# The importance of advertising exchange for marketing browser games

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#### **Abstract**

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The article presents the most complete description possible of the basics of the idea of advertising exchange, as well as some more specialised research into the marketing of browser games. As those games grow in number, the importance of acquiring network traffic to attract players rises. Advertising exchange is the least described of all the possible ways to achieve this. First, a necessary set of definitions will be proposed. Then, the costs and aims of advertising exchange in relation to browser games will be discussed. Finally, three methods: direct exchange, partner cooperation, and indirect exchange through toplists will be presented. Their specific aims, advantages and flaws, importance and range will also be analysed in as much detail as possible, with the use of real data. Examples of relevant applications will be presented as well.

As year 2010 ends, there is probably no longer a need to prove the popularity of browser games. The data from GameForge, one of leading producers, confirms this – in 2008 they owned ca. 30 browser games, with 35 millions of registered users as well as 10 thousand new registrations each day (Berlin, 2009).

As the author's previous research (Marszałkowski, 2010b) showed, for every new game claiming several million players, the real meaning of this number is that millions of account creation actions had to be acquired in a relatively short time.

As new browser games are released on almost daily manner¹, one of the most important matters is to achieve enough net traffic. Part of it then leads to actions, here meaning all account registrations mentioned earlier, and part of these in the end will be clients / players paying for virtual goods. Net traffic can be bought in form of paid advertising, or alternatively acquired from social networking² and from advertising exchange. The latter, as it has received perhaps the least writing, will be analysed in this paper.

# Naming conventions and area of research

The term 'browser game' as it was derived in earlier work (Marszałkowski, 2010b) will refer to an on-line game that (1) is played in an Internet browser (2) over a longer period of time, (3) requires an account / logging system that allows to continue playing the game each day; (4) includes massive multiplayer gaming, meaning interactions with hundreds of other players, and (5) is structured like an Internet website.

A similar definition was proposed by Vanhatupa (2010), where the first four properties were included in a different order, the fifth one was missing and another one was introduced: the game is always on, it is always possible to interact with another players' accounts (for example attack them), even while they are not playing (are not logged in). Although the latter will hold for the majority of browser games, there are games where it will not be true: some have interaction events only at certain times (for example matches in sport manager games) while many others offer protection for the players who are not logged in. It should also be stated that the fifth property, missing there, has some importance: it excludes certain flash based<sup>3</sup> games that have the form of a simple web applet, and can be included at the same time in many different flash game portals, as a part of single webpage. This makes their entire marketing completely different.

<sup>&</sup>lt;sup>1</sup> The author observes that we might be facing something close to browser games bubble, as it was for dot-com. Those games are seen as an incredible way to make money, almost without limits – this attracts investors, not aware that relatively few titles achieve a true success.

<sup>&</sup>lt;sup>2</sup> Old methods would be considered as referrer spam, while new, actually meaning exactly the same thing, have the status of invitations in social networks.

<sup>&</sup>lt;sup>3</sup> Or the ones made in similar technologies like Shockwave, Silverlight, etc.

Paid advertising occurs in a situation where there are two relationships: one of the websites displays advertisements of the second one, while the latter pays for being promoted. Hence there are: a completely one-sided display of advertisements and a completely one-sided financial settlement. Traffic and money flow in opposite directions. Both the advertiser (who orders the ad and pays for it), and the publisher (who issues the ad and earns on it), are clearly distinguishable. In paid advertising there might operate an intermediary, but it will not affect the above definition in any way.

In further parts of this paper, advertising exchange will be understood as all forms of cooperation between the web services that do not come under the above model of paid advertising. In such cooperation the transfer of the advertisements displaying, as well as the network traffic transfer, may be one-way, two-way or multidirectional, and at least part of the agreement relies on barter.

There are some common misunderstandings. Link exchange systems, designed to automate such exchange on a mass scale, despite their name are not a form of advertising exchange because there is no transfer of traffic. Links to websites having any actual network traffic appear rarely in them – usually there are only websites prepared strictly for positioning.

The name "ad exchange" is also used like "stock exchange", and similarly means an entity providing the trade of advertisement. There are many interesting open research topics related to this problem, some of them mentioned by Muthukrishnan (2009). However, we are undoubtedly dealing with sales of paid advertising here, and so this subject is not a concern in this study.

It should also be noted that Facebook games lie beyond the area of this research, as their relation with Facebook could be understood as partners' cooperation in terms of this paper. However, they draw a lot of attention, so research of this part of browser gaming is already emerging (Wei, Yang, Adamic, Arau'jo, & Rekhi, 2010; Vanhatupa, 2010).

#### Costs

The main goal for Internet start-ups, where browser games belong, is to reach profitability – basically, the state where Client Acquisition Cost (CAC) is lower than Lifetime Value of a Customer (LVC) (Gupta et al., 2006). This can be helped by achieving better revenues per customer, or by lowering the acquisition cost. One way to achieve the latter is by advertising exchange. The main cost of advertising exchange is net traffic sent in exchange or ad space used by the partners' ads.

Although sending net traffic to other web service might sound scarce it normally can (and often is) done at almost no cost. First of all, as it was shown

in the model of achieving players (Marszałkowski, 2010b), in each of the phases – entering website, registration/starting playing, playing for a longer time – only a part of visitors go to the next step, while most are lost. The latter can close the browser window or press "back", or they may get interested in a partner game ad form and go there. The specificity of browser games should also be mentioned here. As comes from the definition, the game is streched in time – players come back every day (or many times a day) to play, and the portion of play per unit of time (will it be day or five minutes) is limited. When players finish it, again at no cost (they will come to play again), they can be sent to partners.

Ad space in browser game, again due to the specificity of games, is difficult to use effectively. Games have a very high ratio of page views per user, while advertisers tend to use capping – the ad is limited to be shown once or only few times per person. In other advertising models it will not be any better: for example, for a context based model, the game has too limited text that narrows the space for context (keywords) and makes obtaining good advertisements difficult. And on top of all, players passionately dislike advertising in games but are more willing to accept banners of partners, which are often also games.

This all means that opportunity costs connected with advertising exchange are most often only virtual – although there is some traffic sent to partners, and they use some of the ad space, there are no real ways to monetise it efficiently in any other way.

Advertising exchange often will not be settled in money, rather the barter model will be used. Apart from that, in paid advertising there almost always is an intermediary that takes usually 50% of the share. In advertising exchange, there can either be no intermediary, or its share will be in net traffic, which (as was shown before) can be in some conditions treated as free of cost.

The problem with net traffic as a cost to pay is that there has to be some net traffic to transfer – it can be difficult for fresh start-ups. However, on such occasions, if any other form of client acquisition is started – will it be a paid advertising campaign or some social networking – waste parts of this traffic (shown earlier in the article) can be reused for exchange.

## The aim of advertising exchange

The goal of any on-line advertising campaign is to attract traffic to a website that is the destination, where the Internet user moves by clicking the ad. At a higher level, instead of clicks, it will be an action – achieving a customer, or in a browser game: a player. However, the action occurs only in consequence

of the click and redirection to the target website. Thus, in the particular case of the advertising exchange, the aim is to exchange traffic which leads to gain of clicks – and eventually actions. In the simplest version of the mutual advertising the goal is to exchange the traffic without any money cost, using barter.

In partnership cooperation, additional targets appear – sometimes supporting the objective of exchanging traffic, and sometimes even replacing it unilaterally. First of all, such cooperation can provide website's users with additional content or a functionality that was not available at the website (especially when this content or functionality is unique, comes from another industry, and requires too large costs to be provided otherwise than through outsourcing).

Another common goal of partnership cooperation is to share the profits of the partner website: from fees paid by Internet users, such as the costs of premium accounts or commissions, or from the sale of advertising space. This cannot be the only element, however, because the exchange will then simply become paid advertising.

One more objective may be to increase the measured audience and the position among the web groups that have the most visitors. Although this phenomenon will occur only among the largest websites in the country, virtually all of them are using it. This results from the fact that serious errors may be pointed in the methodology of the Megapanel PBI/Gemius survey for the Internet audience – the survey that determines the distribution of the advertising pie<sup>4</sup>. A group including a new website's network traffic will be able to leapfrog other groups in the rankings even if it has not bought the website – just holding its domain name or transferring it to a sub-domain of the main website will do (see for example: Marczak, 2009; Małek, 2010). In this way, this simple element often becomes one of the purposes of advertising exchange.

## Methods of advertising exchange

The exchange of advertising can be done in several ways, which differ in the participants, means and objectives of the exchange. A complete list of such solutions consists of:

- ← direct exchange of buttons, banners and other forms of advertising,
- ✓ partnership cooperation,

<sup>&</sup>lt;sup>4</sup> This objective can be limited to countries where this survey or similar ones are used. Here only the Polish market is discussed; hovewer, the survey under the name gemius Audience is made for most countries in Central and Eastern Europe.

- ← indirect exchange through toplists,
- ← direct exchange via banner exchange systems.

Banner exchange systems will not be addressed in this paper. They were not too popular several years ago, at their best times, and as author' research for his master's thesis (Marszałkowski, 2010a) showed, they are at best in deep regression. The rest of those methods will now be described (with the omission of the details of technical solutions), with reference to their popularity and importance especially in browser games marketing.

# Direct exchange of advertising

Direct exchange of advertising would take place in a situation where two (or rarely more) websites exchange Internet traffic through a fixed, usually simple and symmetrical principle of advertisement display. Direct exchange is the most basic form – it is so often implemented intuitively, or even accidentally, that it became almost too difficult to measure. It is usually an exchange of permanent advertisements, i.e. ones that are displayed for each user at all times.

This solution has a whole list of drawbacks, resulting mainly from its simplicity, and lacks any tools or software to improve them. As it depends only on placing the advertisement in the appropriate place on the website, both optimization, and balancing of the traffic exchange are impossible to achieve. The transaction cost for every single exchange made with this method is high; when the method is employed improperly, the cost can be even higher than any profits. The direct character of the exchange limits the range and effectiveness – it is impossible to cope with managing too many exchanges at a time, and the advertising space on partner websites ends fast.

However, this solution can be profitable, especially on the scale of games smaller than the most popular ones. It is also widely used in independent and non-commercial projects<sup>5</sup> where labour cost is the easiest one to pay.

# **Browser games partnership cooperation**

Under the definition of partnership cooperation comes a more general form of usually bilateral exchange, more often asymmetrical than symmetrical, in

<sup>&</sup>lt;sup>5</sup> Those are especially common in games market, where it can be community driven, and sometimes because of legal issues. Probably for every game that is not free to play emulators are written and free servers, called "private" ones, emerge (perhaps it should be formulated as a universal rule, and validated), and those use advertising exchange on a large scale, as the main source of players.

which there are significant aims other than the transfer of network traffic, and the principles of cooperation are more complex. For the sake of convenience, in future references the sides will be named game and partner, although those are both obviously partners.

In contrast to the direct exchange of advertising undertaken by rather small websites, partnership cooperation is implemented by virtually all major portals, however, they not always cooperate with any browser games. For this method the greatest internal diversification may be observed. The widest variety of ad forms is used in this method, very often prepared for a specific partner: from simple text links, through menu elements, layout elements, to end up with large graphical forms. Numerable solutions that consist of merging parts of the game into partner service occur as well. Whereas in the remaining methods the aims are usually the same within the scope of a method, here the common denominator can rarely be pointed: subsets of a full list of possibilities are used.

Especially interesting partnership cooperation on the browser games market occurs in Poland, where three of the five largest web portals<sup>6</sup> cooperate very actively with browser games. Some of these games are local, while some have non-Polish owners, for whom this market and cooperation with a particular portal is only a small part of the overall activity. The remaining two web portals used to have such cooperation in the past, and whereas at the time when this paper is finalised they do not, some collaborative elements can still be pointed. In every case this cooperation was conducted because of the previously described problems with the methodology of the Megapanel PBI/ Gemius study, as well as because of the necessity of offering customers a possibly complex functionality, including games. In the absence of those, there is some risk that the users who seek them will move to rival websites.

Clearly such cooperation between a portal and a browser game almost always means the creation of a sub-domain for the game in the partner's domain. This cooperation also usually includes the sharing of profits from fees for premium accounts or other similar goods in the game<sup>7</sup>; sometimes managing of the advertising space of the game by the partner is included as well.

To trace the Polish origins, it all began with the transfer of some of the best titles of GameForge label, mainly OGame, to the Onet web portal. At that moment Onet probably had no share in the profits from these games, but

<sup>&</sup>lt;sup>6</sup> There are five horizontal portals with nationwide range: Onet, Wirtualna Polska, Gazeta, Interia and o2. Acording to Alexa Internet (2010), they have the 2nd to 13th place among the most frequently viewed websites in Poland; in Top100, no more such portals appear. All other future reference for "the most popular" websites will be made with reference to data from Alexa Internet (2010).

 $<sup>^7</sup>$  No data about this fact is publicly available, and probably never will be. Author can note, basing on offers sent to his research projects, that basic shares for partners are ca. 30%. For websites with large audience can be expected to reach 50%.

OGame at it best times had a huge number of views and its functionality was regarded as valuable, therefore the inclusion of this traffic into Onet's own domain was very tempting.

OGame was one of the few cases when the game had its own significant traffic, so thanks to this form of cooperation the transfer of traffic from the game to the partner was also possible. Currently, this is done for rather new games, and it is the partner who is supposed to ensure the traffic for the game. At that time, the Onet-Gameforge agreement was exclusive, Onet had no games from other labels, and the titles by Gameforge were only available at this one portal. Now exclusiveness is rare, one game is usually offered to many partners.

Instance	Remarks		
seafight.gamespace.pl	web service belonging to Onet group, traffic is transferred even from main Onet web portal, functionality offers many games with joined logging system		
seafight.wp.pl	partner ad forms aside of logo include even search engine		
seafight.gazeta.pl	project abandoned, partner no longer links to game in any way		
seafight.gry.pl	flash games website with largest audition in Poland		
seafight.wyspagier.pl	second most popular flash games website; the game is shrank to 70% of screen, partner made space to sell advertisements on games page		
seafight.gry-online.pl	most important opinion-forming portal in the matter of games; their browser games reviews page now redirects to own partnered instances for some games		
seafight.joemonster.org	most popular satirical website in Poland		
seafight.chomikuj.pl	file sharing/hosting website; large ad form of partner		
seafight.jakleci.pl	social network service meant to be better version of nasza-klasa.pl*		
seafight.pykam.pl	games platform offered by Gadu-Gadu, most popular communicator in Poland		
seafight.gamespace.pl	web service belonging to Onet group, traffic is transferred even from main Onet web portal, functionality offers many games with joined logging system		

Table 1: Case study of browser game SeaFight partnership cooperation

 $<sup>\</sup>dot{}$  A service for classmates, working as the most important competitor for Facebook in Poland; one of the most popular websites in the country.

The record for cooperation diversification in Poland probably belongs to the BigPoint production – Seafight. In Table 1, the discovered instances of its partnership cooperation are shown<sup>8</sup>. Apart from the additional issues described in the notes, in each case here there is:

- transfer of traffic from the partner to Seafight caused by some form of advertising,
- providing partners' users with an additional functionality within the partner's service,
- ✓ partners' participation in fees paid by players.

At the same time, because these instances of the game are separate for each partner, any transfer of traffic from the game to the partner's website is at best very limited – in some instances even ads of the partner are omitted

Partnership cooperation that is organised this way can even encourage partners to start active advertising of their own instance of the game, not only on their websites but also by paid advertising. When the partner has some share of Lifetime Value of a Customer, it can be calculated that LVC will be higher than Client Acquisition Cost; such paid advertising can therefore prove to be profitable for the partner. And such practices can indeed be observed. This could also be understood as a form of outsourcing.

## **Toplists: range and importance**

A toplist is a website providing a ranking of other websites (usually devoted to one theme) and serving for them as an intermediary in the exchange of advertising. It provides some automation of advertising exchange and significantly increases its range, since many members take part in the exchange through the toplist. At the same time it mediates the exchange of advertising – members of the toplist do not display each other's advertising, only the ones of the toplist itself. The advertisements of those members aggregate on the toplist and the traffic is redirected from it to the users. The share of the toplist for mediation is that traffic flows through it.

The Internet users visiting a member service see a graphical form of advertising. They can get interested in the toplist, click on the link and go to the toplist's webpage. Then they are presented with a ranking of members with

<sup>&</sup>lt;sup>8</sup> The table probably does not cover all cases of the game's partnership. It is very hard to get a method allowing for an efficient search, and during the work on this paper, many instances of the partnership were found accidentally – although not all of them are important enough to put them in this work. Apart from that, some of the partnerships listed are expected to vanish by the time of publishing this paper, and new ones are about to emerge.

their own graphic advertisements and descriptions, often including opinions and evaluations of visitors. Everyone can choose one or more websites which he/she decides to visit.

	Toplist	UU daily	Rank	Members
1	xtremetop100.com	450000	in	>120000
2	gtop100.com	370000	in	2068 active
3	gamesites200.com	350000	in	> 66000
			•	
4	mmorpg.toplista.pl	22000	in	126 active
5	top50.com.pl	5000	views	731 active

Table 2: World's largest toplists (1–3) and toplists used in this research (4–5)

The importance of toplists is best shown by Table 2. The biggest toplist found as a result of global market research noted 450 thousand unique visitors per day. At the time of writing this paper the result had considerable fluctuations in this regard, reaching up to 670 thousand visitors noted. For comparison, among the Polish Internet services, regardless of the topic, less than thirty have larger audiences. The interesting thing is that all three largest toplists found during the research are devoted to games<sup>10</sup>, which could confirm the browser game specificity described earlier. Of course, purely Polish toplists have a smaller audience than the global ones, but a different scale of the use of the Polish Internet compared to the English one should be remembered here. The largest ones, including the 4th one, note from 20-25 thousand unique visitors per day. The 4th and 5th toplists provide data for this study and have been used in the present research.

The main difference between toplists, affecting their characteristics, members and the visitors' behaviour lies in the ranking method. It may be based on one of several criteria: in, out, ratings or views. The ins, also called votes, are the entering traffic (counted in UU) – redirected by a toplist member. The outs are exactly the opposite – they consist of the number of the Internet users redirected by the toplist to the specific member's website. Rating is a recognized element of Web 2.0 – the rates are of course submitted by the visi-

<sup>&</sup>lt;sup>9</sup> The presented data comes from the following sources: for the first three toplists from (Wolfram Alpha LLC, 2010), for the 4th and 5th it is the author's own data from (Google, 2010) and part of the data for the 5th toplist comes from its internal measurement. Measured on 23 June 2010.

<sup>10</sup> Next two focused on blogs.

tors. The views mean popularity of a member (again in UU) measured by the toplist. The outs and ratings are rarely used as criteria, although several toplist systems offer such a possibility – the reason is they have no clear purpose.

The ins are probably the most commonly used model, as they have a lot of advantages. First of all, they provide a basic automatic balance of incoming and outgoing traffic for each toplist member, and perhaps this can even substitute for some exchange optimization. The rule is simple – "you give more, you are higher in the ranking, and thus probably get more". At the same time, the mechanism is supposed to motivate members to redirect as much traffic as possible to the toplist – even to make them encourage players to vote on the toplist everyday in exchange for rewards in virtual goods (in browser based games e.g. money or raw materials). Unfortunately, that traffic redirected to the toplist is hardly valuable. Only a small part of it goes to other toplist members, because often the Internet user is only trying to obtain a reward and closes the browser window before the target page even loads.

Views used as a criterion introduce an element of measuring the popularity. In this case the size of such evaluation should be stressed, the toplist number 5 measures up to 288 million page views per month – for traffic corresponding to the one of 02.pl, being the 8th largest Polish Internet service. Measuring toplists usually also offer buttons with the statistics, including for example the number of visitors, the ranking position, with which each service member can boast of it on their website. Toplists using views as a criterion for the ranking actually supply a ranking of the actual popularity of its members.

Although the toplist is a kind of intermediary, it can gain only from the fact that net traffic goes through it. Moreover, the ins to outs ratio on well maintained toplists can be much larger than one. There are two reasons for that. Firstly, toplists also gain traffic without the participation of members, e.g. thanks to search engines, and the best ones tend to be recommended on the Internet, including forums, as a valuable list of websites concerning specific topics. The Internet user visiting the toplist from these sources has no other option but to enter one of the member pages. Secondly, one entry on the toplist may result in multiple outs from it, examining more than one member, for example in the case of browser games in order to find the suitable one. If it happens, in practice this means that the sum of traffic from the toplist to members is greater than the sum of redirected by the members incoming traffic. It means that a statistical toplist member in a result of this exchange will gain a particularly advantageous traffic.

Table 3 shows data from toplist top50.com.pl from the period of four months. All effects mentioned above apply here – in the result traffic outgoing to members is higher than incoming from members by 59% in January

and even by 118% in April. The latter means that for every Internet user sent to toplist the member received more than two visitors from toplist. On the second examined toplist mmorpg.toplista.pl, however, such an effect was never noticed. More over, usually the outgoing traffic is circa 40% of the incoming one. As the toplists differ in the ranking method, it can be seen that traffic on views ranking is more valuable, and toplist ranking on ins will usually cut some "share" from the exchange.

	incoming traffic			
	members	direct	search engines	outgoing traffic
April	63 869	9 425	78 554	139 131
March	84 658	10 304	87 335	152 867
February	63 872	8 222	80 421	124 629
January	86 210	8 901	86 029	136 909

Table 3: Traffic statistics for the toplist top50.com.pl.

A major advantage of toplists is that they always multiply the range of exchange, the best ones agglomerate usually several hundred members and they all participate in an advertising exchange. These exchanging services differ in size but, as was stated earlier, toplists do some automatic balance compensating it. In Table 2 also the number of members is shown – two toplists claim large numbers of members in their databases, however, it was not possible to verify if the members are active. For the three remaining ones only members actively participating in traffic exchange were counted. All of these numbers are beyond reach for any other form of advertising exchange.

Looking again at the outgoing traffic data from Table 3 and using cost per click value of 0,29USD<sup>11</sup> as a cost of single transferred Internet user, it shows that games get daily from this single toplist net traffic that would cost 1300USD to buy in the case of paid advertising. For the three world largest game toplists

<sup>&</sup>lt;sup>11</sup> There are no single good values for cost of on-line advertising as average cost per click. Data for Poland from report (socialbakers, 2010) was used, as this source is reliable and always available, although it should be noted that data with both lower and higher prices can be found.

from Table 2, with the assumption that 40% of their traffic goes out as traffic to members, the data presented show respectively that daily traffic exchanged in barter through each of these toplists would cost 100 000 – 130 000 USD. Of course these digits cannot be used to measure the value of the exchange without further reflections. For example there has been no research concerning the question whether this traffic is as profitable in matters of actions (in browser games account registrations) as traffic bought in paid advertising. However, this shows both the scale of the exchange and possible fields for further research.

## Summary

As it was presented advertising exchange plays an important role in browser games marketing, partly being responsible for gaining clients. Despite the fact that not all browser games participate in such an exchange, (especially among major titles there could be easily found ones that do not), it should not be underestimated. Probably the relation between the size of a game or its producer and usage of advertising exchange could be drown: largest use it not that often, and preferred method would be partners cooperation, going down to independent and non-commercial projects first toplists and then direct exchange would gain popularity.

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# Znaczenie wymiany reklam dla marketingu gier przeglądarkowych

#### Abstrakt

Artykuł przedstawia możliwie kompletne podstawy zagadnienia wymiany reklamowej oraz kilka bardziej specjalistycznych badań w obrębie rynku gier przeglądarkowych. W miarę jak przybywa tych gier, znaczenie pozyskiwania przez nie ruchu sieciowego w celu zdobycia graczy rośnie. Z wszystkich możliwych sposobów osiągnięcia tego celu wymiana reklamowa jest najsłabiej opisana. Najpierw zostaną zaproponowane niezbędne definicje. Następnie przedyskutowane zostaną koszty i cele wymiany reklamowej w odniesieniu do gier przeglądarkowych. Ostatecznie zaprezentowane zostaną trzy metody: wymiana bezpośrednia, współpraca partnerska oraz pośrednia wymiana przez toplisty. Ich specyficzne cele, zalety oraz wady, a także znaczenie oraz zasięg zostaną przeanalizowane tak szczegółowo jak to możliwe, przy użyciu rzeczywistych danych. Przytoczone zostaną również przykłady istotnych zastosowań.