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Europeana Space Project

# Market Analysis For Games: Extract From D5.1

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This document contains an extract of the main points referring to GAMES 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 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<sup>1</sup>. The games pilot rightfully aims at exploring the educational dimension.

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<sup>1</sup> For more detailed information on market size and potential, please refer to paragraph 7.1.2 and 7.1.3 of the D5.1 final report.

The main business models can be grouped as follows:

- **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.

## 2. Business Models: Freemium

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.

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

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

Table 2: Percentage of total revenue by player spend category (worldwide).  
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:

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

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:

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

or like these:

$$\langle 35000 \text{ MAU} \times 0,15 \text{ CR} \times \$14 \text{ ARPPU} = \$73500 \rangle$$



$$\langle 6000 \text{ MAU} \times 0,15 \text{ CR} \times \$35 \text{ ARPPU} = \$31500 \rangle$$

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:

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

$$\langle 35000 \text{ MAU} * 0,15 \text{ CR} * \$0,5 \text{ ARPPU} = \$2625 \rangle$$

$$\langle 200 \text{ MAU} \times 0,15 \text{ CR} \times \$35 \text{ ARPPU} = \$1050 \rangle$$

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.

### 3. Business Models: Free To Play

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.

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.

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/free-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.

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.