within its line organisation ('Taking pictures to the public', 2009).

Collaborative storyboarding is a new trend and it could also be a good way to stimulate the reuse of a photographic heritage.

StoryboardThat (<https://www.storyboardthat.com>) is a platform for collaborative storyboarding that provides 45,000 images already plus the possibility for users to upload more. This kind of platform, which is similar to the second scenario proposed by the Photography pilot, comes with a premium subscription model and targets not only the individual user segment but also the education and corporate segments.

This could also inspire the publication of the photographic heritage in schoolbooks or magazines and is strictly connected to the Open & Hybrid Publishing area (section 8).

Creative industries could also develop advanced platform using AR technology, as proposed in the third scenario of the photography pilot, to build custom app for museums or memorials which can give it free to visitors or make them purchase it.

For example Aurasma (Aurasma.com) is a company, which allows its customers to develop their own AR app: it is a commercial app that allows you to create an entire AR experience using an iPad or Android tablet.

As well as allowing you to upload your own overlays, a large number of different types of prepared overlays is also available.

A platform like this is suitable for the reuse of Europeana's metadata: on one side the possibility to build a custom app based on the museum content, on the other side a library of content already prepared by Europeana ready to be mashed up.

5.2.2 Overall considerations

In order to find and stimulate business models that can enhance the photography heritage, digital owners must see beyond the image stocking market and the related business models.

Selling photos with Rights Managed or Royalty Free can't be the only way to reuse photographic content.

Many museum institutions are looking for a way to offer tools for a more interactive or appealing experience in museums or during exhibitions. So creative industries, using both content from museums or archives interested in promoting their content and Europeana's heritage, could develop tools as we saw above (like the Blinkster app or the collaborative storyboarding platform or the AR platform) for this wide and differentiated target from individual end users to museum and educational institution.

The possibility to give access to Europeana's metadata through API could stimulate the possibility for developers to find new ways to use this content promoting at the same time the possibility to use such a great heritage.

6 DANCE

6.1. GENERAL OVERVIEW OF THE AREA

6.1.1. Introductory overview and key definitions

Dance is a type of art that generally involves movement of the body, often rhythmic and to music. It is performed in many cultures as a form of emotional expression, social interaction, or exercise, in a spiritual or performance setting, and is sometimes used to express ideas or tell a story. Dance may also be regarded as a form of nonverbal communication between humans or other animals, as in bee dances and behaviour patterns such as mating dances.

Definitions of what constitutes dance can depend on social and cultural norms and aesthetic, artistic and moral sensibilities. Definitions may range from functional movement (such as folk dance) to virtuoso techniques such as ballet. Martial arts kata are often compared to dances, and sports such as gymnastics, figure skating and synchronized swimming are generally thought to incorporate dance.

There are many styles and genres of dance. African dance is interpretative. Ballet, ballroom and tango are classical dance styles. Square dance and electric slide are forms of step dance, and break dancing is a type of street dance. Dance can be participatory, social, or performed for an audience. It can also be ceremonial or competitive. Dance movements may be without significance in themselves, as in ballet or European folk dance, or have a gestural vocabulary or symbolic meaning as in some Asian dances.

Choreography is the art of creating dances. The person who creates (i.e., choreographs) a dance is known as the choreographer.

Dance can be categorized in various ways, such as by the number of interacting dancers, as in solo dance, partner dance and group dance, or by purpose, as in ceremonial dance, performance dance, and social dance.

The dance field is wide, encompassing a breadth of genres and styles and a profession that reflects this diversity and range of cultures.

Dance is a growing market made up of many components: production and touring companies, commercial producers, the network of agencies and local authorities that provide regular informal provision, as well as the informal and formal education sectors.

Vocational training and higher education provision for the profession have developed to support the growth of the field; voluntary and amateur engagement has developed as public engagement in dance as a social form has increased; the informal sector has seen a massive increase in community dance and youth dance activity; and theatrical dance has expanded through the growth in production and touring provision, the development of dance agencies and enhanced programming and presentation in venues around the country.

Digitisation can benefit dance in some main areas: the way work is made, the way it is distributed and reaches audiences, and the way dance operates and networks. Technology evolves quickly. Keeping up requires time, dedication and resources. Dance has great potential to both contribute to and capitalise on the development of new technologies.

Here are some relevant aspects related to dance in perspective:

- dance has the opportunity, with its direct visual impact, to be innovative and cutting edge on the web. Training and support are needed;
- the ability to network internationally and create work with partners through technology is an exciting opportunity, expanding reach and impact nationally and internationally. Partnerships with higher education institutions are a useful way of encouraging developments in these areas;
- companies need support to enable them to make high-quality material for marketing and distribution, building new audiences and virtual collaborations;
- technology can democratise dance and the arts; with audiences, producers and creators creating work together.

6.1.2. Market size and potential: macro-data and key figures

The dance market can be divided in two main different segments:

1. the first comprises professionals or semi-professionals in dancing related jobs (teachers, choreographers and dancers, mainly);
2. the second is made up by all dance fans, passionate about the field and occasional dancers.

6.1.2.1. Professional and semi-professionals

According to the EuroFIA and European Commission, there are no official statistics and data as to the exact profile of dancers and in particular data on gender, age, ethnic and social origin, education and career paths. There is an evident need to reinforce data collection at national (and regional) level on the profile of dancers, their career paths and the professional transition of dancers. As expressed by EuroFIA and the European Commission, data collection, in the field of dance is extremely poor throughout the entire European Union. Only in UK there seems to exist a complex statistical method for collecting data, probably because dance, in this country, is much more developed and has many more people involved in all roles of production (such as teachers, choreographers, pro dancers and amateur dancers).

All this considered, when trying to discuss market potential in the dance industry we have to use some assumptions. As said, the UK is the biggest market for dance, not only in Europe, but also in the entire world and we have used data from other European markets to make estimations for nations where dance statistics do not exist. In particular we used dance data from France and related to the total France population obtaining a “dance participation rate”. This rate has been used then to evaluate potential market for other countries.

In particular we've seen that UK has a dance market made by over 40,000 people over a total population of 61 million, so a rate of 1 dancer every 1,525 people, or 0.0656%. France, instead, has approximately 5,000 dancers on a population of 64.3 million so 1 dancer every 12,860 people, with a rate of 0.0078%. We have decided, for prudential issues, to use the French rate to estimate the total market for other EU countries. In order to verify this assumption we compared these data to US statistics in this field. USA has approximately 20,000 people involved in dance as pro or semi-pro. Calibrating this information on a total population of 313.9 million we see a rate of 1 dancer out of 15,695 people or 0.005%. As we can see this rate is much closer to France data than UK data.

In the following table we estimate the total European population by country to estimate the total number of professional dancers, using the rate calculated for France.

COUNTRY	TOTAL COUNTRY POPULATION (in millions)	DANCERS RATE	ESTIMATED TOTAL PRO or SEMI-PRO
United Kingdom	61.7	0.0656%	40,000
France	64.3	0.0078%	5,000
Austria	8.3	0.0078%	645
Belgium	10.7	0.0078%	832
Bulgaria	7.6	0.0078%	591
Croatia	4.4	0.0078%	342
Cyprus	0.8	0.0078%	62
Czech Rep.	10.5	0.0078%	816
Denmark	5.5	0.0078%	428
Estonia	1.3	0.0078%	101
Finland	5.3	0.0078%	412
Germany	82.0	0.0078%	6,376
Greece	11.2	0.0078%	871
Hungary	10.0	0.0078%	778
Ireland	4.5	0.0078%	350
Italy	60.0	0.0078%	4,666
Latvia	2.3	0.0078%	179
Lithuania	3.3	0.0078%	257
Luxembourg	0.5	0.0078%	39
Malta	0.4	0.0078%	31
Holland	16.4	0.0078%	1,275
Poland	38.0	0.0078%	2,955
Portugal	10.6	0.0078%	824
Romania	21.5	0.0078%	1,672

Slovakia	5.4	0.0078%	420
Slovenia	2.0	0.0078%	156
Spain	45.8	0.0078%	3,561
Sweden	9.2	0.0078%	715
TOTAL	503.5		74,354

Table 1: Source: our elaboration

For professionals and semi-professionals dance related jobs, we estimate a total number of 74,354 people involved in the entire EU.

6.1.2.2. Dance Fans

To evaluate the total number of dance fans we had to make an estimation based on several factors for which we have statistics and data, such as dance related games sales statistics, Facebook likes and, most of all, Eurobarometer on cultural access and participation, released by the European Commission.

On Facebook, dance, as a field of study, has been liked more than 42 million times and this shows us how much dance is appreciated all around the world.

With respect to data on games related to dance, we can see that several Apps have been sold for more than several hundred thousand times, such as Zumba dance, Go Dance and Pocket Salsa, plus the most famous dance related game, Just Dance, has been sold, in total, more than 49 million times. “Just Dance 3” has been sold in total more than 7 million times and “Just Dance 4” has generated more than 50 million \$ in revenue only in the first 3 months of release.

Following Ubisoft (Just Dance franchise producer) stats we can see that “Just Dance” sales are approximately divided as follows:

Sales Region	% of total sales	Sold copies (in millions)
North America	50%	24.5
Europe	40%	19.6
Rest of the World	10%	4.9

Table 2: Source: Ubisoft website - https://www.ubisoftgroup.com/en-US/press/press_release.aspx

Individual involvement, in terms of performing or producing a cultural or artistic activity, has decreased significantly since 2007. Some 38% of Europeans were actively engaged in the artistic activity. Between them dance remains the most common activity. Over 35% of actively engaged people has made dance related activities at least once in year 2012 (the report refers to a time span 2007 - 2012 and has been

released on November, 2013) and this gives us a total of 13.3% of Europeans involved in dance activities, so approximately 66.97 million people.

As we are talking about digital products we had to also evaluate how many people are using digital instruments for their cultural activities so that they will fit better as potential customers. For this purpose we evaluated the use of Internet for cultural purposes as we intend discover, research, purchase and participate in such activities. A total of 56% of Europeans use Internet for cultural activities, 29% do not and 14% has no Internet access. Between the total of those who use Internet for those activities we see a distribution as follows.

Usage of Internet for cultural purposes:

At least once a week	Every Day (part of "at least once a week")	Several times a week (part of "at least once a week")	One a week (part of "at least once a week")	1 to 3 times a month	Less often than 1 to 3 times a month	Total of who uses Internet for cultural purposes:
30%	11%	11%	8%	10%	16%	56%

Table 3: Source: Special Eurobarometer 399

We take into consideration here only those people that use the Internet several times a month, so a total of 40% ("1 to 3 times a month" + "at least once a week").

Using this result together with the amount of people involved in dance we can now estimate the total number of potential customer, in Europe, in 26.79 million people (40% of 66.97 million people involved in dance).

6.1.3 Forms of consumption

The number of Europeans participating in cultural activities has slightly decreased since 2007, mainly because of the financial crisis.

The market for live performing arts, which are typically produced in the non-profit sector, consists of two distinct groups of consumers: those who are casual attendees and those who are aficionados, or enthusiastic fans of the arts.

The former differ from the latter not only in their motivations but also in their numbers, their knowledge of the arts, and, in all probability, their tastes.

The aficionados are the frequent attendees discussed above: a small and select group who are likely to be knowledgeable and interested in a diverse array of content and the aesthetics of the art experience.

In contrast, the casual attendees are likely to be far more numerous, less interested in the art form per se, and more likely to be attracted to more traditional fare.

A number of factors influence patterns of demand at aggregate level. Although most empirical studies focus on who participates rather than why they participate, the following factors have been used to explain changes in participation patterns:

- socio-demographic changes, e.g., changes in the size and composition of the population;
- changes in such practical considerations as the supply of artistic events and products, their cost, the availability of leisure time, income levels, and dissemination of information about the arts;
- changes in the stock of individual experience with the arts (arts education, prior experience, knowledge).

There are some key macro drivers – money, time, changing structures, trust, rising standards and technology – impact on the dance in a range of ways, affecting people’s interaction with it:

- as disposable income has continued to grow, we have become a society that spends more on leisure and this spend has been informed by our desire for fulfilment and for new and transformational experiences;
- As technology has developed a new economy has emerged that is rooted in information, connectivity and the virtual world. This has led to shifts in participation as technology has enabled people to become producers as well as consumers of art;
- Globalisation – enhanced by technology as well as disposable income and reduced cost travel – has created greater expectation through exposure.

Education is by far the most powerful predictor of participation in the performing arts. Individuals with higher levels of education—especially college and graduate degrees—have much higher participation rates than others

Other socio-economic factors are more ambiguous. While gender (more women than men participate) and age also matter, they are less important than education. The effects of age, unlike education, appear to be most pronounced for hands-on participation, which is much more prevalent at younger ages

In order to understand the motivations for participation, three questions must be addressed. Why do people participate in the arts (rather than other leisure activities)? Why do they choose to become involved in different ways (doing, attending, or through the media)? And why do they choose specific art forms or disciplines?

Here there is an interplay of a set of practical and contextual factors—e.g. costs, availability, information, scheduling—that drive individual decisions but do not really explain why, in the aggregate, levels of demand change.

Studies seeking to explain shifts in the overall level of demand, on the other hand, focus on factors that drive demand at the aggregate level. Four sets of factors, in particular, have been used to explain changes in overall demand: changes in the size

and composition of the population; changes in peoples' taste for the arts; changes in practical factors such as availability, income, prices, and time that affect individuals' ability to pursue their preferences for the arts; and changes in the stock of knowledge about the arts.

Understanding the dynamic behind changes in tastes is less straightforward. Thus, changes in tastes are typically attributed to shifts in the composition of the population.

6.2. BUSINESS MODELS

6.2.1. Main business models

Dance is an extremely wide discipline and, in relation to several factors, many business models can be implemented in a variety of ways. For example we can:

- in the dancing game field: sell a game online, offline, with in-game purchases, with advertising or with a related e-commerce;
- in the dance learning field: make a teaching app (on sale, with advertising, with premium content) or a video website (with advertising, with product sales, freemium);
- in the marketing software industry: creating softwares that helps dance creators market their ideas;
- in the organizational software industry: to help dance events managers to organize and manage those events.

We decided, then, to use two criteria to deepen our research: existence of business examples that could help us in defining revenue metrics and similarity with Europeana Dance Pilots.

6.2.2 Dance learning mobile app

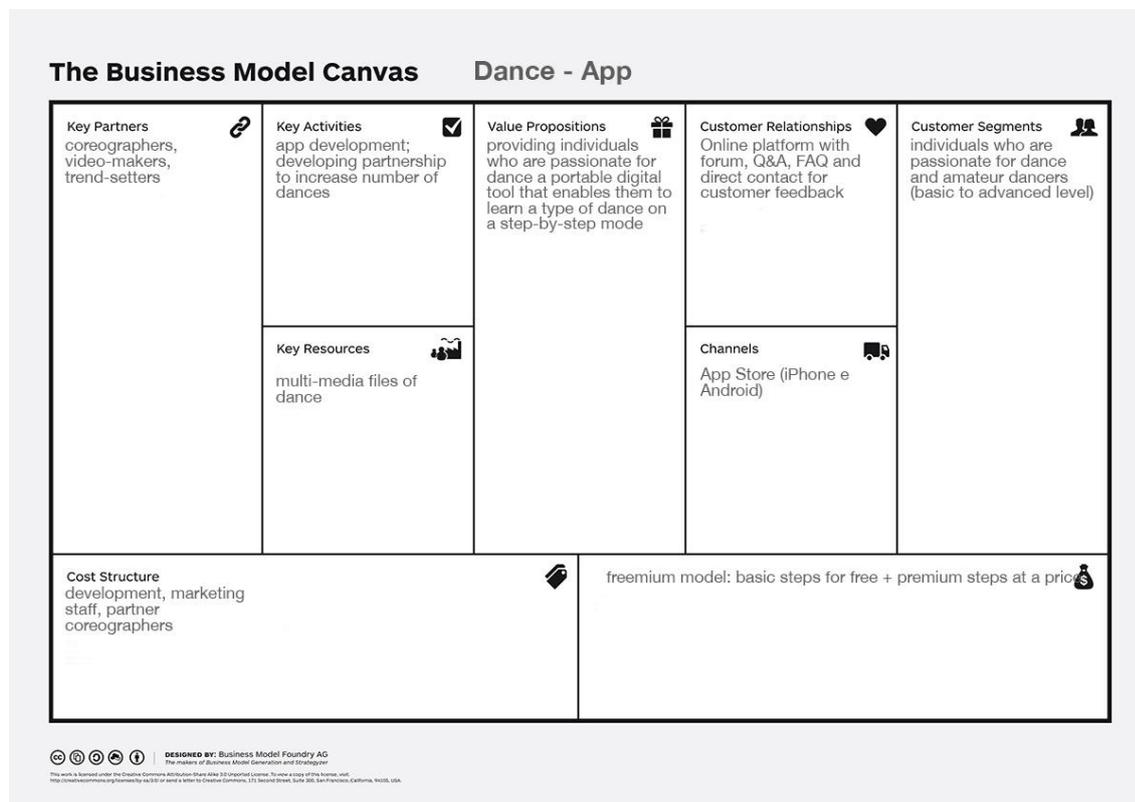


Fig.1: Business Model Canvas for the App Model

One of the main new trends of the dance business is digital learning: the use of digital devices for the purpose of learning a defined kind of dance. Examples of this trend are learntodance.com (that offers free basic lessons and paid premium lessons), dancewithmadhuri.com (offering dance lessons with a gamification process) directly on the web.

There are also dance apps that use devices like smartphone or tablet to teach learning. Some examples are “go dance” has been downloaded more than 1.1M times and generated more than \$2.2M, or “Zumba Dance” that has been downloaded 152,000 times generating revenues of more than \$758,000, or “pocket salsa”.

EXAMPLE: Pocket Salsa

One of the main examples of dance teaching using modern instruments is pocket salsa. This App, available for iOS (iPhone and iPad) and Android uses video for teaching, step by step, all the different kind of salsa dance from all the South American countries has been defined as the best salsa app and the “closest thing to a private lesson”.

The best features include:

- short clips to learn every single step, plus integrated clips to put them together and develop a complete dance knowledge;
- even available offline;

- salsa beats learning with instrument videos;
- premium videos (in-app purchase).

This app is heavily pushed in the market by the owner’s website addicted2salsa that, with more than 10,000 views per week is ranked among the best 1,500 “arts and entertainment” websites in the world.

The app has been downloaded more than 171,000 times and generated, only with direct sales, more than \$660,000 in revenues.

Even if with a completely different subject than Europeana, this is an interesting example of how popular a dance app can be and, consequently, generate revenue streams. Similarly to Pocket Salsa, DanceSpaces can use content with the same characteristics:

- short clips: as statistics says that, on Internet, the average video should be, approximately, 30 seconds long;
- even available offline: not everybody is constantly connected;
- deepen contents: people interested in dancing an historical and traditional dance are interested even in more facts than the mere dance itself (particular clothes used, history of instruments, etc.).

6.2.3 Main business models: Software for developing choreography

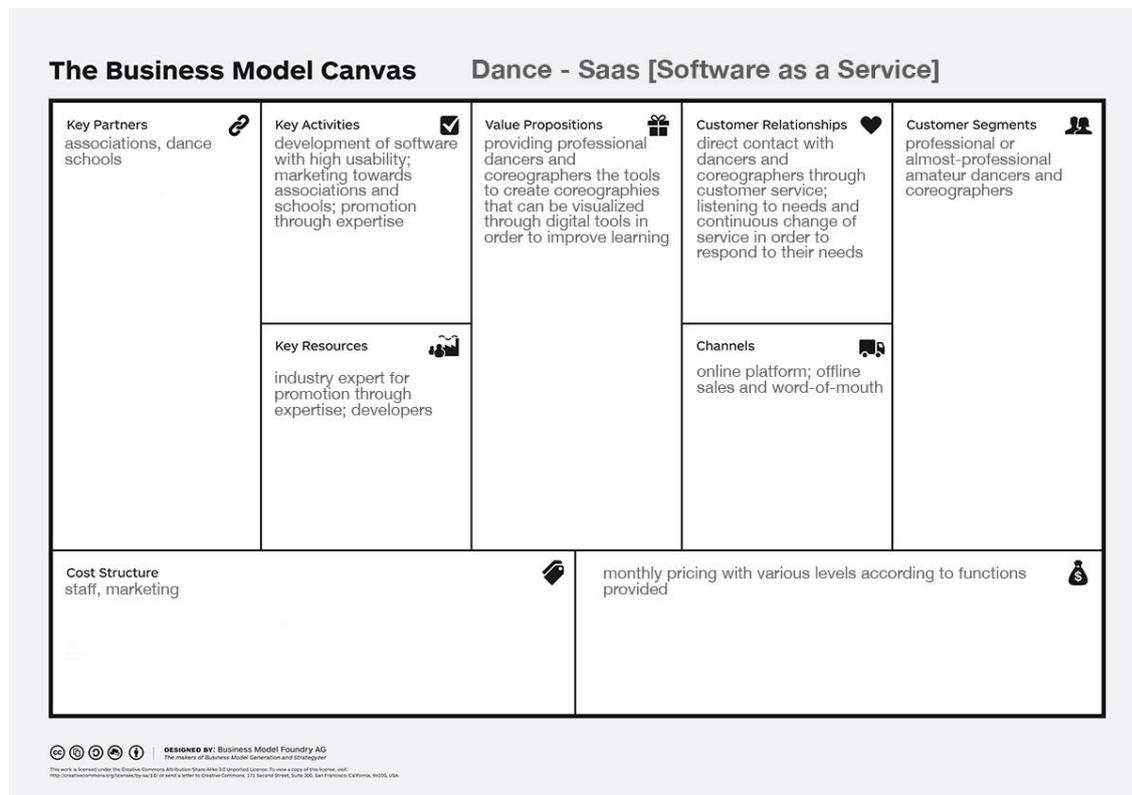


Fig.1: Business Model Canvas for the SaaS Model

EXAMPLE: Choreo Pro

Choreo Pro is a software, released as SaaS (software as a service), that allows choreographers to easily create their own choreographies, carry them everywhere, share them with dancers and other artists and highlight particular moments.

In the past choreographers had to rely solely on performance videotapes rewinding them continuously to show special moments, take notes and train dancers.

Its main features consist in visualizing, integrating and documenting the work in several dance discipline such as ballet, modern dance, hip-hop, contemporary and many more.

It has several tools like dance counts, media editing, dancers information, motion, score and dancers information.

PRICING: basic \$240 per annum/; pro \$360 per annum.

Choreo Pro is similar to Europeana Space Pilot DancePro, mainly for his target customers: professionals in the dance industry. Every time a project is developed for professionals, more than projects developed for private consumers, it's incredibly important that the quality of the output (normally a so called MVP - Minimum Viable Product is not enough to meet professionals needs). On the other side professionals, normally, can bring more constant revenues.

6.2.4. Overall Considerations

For his strong visual impact dance can seriously benefit from his digitisation, both on a professional and on an amateur view. The increasing number of dance related TV programs (usually with high level of audience) and the increasing number of dance fans are symbolic of the interest in this field. Today is extremely difficult being a professional in the dance industry mainly because it relies basically on public funding so economical support is strongly influenced by political decision more than quality and quantity of work. Digitisation of the industry can help professionals to become more economically independent, increasing their revenues, from one side, and decreasing their costs, on the other. Digitalization can even help pro and amateurs share information and contents so that each one gets close to the other helping both of them.

7 GAMES

7.1. GENERAL OVERVIEW OF THE AREA

7.1.1 Introductory overview and key definitions

In this analysis we want to define the market potential for the reuse of Europeana’s heritage by creative industries with respect to games. As Europeana provides access to digital content held by providers, we will focus on the video games market, looking for trends and best practices.

We define *video game* as an electronic game that involves human interaction with a user interface to generate visual feedback on a video device. The word *video* in *video game* traditionally referred to a raster display device, but it now implies any type of display device that can produce two- or three-dimensional images. Over recent years the entire gaming industry had been affected by the digital content revolution in uses and business models: disintermediation, deflated production costs, changes in the pricing models, etc.

In the charts below we can see how the global video game revenues changed over the years between the digital and physical selling of video game (not including hardware), as well as the changes in the share of the main video games segments.

Global changing of video game selling revenue (€Bn)

	2012	2013	2014	2015	2016
Digital	23.9	28.0	33.4	40.0	46.6
Physical	17.5	16.2	16.0	14.7	12.6

Table 1: Source: IDATE, World Video Game Market, edition January 2013

Global Games Market 2012 - 2016 by type (on total 100%)

	2012	2013	2014	2015	2016
MMO	19.8%	21.2%	21.9%	22.3%	22.7%
PC	9.8%	8.6%	7.5%	6.6%	5.8%
Tablet	3.2%	5.3%	7.5%	9.6%	11.6%
Smartphones	10.6%	12.1%	13.6%	15.0%	16.2%
Handled	9.8%	7.3%	6.1%	5.1%	3.9%
Console	36.7%	36.1%	34.8%	33.5%	32.4%
Social	10.2%	9.8%	8.6%	7.9%	7.3%

Table 2: Source: Newzoo, Global Games Market 2012-2016

Europeana provides content in *image, text, video, sounds* and also *3D* format, and all of them can be used by creative industries in creating games (i.e. for the storyboard, for the scenarios setting, for the game content itself, etc.). The ultimate purpose is to find and encourage those creative industries to use Europeana’s content in creating games.

Definitions in the value chain

First of all we have to provide definitions for key elements involved in this analysis, in order to better understand such a wide and fast changing world.

In order to explore the video games market potential we need to understand the dynamics of the value chain.



Table 3: Source: Mobile Game Arch, The future of the European mobile game ecosystem, 2013

Developers are the creators of games; often small, innovative, and entrepreneurial companies or creative industries. Developers typically focus solely on games development and only rarely have marketing budgets to promote titles.

Publishers typically own IP (Intellectual Property) and work with external developers to create games based on that IP. Developers work with publishers based on a fee to create a title, with possibly an additional revenue share based on performance. Many publishers have internal development to create games as well as using external development resources. Typically large companies, publishers maintain relationships with multiple distribution channels and typically have a marketing budget to help promote games.

Aggregators are similar to publishers but do not own IP and do not commission external developers. Rather, an aggregator role involves developers coming with a title already created to leverage the aggregator's relationships with distribution channels to reach the market. An aggregator role typically only involves a revenue sharing agreement.

Application stores can be divided into 3 broad categories:

- handset application stores (e.g. Apple's App Store, Google Play);
- operator stores (e.g. Orange);
- independents (e.g. Amazon, Barnes&Noble, GetJar).

Middleware includes cross-platform development tools, game engines, and other software designed primarily for developers to speed time to market.

The three leading cross-platform game engines are currently Unity3D, CryEngine, and UnrealEngine. Unity3D has grown very fast to become the tool many, if not most, mobile game developers currently use and it could be the best choice for the Game pilot for fast developing games.

Definitions by type

Nowadays there are many types of video games: we therefore need to explain the type which is growing the most (MMO) and the others which are more suitable for reusing Europeana's content (casual game, social game and Edu-game).

A **massively multiplayer online game** (also called **MMO** and **MMOG**) is a multiplayer video game that is capable of supporting large numbers of players simultaneously. These games can be found for most network-capable platforms, including PCs, consoles, or smartphones and other mobile devices. MMOGs can enable players to cooperate and compete with each other on a large scale, and sometimes to interact meaningfully with people around the world. They include a variety of gameplay types, representing many video game genres.

A **casual game** is a video game used by a mass audience of casual gamers. Casual games can have any type of gameplay, and fit in any genre. They are typically distinguished by their simple rules and lack of commitment required in contrast to more complex hard-core games. They require no long-term time commitment or special skills to play, and there are comparatively low production and distribution costs for the producer. Casual games are typically played on a personal computer online in web browsers, although they now are starting to become popular on game consoles and mobile phones as well. Casual gamers are typically older than traditional computer gamers, and more often female, with over 74% of casual gamers being female.

Social gaming commonly refers to playing games as a way of social interaction. More specifically we mean *social network games*, which have social network integration or elements: they are a type of online game that is played through social networks, and typically features multiplayer and asynchronous gameplay mechanics. Social network

games are most often implemented as browser games, but can also be implemented on other platforms such as mobile devices.

Educational games are games explicitly designed with educational purposes, or which have incidental or secondary educational value. All types of games may be used in an educational environment. Educational games are games that are designed to help people to learn about certain subjects, expand concepts, reinforce development, understand an historical event or culture, or assist them in learning a skill as they play.

7.1.2 Market size and potential: macro-data and key figures

The worldwide video game marketplace, which includes video game console hardware and software, online, mobile and PC games, according to Gartner, reached \$93 billion in 2013, up from \$79 billion in 2012.

Average annual growth is expected to amount to 11.4% for online gaming and 12.2% for mobile gaming over the period of 2013-2017, against 11.1% for the entire video games market. Mobile games are the fastest-growing segment of the market, with revenues set to nearly double between 2013 and 2015 from \$13.2 billion to \$22 billion (Source: IDATE, 2013).

Games took 32% of 2013 mobile app usage (blended iOS/Android tablet/smartphone) - 67% of tablet usage. Games took 74% of 2013 mobile app revenue and 40% of mobile app downloads .

Mobile and online games could grow to \$60B revenue, acquire a 60% share in the games software market and grow the overall games software market to approximately \$100B revenue. The console sector is important but with limited growth.

Asia and Europe could take more than 80% combined revenue share for mobile and online games. North America remains an important mobile and online market [IDATE, 2013; Digi-Capital, 2014].

As the final aim is to define how the Europeana’s content could be used by creative industries, or game developers as we are in the video game sector, in creating games, we have to consider the nature of the content stored in Europeana archives which is mostly cultural and historical.

That’s why it’s important to focus also on the Edu-games world in which cultural and historical content used for the game can be provided by the digital archives of Europeana.

The Edu-games market, which includes Game-based Learning and Simulation-based Learning, will grow (according to Ambient Insight) from \$3,9 billion in 2012 to \$8,9 billion forecasted in 2017 with a CAGR of 18%.

Global Revenues by Learning Product Type

	2012 Revenues in \$ Mlns	2017 Revenues in \$ Mln	CAGR 2012-2017
Game-based Learning	1,548.44	2,309.60	8.3%

Simulation-based Learning	2,364.04	6,648.89	23.0%
Total	3,912.48	8,958.49	18.0%

Table 4: Ambient Insight, 2013

The target is of course gamers but also, content owners, as archives, museums, collector of historical documents, who want to show the potential of their collections.

7.1.3 Forms of consumption

Age and gender of European gamers

<i>GENDER</i>	Total	16-24	25-34	35-44	45-54	55-64
Males	55%	80%	67%	55%	40%	28%
Females	45%	61%	49%	44%	34%	27%

Table 5: Ipsos MediaCT, Videogames in Europe: consumer study, November 2012

51% of European gamers are under 35.

Games played

In Europe the percentage of gamers who play free Games Apps is 20% while 7% plays paid Games Apps. 7% of the gamers play free MMO, 6% paid the game and 3% pays a subscription.

Type of games played in Europe

<i>COUNTRY</i>	Packaged CD/DVD	Apps	Online	Download	Social
Sweden	31%	33%	45%	30%	23%
Finland	27%	24%	48%	31%	20%
France	28%	24%	44%	20%	17%
Czech Republic	26%	20%	48%	29%	22%
Netherlands	27%	25%	39%	23%	18%
Norway	27%	34%	39%	25%	17%
Belgium	26%	15%	41%	23%	22%

Poland	22%	16%	43%	27%	22%
Denmark	16%	22%	35%	19%	12%
Germany	23%	14%	32%	21%	13%
Austria	21%	20%	34%	24%	13%
Italy	18%	20%	34%	19%	19%
Switzerland	15%	19%	33%	19%	16%
Great Britain	28%	18%	29%	16%	12%
Spain	21%	20%	31%	17%	17%
Portugal	17%	17%	34%	20%	21%

Table 6: Source: Ipsos MediaCT, Videogames in Europe: consumer study, November 2012

Devices used to play in Europe

COUNTRY	Console	Portable	Computers	Mobile
Sweden	37%	11%	47%	38%
Finland	29%	7%	47%	31%
France	33%	20%	45%	31%
Czech Republic	16%	8%	49%	25%
Netherlands	28%	15%	41%	30%
Norway	29%	11%	38%	37%
Belgium	28%	20%	42%	19%
Poland	20%	7%	42%	21%
Denmark	17%	6%	36%	26%
Germany	21%	11%	34%	18%
Austria	25%	10%	36%	24%
Italy	24%	15%	34%	25%
Switzerland	20%	13%	33%	30%
Great Britain	28%	15%	30%	22%
Spain	26%	17%	31%	25%
Portugal	21%	12%	33%	20%

Table 7: Source: Ipsos MediaCT, Videogames in Europe: consumer study, November 2012

Mobile games and app stores

The current era is driven by mobile: smartphones are no longer designed simply for the purpose of communication. More people use their smartphones for taking pictures, listening to music, making videos, surfing the Internet, shopping and above all playing games. With the explosion of smartphones, mobile games have emerged in the video games industry as a trend we can't ignore.

Apple - Games are the most downloaded apps on both iPhone and iPad.

On iPhone, 33% of all downloads were games. For iPad, this portion was even higher at 48%. With these high shares of downloads in the whole store, Games was by far the most popular category in terms of downloads. Entertainment ranked second on both iPhone and iPad. Social Networking, Photography and Lifestyle rounded out the top 5 on iPhone while Education, Utilities and Lifestyle were amongst the top 5 popular categories on iPad.

Android - Games was also the largest category in terms of device installs in Google Play. Games gathered 37% of all device installs in the whole store over September 2013. Looking at the other popular categories in Google Play, Widgets ranked second and was followed by Communication and Tools. Entertainment ranked fifth on Google Play, while this category was the second largest category on iOS in terms of downloads.

Amazon - Taking a sidestep to the Amazon Appstore, the same categories that were popular on iPhone and iPad, like Games, Entertainment, Social Networking and Utilities, were also popular in the Amazon Appstore. A remarkable 63% of downloads were generated through games.

According to Distimo, by the end of 2013 in the Apple App Store for iPhone, 54% of the apps in the Top Overall Grossing were games, while this percentage on iPad was 50%. Google Play had a lower number of games in the Top Overall, 48%.

More than half of all apps in the Top Overall grossing were games in these stores.

The 48% of all apps in the Top Overall were games and those apps generated 92% of the revenue for Google Play. For the Apple App Stores (average of iPhone and iPad), 52% of the apps in the Top Overall list were games and these apps generated 79% of the total revenue.

7.2 BUSINESS MODELS

7.2.1 Main business models

Today the main business models that have emerged in the video games world are the *freemium* or *free to play* business models.

Freemium: it is a business model adopted by many games where the game is offered free of charge to consumers but typically has elements (content or features) for which

the player has to pay to access. One of the more common freemium models is where the game makes the first X levels free and then charges the player to download new levels.

Free to Play: also known as *F2P* and *Free2Play*, is a business model adopted by games where the game is offered for free but within the game there are items or virtual goods that can be purchased by the players. The free to play business model is closely related to the freemium model but is regarded as being more advanced and harder to make it work.

The freemium model, as opposed by the premium model is becoming dominant; some 80% of the top iPhone games today use freemium models to generate revenues. A general point to note is that these new business models are all reliant on usage of the game.

These business models have been enabled in part by the new generation of application stores, which allow for in-app transactions, and by advertising companies which have created technology to allow advertising to be delivered inside apps.

During 2013 the proportion of revenue based on in-app purchases increased from 77% to 92% in the Apple App Store and from 89% to 98% on Google Play.

As the charts show, the freemium business model (free apps with in-app purchases) clearly takes the lead in terms of revenue, while the other business models: paid apps with in-app purchases and paid apps without in-app purchases have a significantly smaller revenue share, which is even smaller on Google Play than on iOS.

Freemium/F2P Mobile Game

It's a given that the vast majority of freemium games players don't actually spend money at all: according to *The Swrve monetization report* in January 2014 only 1.5% of active players made an in-app purchase at all.

That means that the vast majority of players deliver no revenue, so a great care should be taken when acquiring users to ensure they are, as much as possible, in the subset of "spenders".

Looking at how much is spent per month, the monthly mean average total spend of €11,25. This is in effect a typical **MRPPU** - *Monthly Revenue Per Paying User*. That total comprises of an average number of purchases per month of 2.57, of an average value of €4,37.

A full 49% of payers only make a single purchase in a month, at the other extreme, 13% of paying players make 5 or more purchases.

Percentage of payers making the absolute number of purchases in a month (worldwide)

	one time	two times	three times	four times	five and more
<i>on total (100%)</i>	48.8	21.2	10.7	6.1	13.2

Table 8: Source: The Swrve monetization report, January 2014

Below we chart every paying player in the month in deciles by total spend. That means we show the bottom 10% - i.e. the 10% of users who spent the least in total - and move in 10% steps to the top 10%.

We show for each of those deciles the percentage of revenue derived from that group, the average number of purchases each member of the group made, and the average purchase price they made them at.

13% of revenue comes solely from the top 1% of payers (not graphed).

Percentage of total revenue by player spend category (worldwide)

	% on revenues	average n of purchase	average purchase price
0-10%	0.7%	1.2	€0.66
10-20%	1.4%	1.2	€1.25
20-30%	2.2%	1.2	€2.06
30-40%	2.8%	1.6	€1.91
40-50%	4.0%	1.8	€2.43
50-60%	4.8%	1.8	€2.94
60-70%	6.9%	2.6	€3.02
70-80%	10.2%	3.2	€3.61
80-90%	16.3%	4.0	€4.56
90-100%	50.8%	7.0	€8.17

Table 8: Source: The Swrve monetization report, January 2014

A couple of key data points immediately stand out. A full 50% of revenue derives from the top 10% of payers. To add further context, if we express that group as a % of total players they represent a mere 0.15% of that group. That number bears repeating: 0.15% of all monthly players contribute 50% of total revenue.

Note in addition, from the same graph, that conversely a full 50% of all paying players contribute little over 11% of all revenues.

It is clear from the data that it is both the greater value of individual purchases AND the greater frequency of purchases that is the driver behind the large value derived from the top 10%.

This group has an average number of purchases of 7, only around 700% greater than the bottom 10% (average purchases 1.2), but and the average value of those purchases is \$11.1 - a 681% uplift.

To calculate the monthly revenue we can use this formula:

$$MAU \times CR \times ARPPU = \text{monthly revenue}$$

MAU is Monthly Active Users, which is the number of unique players who have logged in and played the game in the last thirty days. This number shows how stable the user base is.

CR means Conversion Rate, which is the rate of conversions from free users to paying users. The number needed to make a success differs from genre to genre, with social games generally hitting between 1–5% while freemium MMOs between 12–40%. This obviously needs to be stated not in percentage, but in decimal form for the equation to work.

ARPPU is the Average Revenue Per Paying User, which is simply the amount of money you can expect a converted user to pay for your game or service on average. For a social game on the US market designed to appeal to gamers used to paying for games and other sorts of entertainment, a typical number could be around \$105, while a more casual game such as a city building social game would probably number around \$35.

Note that to excel in just one of these fields is not enough to guarantee profitability. A large MAU is inconsequential if you are not managing to convert them to paying users and no amount of paying users will save you with a dismal ARPPU. A successful equation could look like this:

$$6000 \text{ MAU} \times 0.05 \text{ CR} \times \$35 \text{ ARPPU} = \$10500 \text{ monthly revenue}$$

or like this

$$35000 \text{ MAU} \times 0.15 \text{ CR} \times \$14 \text{ ARPPU} = \$73500$$

or even

$$6000 \text{ MAU} \times 0.15 \text{ CR} \times \$35 \text{ ARPPU} = \$31500$$

But as we see the key is to have a strong number in each field. If even one of them lacks, we end up with numbers like:

$$6000 \text{ MAU} \times 0.005 \text{ CR} \times \$35 \text{ ARPPU} = \$1050$$

or

$$35000 \text{ MAU} \times 0.15 \text{ CR} \times \$0.5 \text{ ARPPU} = \$2625$$

or

$$200 \text{ MAU} \times 0.15 \text{ CR} \times \$35 \text{ ARPPU} = \$1050$$

So the goal is to have as many monthly active users as possible AND convert as many of them as possible to paying customers AND have each paying customer pay as high an amount as possible. Only then there can be a satisfying revenue generations that approaches or exceeds profitability.

Virtual Items sales

Virtual item sale is one of the most dominant free-to-play models. Also known as micro-transactions, in-game purchases typically allow users to play some (or all) of the game for free but pay small amounts either to open up new parts of the game or buy virtual items to use in the game itself. Some items purchased enable players to gain an advantage while playing or enable them to 'level up' their character faster. Sometimes it is about making a virtual character stand out buying all kinds of items, be it clothes, gadgets, furniture or even virtual services. It all depends on the limits set by the game and the type of game being played.

The virtual item system is usually based on a two-currency system:

- A currency you can earn while playing;
- A currency based on real world money.

One of the benefits of this model is that the ARPU (Average Revenue Per User) generated has the possibility to greatly surpass what a normal, following a traditional model, would.

Premium upgrades/subscriptions

Another way to use the free-to-play model is by offering the game (or parts) for free and giving players the option to get access to additional content or levels by upgrading to a premium account or paying a monthly fee. The level of "free" differs from game to game, thus sometimes the user can feel they need to upgrade to premium user in order to fully enjoy the game. Besides adding to the entire game experience, some of the content also aids with keeping the users in the game.

In-game Advertising

The delivery of advertising into games has been facilitated both by the new generation of application stores, by digital advertisers (i.e. Google AdSense), and more recently by mobile operators as well. Integration is similar to the insertion of advertising into web pages.

Google has taken a major role in this space not only in its own Android Market but its advertising technology can be used in any app (Android or not) distributed in any application store.

The problem is how game developers can use the content provided by aggregators, as Europeana, to build a freemium/fee-to-play mobile game.

Of course the world of serious games is probably the easiest way to reuse a historical and cultural content, but there are also freemium or F2P games which can use historical content for the game setting: for example EasyTech produced several series of games as "European war", "Glory of Generals" and "World Conqueror".

Those mobile strategy games are based on events of European history and use historical content and images inside the game. All of them give the possibility to purchase items and upgrades inside the app in order to grow faster or get additional good.

Those are just examples of how historical content could be used not only in Edu-games.

Channels

Most publishers are now developers and most developers are self-publishing. Despite the fact that developers are now self-publishing, the publishing of mobile games has become more complex than it was in the time of the operator dominated market: the role of social networks and other viral marketing tools are becoming more important and many techniques and services to boost the number of downloads of games are emerging.

7.2.2 Overall considerations

Freemium as a business model originated in software services, and to a large extent it is still in that area the model works best when not combined with other business models. Even in the digital services sector the model is nowadays often combined with a subscription model, whereby you pay not once, but several times over the course of your use of the service.

In games, one popular and often successful combination is that of adding ads to the free version that are removed in the paid version. This adds to the revenue stream by having an indirect income from free players. Combining the freemium model with various other, similar models such as supporting micro-transactions for virtual goods rather than just for features and content is also an option. That is to say that is possible to pay to purchase small boosts of customizable options in-game independently of gaining access to a full paid version. Often the paid version offers a discount on these micro-transactions.

The strength of the freemium business model is that it generates trust and offers a very low bar of entry for players. The weakness is striking the perfect balance that ensures a high MAU through a great free product, a high CR through clear and desirable benefits from upgrading, and a steady ARPPU through either constant flow of new paying players or constant upgrading.

Combining the model with ad sales minimizes the problems of a middling CR, while the addition of micro-transactions for virtual goods supports the ARPPU by giving more options for already paying customers without the heavy upgrading needed by a pure freemium model.

In conclusion, the freemium model can work very well on its own, but it truly shines in conjunction with other free to play-based business models.

8 OPEN AND HYBRID PUBLISHING

8.1 GENERAL OVERVIEW OF THE AREA

8.1.1 Introductory overview & key definitions

The world of publishing is undergoing deep changes. The rise of new devices has determined new ways of consumption in reading and the spread of different approaches to reading. At the origin of this change there were computers, and then came notebooks/laptops, then smartphones and tablets. Last but not least came the e-book reader, first with Amazon Kindle. E-books, tablets and smartphones, more than online newspapers, are highlighting the importance of developing cross-contents. At the same time, photography, video and multimedia files are becoming more important.

E-books are only part of this new ecosystem of writing, publishing and reading, as are publishers and retailers. They represent, in Europe, a few percentage points of the revenue of their national book industry. In the current battle over the emerging e-book and digital publishing markets, it is important to understand a variety of dynamics between players. For Penguin Random House and for Hachette Livres (with revenues from publishing at \$2.8 billion), turning front-end backlist titles into e-books, and expanding their access to international markets on a global scale, it is a key priority.

The task differs instead for companies such as Apple or Google, for which the digital transition and global outlook in book publishing will be only part of a much broader picture, as they distribute all kinds of digital media content, not just books.

In present days people want to read in any format – anytime – anywhere. This changes completely the traditional supply chain, creating a deep degree of differentiation in methods:

1. Publisher ⇨ Agent ⇨ Author
2. Agent ⇨ Author ⇨ Publisher
3. Author ⇨ Agent
4. Author ⇨ Publisher
5. Author ⇨ Self published

This means that there is space to exploit new market opportunities through open and hybrid publishing, especially in the digital creative industries.

Open publishing is an innovative way of intending contribution creation and many people are showing interest for collaborative writing (e. g. Wikipedia). The main area where open publishing is used is news, but it is not the only one sector. Also teaching and academic uses are considered in this type of publication, and even entertainment stories could be written in this new way of content-creation. The Internet allows free online platforms to operate that are able to give efficient results to all contributors, avoiding the use of filters normally adopted in traditional industry publishing sector. Every participant helps the editorial phase, thanks to the decisions that should be clearly delineated during the whole process. This kind of work is strictly characterized by a constant creation of contents. Open publishing differs from open access: open

access publishing is the process through which contributors are able to get access to contents (e.g. news or academic) published in open journals, without barriers. So, open publishing is a wider concept that somehow involves open access publishing.

For hybrid publication, we intend the new forms that merge together the opportunities offered by multimedia material. So then it is not to be considered only the written part, but even audio, video and external link opportunities should be exploited during the process of hybrid publishing. The customers of this kind of service could find here the opportunity to receive bonus contents through, e.g. a registration code, that will allow them to download complementary assets like tips and hints or hidden contents. Self-publishing (e-books, print-on-demand) is gaining interest: people and firms could now bypass all the standard procedures of editorial publishing focusing on online opportunities, with totally different business models. Just for clarity, hybrid publication is not to be confused with hybrid open-access journals that refer to journals where only some of the articles are open access. This process requires the payment of a publication fee to the publisher.

Self-publishing is an important trend that implies the possibility to be an author without being forced to exploit the opportunities given by an intermediary (the editor). Every person could write their own book, or e-book, print it on-demand and independently or simply as an e-book, that is readable only through e-reader, tablets or digital devices. Publishing an e-book allows authors to produce documents integrated with multimedia files, giving the opportunity to enlarge the variety of those files. An increasing number of companies are offering a wide range of services, collateral to the core business, which comes from a range of tools, from marketing to publishing instruments.

8.1.2 Market size and potential: macro-data and key figures

Both in US and in EU there is evidence of a growing interest in reading virtual contents. Even if paper has not yet been substituted by e-contents, most people who are aged under-50 are exploring day by day the opportunities of reading e-contents. This is fuelled by the constant growth in sales of e-devices.

Only a few book markets are large enough (US, UK, Germany, France, Spanish and Chinese language markets) to form centres of gravity in their own right for distinct domestic developments. These markets reflect their own national cultural traditions and identities, especially dealing with creativeness and own different cultures. Such markets foster the necessity of domestic players for both publishing and retail. Examples include the emphasis on the national book culture in Germany or France, with an almost unanimous consensus in the professional book communities there on the value of the book and reading and, as a result, calls for price regulation as well as strong defence of their book cultures against what is defined as external interference.

8.1.3 Forms of consumption

We will first look at the US industry and then shift our focus to Europe.

USA

According to data in a recent research conducted by Pew Research Center, during December 2011 17% (12% considered by OPA) of American adults (16+) declared that they have read an e-book. After a couple of months, in February 2012 the same path showed a growth to 21% (23% considering data coming from OPA, which also tells us how 60% of users are male, 48% are 18-34 years old and come from households with above average incomes). Up to now, in January 2014, this percentage refers to 28% of people. The trend is showing a constant growth in this sector. At the same time, about seven in ten Americans reported reading a book in print, up four percentage points after a slight dip in 2012, and 14% (12% considered by OPA) of adults listened to an audiobook. This trend is showing interest in this kind of activity, even if it is still not become a standard. The rise of e-reading is part of the story of the shifting from printed to digital material that is nowadays taking action. American adults, interviewed by Pew Research Center, demonstrated how they were strongly interested in digital reading, as 43% of people read, in 2012, at least an e-book, magazine, journal and/or articles in digital form. However, this does not mean that e-reading is replacing the traditional printed type of reading. The same research in fact refers that 88% of those who read a digital book were also reading at the same time, printed books, and only 4% of readers are e-book only. It must be noted that approximately 30% of people own at least one e-reader device like a tablet or e-book reader and e-book reading devices are spreading through the population. Some 42% of adults now own tablet computers. Overall, 50% of Americans now have a dedicated handheld device—either a tablet computer like an iPad, or an e-reader such as a Kindle or Nook—for reading e-content. Furthermore, the research found that 92% of adults have a cell phone (including the 55% of adults who have a smartphone), and 75% have a laptop

An important focus should be on the fact that those who own an e-reader device read more than those who were involved more in traditional reading process: 24 e-books were read by digital consumers compared with 15 books read by traditional customers. One answer could come from the portable easiness that e-reader provide to customers. Every person could handle many e-books in a small device, instead of normal books. 30% of those who read e-content say they now spend more time reading, and owners of tablets and e-book readers particularly stand out as reading more now. Some 41% of tablet owners and 35% of e-reading device owners said they are reading more and more often, since the advent of e-content. 42% of readers of e-books said they are reading more now that long-form reading material is available in digital format. The longer people have owned an e-book reader or tablet, the more likely they are to say they are reading more: 41% of those who have owned either device for more than a year say they are reading more vs. 35% of those who have owned either device for less than six months who say they are reading more. In a head-to-head competition, people prefer e-books to printed books when they want speedy access and portability, but print wins out when people are reading to children and sharing books with others. E-books are then preferred to printed books when people are looking for:

- getting a book quickly;
- while they are travelling or commuting;
- a wide selection of titles.

The ease of accessing information and of payment for a title is growing, enhanced by the nature of the devices, with everywhere and every time connection. 61% of e-reading device owners confirmed that they bought the most recent book they read, against the 48% of all readers. E-book is limiting the process of borrowing titles, as people seems more willing to directly buy the issue instead to get it borrowed by friends, libraries or family members. This is a huge potential for the market. The e-reader devices owners are then more interested to get information for the title in question, from Internet bookstore, more than from friends (56% vs. 34%), this lead to an important attention to Internet information distribution channels more than a *vis-à-vis* comparison.

When looking at English language books (mainly US and UK), we see that by the end of 2012, over 1,000 e-book titles had been estimated to account for sales of more than 25,000 copies each. Major trade publishers have reported a market share for e-book revenues around 30% in 2013. E-books helped overall trade publishing to increase by 3.3%.

On the whole the English language publishing industry, like no other in the world, has embraced new reading formats. For readers, e-books came as a natural and permanent choice in addition to printed books. Publishers have effectively responded to consumers' fast-growing acceptance of new reading devices by constantly redefining and expanding new concepts for books. Even if there is a the decline in print publishing, according to the American Association of Publishers (AAP), based on data from September 2012, the market reflected the trends of a publishing growing interest.

United Kingdom

The British book market has seen, in recent years, the explosion in availability and popularity of e-readers and tablets, along with a corresponding increase in the publication of e-books. This has conduct to a growing demand for downloadable e-books in public libraries. As a consequence, more of the 71% of British libraries have introduced e-lending in their services or at least plan to do so shortly.

In 2011, sales of books by UK publishers reduced its rate by 2% compared to the previous year, with a 5% decrease in "physical" book sales and a 54% increase in digital sales.

One year later, in 2012, e-book sales doubled their volume in the UK, forming the online market worth around 250 million pounds. Just to give an idea of the importance of this trend, it is essential to underline how Amazon alone accounts for 21% of the British entertainment market. This scenario brought as a consequence some new coalitions of (primarily) brick-and-mortar book chains (Waterstones started selling Amazon's Kindle devices, Kobo has a partnership with WHSmith stores, Barnes & Noble will sell its NOOK across John Lewis, Blackwell's, Foyles and Argo stores, as well as online, Tesco acquired the e-book platform MobCast).

One-third of British people owned one e-reader in 2012, and 40% of them were Amazon Kindle. But tablets in recent years have more than doubled their market share (approximately 12%) among readers of e-books. Most remarkable was the rapid growth of total consumer digital sales (consumer e-books, downloads and audiobooks included), which increased between 2009 and 2010, from £4 million to £16 million. Actually, consumer sales of e-books and downloads account for 11% (from 2% in 2009) of the British book market.

In Europe, the British e-book market is to be considered very close to that of the US, both in terms of size and in terms of growing pattern, thanks to its active performance in digital publishing. According to the PA, about 1 million e-books are available.

At the forefront in digital publishing are academic publishers. The more important are: Taylor and Francis, Springer, Pearson, Penguin, and Bloomsbury.

No pricing regulation exists in UK. Although printed books are exempt from VAT, e-books are subject to 20% VAT surcharge, as printed books are being defined as a product, while e-books are considered to be a service for which the consumer acquires a license instead of just making a product purchase.

Germany

The overall German book market has seen a loss at 1.4% in 2012, after a drop of 2.6% in 2011 and 3.3% in 2010. The strongest decline was seen in traditional book chains, where the loss was about 3.7%. Notwithstanding this situation, Germany can still be considered as a market of relative stability if compared to many other international book markets.

With respect to file formats, e-books in the German market are predominantly offered as PDF or EPUB; an exception is made for those intended for Amazon's Kindle, which are Mobipocket.

If we compare the charts at Amazon for the Mobi format and at Boersenblatt for EPUB, it is clear that the strongest titles in print are getting an additional boost from digital. This boost comes primarily from the three market leaders in German publishing (Random House, the Holtzbrinck group, and Bonnier) combined with a few mid-sized publishing houses (Oetinger or Lübbe). In retail, the traditional chain and independent stores (e.g. Thalia) found themselves on a steadily collapsing path, having lost the 8% in sales over the past decade.

Concerning e-book distribution, these are the main actors competing in the market:

- Amazon, with 40,000 commercial (or copyrighted) German-language e-book titles available by summer 2011 (and almost 1 million titles overall);
- Kobo, entered in the market in July 2011 which has a collaboration with Libreka
- Libreka, announced in January 2012 that sales in 2011 showed an "exponential growth". The 2011 catalog were of about 530,000 e-book titles, of which 57,000 in German language;
- Libri, offers a catalog of 600,000 e-book titles as of year-end 2012, which includes 80,000 titles in German;
- Ciando, independent platform for e-books, with 250,000 currently available titles from about 1,800 publishing houses;

- Sony Readerstore, partnered exclusively with traditional book retailers in Germany;
- Txtr, that currently distributes 700,000 e-books from over 3000 publishers;
- Bookwire, that offers small to medium sized companies easy access to the e-book market;
- KN Digital, a “full-service provider for digital media” (company statement);
- Skoobe, currently lending 20,000 e-book titles from over 400 publishers at a monthly fee of €9.99.

At the end of 2011, the German book market recorded a significant growing acceleration in respect of the previously experienced change in the book industry, and digital developments accounted as a big incentive for this shift. By continuing this unavoidable shift from traditional book retail to online platform sellers, the overall dynamics of the book market in Germany is expected to accelerate dramatically in the coming years.

France

French people up to 2012 were “shunning the e-book”, preferring to go to physical bookstores. The market share of e-books (*livre numérique* in French) was among 2%. That percentage was reflecting a situation of high difficulty for the publishing French industry. In that year online sales counted for 10%, a very small percentage in comparison with UK, US and Germany. But in 2012 in France more than 3million of tablet and around 300,000 e-readers were sold, showing a considerable interest among consumers for digital content. In 2013 only 14% of adults had read an e-book, and an 8% declared that they gave it thought at least. Amazon, Apple and Google grew in the same year by a 3%, while specialized bookstore as Fnac or Virgin declined by 2 points in market share. By the same research it is possible to define French digital market as in an embryonic state, even if there is space for defining the market as ready to embrace digital content. This vision is stated by the trends that are showing a constant, even if slow, soar of the attention to online opportunities. This slow change seems to be linked to the strong traditional approach that French people shows to printed books. In fact, not everyone is gaining share on the market, as Virgin case demonstrated. Richard Branson’s French division faced bankruptcy in January 2013, even if provided into the market 150,000 titles and was able to deal with Amazon for selling the Kindle. The distribution in France was dominated by local platforms, as Fnac teaches, having a partnership with Kobo, but even Amazon was able to penetrate the market through a strategy based on selling French language book in their Kindle store. Today there are several players able to compete successfully into the market:

- *Numilog*, acquired by Hachette in 2008, that provides more than 150,000 titles in digital format;
- *Eden Livres*, an independent publisher, that offers around 5,000 titles mostly in epub format;
- *Epagine*, a provider of 177 publishers and bookshops specialized in e-books;
- *Fnac*, that became a multinational with additional ventures in Europe, South America and Asia, that today offers more than 80,000 titles in digital format;

- *Booken*, a 100% digital library and more than 40,000 titles available in digital format.

Italy

In 2012, the Italian book market was dealing with a difficult economy, resulting in a -7.5% in sales in October. However, this value was considered as an improvement from -11.7% in March and -8.6% in September 2012. Concerning the sales of e-books, there was a strong growth in the same year, approx. €12.6 million, or a market share of 0.9% in trade.

What seems to be remarkable in the Italian market is that three publishing companies (GeMS/Messaggerie, Rcs, and Feltrinelli) represent a combined market share of about 30% of Italian trade publishing. In May 2010 these three companies took the initiative to join their forces to create a consortium platform for the distribution of e-books; this platform, named eDigita, claims to offer a solution “*from publishers to publishers, for the emergence and development of books in digital formats*”.

At the moment, the Italian book market size (at consumer prices) is valued €3,408 million with a total of 30,000 e-book titles available from publishers.

Together with the leading Italian online platform for Books (IBS), several international players are competing for the Italian e-book market. To mention some of them:

- Amazon (present in the Italian market from December 2011);
- Google;
- Kobo (in partnership with Mondadori from October 2012);
- Barnes & Noble is expected to set up a localized platform in Italy as well.

The relevant domestic distribution platforms include:

- Bookrepublic;
- Edigita;
- Mondadori;
- Stealth.

Domestic platforms as IBS, Bookrepublic, Bol, Feltrinelli, Mediaworld, UltimaBooks and Hoepli compete as well in the Italian market.

Spain

The Spanish publishing market is conditioned by the fact that Spanish is the primary language for 650 million people worldwide, including a massive number of native Spanish speakers in the United States. However, when the 2008 economic crisis exploded, books exports witnessed a severe drop from the €490 million in 2007 to the 384 million in 2009.

Three big groups define the Spanish domestic publishing sector (Planeta, Santillana, and Random House/Mondadori), together with a big number of small and medium-sized publishing houses. The market evolution, influenced by the recent economic crisis, shows a growth on the digital end as readers find e-books at lower prices on average than the printed ones.

At the moment, the Spanish book market size (at consumer prices) is valued €2,772 million with a total of 48,000 e-book titles available from publishers.

B2B e-book distribution platforms:

- Libranda, a 2010 initiative of the three largest publishing groups (Planeta, Santillana, and Random House/Mondadori) followed in 2012 by Roca Editorial, Grup62, and Grupo SM and Grupo Wolters Kluwer. By the end of 2012, the platform had signed up 128 publishers, representing more than the 50% of the Spanish book market;
- Publidisa (market share: 20%);
- Amabook (market share: 5%. This platform has a strong relation with several Latin American markets like Mexico, Argentina, Chile and Colombia);
- Several more publishing actors are proposing e-book titles (e.g. Maeva and Roca).

B2C e-book distribution platforms:

- Casa del Libro, with a catalogue of 4,458 titles and an estimated market share in e-books of 45%;
- Fnac, with its estimated e-book market share of 25%;
- El Corte Inglés, with an estimated market share of e-books at 20%;
- Amazon Spanish platform, with a catalogue of about 300,000 titles in Spanish language.

8.2 BUSINESS MODELS

8.2.1 Main business models

With respect to business models, three areas emerge as relevant in the publishing industry, starting from the open writing business model that focuses on the possibility given by the collaborative publishing. In the logic of this industry, the natural output will be an e-book that should get value from the hybrid publishing system. Also, one should not neglect the importance of collaborative writing in both terms of marketing and visibility for the educational sector. Multimedia files will enrich the opportunities given by the traditional publishing. This is the reason why some focus was dedicated on the opportunity provided by self-publishing and e-book sales, with their main business models applicable and some examples of those processes. Examples are provided in order to better explain the logic that understates the different business models. This sector is in constant growth, so also provides some examples of firms that operate differently in the industry, without being classified in one of the specific three areas.

8.2.1.1 Open writing business model

One of the reasons for publishing on open access platforms is the peer recognizing of the authors, by colleagues. Community creation started to grow when groups of

people with a shared goal or passion wanted to reach their target or exchange opinion on which could be the best practices in a determined topic. For this reason in academic research joint contributions, drawing upon the experience of several authors, makes the process stronger and also helps with academic recognition. This process continues to grow in importance for the respective communities on a day-by-day basis making it more important when dealing with consistent results in a wide range of activities (Linux, Mozilla, Wikipedia, etc.). In the UK, for instance, higher education will require, from 01/04/2016 onwards, open publication of academic works. Peer-reviewed manuscripts must be deposited in an institutional or subject repository on acceptance for publication. The title and author of these deposits, and other descriptive information, must be discoverable straight away by anyone with a search engine. The manuscripts must then be accessible for anyone to read and download once any embargo period has elapsed [hefce.ac.uk]. The UK is leading the process of open access publication and can act as a trendsetter for a relatively new worldwide phenomenon in the context of open access writing. This opportunity should be highly considered in the pilot activity on open publishing.

There are several options for the ecosystem of writing: single author, parallel writing or sequential writing are the main ones. From the publishers' point of view, a sustainable business model could be the *subscription business model*. In this particular pattern, customers are asked to pay a price in order to receive access to the service or product requested. It is a generic model that is commonly used from websites and businesses in general. It will find sustainability trying to focus on niches of interested people, and long tail argument can sustain the viability of the business.

Collaborative publishing is growing [zwang.com] especially in the US, where the market is shaped into different groups as shown below.

Sub-Groups	Sites	Prod. Volumes (\$B)
Large – Web	1,680	24.4
Med. – Sheetfed	7,560	21.8
Small – Sheetfed	15,680	12.5
Quick Copy	5,000	3.0
Packaging	1,400	1.0

Table 1: Historic Market – Printers

Sub-Groups	Sites	Prod. Volumes (\$B)
Color Separators	5,500	3.3

Service Bureaus	4,200	2.6
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Table 2: Historic Market – Prepress

Sub-Groups	Sites	Prod. Volumes (\$B)
Internet	8,100	37.0
Catalog/Newspaper/Magazine	10,800	34.01
Agencies	15,000	21.48
Design Studios	22,500	86.35

Table 3: Emerging Market – Creatives

Sub-Groups	Sites	Prod. Volumes (\$B)
Corporate Sales and Marketing	58,100	

Table 4: Future Markets – Corporate and Personal Publishing

From a research brought by the World Economic Forum Young Global Leaders the *sharing* and *rental* economies generated \$US3.5 billion in revenue in 2013, and it is supposed to reach a growth estimates on over \$US110 billion in the next few years, demonstrating that a collaborative economy can transform the way we live, work and consume [marketingmag.com.au, 2014]. Even in UK there is significant evidence on how open publishing could grow, especially in the education sector.

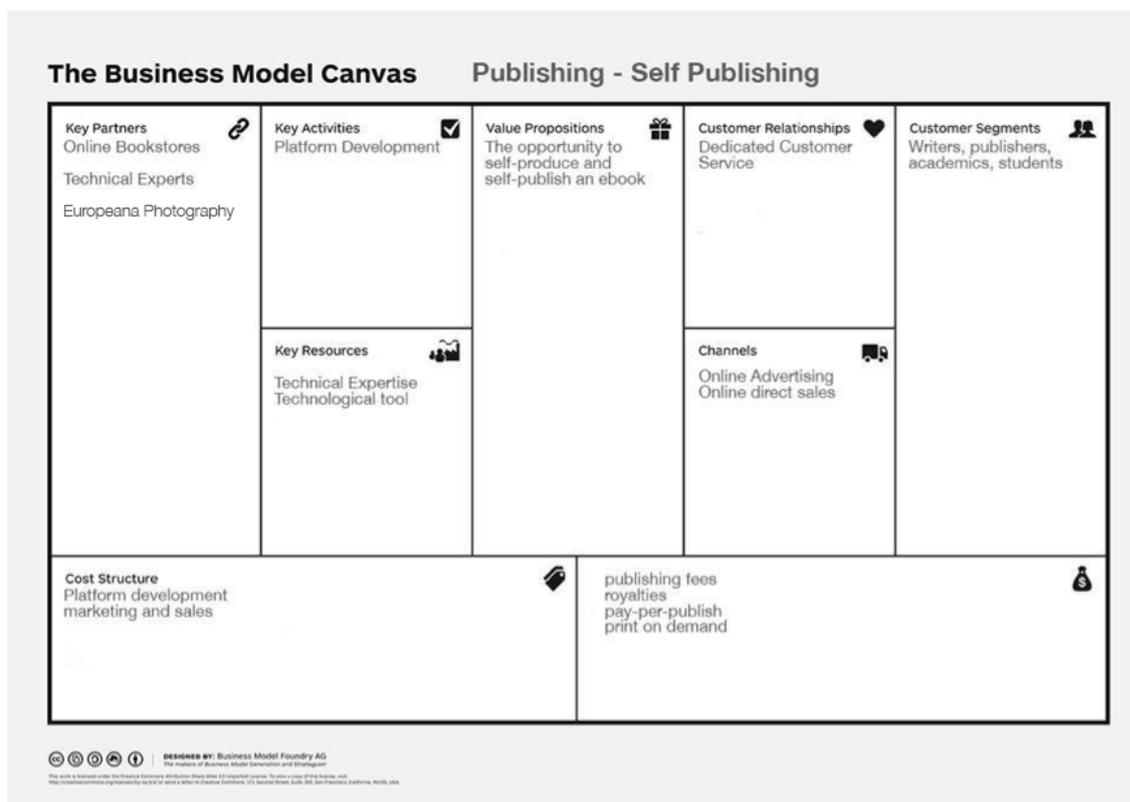


Fig.1: Business Model Canvas for the Subscription Fees

Value Proposition: the content used will be wide and particular, in order to satisfy the needs, and to retain and attract, as many customers as possible. It will possibly be targeted into educational sectors and towards niches of passionate people. The dedicated app could be useful for the exploitation of those value proposed e.g. people could develop their own collaborative publishing through taking images which inspire them, and then creating a business through selling e-books coming from the collaborative writing.

Customer Relationships: customers will be attracted via communities, providing a community manager and through partnership with Universities. There could be the possibility to create and develop different ways of cooperation with those who are interested in collaborative writing e.g. communities of experts (professors) and/or students that could find digital material to be exploited.

Channels: channels of distribution will include app stores, word-of-mouth, dedicated websites and bookstores where people can publish the final output: an e-book.

Customer Segments: people who have interests in writing, publishing their works, both experts and interested contributors e.g. students wishing to deepen their knowledge of a particular argument, by elaborating their own interests.

Revenue Streams: through subscription fees a firm could attract a group of interested people in a particular sector. Some start-ups could be interested in providing tools and a platform for collaborative writing, and the sales of e-books can guarantee revenues based on commission fees.

Key Partners: content provider, Europeana partners that are able to provide digital material that could be used by those writers that intend to publish an output; possibly, but not necessarily, an e-book.

Key Resources - Key Activities: it is of core value to have the know-how and expertise to develop a platform together with the knowledge of experts. The network of experts could comprise marketing specialists and publishers etc.

EXAMPLE OF PLAYERS

- **Andotherstories**

Creates connections between communities of readers and also translators. It is a literary publishing house that works on the principle that great new books will be heard about and read thanks to the combined intelligence of a number of people: editors, readers, translators, critics, literary promoters and academics. They want to be a home for such collaboration. The business model is the yearly subscription.

- **Booktrope**

Allows a writer to get in touch with experts like editors, proofreaders, book-managers and cover designer to complete the book, to be published.

8.2.1.2 Self-publishing

Self-publishing is a strong trend that is growing and deeply changing the world of publishing. It enables both the production of an e-book and/or a book, exploiting the opportunity of the print-on-demand process. Many firms are now providing their own tools that provide authors the opportunities to develop, share, publish and earn money with their creations. Even Barnes & Noble, one of the leading companies in the publishing world industry, provided *PubIt!*, a tool useful for people that want to approach the self-publishing process. In the past year, self-published e-book at Barnes & Noble accounted the 25% of the whole offer, a trend that is coherent with 2012 estimates of 20% of the UK market [The Guardian, 11 June 2013]. 18M self-published e-books were bought in UK during 2013 [The Guardian, 13 June 2013], for a value of £59m, over a total value of £300M. Up to 2013, self-published e-book accounted for a tiny proportion of the market, 5% of the 323M total books bought and only 3% of the £2,185M spent on books. In the same research, it is supposed to be increasing the trend of this particular sector: books are falling while e-books are rising, and a possible overtake will take effect not before 2018, said PwC, reaching the £1bn of revenues share. Small publishers in 2013 received revenues by their e-books mostly from Amazon (85%), followed by B&N (4%) and Apple (2%) [www.sellbox.com].

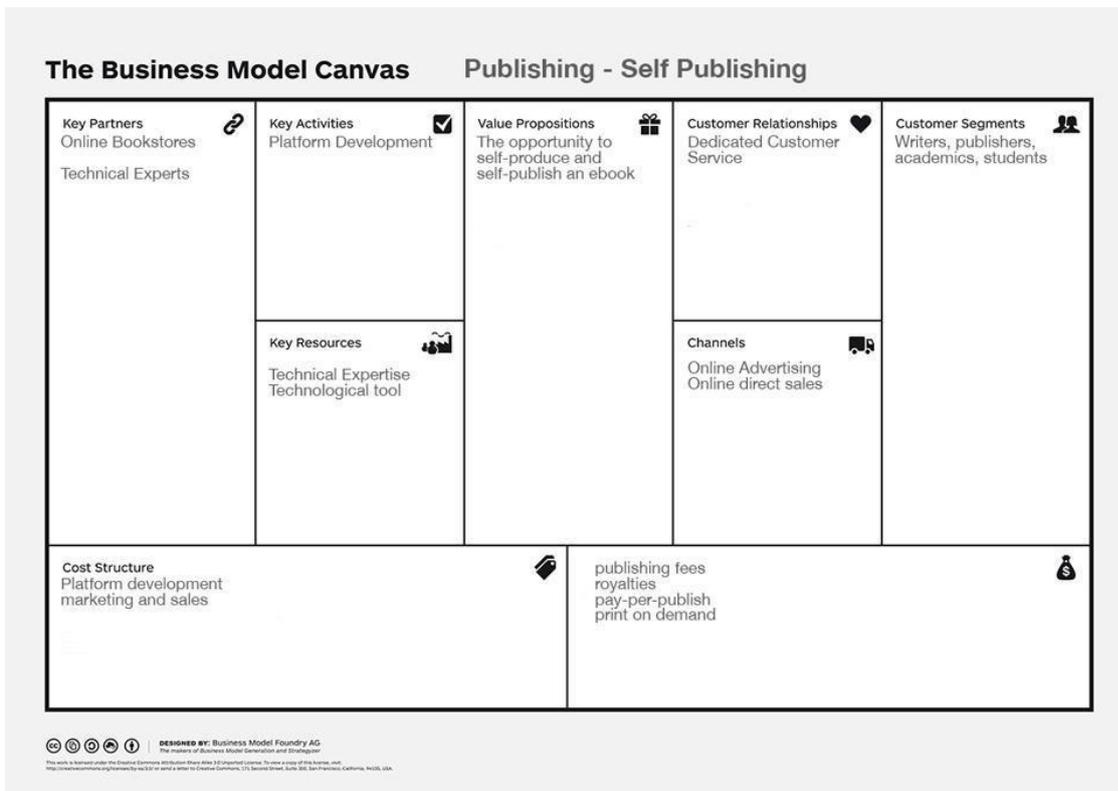


Fig.2: Business Model Canvas for the Self-Publishing

EXAMPLE OF PLAYERS

- 7write**
 7write offers the possibility to for people to personalize their own e-book based on software that allows people to import their document. The business model offered is the subscription. 26\$ for annual publishing subscription including the entry package, that allow customers to assign a book, receive 55% of royalties, unlimited changes options, bookmaker, consolidated reporting and amazon distribution. Moreover there are two other packages, basic and premium (499\$ and 999\$) that also provide global distribution, 55% of royalties, isbn, print on demand and marketing pack, for the basic package. Book formatting, 60% of royalties and cover design for the top-level premium package. Every service can be also purchased stand-alone. Royalties are chosen by authors or suggested by 7write.
- Aquafadas**
 Aquafadas provides tools to publish content on tablets. The digital publishing system is a complete suite, from content design to cross platform analytics. Creating an e-book will costs at least 65\$, creating an app 500\$, a web reader 350\$, publishing a pdf starts from 200\$, with the possibility of enrichments options.

With instruments like those offered by the self-publishing environment it is possible to highlight the importance that creative industries are nowadays gaining. This is an emergent context in which people who are willing to publish their creative works can exploit more opportunities than before, as for example the case explored in the pilot (and the previous experience of 'The Open Book of Photomediations'). Thanks to online publishing it is easier to adopt multimedia files as video, audio, pictures or links in an e-book.

8.2.1.3 E-book sales

Another type of business model is the sale of the e-book. Companies should carefully take into consideration the opportunity given by this topic that is changing the world of publishing. There are several opportunities given by the e-book selling business model. It is possible to sell them via subscription fees, freemium, direct selling on a store, through app selling, in-app purchase.

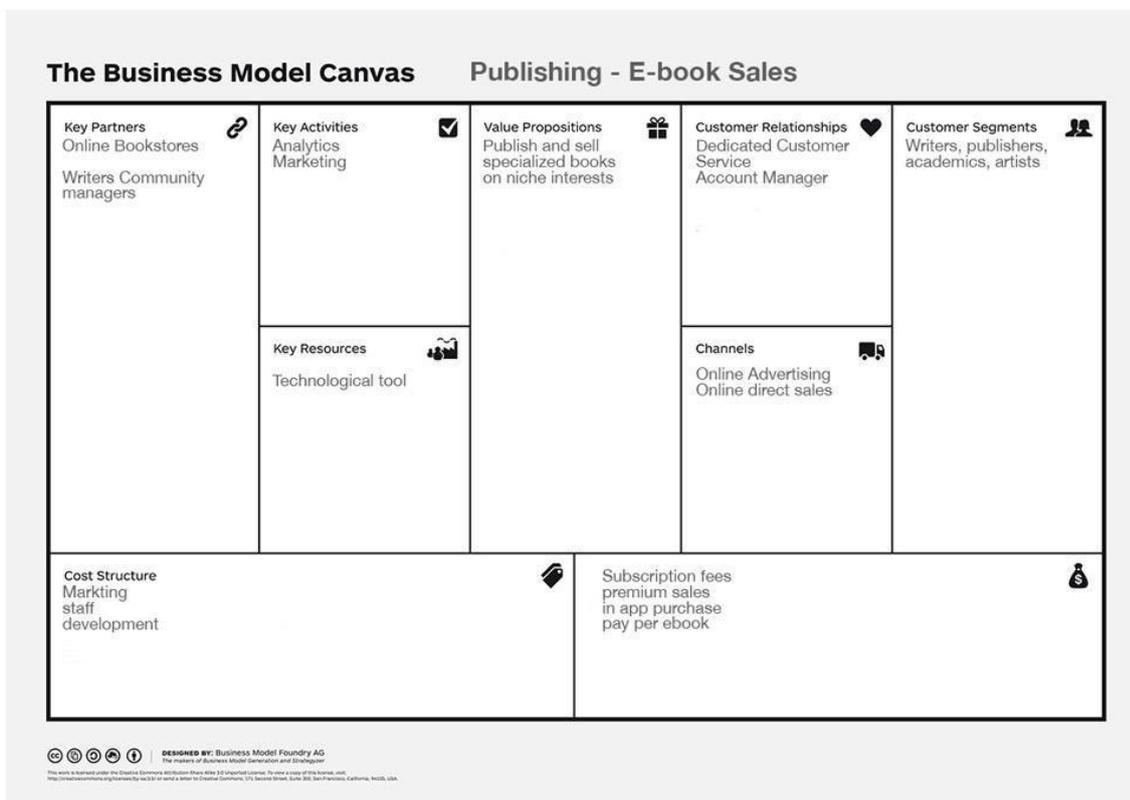


Fig.3: Business Model Canvas for the E-book sales

EXAMPLE OF PLAYERS

- **24symbols**

The firm, as many others in the market, offers a catalogue of e-books for free, with a freemium business model. This means that users have access to part of the catalogue, which is online for reading and can receive ads during the service. If the customer chooses to pay a subscription, that can be annual,

quarterly or monthly, he/she can have access to all the services without being online and without ads. 24symbols then offers the possibility to advertise on their e-books with a specific individuated series of space.

- **Bardowl**
It offers unlimited audiobooks directly streamed on apple devices through their app. Subscription business model for £9.99/month
- **Bookbuzzr**
Provides marketing services to authors that are looking for emerging in the publishing world. Wide range of prices.
- **Bookmate**
With a Bookmate subscription it is possible to read thousands of books using an app for mobile or tablet, or computer. But even building a personal library and watching what friends are reading. Bookmate is also a community builder that has a subscription business model running at 5\$ per month.

8.2.2 Overall Considerations

On top of the analysis provided so far, some other examples can be provided to complement the overview, with respect to players operating in the sector:

- **Almermedia**
It develops new publishing models using the opportunities created by mobile app frameworks. They provide apps, divided by themes, available in the main stores, through which it is possible to make services on every kind of thing, from a map of a mountain to be climbed to mental maths apps, passing through daily prayer of the Church of England. The business model is selling apps, even if new trends are showing that in-app purchase is now becoming more important.
- **Amberbooks**
This firm is primarily a book packaging company that creates illustrated non-fiction books for adults and children and sell them to publishing clients who then distribute them under their own imprints around the world. One of the top areas of expertise is military history. It could be interesting for Europeana as a crossover with Photography pilot. They are now focusing also on selling directly e-book.
- **Beyondthestory**
Offers tools to provide stories with augmented reality with words, images, audio, video, 3D content, and active links, all embedded within the narrative. They sell apps as business model.

9 MUSEUMS

9.1 GENERAL OVERVIEW OF THE AREA

9.1.1 Introductory overview and key definitions

A museum is a collection, public or private, of objects related to one or more branches of culture (art in particular), science and technology. According to the International Council of Museums it is a permanent institution, not for profit, whose purpose is to serve society and its development. It is open to the public and carries out research that mainly related tangible and intangible records of humanity and its environment. The museum acquires them, conserves them, communicates them and mainly displays them for study, education and leisure purposes.

Access to cultural resources is nowadays a wide-ranging phenomenon that puts a large number of cultural institutions in relationship with a vast audience, increasing exponentially the complexity of the liaison between cultural product and its audience. It is a mass phenomenon with an audience that is quite far from that of the first museums, mainly made of aristocrats or upper-class connoisseurs, who had the necessary knowledge to fully understand the works being displayed.

The contemporary model of visit is however too often based on the passive consumption of content and does not seem capable of meeting the learning and leisure objectives.

Furthermore, the audience has new expectations: some are just curious, triggered by broad cultural interests, and looking for serious content but with a light degree of mediation, while others are longing to engage in a constructive dialogue with content and institutions and to play an active rather than passive role during the visit. Others wish to engage in the life of the institution and to be taken seriously while discussing over contents, sharing them and playing an active part on them.

Museums, as a whole, have remained rather unchanged since the XIX century. But this is not the case for the consumers of their product. Over time this has led to a loss of contact between museums and their consumers that brought the latter away from the museum product that have been, at least in part, replaced by other means of communications such as television and later on the Internet.

The main complaints brought to museums by consumers are mainly of two types:

1. the lack of fun: the excessive degree of sternness that has characterized museums, linked to overly rigid rules of conduct in them plus the prohibition of any activity but mere observation (hence the lack of interactivity) led museums to be perceived as “boring” places that are visited only in exceptional circumstances (i.e. shows featuring a few number of highly-known artists);
2. the lack of learning: one of the main functions of a museum should be to lead the visitor to learn notions and new elements about the exposition, so that these can sediment in his/her mind in order to build part of his/her “knowledge”. The forms of consumption of a museum, however, are currently

too didactic and close to the traditional schoolbook in order to be really learned and absorbed by visitors.

In recent years museums, aware of the distance from consumers, have begun to place growing attention on solving the above-mentioned problems.

Digital technologies and in particular mobile technologies are often credited as key engines for change, but the use of these tools in the cultural sector is all but simple. Mobile technology (meaning portable, personal and digital) marks its entry into museums and in cultural institutions about two decades ago. The main change was to shift from a linear tour to a random choice of content, along with the possibility to feature additional contents besides mere description of the works displayed.

Such wave of innovation has seen, in recent years, an important addition with the introduction of new potential, mainly the possibility to geographically locate devices, to navigate the Internet independently of position and to easily install applications and upgrades. This has marked the age of smartphones and tablets that entered the market starting the early years of the new millennium.

Notwithstanding the considerable difference between the early mobile devices and current smartphones, the enhancement of the visit experience through these devices, seen in the context of the historical and technological evolution, does not appear however to be radical. As a matter of fact, the potential of such devices is not fully exploited and the visit model that is proposed is still largely based on the tour, in which the human guide is replaced by the digital one.

New forms of consumption and learning are triggered by intrinsic features of mobile devices such as location and connectivity, being the two major features of location based services (LBS) that can customize contents and activities according to the actual position of the user.

The enhancement of the cultural and touristic experience with the inclusion of information over places is not the only outcome of mobile technology. One must not forget that mobile devices are normally connected to the Internet and to all its contents, including the tools commonly referred to as web 2.0, such as blog, social networking sites, forum and so on.

Such tools allow the visitor to take part in the life of the institution, to express comments and preferences, to discuss over content, share them and even to create them: those who before were mere visitors or target individuals for a cultural product now become capable of playing a new role, being creators or better co-creators of contents linked to that same cultural product.

9.1.2 Market size and potential: macro-data and key figures

The market of museums is an extremely vast and differentiated one depending on various factors such as the type of works displayed, the type of ownership and management, the ownership of collections. According to Eurostat and Egmus data (European Group on Museum Statistics) there are 19,153 museums in Europe. This

very high number, as we will see shortly in more detail, corresponds to a sizable market that is on the other hand quite multi-faceted and complex.

Types of museums

Art, Archaeology and History Museums	Science, Technology and Ethnology Museums	Other Museums	N.C.	Total
5,731	1,537	8,222	3,663	19,153

Table 1: Source: EGMUS - European Group on Museum Statistics - www.egmus.eu

So there is a high variance in the types of museums given that almost 43% of total (53% among those with an identified type) fall under the “other museum” type that include, for example, sites and natural monuments, sites and historical monuments that have the same nature as museums, institutions conserving collections and featuring living species of plants or animals, scientific centres and planetariums, conservation institutes and exhibition galleries related to libraries and archives, specialized museums (whose goal is to research and display to the public all the aspects of a given topic or subject outside the previously mentioned categories – definition according to Unesco) and regional museums (dealing with a given geographical area on the historical and cultural level, or even ethnic, economic and social for a given territory).

In operational terms this translates into the difficulty (or in the limited economic return) to develop vertical business solutions, meaning that they are dedicated to a given type of museum.

Ownership of museums

State owned museums	Local-regional owned museums	Other public owned museums	Private owned museums	N.C.	Total
2,856	6,281	2,131	3,387	4,498	19,153
14.91%	32.79%	11.14%	17.68%	23.48%	100.00 %

Table 2: Source: EGMUS - European Group on Museum Statistics - www.egmus.eu

The greatest share of museums are publicly owned (over 58%), be it at state or local level. This is often a proxy for the limited propensity to change and innovation that is a typical feature of publicly owned institutions.

Number of visits

Total Number of Visits (in millions)	Average Number of Visits per Museum	Total Number of Visits with free admission (in millions)	% of number of visits with free admissions
471.7	29,540	178.0	35.11%

Table 3: Source: EGMUS - European Group on Museum Statistics - www.egmus.eu

The number of museum visits exemplifies the importance that they play in European culture when considering that on average at least 2 citizens over 3 did make a visit (clearly this calculation does not take into account tourists). Also, 35% of visits are free of charge, marking how museums often perceive themselves (and are perceived) as a service to citizens within the essential basket of services that a State provides its population.

Revenues

Total Revenues (in millions)	Entrance fees revenues (in millions)	Entrance fees % on total revenues	Public subsidies revenues (in millions)	Public subsidies % on total revenues
15,974	1,677	9,87%	11,145	71.34%

Table 4: Source: EGMUS - European Group on Museum Statistics - www.egmus.eu

In order to better grasp how museums are a service provided by the state to citizens, and how such concept is common throughout Europe, one should look at the breakdown of museum revenues. With 294 million paid visits, the revenues from ticket sales amount to just € 1,677 million, that is less than 10% of total revenues. Public subsidies play the lionshare, representing 71% of total revenues.

Computers and their use

Museums with at least one computer	For administrative purpose	For visitor's information purpose	With a database for electronic inventory	With Internet access
14,913	14,221	5,062	10,023	13,060
77,86% of total	74,25% of total	26,43% of total	52,33% of total	68,19% of total

Table 5: Source: EGMUS - European Group on Museum Statistics - www.egmus.eu

The development of information technology in museums appears rather high, with 77% of museums using computers and 68% having access to the Internet. However this is mainly aimed at back-office (administration for 74% of museums, electronic inventory for 52%) rather than customer-facing activities (for only 26% of museums consumers can access information technology).

9.1.3 Forms of consumption

The market of visitors (or potential visitors) for museums is quite sizable, being made of all individuals holding specific socio-economic, cultural and demographic characters that go beyond national and cultural borders and are shared by people belonging to different countries and cultures. In particular, the typical museum visitor has these traits [Kelly, 2001]:

- Average age between 30 and 50 years;
- High level of education, university level, mainly in humanistic or artistic domains;
- Belong to high and medium-high segments of the population from the socio-economic standpoint.

Two major features for museums, from the marketing standpoint, is the fact that visitors, on average:

- have visited museums in their childhood years: this means that an interest and passion did materialize since their early years and this has generated later on a drive towards learning and culture in a museum;
- visit museums with the family or other family groups, seeing the museum as a cultural form of social interaction and exchange.

Some studies in the museum consumer behaviour area have shown how the museum visit is not for the consumer a mere cultural attraction on the information standpoint, but it is a true experience that takes into account many aspects, linked both to the individual domain (edu-entertainment) and to the social domain (sharing of values and knowledge with friends and relatives).

The main reason behind a museum visit relates to “some kind” of experience linked to learning, normally described by consumers themselves as “education”, “gaining information”, “expanding one’s knowledge”, carrying out some “valuable” activity, and sometimes directly as “learning” that is often linked to some form of self-realization and to the attainment of personal and self-esteem objectives.

These reasons have been analysed according to many criteria referred to consumer behaviour, but on the whole the behaviour of visitors can be related to three major reasons:

- cognitivist/behavioural, centred upon the drivers of the potential individual consumer towards artistic products and towards the forms of elaboration of information coming from many sources;

- experiential/existential, focused on the role of behaviours, learning and past experiences accumulated by the individual cultural consumer;
- social/relational, centred upon the analysis of the hedonistic and aesthetic/emotional aspects of consumption of museum products as a shared experience.

9.2. BUSINESS MODELS

9.2.1 Main Business models

The domain of services, to which museums belong, must create experiences that engage our upper needs (such as belonging, esteem and self-actualization) in order to be attractive to its own audience.

The ways to create experiences are basically two: to have an experiential core service or to add experiential tools to the service. Museums fall in the first category: visiting a museum is an experience per se, however in order to increase the emotional involvement of the visitor there is the need to elaborate tools that improve and enhance such experience.

The “interactive experience model” developed by Falk and Dierking, [Falk, Lynn, 2011] shows how the experience of each visitor in a museum is made of three contexts:

1. the personal context: includes motivations, expectations, interests, beliefs, previous knowledge and experiences;
2. the social context: includes social interactions among the people belonging to one’s own group with other groups and of the group with staff members;
3. the physical context: includes the institutional rules (do not touch the works, do not take photos, etc.), the architecture and layout of the site and the tools.

These elements altogether contribute to create the experience but, if the personal and social context can hardly be controlled (or just in a limited way) the physical context is a direct emanation of the museum itself and can be managed, mainly relatively to the creation of tools for the user.

Interactivity, connectivity, location, feedback and social media are the tools put in place by technological evolution for museums and cultural institutions. These functions require, in order to be fully exploited, a new mind-set that looks not at the technology in itself but rather at the practices that the technology enables and how these practices can be integrated.

One of the fundamental features of mobile technology is to enhance cultural consumption on site, conserving the centrality of the work on display and preserving the sensory richness that derives from a direct contact with goods, environments and sites.

As a consequence technology enhances and does not replace the visit, as it is the case of virtual museums or of all activities that feature mere distance consumption, paving the way to alternative forms of learning that make direct relationship with the good their own core strength.

Learning on site, situated and enhanced (augmented learning) in fact exploits many peculiarities of mobile technology supporting the acquisition of new competences: portability, guaranteed by small size and weight; social interaction, direct and mediated; context-sensitivity, thanks to the capacity to respond to environmental stimuli; connectivity and then individuality, ensured by the customization of the device and of contents.

The definition of a business model necessarily moves through the definition of its own target market. On the basis of such distinction we can therefore distinguish the business models in two main types:

1. those who target museums themselves as customers;
2. those who, thanks to the support of museums, target end users directly.

Let's explore these two types a little further.

1. The first type of models aim at helping the museum redefine itself in a "digital" way so to provide its users with a better visit, with deeper content, based upon the user's choice and does not follow the classical guided tour. It is basically the case of digital software that provides museums with the tools to create enhancements to the user's visit. For example, they can be used to produce leaflets of a given exhibits, or to generate a digital tour of the museum with links and extensions of the works on display so that an user through his/her smartphone can obtain information on a given work, on the life of the author, on the historical time, on other related works. This type of tools are generally provided in SAAS format (Software as a Service) as it allows also small and medium-size players to access it given that there are no initial investments and thanks to its flexibility.
2. The second type of models directly target the end users and the aim is to improve the knowledge of the works so to make art more pervasive in their own lives so that the museum visit is enhanced also outside the museum walls. This type of models can articulate into two sub-types:
 1. Smartphone App: it allows, through a smartphone, to deepen the visit and the knowledge of the works, of authors, of sites and ages when they lived;
 2. Marketplace: web platform that allows through Internet to put the museum in touch with its visitors who can deepen subjects and gain information on the exhibitions, but also buy the works.

9.2.2 Toolbox in SaaS for the museum to create tools to improve visitor experience

SaaS stands for Software as a Service and represents a new form of providing software, enabled by high-speed connections and the possibility to have more and more complex system distributed over the Internet.

Classical softwares were based on a physical distribution mode: the software was on a CD or on other physical support and had to be physically installed in one or more server machines. It was available as a whole and therefore it could not be used in parts by the end user according to his/her needs: this made it rather inflexible and it was

provided with many “releases”, each of which entailed a new physical support that had to be physically reinstalled in the machines where the initial software was present. The business model is the purchase of software only once and, eventually, of the upgrading releases.

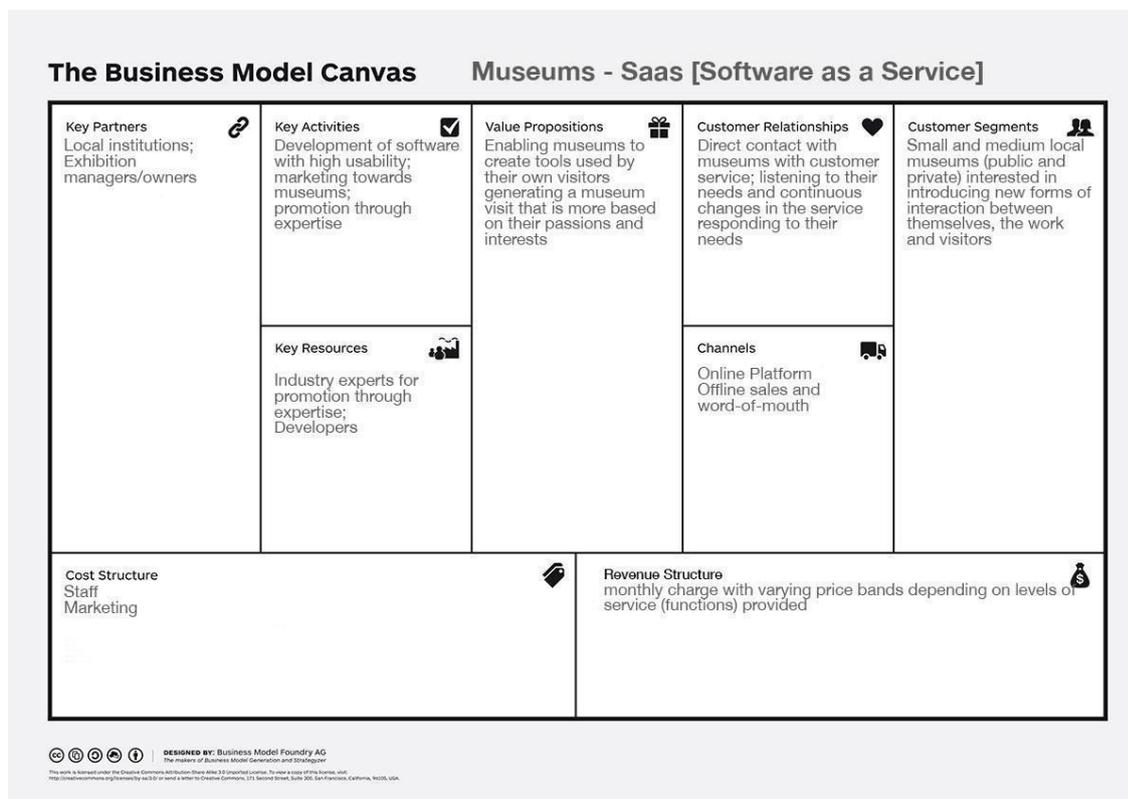


Fig.1: Business Model Canvas for the SaaS Model

Software as a Service is directly available over the Internet and therefore does not need physical support. It can be used on any machine that is linked to the Internet. Given that it is provided via Internet the user can generally choose the parts in which he/she is interested and pay just for them, as long as the software is being used. It is very flexible and the switch time to add or cut parts is very low. In general there is a “continuous development” approach meaning that there are no various releases of the software but it is constantly updated in order to improve its functions. The business model is the monthly fee that users pay for the various parts of the software. The price is paid as long as the software is being used.

This business model that has vastly spread in recent years, is used by companies such as Vesica (<http://vesica.ws/>) and 7Scenes (<http://7scenes.com/>).

EXAMPLE 1: VESICA

Vesica is an English company that has created a web application for museums that aims at more flexibly managing art collections. It allows the upload and catalogue of many types of files (images, videos, audio files), to allow the creation of personal collections and include documents.

Moreover, there are additional functions that are targeted at museum administrators and others that are targeted at users.

For administrative functions there are advanced reporting data, possibility to include legal, financial, insurance, shipping and conservation data for the works.

For functions aiming at creating contents for the user there is the possibility to create offline and online documentation on exhibitions, publish online the whole collection or parts of it.

Pricing is based on a monthly fee depending on the numbers of uploaded works (starting from 0.05£/work). It is a rather interesting approach as it is economically attractive both for small and for large museums.

The number of works that any museums holds, on average, is highly variable depending on the type of museum, ranging from 700 works for museums dedicated to holy art to over 120,000 works for natural history museums. On average we can estimate about 35,000 works per museum.

The number of works on display is however much smaller to the total number of works owned by the museum. In this case as well we can use statistical data that highlight a high variability from a share of 94.5% of works displayed for museums holding up to 50 works in stock, up to 6.4% of works displayed for museums holding over 50,000 works in stock. The extrapolated curve $y = -0.1304 \ln(x) + 1.4777$ allows us to consider, for an average of 35,000 works owned by a museum, an estimate of 11.33% equivalent to 3,966 works on display.

As we don't have dedicated statistics on the usage and adoption of SaaS in the museums industry we'll use general data related to SMEs. As reported by CDW (<http://cdw.com>) SaaS adoption rate between SMEs has reached 21% overall and presents high growth level (more than 50% year on year). This percentage will (obviously) not be related to the total number of museums but to the total number of museums with Internet access (68.19% of total). The result is an adoption rate of 14.32%. We therefore roughly estimate that that about 1 out of 10 of these museums will decide to use Vesica for their purposes (while remaining 90% will adopt other competitor's products or will decide to rely on more simple, but free, software, such as the ones proposed by Google Art Finder or Artsy). This brings us to an adoption rate of 1.43% equal to 274 museums. Calculation of estimated revenues is the following:

274 museums x 3,966 works displayed x £0.05 per work = £ 54,334

The estimates above on the rate of adoption are quite conservative. Also, the revenues are under-estimated as we assumed that a museum would want to upload in the platform exclusively the works on display in a given moment (without exhibition turnover, and therefore work turnover). On the whole, the revenues calculated appear sufficient to support at least a small firm.

We decided to refer to this example because it's in a certain way similar to the toolbox that will be provided as a pilot project. A project like this can easily use Europeana (and its partners) contents inside the platform allowing museums and memorials to add these contents to their work and associate it to its actual arts (painting, statues, documents, etc.).

Since the SaaS model is rarely used by museums we will now discuss the option of a software installed in a private server.

A pricing standard ratio between installed software and SaaS software is 36:1 (according to expert sources). By using this information and the same adoption rate of SaaS we can estimate potential annual revenue.

The SaaS monthly price per museum, as said before, is £0.05 X 3,966 works with a total of £198.3, that we round to £200 for practical purposes. This figure when multiplied by 36 months gives a result of £7,200 and this is the theoretical selling price of the software.

As the total number of museums that will use this software has already been estimated at 274 units, and assuming that this number of customers will be reached in 3 years, we have a total yearly revenue of £657,600 (£54,800 monthly).

EXAMPLE 2: 7SCENES

7Scenes is a SaaS that allows the creation of one's own APP for iOS or Android by defining some "scenes" to which various types of contents can be attached (texts, video, images, audio files and music). These scenes are linked to the physical location. In such way it's possible to generate tours also inside the museums where for any work on display, if the visitor is interested, there are chances to deepen the experience.

The main functions are to create a map, identify the locations where to define the "scenes" and include and edit the contents referred to such locations.

On top of this there are the functions of customer engagement such as gamification (inclusion of games, quiz and questions on each content) and the opportunity to include (in a form associated to each content) some User Generated Content (UGC) that are coming from social media.

Pricing is split into two bands: basic and premium. The basic level costs € 300 per month and the premium one (with additional functions) costs € 400 per month.

If we assume an adoption rate of 1.5%, equal to 287 museums, of which 10% opting for the premium level, we would estimate monthly revenues equal to:

258 museums x € 300 per month at BASIC level = € 77,400

29 museums x € 400 per month at PREMIUM level = € 11,600

for a total of € 89,000 per month.

Also in this case, adopting conservative estimates, there are interesting numbers and there seems to be some opportunity for sustaining a business.

In any case, in general, the key difficulties for SaaS are mainly related to maintaining a positive cash flow, particularly in the early stage of life of the business. Some of the main metrics that must be considered are the CAC (Customer Acquisition Cost = cost of acquiring a customer), the AMR (Average Monthly Revenue = intended per customer) and then the RR (Rate of Return) that is the time it takes for every user to pay back his/her acquisition cost, triggering a positive return for the company.

9.2.3 Smartphone App to deepen the visit

For Apps related to museums and in general to arts and their collection, the model that has emerged almost exclusively is the sale of the app.

One example is the App of the Musée du Louvre that, selling at \$ 1.99, has been downloaded 151,000 times generating total revenues for \$ 210,000 (as App stores, on average, take 30% of revenues)

Some museums do not see the App as a form of direct business but rather they conceived it as indirect, meaning that it aims at enhancing the visitor experience. In these cases the App is completely free. One example of this kind is the App by the MOMA in New York that has been downloaded 467,000 times.

An important element to be taken into account and that can really maximize the visitor experience is the possibility of smartphones in which the App is installed to interact with the outside world so that the App can exploit these interactions.

The most striking example of this kind is the “Journeys of invention” App developed for the Museum of Science in London that allows interacting, also remotely, with over 80 works of the museum generating an extremely immersive visit. This can happen before, during and after the visit. The App costs \$ 9.99 and has been downloaded 84,000 times generating revenues, for the museum, of over \$ 587,000 (App store revenue share = 30%).

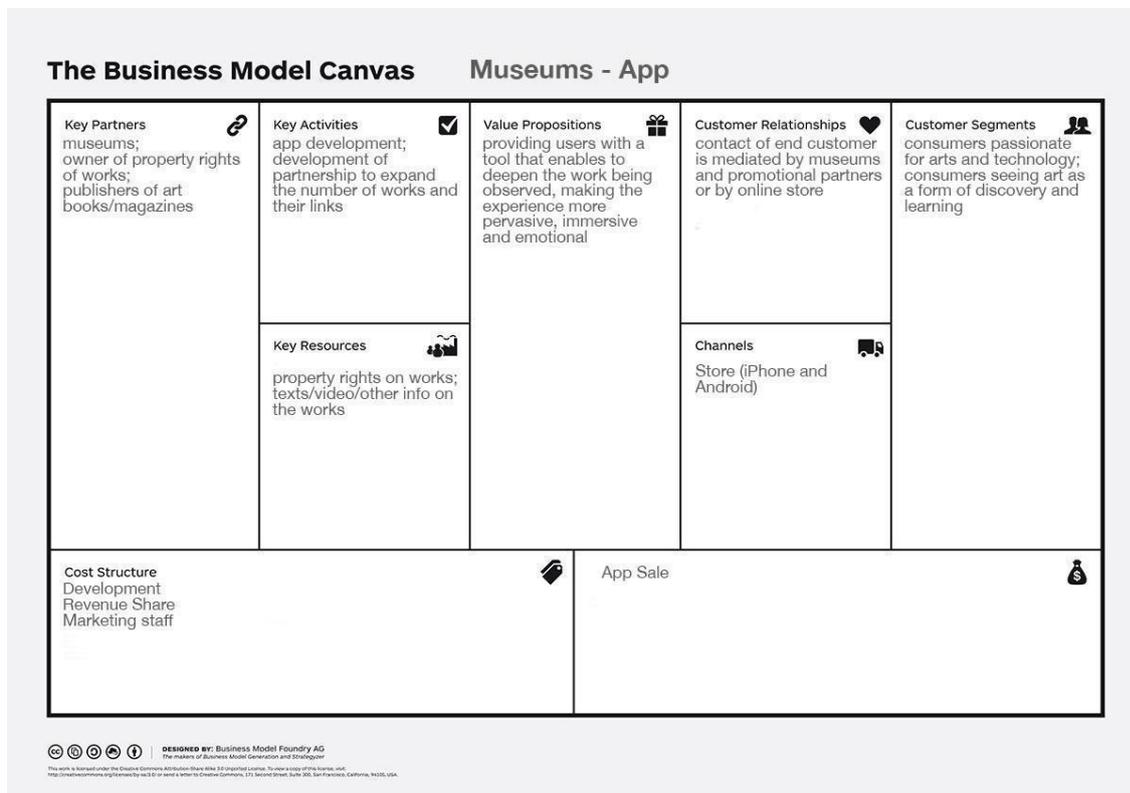


Fig.2: Business Model Canvas for the App Model

One of the most representative companies proposing an App to optimize the experience with art and museums is Artfinder (<https://www.artfinder.com/>).

EXAMPLE: ARTFINDER

Artfinder is an App for discovering art through photos. By using the App visitors of a museum can take a photo of a work with their own smartphone and the App will automatically recognize it providing more and better information on the work, possibly using also more digital and interactive formats that enable a more immersive experience for the visitor.

Through this mobile technology we can also relate and compare works that are geographically very distant, recalling in our smartphone images of paintings or sculptures that deal with the same topic of the one we are observing live, hence simplifying and making possible comparisons in real time that would require temporary exhibitions and movement of works.

Besides the visitor is invited to share images on social networks, to which the App is automatically linked.

Artfinder is also a marketplace for the sale of works of young artists and for private galleries.

Artfinder is a free App that has been downloaded 51,000 times. It was among the best Apps in 2013 and #1 on the Apple marketplace.

Revenues are generated by the sale of works. We estimate a conversion rate (ratio between visitors who buy and total visitors) equal to 0.6%, standing between 1.17%, international average of a standard e-commerce site and 0.03%, average “extreme luxury” e-commerce websites. With that conversion rate an initiative like Artfinder, with an average of 170,000 visitors per month, should generate 1,020 conversions that, with an average price per work of \$ 426,50, creates a total estimated revenue of \$ 435,030 per month.

Artfinder, or, at least, his App looks extremely similar to Blinkster. External content for this kind of app is necessary therefore Europeana content use, in this case, is extremely clear. The app producer need to link external content to art already in the museums or in the specific exhibition. An easy access to an external database will be definitely an important asset.

9.2.4 Marketplace for expanding outside the museum physical space and to purchase works of art

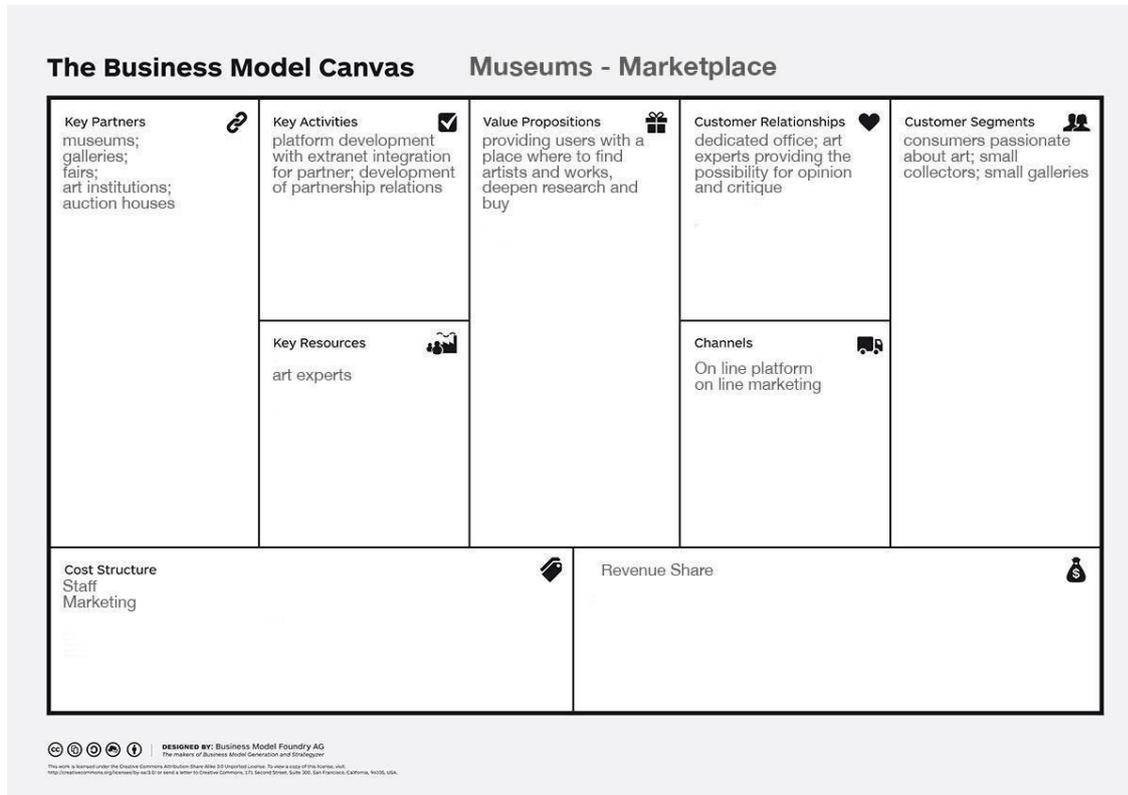


Fig.3: Business Model Canvas for the Marketplace Model

All economic industries have undergone important changes since the diffusion of the Internet. One of the most relevant changes has been the democratization of sales that is the possibility for anyone holding an object somewhere in the world to sell it in a fast, effective and efficient way across the globe. But to allow buyers to reach sellers it is necessary to have an intermediary that allows to group sellers according to common themes.

This is how and why marketplaces were born. As a matter of fact they play between the buyer and the seller to enable the transaction. There are numerous examples: Amazon did it with libraries, eBay for auctions among private consumers, Booking.com with hotels, and Apple itself with iTunes did it for Apps for the iPhone and iPad.

Art is no exception and one example in such sense is Artsy.

EXAMPLE: ARTSY

The mission of Artsy is to make world art accessible to anyone has an Internet connection. In brief terms, it is an online platform for the discovery, learning and collection of art, with very vast collections (over 140,000 works by over 25,000 artists) coming from the major art fairs, galleries, museums and art institutions.

The prices of the works sold vary considerably and can attract anyone's interest. They range from under \$ 1,000 up to over \$ 1 million.

Artsy also provides the opportunity not just to directly get in touch with the seller, but also to discuss over the work with some specialists willing to reply to questions over the work and the artist. In such sense Artsy becomes a great tool of democratization of a complex and articulated topic such as art.

Moreover, Artsy allows museums to exhibit their own works in the platform, without necessarily putting them on sale. In this case the aim is just for education, inspiration, study and reference.

Artsy is currently partner of over 200 of the world's most prominent museums, foundations and institutions, including the Guggenheim Museum, J. Paul Getty Museum, British Museum and Musée de l'Elysée.

The services offered to institutions include the promotion of exhibitions, collections and programs, plus the sale of limited edition works through the e-commerce platform, besides the possibility to organize charity auctions by using the web platform.

Partners also have access to a complete suite of sale and marketing tools, including the possibility to upload an infinite number of works in the platform, a dedicated profile page, the promotion of exhibitions and fairs, as well as the possibility to carry out email marketing campaigns.

Besides marketing tools, the platform also provides partners with a set of back-end management tools that support inventory management and facilitate interaction with users and sales. These include a Content Management System (CMS) tools allowing partners to maintain direct control over images and texts related to them in the platform, the management of their contents also on Artsy Folio (the iPad application), document management.

Artsy has a base of registered users of over 250,000 people from 186 countries, with over 4 million unique visitors.

In such case we tend to use different conversion rates than Artfinder, since Artsy proposes art works that are much more exclusive and with a higher price, entailing a more complex purchase process. All this translated into a lower conversion rate that we can assume, as for other players in the "extreme luxury" segment, at 0.03%. If we combine this ratio with an average price of works equal to \$ 12,254.40 and an average of 987,000 visitors per month, we obtain revenues in the order of \$ 3.7 million per month.

9.2.5 Overall Considerations

The museum industry has been facing many challenges over recent years.

On the one side, relying mainly on state funding, museums have seen their revenue streams seriously decrease as states, in the aim of facing the last 7 years economic downturn, decided to disinvest in museums to sustain economic growth (or, better, slow down economic decline).

On the other side their historical lack of innovation has slowly, but constantly, widened their distance to their customer's needs, and this brought to a constant decrease in visits and interest in their offer.

But those two facts have a positive side: museums, now, strongly need to innovate and better follow their customer needs.

Companies and start-ups have noticed this need and they started responding to it: several companies are now introducing new products on the market that, if well used, will finally bring museums abreast of the times.

Some projects can be seen as threats by other companies in this industry. One example is Google Art Project: it has depth (many instruments, very precise, a lot of contents), has a high level usability (sometimes seen as ease of use even for non-digital savvy people), and, also, a very strong brand name. But, as Google has already showed us in many industries, it can be seen also as a partner, normally enhancing, with his projects, direct websites and apps, basically thank to the so called “billboard effect” (wandering in Google Art Project, people see beautiful art in a beautiful museum, they search for the direct website, surf it and, eventually, sometimes, decide to plan a visit and buy a ticket).

In addition, museums, can, in the near future set up new marketing strategies and revenue streams.

For example let’s imagine virtual, remote visit made with Oculus Rift for a full 3D immersive experience. People will really feel the experience of being in the museum while they, in fact, are at home. In this scenario they’ll not need to travel, or queue for tickets, or struggle, one inside, with other visitors or organized groups. They could even deep their experience using metadata and links attached to every single painting or statue. A product like that could be sold directly or it can give the visitor the chance to directly buy a ticket.

Museums can even partner with a videogame production company to feature their museum in a videogame. Previous examples of similar activities have brought great results to museums. Let’s take the book and the following film “Da Vinci’s Code”. It featured both the Louvre museum and the Leonardo Da Vinci’s painting “ The Last Supper”. After the release of the movie the museum of Louvre has seen an increase of visitors over 10% year on year (+600,000 visitors, with a basic price of 26€ this means +15,600,000€). At the “Museo Cenacolo Vinciano”, where “The Last Supper” is hosted, they’ve seen a so strong increase of visitors that, in order to preserve the painting, they had to limit the visits to 1,000 per day, for a demand that was over 3,000.

Obviously this marketing operation success is directly related to the success of the game.

In conclusion we see that digital technologies can seriously help sustain museum’s business growth and proximity to customer’s needs. Europeana contents can easily fit in this process and help digital companies, agencies and start-up to serve better products to museums.

10 CONCLUDING REMARKS

10.1 RESULTS

The analysis of the six areas has aimed at providing a better understanding of the possibilities for re-use of digital cultural content. As outlined at the beginning, the analysis has required narrowing down the focus to some of the aspects that are believed to be most relevant. What follows is a brief summary of the key aspects for each area.

TV

The world of TV is deeply changing with convergence across multiple devices: tablets, smart-phones and TV are becoming part of a broader ecosystem. The market of connected TV is under development, Europe has around the 20% of the market share, with some exceptions, like Sweden, Switzerland and Germany, where the potential is exploited at 45-50% of market size and Turkey, Ukraine and Portugal that is around 10%. Among key trends second-screen activity (multi-screen) is emerging as more and more people use smart-phones and tablet while watching television (according to data by the 2nd Screen Society between 70% to 80% of English-speaking people do so, and 40% of them do it on a daily basis). The market for second-screen activity is expected to reach \$ 5.9 billion in 2017.

The main business models that can be outlined can be grouped into:

1. Second-screen apps enabling viewers interaction (from social networking to providing additional information on the content to voting). This can imply varying forms of revenue generation such as subscription, free-ad, freemium, revenue sharing, micropayment, profiling, banners, community creations (mainly advertising and e-commerce). The 'Elderly in living room' scenario within the TV pilot could be stretched in this direction;
2. Content production targeting educational sectors, where professors and students can engage and deepen their studies through documentaries. Licensing is the most likely revenue model to be evaluated while producing contents for those communities.

PHOTOGRAPHY

In order to promote the development of business models that can reuse and therefore enhance the heritage of photography, Europeana should look beyond the image stocking market and its related business models. Selling photos, either Rights Managed or Royalty Free is not the only way to reuse Europeana's photographic content.

Many museum institutions are looking for a way to offer tools for a more interactive or appealing experience in museums or during exhibitions (e.g. the Blinkster app in the photography and the museum pilot). Collective storyboarding is another route to enhance the re-use of photographic material (this is the second scenario in the photography pilot). Therefore creative industries, using both content from museums or archives interested in promoting their content and Europeana's heritage, could

develop tools (custom museums app, augmented reality apps) for this wide and differentiated target.

The possibility to give access to content via Europeana through APIs could stimulate the possibility for developers to find new ways to use this content.

DANCE

Dance, as a visual form of art, can strongly benefit from a deep digitization process. Given its visual nature it has the chance of being innovative and cutting edge on the web. As more and more people are getting involved in dance, in a variety of ways, Europeana can become an interesting bridging platform for those who work in this field. The market of people involved in dance can be split into two main segments: professionals (researchers, teachers, choreographers and pro dancers) and non-professionals (dance fans).

The number of professionals can be estimated in the order of 73,000 all over Europe, with the most part in the UK (40,000). All these people can strongly benefit from systems and software that can help them deepen their research and facilitate their creative job.

The dance fans segment has been estimated at around 26.8 million people while considering that approximately 38% of people in Europe have been directly involved in this activity but only 40% of them are 'digitally active' (i.e. they use the Internet for cultural purposes at least once a month). Dance mobile applications are already commonly used and, given that the usage of mobile devices (tablets and smart-phones) is increasing, they are likely to use more and more this kind of software for their recreational purposes.

GAMES

Over recent years the entire gaming industry had been affected by the digital content revolution in uses and business models: disintermediation, deflated production costs and changes in the pricing models. Europeana provides content in terms of images, text, video, sounds and also 3D format, and all of them can be used by creative industries for the development of games. Likewise, many others archives may want to promote their heritage through games.

So the key target for games are clearly video gamers and players, mainly social gamers and casual gamers, but also educational or cultural institution interested in enhancing the learning experience with gamification logics (edu-games) or interested to promote their content through games. The games pilot rightfully aims at exploring the educational dimension.

PUBLISHING

In a world of publishing that is deeply changing, the e-book currently plays a key role. In Europe Germany is leading the trend, while on a worldwide level English language e-books are dominating the market. The space of possibilities in the context of publishing can unfold along three kinds of business models: open writing, self-publishing and e-book sales.

1. Open writing has many possibilities of monetization through subscription fees, targeting the educational sector as universities (professors and students) who are interested in collaborative publishing to discover new opportunities/trends to be discussed in the community of experts. From a student perspective, open publication could be relevant to find resources (examples: Andotherstories, Booktrope);
2. Self-publishing is constantly evolving, despite a reduction in book sales. Here the key aspect is to provide authors with tools to publish, with the output likely to be an e-book possibly enhanced by multimedia contents that can be read via tablets, e-readers, smart-phones or laptops. Marketing and graphic services can be provided as optional/premium offers. Different revenue models can be applied, depending on the type of service offered (examples: 7write, Aquafadas). The 'Open Book of Photomediations' within the pilot applications is an example of this kind;
3. E-book sales are the core of the publishing domain. In Europe, as in the US market, there are several opportunities provided by the e-book selling business model. It is possible to sell them via subscription fees, on a freemium basis (part free part at a cost), direct selling on a store, through app selling and in-app purchase. Examples of this kind are 24symbols, Bardowl, Bookbuzzr, Bookmate.

MUSEUMS

Over the years museums in general have lost appeal to their customer base because they did not manage to evolve their offering (product and services) so that they have been perceived as not entertaining / not instructive enough by many customers. More recently, museums have been trying to use digitization to fill this gap with their users. Content identified through Europeana can play some part in this process. There are 19,153 museums in Europe. The majority of them (approximately 59%) is state-owned and their profitability relies mainly on public funding (approximately 71% of their total revenues), while revenues from selling entrance tickets represent just 11% of total revenues. On the whole, the role of museums in European culture is extremely important and pervasive, and this is especially clear from statistics on museums visits: over 471 millions visits are made to museums in a given year. However, a considerable share of these visits are free (ca. 35%) and this indicates that museums are seen more as a service provided to citizens by a State (or region, or city) rather than a business enterprise. The digitization process in museums is constantly growing: 78% of them use computers and most of them have an Internet connection. What needs to be changed is the attitude as only 26% of museums use this technology to provide customers with information. This highlights that most museums are digitized but only for internal purposes (administration, database) and there is potential to bring such digitization towards their customers.

Two instruments have been highlighted to help them in this process:

1. a tool provided in SaaS mode (software-as-a-service) that will allow them to create, through Europeana's and other's contents, projects that will help their

visitors to deepen their knowledge and to have more and better information on the museum itself and its exhibition;

2. an App so that museums can link resources (videos, photos, documents, provided by Europeana and other content providers) to their own artworks so that visitor can deepen their knowledge on every single piece of art.

10.2 IMPACT AND COORDINATION WITH OTHER TASKS

The market analysis helps by providing a better understanding of the ecosystem of players and potential applications that are involved in each area. While some areas have a specific focus to a rather clearly identified target (this is the case for dance and museums), other areas have a quite broad range of possibilities (TV, photography, games and publishing). In any case, promoting possibilities for re-use must try to take into account what current trends are in place and what leading players are currently doing.

The contents of this document clearly has some degree of relationship with the pilots, that within each area represent a set of choices taken to pursue one or more avenues for reusing content. While the direction of the pilots within the Europeana Space project is already defined, this analysis can support the fine-tuning of some choices and stimulate crosscheck comparisons with what other players in the ecosystem are currently doing.

In parallel, this analysis feeds into the hackathons being developed, as they represent an opportunity both for crowd-sourcing ideas and for raising awareness around each area. Taking into consideration the players in the ecosystem and all consumer trends are useful ingredients while shaping the hackathons' briefs and their follow-up activities.

Finally, this analysis also strictly relates to the monetization workshops, particularly with respect to the examination of different business models in place and their specific features. As the overall challenge is the identification of sustainable avenues to reuse digital cultural resources, much attention will have to be paid both to the choice of business models considered and to the consistency to be achieved across individual components of the business models.

11 GLOSSARY

AR: Augmented Reality. It is a technology that gives a live direct or indirect view of a physical, real-world environment whose elements are *augmented* (or supplemented) by computer-generated sensory input such as sound, video, images or GPS data.

ARPPU: Average Revenue Per Paying User. It is the amount of money you can expect a converted user to pay for your game or service on average.

CR: Conversion Rate. It is the rate of conversions from free users to paying users.

EUROPEANA SPACE: The Europeana Space project aims to create new opportunities for employment and economic growth within the creative industries sector based on Europe's rich digital cultural resources. More info at <http://www.europeana-space.eu/>

HYBRID PUBLISHING: New form that merges together the opportunities offered by multimedia material (video, link, etc.), not exploitable in common books.

HYBRID TV/SMART TV: Technologically integrates Internet/Web 2.0 features into set-top boxes and television sets. Such devices primarily focus on Internet TV, on-demand streaming media, over-the-top (OTT) content and online interactive media.

INTERACTIVE TV: Is categorized by the ability of users to use apps, mobile websites, and social media to engage with what they are watching, being more involved into the show. It should also include the opportunity to interact with others and with programmes in general.

MAU: Monthly Active Users. It is the number of unique players who have logged in and played the game in the last thirty days.

MMO: Massively Multiplayer Online game. It is a multiplayer video game capable of supporting large numbers of players simultaneously.

OPEN PUBLISHING: Allows running online platforms that are able to give efficient results to all contributors, avoiding the use of filters normally adopted in traditional industry publishing sector.

OTT: Over the top television refers to any type of linear/non-linear media content delivered to a television set without using the cable delivery or conventional broadcast methods.

RM: Rights Managed. It is a model of licensing where images are paid for according to the usage required.

RF: Royalty Free. It is a model of licensing where no restriction is placed on the use of these images once the client has purchased.

SaaS: Software as a Service. It is a new way of selling software. Traditionally software needs to be totally paid upfront and installed on a private computer/server. SaaS is a software that doesn't need to be installed locally by rely on a Internet server. It can be accessible from any computer with an Internet connection simply using a username and a password. As the name itself suggests it's not paid upfront but is related on his usage (it normally has a monthly or per user payment).

SELF-PUBLISHING: The possibility of being an author without being forced to exploit the opportunities given by an editor.

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