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Europeana Space Project

Market Analysis For Museum: Extract From D5.1

5th February 2015

This document contains an extract of the main points referring to MUSEUMS from the Europeana Space report D5.1 (Market analysis) circulated in July 2014. For full reference, please see the full D5.1 final report.

1. Introductory Overview

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. Europeana's content can play some part in this process. There are 19,153 museums in Europe. The majority of them (approximately 59%) is state-owned and rely their profitability 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 million 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 customers¹.

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

- 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;
- 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;
- a marketplace for expanding outside the museum physical space and to purchase works of art, providing users with a place where to find artist and works, acting as intermediary between buyer and seller to enable transaction.

The business models are highlighted using the structure of the business model canvas (as proposed by Osterwalder & Pigneur 2010).

2. Business Models: 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 software was 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

¹ For more detailed information on market size and potential, please refer to paragraph 9.1.2 and 9.1.3 of D5.1 final report.

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.

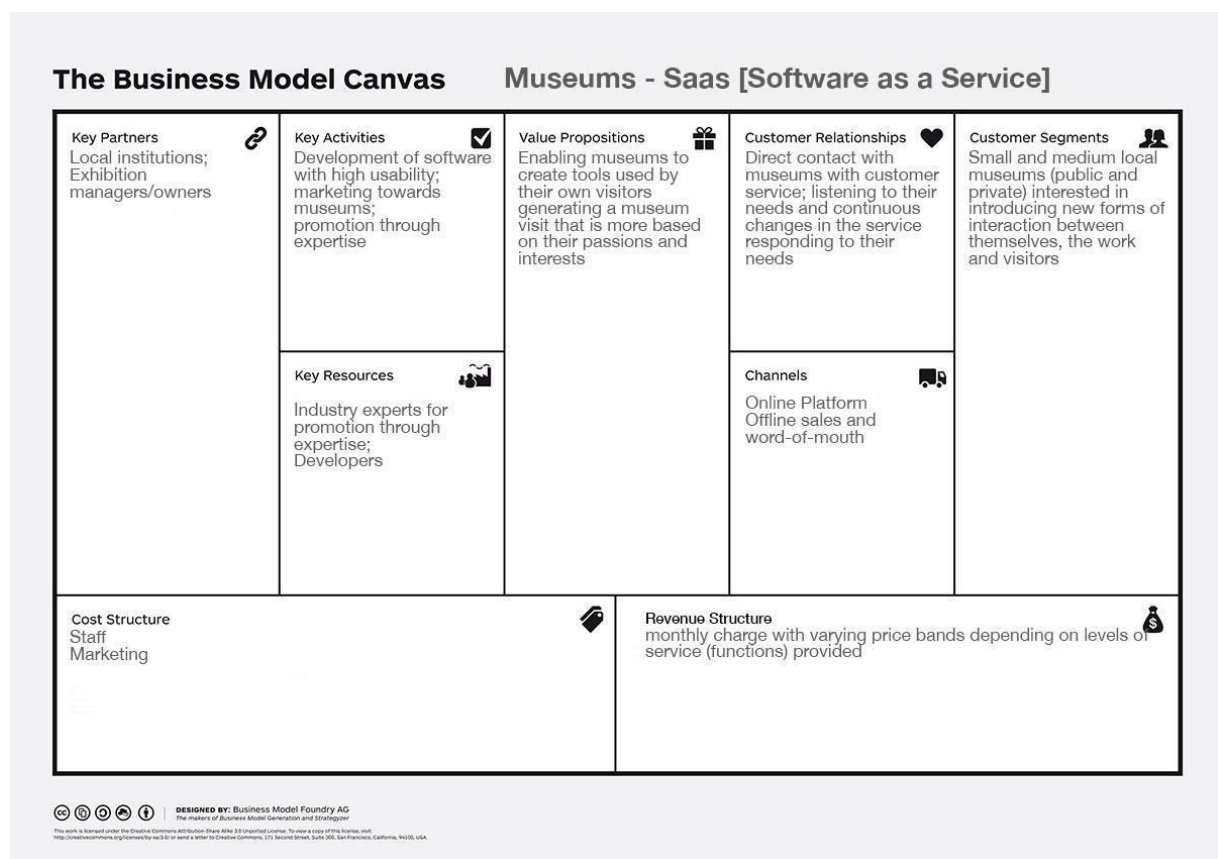


Fig.1: Business Model Canvas for the SaaS Model

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 become widespread in recent years is used by companies such as Vesica (<http://vesica.ws/>) and 7Scenes (<http://7scenes.com/>). 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:

$$274 \text{ museums} \times 3,966 \text{ works displayed} \times \text{£}0.05 \text{ per work} = \text{£} 54,334$$

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. 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).

7Scenes is a SaaS that allows to create 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.

3. Business Models: 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%).

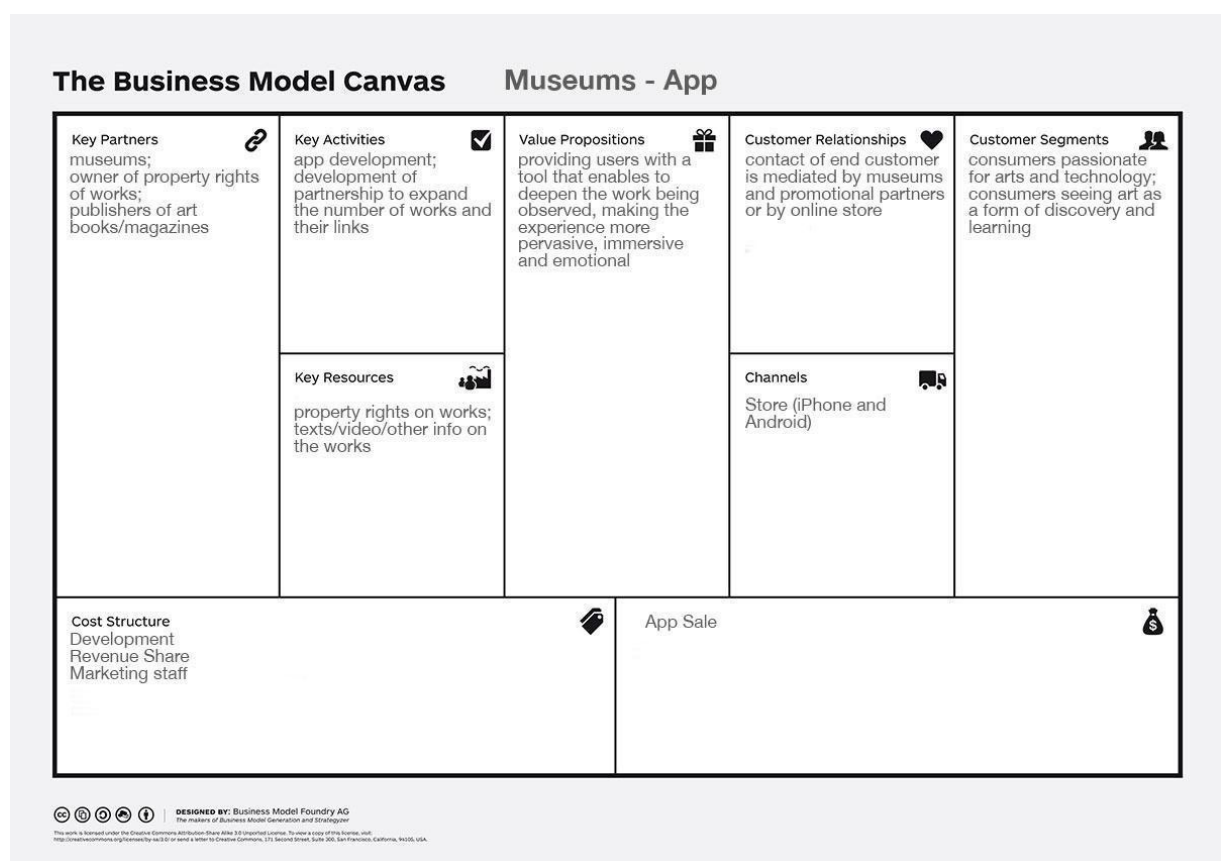


Fig.2: Business Model Canvas for the App Model

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

4. Business Models: Marketplace For Expanding Outside The Museum Physical Space And To Purchase Works Of Art

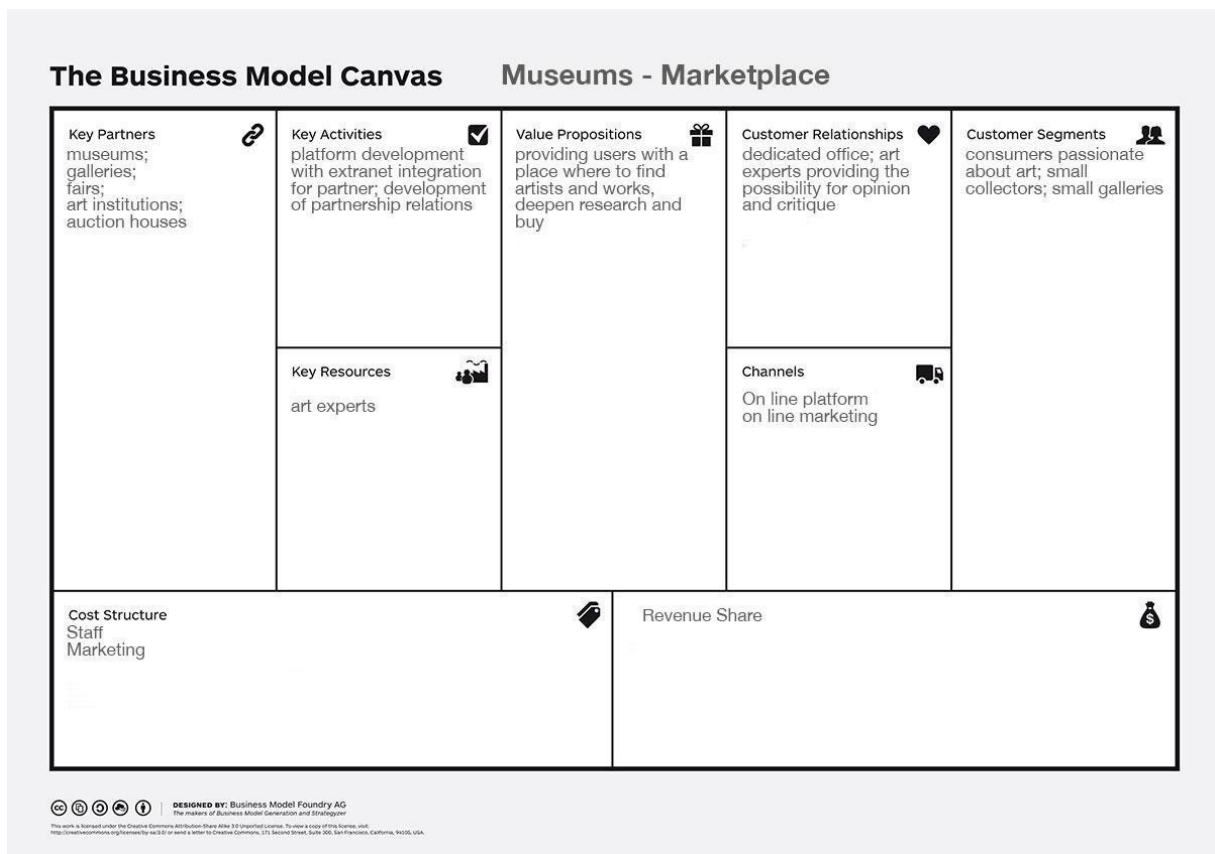


Fig.3: Business Model Canvas for the Marketplace Model

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. 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'Élysée. 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.