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May, 2012 Executive Summary With the improvement of the information technology the development of application has substantially increased. The new era of internet technology has led to importance of the internet application in people's everyday life. In this project we will attempt to analyze one of the many applications created to make people's life easier. The application is called Dropbox, and it is vastly used to exchange every kind of files and folders between people. Dropbox is a Web-based file hosting service operated by Dropbox, Inc. that uses networked storage to enable users to store and share files and folders with others across the Internet using file synchronization. Dropbox is the simplest, most elegant file-synchronization tool ever used. The premise behind Dropbox is it gives you access to your files no matter what computer or device you have at hand. The service stores files with strong encryption on multiple servers and lets you get at your files quickly, easily, and for the most part elegantly from virtually any Internet-enabled device. We start by briefly explaining the application, its uses and features. Then, we proceed by analyzing the competition. In this part we will see the main competitors and we will compare all the features they offer. After that, we will conduct a usability test, a contextual inquiry in which we will examine, collect information and acquire valuable insight into the usability experience and strengths and weaknesses of the particular application. At the end, we will summarize all the previously mentioned facts and researches and give some suggestions for improvement of the application.

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in case you're on a computer that doesn't have Dropbox installed. Dropbox works equally smoothly on Windows, Mac, Linux, as well as mobile devices. Dropbox synchronizes only files stored in a single dedicated folder, so if you prefer to synchronize folders you already have on your system, or if you want to keep several folders fully synchronized between multiple machines, Dropbox may not be for you.

2. What function does Dropbox offer? Dropbox software synchronizes computer files online and over the owner's computers. The primary function is syncing information and acting as a backup for a computer at an online source. The software has a few basic functions relating to syncing information and computers.

1. File Sync File synchronization is the main function of Dropbox. The software provides 2 gigabytes of space for all customers and 100 gigabytes of space for paying customers. It will automatically sync new files whenever they are detected and will pick up a dropped transfer once a connection is reestablished. The software allows working offline and will then sync the new information after connecting to the Internet again.

2. File Sharing File sharing features allow the user full control. The user places information in the file-sharing folders, which are accessible to anyone that is collaborating on the folders. Changes made to files on one computer will show up in the file sharing folders. The individual who owns the file can stop access of other users to the files through file sharing as well.

3. Online Backup Dropbox software provides online backups automatically for any files in the Dropbox account. It provides undelete options for any file and folders and can restore older versions of a file when requested. Paying users can undo history with unlimited access while non-paying users have a 30 undo history option through the online backup feature.

4. Security The security features in Dropbox are tight. The

only individuals allowed into file-sharing files and folders are those personally invited with the ability to remove access if preferred. Employees do not have access to the files and information is encrypted to prevent hacking. The public files are not searchable, so only those with the specific link are able to access the information.

5. Access from Mobile Devices

Dropbox allows mobile access from sources like an iPhone or an iPad. The user must have the username and password to access through a mobile device, but once entered, they have full access to computer files on Dropbox and Dropbox will sync the information from the mobile device.

3. Motivations for conducting UX study for that application

User Experience (UX) has emerged as one of the fastest growing specializations in today's business world. There is a significant demand for knowledgeable professionals to work in UX careers as user-centered design is needed for everything from web or mobile applications, personal computers, devices and other products. User Experience is the crafting of positive, effectual interactions between users and products or technology which serve or benefit the user. User Experience, often termed "UX" or "UE," may be thought of as a human response that derives from the application of cross-disciplinary elements and methods used in the planning, design and testing of systems, devices, software, interfaces and specialized environments. More and more organizations are recognizing the value of investing in user-centered design and usability testing methods to gain competitive advantages and increase profitability as well as customer loyalty. Dropbox is relatively new product on the market and in the same time it's cheap and available all over the world (except China). Finding out if people are aware of the benefits from the application (the huge space available for storing docs, images, videos etc., mobility of

the stored information and all of that it's for free) and how the process between user and application is understood and conducted. Those would be our primary motivations for conducting user experience studies for DropBox as an application. Additionally, we would like to see and determine whether there are positive or negative user experiences, what is the time of learning, the user satisfaction, rate of errors and retention over time and at the end suggest some improvements that would make the user's job easier. 4.

COMPETITION ANALYSIS Few years ago, the young student Drew Houston conceived an amazing idea while constantly forgetting his USB device for his needs at the University — the invention of the DropBox application. As people look to access their digital content from a variety of places and devices the cloud service market place is likely to become ever more popular. DropBox pioneered the storage cloud concept, but now runs the risk of being undercut by its competitors. Today, his invention is popular and widely used and faces with high competition on the worldwide market. Few weeks ago, Microsoft launched a desktop sync app for SkyDrive. As well Google followed by finally launching Google Drive - after a series of early appearances hinted that it was going to be arriving very, very soon. Other competitors that operate in the cloud computing but for now they don't possess big threat to DropBox as Microsoft's SkyDrive and Google Drive are: - Apple's iCloud - Sugar Sync - Box - Spider Oak etc. Microsoft SkyDrive, Dropbox, and the newly introduced Google Drive all focus on storing your data in " the cloud" (massive data centers) instead of on a physical hard drive in your home or office. That means not only can you free up some valuable internal storage space, but enjoy the peace of mind that comes with solid off-site backup, and the convenience of accessing your files from all

your computers, many of the your devices, and almost any web browser. While Dropbox, SkyDrive, and Google Drive will all get the job done, which one is the best choice for most the users? We decided to concentrate on the two leading applications and those which are the main competitors of DropBox — Microsoft's SkyDrive and Google Drive. We conducted several comparisons to the main attributes of the applications which are provided in the following text.

5. 1 Free and additional storage (space) Source: http://s.wsj.net/public/resources/images/OB-SU964_graph0_EA_20120502232828.jpg

First of all, every application is free for download and it gives you limited free storage. As it shown in the chart above if you want more space for your files, docs or information, you can get it for additional price for each application provider separately. For ex. If you want to have 5GB more space, DropBox will charge you \$99. 00 while the other two options (Google Drive and SkyDrive) are cheaper — absolutely free. All three services offer paid upgrades. Once again, SkyDrive offers the best deal – with an additional 100GB of space coming in at \$10 less than it would run you on Google Drive. Dropbox might need to re-examine their pricing at this point, since they're by far the most expensive platform now. But, the limitations are if you see the chart at 200GB, there is no option or price for Microsoft's SkyDrive, and the race is continued only by DropBox and Google Drive, where Google Drive is much cheaper (you'll save more than \$500). In the same time, as you can see DropBox has the same price for 5GB, 10GB, 20GB, 25GB and 50GB (\$99. 00) and for 200GB, 400GB and 1000GB (\$795. 00). In terms of disk space in the cloud, SkyDrive offers you the most bangs for your non-buck. While there are other ways to bump up your Dropbox storage without paying, all new SkyDrive users get the full 7GB from the get-go. Better still, if you're an

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existing SkyDrive user and you install the new app you'll get a whopping 25GB at no charge. In the following image, you can see the free space that users get when they submit to the application websites: Google has unveiled its new customer service that offers up to 16TB of virtual storage space for online content such as photographs, music and films. Labeled Google Drive, the product will challenge the supremacy of established cloud service providers; Dropbox and Microsoft's SkyDrive. Google Drive initially offers 5GB (gigabytes) of free storage space to users. Customers can then pay for more space on a rising scale. And although experts have questioned Google's late arrival in the market, they are still expected to mount a huge challenge to established companies already providing this service. 16TB of storage can hold up to four thousand DVD quality feature length movies. 4. 2 Selective synchronization and workflow Microsoft said they wanted to keep the SkyDrive app as straightforward and easy to use as possible.

Unfortunately, that means there's no option to choose which folders you want to synchronize - everything in your SkyDrive folder is fair game. Both Dropbox and Google Drive give you control over which files you want to sync on your connected systems. While mobile document creation has come a long way, most iPhone and iPad users will most likely still spend most of their time creating documents on their Windows or Mac PC, and will definitely need to access them there. So, a seamless workflow between desktop and mobile apps is a must. SkyDrive, Dropbox, and Google Drive all offer both a native app for Mac and Windows as well as a free web portal. When it comes to the native Mac and Windows apps, all three apps have almost identical interfaces and functionality. They seamlessly integrate with your file system. You'll just notice a new folder in your main tree of files. They'll also all add a

system tray icon to your Mac or Windows PC for quick access. To use these services from your Windows or Mac PC, you simply drag and drop, or copy and paste your files into the folder, and then work them the same way you did previously. You won't notice any difference, but the files and folders are syncing your data constantly with each respective cloud service. When you return to your iPhone or iPad to pull up a document, it'll just be there. And if you ever need to access your documents from someone else's Windows or Mac PC, you can do so easily by accessing the web based version of SkyDrive, Dropbox, or Google Drive. Google has the better desktop clients but their lack of an iOS app kills the overall workflow model. Dropbox has great apps but once again doesn't have online editors like Microsoft or Google. That makes SkyDrive the winner.

4.3 3rd Party application compatibility and Ecosystem

Many iPhone and iPad apps integrate support for cloud storage. If you're looking to use text editors frequently, for example, it will matter a great deal which services are supported. While SkyDrive and Google Drive are fully functional cloud services in their own right, neither enjoys anywhere near the support of Dropbox. Dropbox has simply been around a long time and many developers have chosen to embrace it. In fact, for many apps, you won't find support for many cloud services outside of Dropbox (and Apple's iCloud, which is not exactly the same). Dropbox by far has the best support from other app developers. If you work with Microsoft Office files on a regular basis and need 100% compatibility, SkyDrive might be the best choice due to its tight connection with the Office Web Apps. For Google Docs or OpenOffice users, however, either Google Drive or SkyDrive will fit the bill. Dropbox, of course, is just a storage, sharing, and sync platform – but you can still work with your files in

the cloud thanks to support from web apps like Zoho. 3rd party app integration is one area where Dropbox really shines. It's been much more widely adopted by developers than SkyDrive. Even though it should be a simple task for devs to tweak apps that support Google Docs storage to support Google Drive, Dropbox will probably maintain their lead in this area at least for a little while. We'll see what happens in the coming months.

4.4 Platform support

Both Microsoft and Google released apps for their own mobile platforms while simultaneously snubbing each other's. All three services offer iOS, Windows, and Mac apps, but Dropbox is the one to use if you run a Linux system or own a BlackBerry smartphone.

4.5 Searchable features

Drawing on its search engine expertise, Google will hope to differentiate the service from others. The Drive will be fully searchable by keyword and file type, activity or user. The service will also use OCR (optical character recognition) to recognize text in scanned documents. This will allow users, for example, to search a scanned newspaper clipping for specific words in the newspapers articles. Image recognition will also be possible in Google Drive. " If you drag and drop photos from your Grand Canyon trip to Drive, the next time you search for Grand Canyon, photos of it will pop up, " said Sundar Pichai in the blog.

4.6 Conclusion from the competitive analysis

If you take each individual category and weigh them equally, it looks like SkyDrive is the winner here. But not all categories should be weighed equally. A lot of free storage is great. Cheap additional storage is great. Arguably better desktop apps and inarguably better online document editors are great. But none of that matters if you need your cloud service to be supported by your iOS apps and that support simply isn't there. Until Google Drive gets a proper iOS app with streaming media support, it's impossible to

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recommend it as anything other than a secondary or tertiary backup service to drop extra copies of your files for extra safe keeping. If you're already a heavy Google user, especially a Google Docs user, the free service is there for the taking. If you're brand new to cloud storage and all you want to do is offload some media and documents to free up space on your iPhone and iPad, SkyDrive's combination of free storage and low additional storage costs make it the best option. If you need to have your docs and data available in your iOS apps, then even though it's more expensive and doesn't have an online editor built in, Dropbox is still the only way to go. Everyone's individual needs and priorities will be different, but for right now, for most users, most of the time, especially if you don't need anything more than the free storage they offer, Dropbox remains the best cloud storage solution for iOS users. iPhones and iPads are app-centric devices, and that's still where Dropbox shines. So, which service is the one to choose? There's no one-size fits all solution when it comes to cloud storage and sync apps, but fortunately there are plenty of good options out there. With Microsoft and Google entering the fray, there's one thing that you can bank on: your app of choice is only going to get better (and probably cheaper) thanks to all the extra competition. At the end, we summarize all the aspects that we previously mentioned and described in the chart below: Source: http://zapp5.staticworld.net/images/article/2012/04/google_drive_comparison_chart2-11351611.jpg

5. CONTEXTUAL INQUIRY Contextual inquiry is a field data-gathering technique that studies a few carefully selected individuals in depth to arrive at a fuller understanding of the work practice across all customers. Through inquiry and interpretation, it reveals commonalties across a system's customer base. A contextual inquiry interview is usually structured <https://assignbuster.com/may-2012-2/>

as an approximately two-hour, one-on-one interaction in which the researcher watches the user do their normal activities and discusses what they see with the user.

5. 1 Objectives In the following text a contextual inquiry for Dropbox, for a single purpose to see how the user are managing the application, to see its user - friendliness and the potential problems that may occur during its use. The specific goals are to determine whether there are positive or negative user experiences, time of learning, user satisfaction, rate of errors and retention over time and at the end suggest some improvements that would make the user's job easier.

5. 2 Participants' profile Our usability test has been conducted among 5 people, 3 males and 2 females. Three of them are in the age range from 20 to 28 and the other two are older, in the age range from 46 to 54. The younger group has advance level of computer and internet expertise and 2 older people, over 40 years, also have basic knowledge of computer and internet access. At first, we showed them a promotion video of the application, and then we let them to do the tasks that will be described below. The participants' profile is shown below:

1. Done Stavrovski — male, 22, student at the Faculty of Economics
2. Simona Bogoevska — female, 20, student on the Macedonian Music Academy
3. Stefan Lazarevski — female, 28, employed in private company
4. Vane Sokolovski — male, 54, employed in private company
5. Silvana Pejovic — female, 46, employed in public administration

5. 3 Task selection There are several tasks that the users from our representative sample are going to try to perform and our role will be to supervise the performance of the steps and find out about any difficulties that might occur. The tasks we have selected are:

1. Find the source for downloading the site
2. Install the application on one computer and find the dropbox folder
3. Put a file on the

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application 4. Sign in on the online version of the application on different computer 5. Find the file previously put on the dropbox folder on the computer 6. Download the file 7. Invite a friend to join Dropbox 8. Share a folder with a friend All of these tasks will be later on ranked according to completion rates and timing, which will help us to bring out some conclusions about the user – friendliness and functionality of the application.

5. 4 Procedure The place of the usability testing was different for different users, since we conducted the test in their homes because we wanted for them to feel more comfortable and relaxed, just like as if they were working alone. The participants used their computer for when they installed the application for the first time, but when they needed to sign in on the online version of the application they used the sharing lap top of the project team, which were in the same time the observers. The observers have rated the completion of the tasks according to the following scale 0 = not completed, 1 = completed with difficulty, 2 = completed in the average timescale, 3= easily completed. The results from the performance ratings and they are shown in details in the following pages of the project.

5. 5 Task completion results Task 1: Find the source for downloading the site The performance of this task was easy for all of the participants since they all try to find the application on the search engines, after typing “ dropbox”. After they all found the home page of the application they explored the site and saw the video presentation. Task 2: Install the application on one computer and find the dropbox folder The first part of the task (Install the application) was relatively easy and smoothly done by all of the participants. They all successfully installed it. But the second part of the task was confusing for one of the participants, Silvana Pejovic, since she could not find the folder

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due to the fact that she had not understood fully the concept of the application. In other words, she did not assume that the application will have integrated folder as all the others on the computer. All of the other participants found the dropbox folder on their computers. Task 3: Put a file on the application This task, even though it seems like a routinized activity, caused confusion among one participant. More specifically, Vane Sokolovski did not understand that the process of putting a file on the application is easy, (just drag a file or do copy — paste as for others) but he was searching some sort of button where he would attached the file as he does while attaching files on an email. The others did not have any misunderstandings and they did the task in several seconds. Task 4: Sign in on the online version of the application on different computer The fourth task, was done with difficulties by two of the participants due to the lack of finding the sign in button on the website of Dropbox. Two of five did not execute this task in the average e timescale, since they could not find sign in button because the button is relatively small and not visible at first glance. Since they scrolled down after entering the site they did not see the button right away. The other 3 participant find the button immediately and signed in in a second. Task 5: Find the file previously put on the dropbox folder on the computer This task was easily done by all of the participants since they all find the file because the user — friendliness of the account. The participants did it in a remarkable amount of time. Task 6: Download the file As well, this task was easy to manage. The download button is noticeable and easy to see. All of the participants saw the button and clicked it, and after that followed the download process. Task 7: Invite a friend to join Dropbox This was quite a challenge for some of the participants. First they had to go to Get Started

section, and then they needed to go to invite some friends to join Dropbox.

On the page they easily send referral to friend to join Dropbox, four of them wrote down their emails, and one shared the invitation on Facebook. Task 8:

Share a folder with a friend All of the participants did this task as they should have. After going to the Get Started page, and to Share a folder with friends

or colleagues, they clicked New Shared folder, and they entered the friend

who they invited before. | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Task 6 |

Task 7 | Task 8 | Done Stavrovski | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | Simona

Bogoevska | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | Stefan Lazarevski | 3 | 3 | 3 | 2 | 3 | 3 |

2 | 2 | Vane Sokolovski | 2 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | Silvana Pejovic | 2 | 1 | 2 |

2 | 3 | 3 | 2 | 2 | Average | 2.6 | 2.2 | 2.4 | 1.8 | 3 | 3 | 2 | 2 | 0 = not

completed, 1 = completed with difficulty, 2 = completed in the average

timescale, 3= easily completed 6.6 Conclusion from the contextual inquiry

After we conducted the usability test we can summarize the following about

the Dropbox application. First and foremost, we can conclude that the users

are generally managing the application as desired. The user — friendliness is

on a relatively high level and the problems are minor. There are no major

issues that are causing negative user experience, but some minor interface

issues such as the lack of finding the sign in button. From the contextual

inquiry we understood that people can easily learn how to create profile and

use the application without previous knowledge thanks to the video at the

beginning of the DropBox's web site. Also, a proactive marketing campaign is

needed, so that potential users can learn what is cloud computing and how

to use the application. This conclusion is a result from the misunderstandings

that some of the participants had. According the overall average grade the

result show that the user are completing the task in the range from average

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timescale to easy managing the application Conclusion Dropbox is a free service that lets you bring your photos, docs, and videos anywhere and share them easily. Dropbox was founded in 2007 by Drew Houston and Arash Ferdowsi, two MIT students tired of emailing files to themselves to work from more than one computer. There are a lot of positive attributes that can be addressed to the application. The Dropbox client enables users to drop any file into a designated folder that is then synced with Dropbox's Internet service and to any other of the user's computers and devices with the Dropbox client. Users may also upload files manually through a web browser. Through these usages, it can be an alternative to sneaker net (physical transportation of removable media), and other traditional forms of file transfer, such as FTP and e-mail attachments. While Dropbox functions as a storage service, its focus is on synchronization and sharing. It supports revision history, so files deleted from the Dropbox folder may be recovered from any of the synced computers. Dropbox's version control also helps users know the history of a file they may be currently working on, enabling more than one person to edit and re-post files without complications of losing its previous form. The version history is limited to 30 days. A paid option for unlimited version history called " Pack-Rat" is available. Why using DropBox? * It is an easy, user friendly and secure method for sending, retrieving and managing files; * Users can receive large files from friends and colleagues; * Users don't need to worry about their email boxes going above the size limit because of large email attachments; * Our email server has a limit on the size of the attachments that can be sent. DropBox accept any file size; * Uploading and downloading files to a DropBox helps prevent the email server from getting overloaded; and * Our email server prohibits

various file type attachments to be sent if they are known to hide malicious viruses. DropBox accepts any types of files and the files are scanned for viruses. From the conducted competitor analysis and contextual inquiry, we got the following information based on the positive attributes from the DropBox: 1. DropBox is the only application for storing and sharing files that can be functional and has developed software for every operational system, such as Windows, Mac, Linux, Android, iOS and BlackBerry. 2. In the same time DropBox is the initial application in the cloud computing era and it's the most user-friendly site among its competitors. 3. From the contextual inquiry we understood that people can easily learn how to create profile and use the application without previous knowledge thanks to the video at the begging of the DropBox's web site. Our suggestions for improving the brand, image, workflow and understanding of the application are the following: 1. In accordance to the competition: We think that the price of the DropBox services should be corrected and reduced due to the fact that competitor's prices are lower for additional storage. 2. In accordance to the usability test: We can conclude that the application is very user-friendly but it should make some improvements in its interface and design such as bigger sign in button and proactive marketing campaign so that potential users can learn what is cloud computing and how to use the application — DropBox. Knowing that DropBox is the initial application in the era of cloud computing, developed and implemented in 2007 and already have over 50 million users worldwide, we can expect future growth and increase in the market share because of the strengths and opportunities that this application possess and by that can be modified and re-engineered for higher user satisfaction, personalization and usage.