

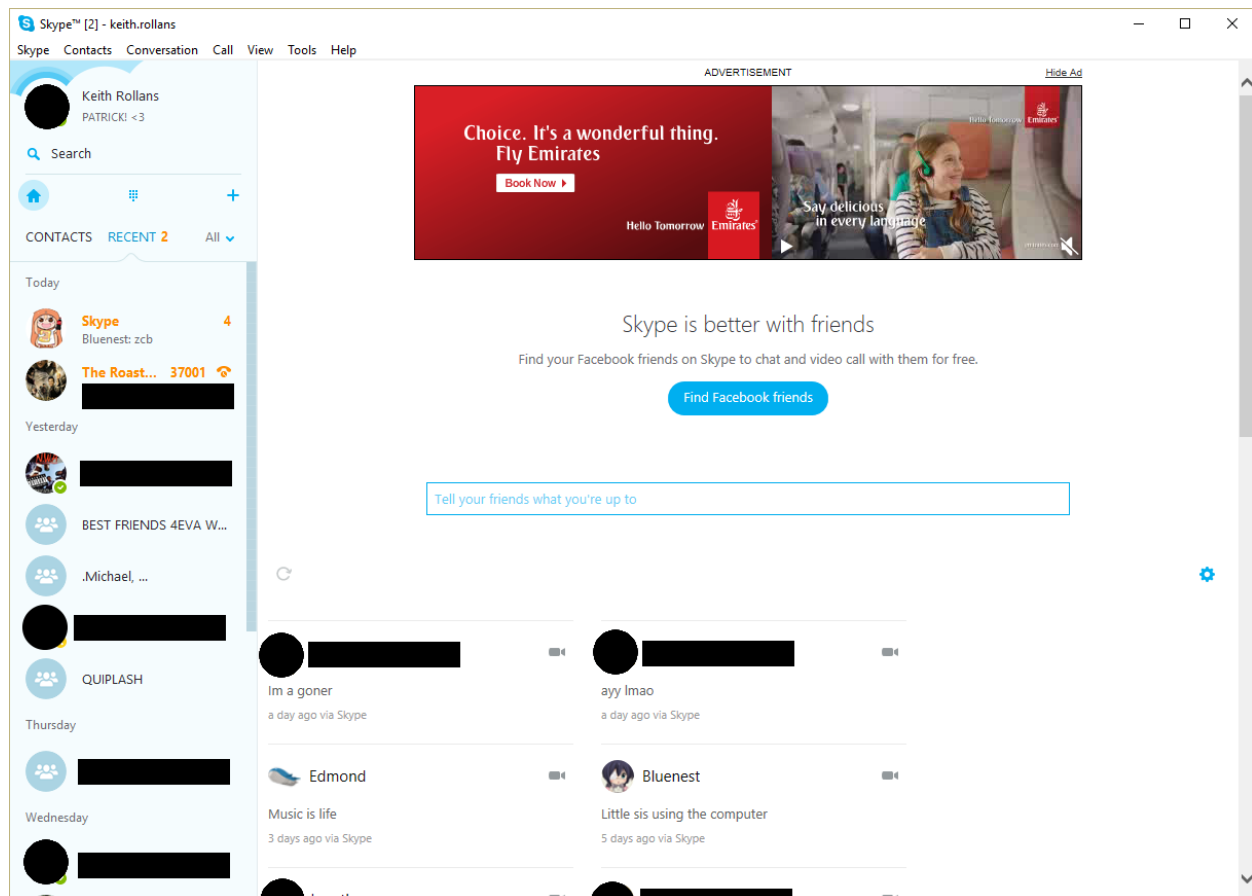
# Analysis of Skype

Keith Rollans

# 1. Introduction

Skype is a voice and video calling service that was released on August 29, 2003. It was created by Niklas Zennström and Janus Friis, who were also the founders of the peer-to-peer file sharing program Kazaa. It was bought in 2005 by eBay, then in 2009 by the consortium of Silver Lake and Andreessen Horowitz private equity firms along with the Canadian Pension Plan Investment Board. It is currently owned by Microsoft after purchasing it in 2011. It was after this acquisition that Microsoft decided to phase out its other popular instant messaging service, MSN. Skype is a very accessible piece of software. The only requirements for the user are the creation of a free Skype account, and a connection to the internet. At release, it was a peer-to-peer system using the same backend as Kazaa. For security reasons, this was abandoned in favour of a system of Microsoft-owned, more centralized supernodes once they acquired the messenger. The appeal that you could be able to call someone anywhere in the world for free, as long as they also had Skype, made it a very popular program. The user base reached 100 million registered accounts by 2005, and currently has an estimated 660 million users around the world. The desktop version is available for Windows, Mac, and Linux, while the mobile version is available for iOS, Android, Windows Phone, and others. It is even available on video game consoles like the Xbox One, and the Playstation handheld consoles.

## 2. Features

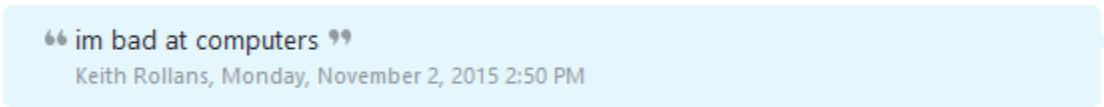


*The Skype User Interface*

Skype has all of the basic features of an instant messenger. Once you sign up for an account, you can change your display name to anything, add a picture to your profile, or even type in how you are feeling so that your friends will be able to see it. You can set your status to online, away, do not disturb, invisible, or offline. Both do not disturb and invisible will suppress skype notifications, whereas offline will prevent you from receiving the messages. You can add contacts using their unique handle or by searching for their name. Once added, you can exchange messages via text, call them using audio, or even with video. All chat history is stored in the cloud for a month, but it is also saved locally, so it will be around for as long as your computer is. To keep track of contacts, you can add them to your favourites, or create specific lists to categorize them. You can create a group chat, add people to it, change the conversation title, change the conversation picture, and start a group audio or video call with up to a certain limit of people. Skype also has a large number of animated emoticons

Some of the unique features of skype include:

- Calling Landlines: if you buy credit on skype, it is possible to use the program to call a landline. This can be very useful if you don't have access to a phone. It can also call mobile, or send a text message for additional rates.
- Quoting: if you copy a message in the conversation window to the clipboard, pasting it back into Skype will add special formatting to indicate who said it and at what time. This can be useful for attributing information, settling arguments, or even taking something that someone said out of context just for fun.

A screenshot of a Skype chat window showing a quote. The text "im bad at computers" is enclosed in double quotation marks and has a light blue background. Below it, the name "Keith Rollans" and the timestamp "Monday, November 2, 2015 2:50 PM" are displayed in a smaller font.

“im bad at computers”

Keith Rollans, Monday, November 2, 2015 2:50 PM

*An example of a quote in Skype*

- Screen Sharing: while in a call with someone, you can share your desktop with them. This allows them to see what you are doing on your computer, and can be very useful in collaborative work or for teaching purposes.
- Mojis: similar to an emoticon in its use, a Moji is a clip from a TV show or movie that can be easily integrated into conversation. Unlike GIFs, Mojis have sound when they are played.

### 3. Technologies

At release, Skype used the same peer-to-peer client that Kazaa was built on. This system has two main components: ordinary hosts and super nodes. Ordinary hosts are normal users that have skype installed. If these users have a strong enough internet connection, they could become a super node. All hosts are connected to these super nodes, and the super nodes are connected to each other. This allowed for a very strong network, which massively increased the popularity of Skype. When Microsoft purchased Skype in 2011, they replaced all of the super nodes in the network with their own machines. This gave them a tighter rein on the network, and improved the security.

Most other technical details have not been made public, since Skype is closed-source software.

## 4. Use Cases

### Logging In:

- Open the program
- Enter User ID and password
- Click Sign In

### Update Profile:

- On the menu, click Skype
- Hover on profile
- Click Edit Your Profile

### Add A Contact:

- Click into the search bar on the left side of the window
- Type in either the person's name or their Skype ID
- Click on the correct profile
- Click Add to Contacts in the conversation pane

### Start a Text Conversation:

- Find the person in the contacts tab in the left bar
- Click on them to open the conversation pane
- Type in message
- Click send

### Start an Audio Conversation:

- Find the person in the contacts tab in the left bar
- Click on them to open the conversation pane
- Click on the Call button in the top right of the conversation pane

### Start a Video Conversation:

- Find the person in the contacts tab in the left bar
- Click on them to open the conversation pane
- Click on the Video Call button in the top right of the conversation pane

### Start a Group Conversation

- On the menu, click Contacts
  - Click Create New Group...
    - Click on the Add People... button in the top right of the conversation pane
    - Search for the contacts you wish to add
    - Click add
- OR**
- Copy the link in the middle of the conversation pane
  - Send the link to the contacts you wish to add

Call a Landline

- Click on the dial pad in the left bar
- Dial the number

## 5. Analysis

The following is based on the MOCA framework. The first MOCA dimension is synchronicity. In Skype, the text chat is asynchronous. It does not require both users to be present to function. You can send someone a message, and it will remain there until they view it. However, audio and video calling is synchronous. Calls require both users to remain, and they end when either participant leaves. The second dimension is Physical Distribution. People can be in different locations while communicating. Because of the internet, Skype users can be anywhere in the world, as long as they are connected and have an active account. The third dimension is Scale. Skype requires a minimum of two people for meaningful communication. It is possible to have a group conversation with only yourself, but this will not be considered relevant. The maximum number of participants in a single group text conversation is 300. This is lowered to 25 in a group voice call, and only 10 in a group video call. The fourth dimension is Communities of Practice. Skype has N communities of practice. Because of its widespread use and the freedom offered by the software, there is no upper limit to the number of communities possible. The next dimension is Nascence. Skype is considered to be developing, as it is still being updated with new and improved features to remain relevant in today's market. The sixth dimension is Planned Permanence. Skype's text chat is long term. The messages are stored in the cloud for 30 days, and can be locally stored indefinitely on the Users device, depending on chosen settings. Voice and video chat are short term, since none of the information from them (other than time and duration) are stored. The final dimension is Turnover. The turnover in Skype is fairly high. Groups can be created or discarded easily, but it is still possible for a group to last a long time with a low turnover.

## 6. Conclusion

Skype is one of today's most popular instant messaging programs. Due to its ease of use, as well as high call quality and ability to facilitate large group video and voice chat, it is definitely worthy of this popularity.

## 7. References

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