# **Course Assignment for INFO110 - Spring 2018 Evaluation of Information Systems**



### **VERSION 1**

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#### Discord

#### Quick background

Discord is a freeware communication and community hub designed with gamers in mind. The platform is completely free to use and supports secure voice, video and text chat. Everyone can sign up and create their own server for free or join existing servers. Each server serves as a small community hub where people can share picture, communicate using the methods mentioned above or invite someone to play a game. Discord is available on a magnitude of platforms such as Windows, MacOSX, Linux, Android, IOS or in a web-browser. With over 87 million unique users Discord has dominated this market over the last 3 years and risen above other platforms in the same field such as Teamspeak, Skype and Mumble.

#### Motivations

Since we did not know anyone who could give us access to an information system we chose Discord for it's well documented API and because the source code can be found online. Everyone in the group is familiar with Discord and we all use it a lot in our spare time. We believe Discord could be the next big thing when it comes to online communication platforms within a few years and could branch out to a larger target market then mainly people who play games.

#### Quick description of evaluation project

We are going to evaluate the usability and the user interface of Discord as an information system, and find out whether it is possible to improve some of these aspects. To evaluate the usability, we will do testing on our own, as well as having people that are new to the platform test it and give us feedback. We are also going to evaluate it against other similar platforms, to identify any problem areas Discord may have. In addition, we will evaluate Discord according to requirements for good usability, as well as requirements for good user interface. The concept behind Discord came from CEO Jason Citron, who previously owned a social gaming platform for mobile games known as "OpenFeint", that he then eventually sold for a

total of \$104 million. He then invested that money in 2012 to found the company we know as "Hammer & Chisel", a game development studio. As their first MOBA game on mobile platform flopped due to low popularity, he came up with the idea behind Discord while playing video games with his friends. They used voice over IP also known as voip, to communicate with each other over games, and as he was using these more and more, he started listing issues he had with these programs.

Some of the voip options available such as Teamspeak required its users to share various IP addresses to connect to the servers. Services like Skype and Teamspeak were resource heavy taking a toll on your hardware and making gaming performance worse as well as the fact that they have well known security issues. This led to his team of developers developing a voip and chat service designed for gamers combined with a more friendlier ui and updated technology. Although designed for gamers, the great amount of privacy Discord provides, as well as other features such as voip, chat, video chat, conference chat, communities etc. has drawn in a lot of other people interested in the software alone.

Although Discord Inc was created by a small company, its success started early as reddit communities started replacing IRC servers with Discord ones. Discord found its huge success through games and other gaming platforms such as electronic-sports, twitch.tv etc. People started fleeing from other voip programs that they previously used such as Skype and Teamspeak and started using mainly Discord instead as it had a lot of good features from the previous programs they used. The gaming community considers Discord as the biggest voip program made available to them.

Even though the software comes free of charge, the developers had added ways to monetize it. They added a option called "Discord nitro" which is a \$4.99 USD monthly subscription that provides the enthusiast with: **Animated avatars**, where you can upload a gif of a avatar that plays on your profile if it is hovered over in chat. **Discord tag**, nitro users can choose their own discriminator (#0001-#9999). If you have Nitro you also get higher quality screen share, you can upload bigger files and you can create your own emojis which you can post on every server available. By the end of 2017, the service had drawn nearly 90 million users. Discord has over 14. million daily users, as well as over 315. million messages are sent everyday.

Discord currently employes 43 employees, at their headquarters located at Potrero Hill in San Francisco. The employees are everything from gamers, nerds, moms, dads, engineers, marketers and support. Discord is a small group of gamers who wants to bring people together around games. Discord wants to hire diverse and inclusive employees as they work in groups and they are built as a team. At Discord Inc they focus on helping each other out, and since people are so diverse at Discord they have deep knowledge about different topics. To work as a team, so that they can create a better better product, better decisions, and a better work environment is the motto behind Discord.

Discord has had problems with hostile behaviour. There has been a problem where chats have been raided by other communities or groups and spammed with controversial topic like, race, religion, and revenge-porn.

To deal with this hostile behavior and to protect its users and its services, Discord implemented a trust and safety team that is on call around the clock to monitor servers and respond to reports. Although they might not work in HQ, their job is to be moderators to filter and scim through what is against the TOS (terms of service) of Discord. It is the moderators job to deal with user harassment, servers that violates Discord TOS, and other malicious spam or bots. While the moderators can not directly monitor every message, the trust and safety team can determine malicious activity from service use patterns and take appropriate steps to deal with them. They also rely on user reports and their feedback do do their job effectively as it is hard to monitor everything. Since this team has been created, Discord Inc has shut down everything from alt-right to revengeporn sites.

External factors which affects Discord as an organization is competition from other voip programs as they all have a similar foundation. What Discord does great is going into depth to bring what gamers want and need. Discord get its funding from investors, gaming events/sponsors and Nitro subscribers. Discord is working very hard to keep everything legal, especially in the United States of America where often laws are state bound. So Discord Inc does everything in its capacity to keep Discord league in every state as well as world wide. (Different states often have different laws, around data collection, how long they can collect the data and what they can do with it).

Since Discord is mainly built around gamers and internet communities, they have a very

stable and loyal user base. As it is right now there is not any other existing competitors who can rival Discord by providing its services to gamers and internet communities.

Discord's client is built on an Electron framework using web technologies, which allows the program to be run on multi-platform, personal computers, phones and the web. The software is supported by eleven data centers in different locations of the world to keep the latency with the client to a minimum. The Discord application for personal computers is specifically designed for use while gaming, as it also includes features such as low-latency, free voip and chat and their own dedicated server.

As Discord got further in development video calling, screen sharing and conferences calls have been added to the program to support both gamers and people who work in offices. Discord has integrated an API known as GameBridge which allowed game developers to directly interact with Discord within games. You can also connect your game ID from various gaming programs such as steam, league of legends, origin etc. To share your ingame name with your friends to make it easier to play with your friends and new people.

Nitro is Discords transaction system where you can support them by subscribing to them with 4.99\$ per month, or alternatively 49,99\$ per year. A transaction system provides a way to collect, process, store, display modify or cancel transactions. The data the system collects is usually stored in databases which can be used to produce reports such as, billings, wages, inventory summaries, manufacturing schedules or check registers. Discord takes use of a modern transaction processing system, which use online processing which is distinguished by the normal system by having a real time method where each transaction is processed while entered. This variant is known as an online transaction processing system.

We do not have access to the whole system around Discord, but we have access their API, so we would collect data via their open source code as well as their API. Json is an example of a program which can be used to gather data.

We will evaluate the usability and user interface of Discord. The reason that we chose to focus on these two aspects is that we believe they are key aspects in information systems of this kind. Furthermore, measuring usability and user interface makes it easy for us to collect good data from user tests.

The usability of Discord is key to a good user experience and may help explain why the users of Discord choose them instead of their competitors. Usability might be one of the reasons why Discord currently is the most used voice chatting service amongst gamers, compared to i.e. TeamSpeak, Mumble, and so forth. The user interface is also an essential part of the user experience, therefore it is an interesting aspect to take a closer look at.

The way we will evaluate usability is by heuristic evaluation. This is a good and structured way of measuring usability and user interface. Hereunder we shall focus on the ten heuristics as described by Jakob Nielsen in his book *Usability Engineering*.

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