**A Platform Biography for the Web: Vkontakte (VK) Social Network.**

“A number of major social, technological, economic, and cultural transformations came together to give rise to a new form of society, the network society”

(M. Castells, 2010, “The Rise of the Network Society Vol. 2”)

**Introduction**

Significant part of the Web nowadays is focused on social networking services. Generally, this is a web-based platform that provides its clients opportunity to create personal proﬁles, publish their photos and interesting links, join communities and search for friends among all the users. Millions of people all over the world participate every day in such social networks like Facebook or Twitter. It can be explained by a wide range of functionality and capability to communicate with friends and groups through a messaging system.

None of the above would have been possible without both technologies and social impact equally therefore this all makes any social networking site be an accurate example of Actor Network Theory. Social network is continuously developing place where technologies and society are closely intertwined and they are made of same stuff. Without technologies there is no tangible impact of individuals on the that sphere of society or their interaction. At same time machine does not work properly until human being involves it in a right social process. Such symmetry demonstrates connections between successful results and level of collaboration between human and technology (MacKenzie, 2012). Otherwise, there is a high probability of huge risks in unexpected areas. Cause doesn’t matter – it could be poor hardware or network externality – both can lead to dramatic effect.

Speaking about negative impact on social network there is an important aspect that need to be mentioned. Recently the Social Web became a field where a number of social networks using P2P payment system started increase. Since that P2P has been considered as a revolution for companies providing their businesses in the Web. Thus procedures with payments assume quite strict penalties for those who get this wrong but those who can make it right will get a reward. However, nobody knows exactly which outcome will prevail. Making payments or providing transactions in the Web you never know which side problem can come. The only thing is to insure risks by solving computer security problems.

**P in P2P is people (Dave Winer)**

As it is generally believed the history of peer-to-peer, or P2P, phenomena began from Napster online service, so called pioneer of the file sharing between several peers that actually were PCs of ordinary user. Founded in 1999 by Shawn Fanning it had following structure: all users were connected by single server that could track all the uploaded files. The service was initially planned as music-focused one, so these MP3-files were kept on the end of client’s PC that was considered as a peer in the chain. It means that the individual storage capacity of all the combined users was leveraging so the server could provide help with transferring of requested file to another peer (Securing IM and P2P Applications for the Enterprise, 223). That led to ability of Napster to exchange huge amount of data due to P2P distribution.

Although, earliest systems were focused on censorship resistance. The purpose was to create secure net to serve different groups of critics or dissidents or other aficionados that could be illegal in some areas. Thus, each participant had to protect each other’s statements (R. Anderson). However there was a high probability of censor attacking by trying to impose a particular preference, thereby meeting the approval of some nodes but not others.

Another way to use P2P systems is money transfers through e-mail or cellphones. Number of mobile apps have been set up to help to send and receive money via smartphones in last several years. Circumventing traditional bank account transfers P2P payments simplifies the process for general public and reduces costs of enterprises. One of the consequences is that fact that by 2016 the P2P transfer market has proved a key target for investors (R. Arnfield). Most outstanding examples of implementation of P2P service into social network are Facebook (Messenger payment), Snapchat (Snapcash), Google Wallet, and, of course, PayPal. All of them provide in average 3 days to clear and no fee for debit cards (except PayPal). Besides, some of such services have limits of sending sum of money (e.g. daily).

In the light of the foregoing, there is no any concrete definition of P2P because it can be described in different fields by different groups with different ideas. Therefore, there is a point that P2P is abbreviation of person-to-person architecture. On the one hand, in its simplest form, P2P system can be explained as a computing infrastructure for entertainment and consumer applications. On the other hand, the most complex form implies P2P as a resistance movement among a cyberelite. The only common thing is that P2P should be a direct connection between equal individual peers (machines or people) so no user has more access than another or controls another user.

**Russian Facebook**

VK.com or formally VKontakte (or InContact as translated in English) – Russian social network service that is ranked 2nd place in Social Network category sites, after Facebook, and 13th place in “The top 500 sites on the web” (Alexa, 2016). Now it is owned by Mail.ru, the giant of Russian-speaking segment of the Web. Started in 2006 as a network by student Pavel Durov for students’ community within Saint-Petersburg State University at the present moment VK is the most popular social platform in Eastern Europe with almost 80 million visitors per day and more than 380 million users registered (vk.com, 2016). The VK audience mainly lives in the post-Soviet space including such countries as Ukraine, Belarus, Kazakhstan, Azerbaijan, Estonia and Lithuania, however almost a half of the website visitors live in Russia (Alexa, 2016). In general, VK developers provide 85 languages including European, Indian, Arabic and Asian linguistic groups.

Development of the most popular network in Runet (Russian Internet) was connected with lots of difficulties throughout all 10 years, and last three years were extremely tough for owners. In that period the platform was exposed by several massive hackers’ attacks during which thousands of users couldn’t get access to their accounts. At the same time VK was suffering from governmental persecution. For example, in 2013 it was being banned occasionally by The Russian Federal Service for Supervision of Communications, Information Technology, and Mass Media for several hours without clear official cause. Later in the summer VK was banned again by national copyright policy because of pirated content. Besides Russian pressure Italian government limited an access to the website as a reaction on copyright infringement.

The reason seems to be hidden in functionality of this platform – VK has several features that are quite interesting. First of all, as the most social networks VK provides private messaging with the opportunity to attach documents, photos, maps, videos and audio files up to 10 units in one message. This content can be exchanged between up to 30 people in one group chat. Also, every user has his own profile wall to post anything – text or attachments (again, up to 10) – so it will be shown in the news feed among all other content. It should be noticed that news feed itself can be filtered for more specific posts from several friends or public pages or, by default, all related content including photos, videos and audio tracks. Sharing photos in VK is available in two ways – either attached to post or uploaded to albums. Besides, the images can be sent directly to a person in private message. In that case, user can choose the quality – uploaded as a document photo will have higher resolution.

Video and audio in VK are the most controversial features as some content comes under copyright infringement. Although it often becomes the main reason of proceedings with right holders, VK users can listen to music or even watch movies for free, upload video and audio tracks and share them with others. Videos can be uploaded to VK site directly from PC or smartphone by app or using links from YouTube, RuTube (Russian version of the famous video hosting site) or other web pages. And as for audio, there are musicians, such as The Offspring, Moby or Marilyn Manson, who use the VK platform for the promotion and upload their sound samples to their official accounts.

And finally, similar to Facebook, VK has communities divided into groups, public pages and events all of different interests – university societies, about science or handmade, meetings and concerts. And some of them are used for business. For example, giants of their markets, Zara or even Coca-Cola, use the platform for marketing purposes. Such companies use VK communities that can be marked as official brand communities (as well as on Twitter or Facebook).

Meanwhile there are still huge amount of small local online shops that use VK platform not only for advertising but for sale itself. Therefore, implementation of new possibility to make online P2P transactions this year became a big benefit for them. However, the process is convenient also for ordinary users to transfer a sum of money to relatives and friends without using bank apps.

**Contacting payments**

New product was introduced on the official VK page at 20th of September 2016 and since that day all users can easily transfer money to each other without applying for third-party apps. Background of this innovation was connected to the increase of users’ operations with credit/debit cards and growth of links between banking and VK accounts in last couple of years (rbc.com, 2016). However, people were spending money either for different apps or voices that can be exchange for stickers or VK gifts and now they have an opportunity to make a money transfer. And finally, platform is providing peer-to-peer, or P2P, payments.

The tool is now available not only for PC version but also for apps in IPhone, Android and Windows. Remitter only need to have a debit card but in the same time he or she doesn’t have to know recipient’s card details thus only payee decides where money will be sent to (vk.com, 2016). This feature is available for holders of Russian MasterCard, Maestro or Visa cards however they can send money to users from other several countries. All the payments are provided in Russian rubles or converted by bank-issuer. Transferred amount of money is limited – 100 rubles as minimum and 75.000 rubles as a maximum sum of transaction. Besides, commission fee for the operation is 1% of the whole sum. Technical support of transactions is provided by three main operators. The first one is VTB24 – subsidiary of VTB bank – that provides the payment itself. Other two are responsible for processing of payments – Mail.ru and processing company MultiKarta.

To use the service, person need to choose “Money” option in private messages, specify the sum and enter valid card details. After this algorithm transfer should be confirmed by validation code.

Pros and cons

**?. Security aspect**

3-d secure system

**Conclusion**

**References**

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Securing IM and P2P Applications for the Enterprise

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