Empirical study on chat rooms for Stack Overflow questions

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Overview

- Communications for Developers
- Chat rooms mechanics on Stack Overflow
- Characteristics of Stack Overflow chat rooms
- Impact of chat rooms on Stack Overflow
- Extra bits

Communication Channels

A communication channel is a method that developers find information or discuss with other developers.

e.g. E-mail, Mailing list, IRC, Slack, Stack Overflow, Documentation. . .

What are chat rooms in Stack Overflow?
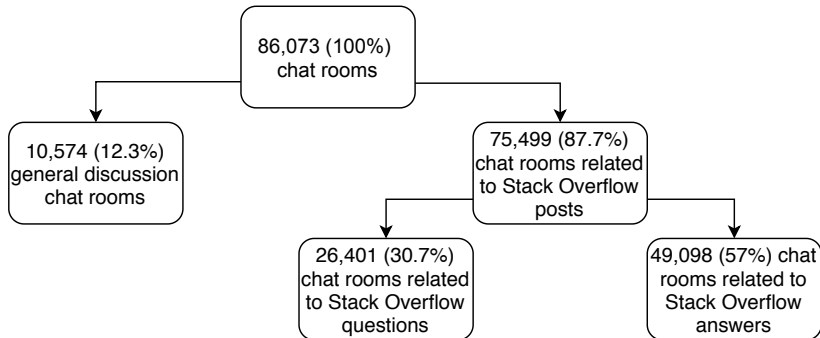
Chat rooms FAQ

What is this?

It's a real time, persistent collaborative chat for the Stack Overflow community. Only members of Stack Overflow with at least **20** reputation may talk here – but all the conversations are free, open, and public to read by anyone.

What can we chat about? ▶

This site is an extension of Stack Overflow, so discussion should more or less revolve around the same topics you'd find at Stack Overflow — but in an interactive, less strictly Q&A focused way. Do have fun, but please keep it professional and *always* be respectful of your fellow community members.

Types of Chat Rooms

86,073 (100%) chat rooms

10,574 (12.3%) general discussion chat rooms

75,499 (87.7%) chat rooms related to Stack Overflow posts

26,401 (30.7%) chat rooms related to Stack Overflow questions

49,098 (57%) chat rooms related to Stack Overflow answers

How are question chat rooms created?

Is there a reason why databases such as `MySQL` and `MongoDB` doesn't work for you? – Cosmos Zhu 11 mins ago

@CosmosZhu I've looked around and found that having `MySQL` or `MongoDB` would mean the electron app can't be "portable" so that it can be distributed easily. – Cosmos547 10 mins ago

What about `sqlite` it stores the database in a file and both `python` and `node` have modules which can interact with a `sqlite` database. – Cosmos Zhu 9 mins ago

@CosmosZhu `sqlite` does seem to work. Do you have other suggestions for a database that's also in JSON form like tinydb? – Cosmos547 2 mins ago

Is there a reason you want to create the database in Python? If using javascript to both create the database then the option to choose a database will be so much easier. – Cosmos Zhu 1 min ago   Edit

@CosmosZhu I've already implemented the processing stage by Python and only want to use it in electron. I guess it makes sense to port it into javascript so that the same database can be shared. Do you have any suggestion for a database for javascript that would serve the need? – Cosmos547 4 secs ago

Please avoid extended discussions in comments. Would you like to automatically move this discussion to chat?

Is there a reason why databases such as `MySQL` and `MongoDB` doesn't work for you? – Cosmos Zhu 36 mins ago

@CosmosZhu I've looked around and found that having `MySQL` or `MongoDB` would mean the electron app can't be "portable" so that it can be distributed easily. – Cosmos547 35 mins ago

What about `sqlite` it stores the database in a file and both `python` and `node` have modules which can interact with a `sqlite` database. – Cosmos Zhu 34 mins ago

@CosmosZhu `sqlite` does seem to work. Do you have other suggestions for a database that's also in JSON form like tinydb? – Cosmos547 28 mins ago

Is there a reason you want to create the database in Python? If using javascript to both create the database then the option to choose a database will be so much easier. – Cosmos Zhu 26 mins ago

@CosmosZhu I've already implemented the processing stage by Python and only want to use it in electron. I guess it makes sense to port it into javascript so that the same database can be shared. Do you have any suggestion for a database for javascript that would serve the need? – Cosmos547 25 mins ago

Let us continue this discussion in chat. – Cosmos Zhu 24 mins ago

add a comment

Begining of chat room

Jan 31, 13:07

Q: OpenCV : the difference between mask and ROI

I tried to set a ROI with angle in an image. At first, I thought that using a mask would give me the same result as setting the ROI in my IplImage structure. Then, I would just use cvResize the same way I did when I used ROI but this time for a mask. However, this is obviously not this easy, b...

`opencv` `roi`

Banthar You can do it with `cvGetPerspectiveTransform` and `cvWarpPerspective`.

CTZStef in CvMat* cvGetPerspectiveTransform(const CvPoint2D32f* src, const CvPoint2D32f* dst, CvMat* mapMatrix), src would be my 4 points in my boxPoints, and dst the points [0,0], [0,destImg->width], [destImg->height,0], [destImg->height,destImg->width] ?

. . . Omitted messages. . .

CTZStef then I will approve it and open a new question if I need further help

Jan 31, 13:33

THANK you very much Banthar for your help!!!!!

14 days later…

Feeds This room has been automatically frozen for inactivity
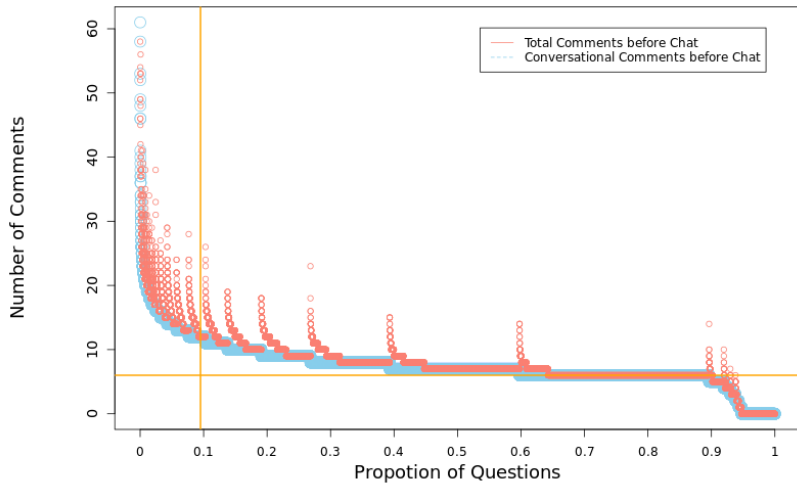
Feb 14, 19:52

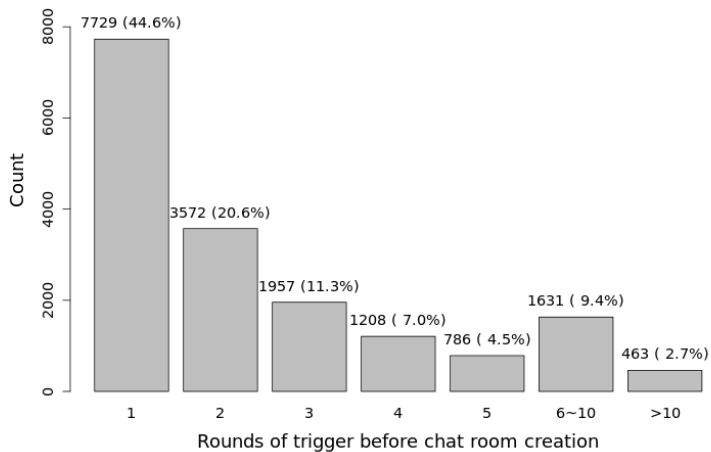**The last message was posted 2780 days ago.**

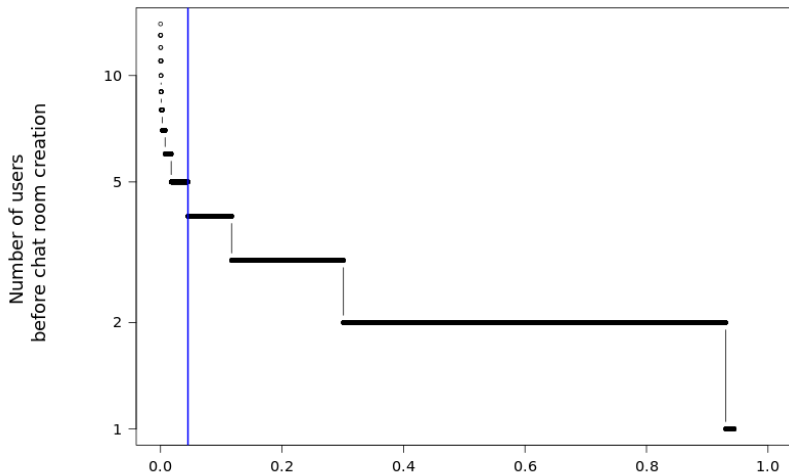# End of chat room

Data selection
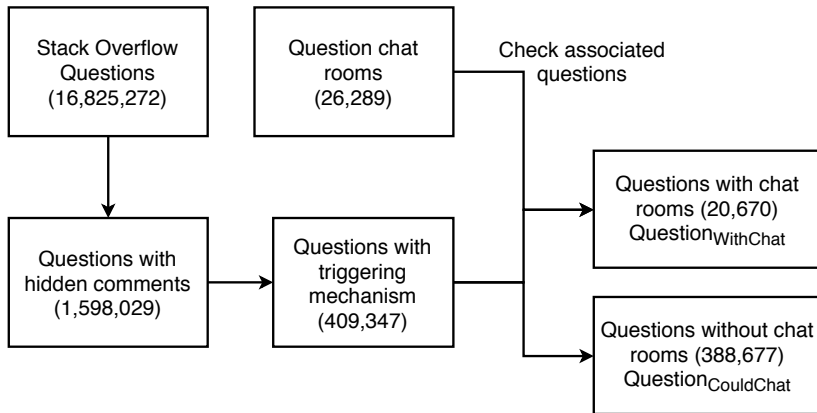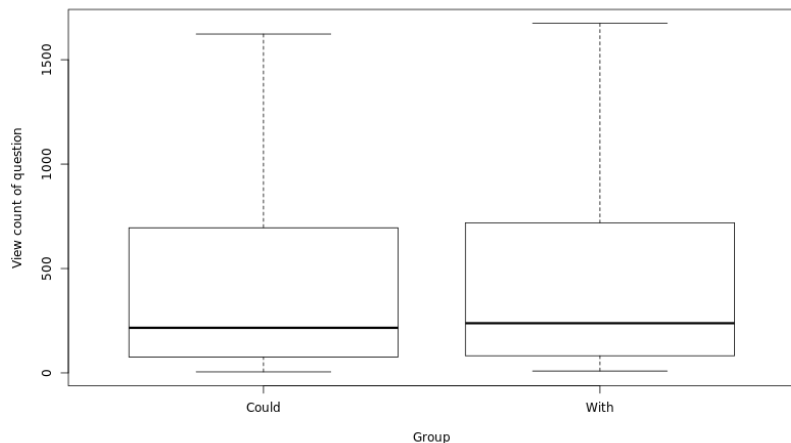
Comments before creation of chat room

Rounds of trigger

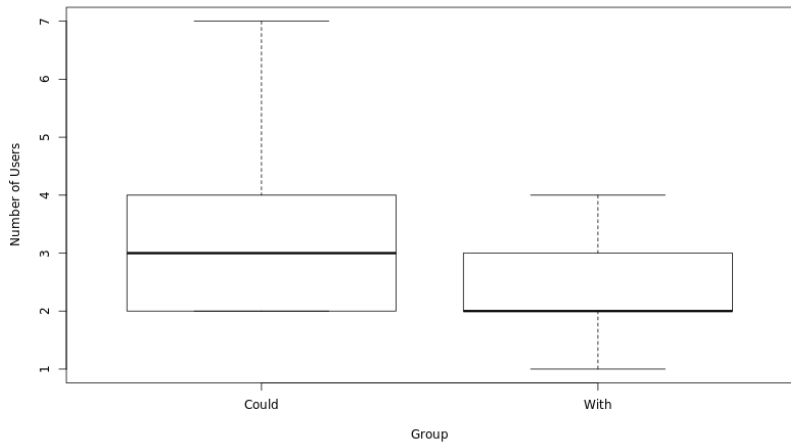# 62.9% of chat rooms are created after two users in comments

No difference between number of views between Question$_{WithChat}$ and Question$_{CouldChat}$
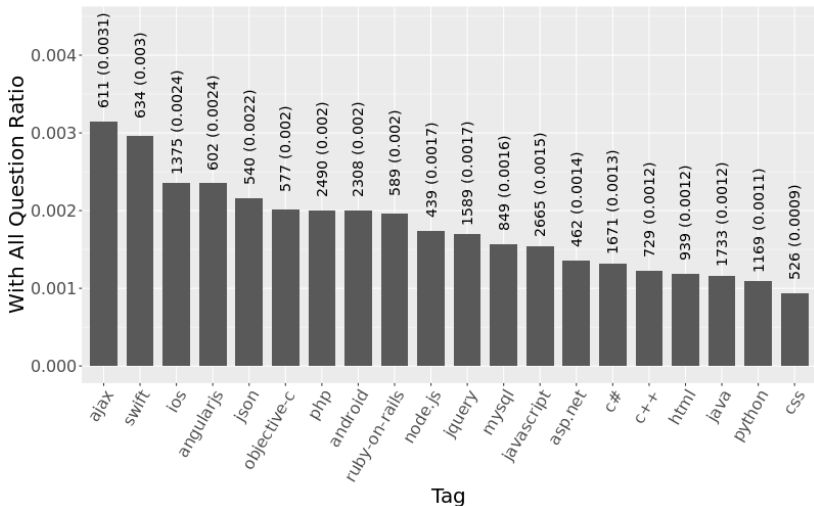

74.0% of sample test have p.value $>= 0.05$

Question~WithChat~ have less users in comments before chat

User reputation before creation of chat room

|	Question$_{WithChat}$ Median	Question$_{CouldChat}$ Median
Max user reputation in comments	8,636.5	29,711
Min user reputation in comments	378	166
Asker Reputation of question	457	173

Chat room usage differs across communities

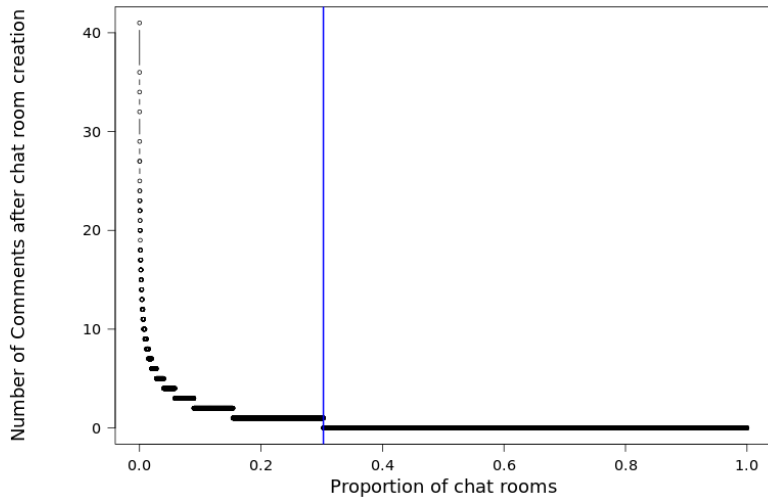# Trgger acceptence rate differs across communities
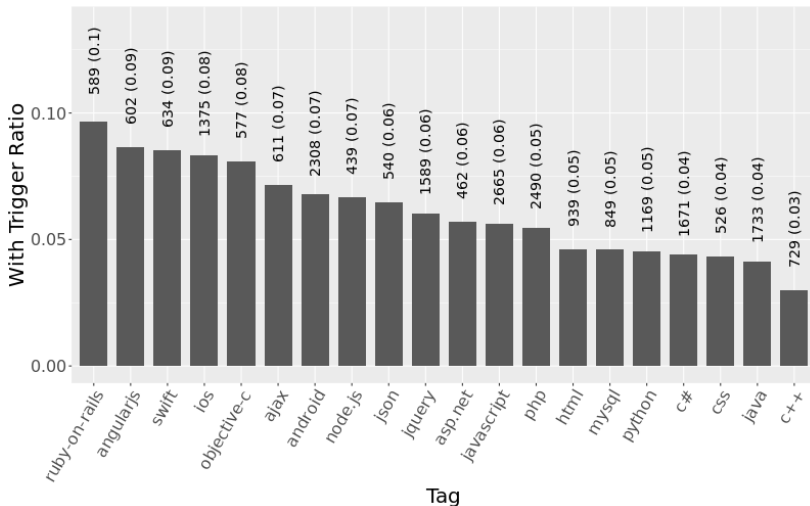
Largest communities on Stack Overflow tend to have larger difference between maximum user reputation in comments before creation of chat room
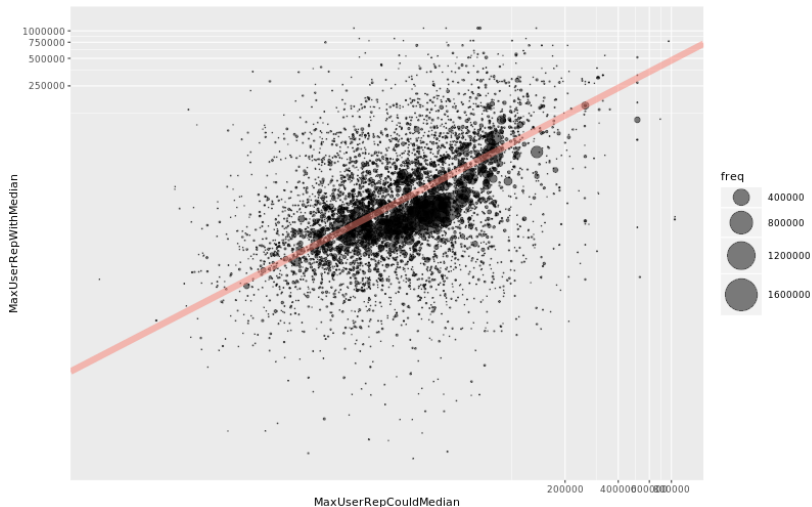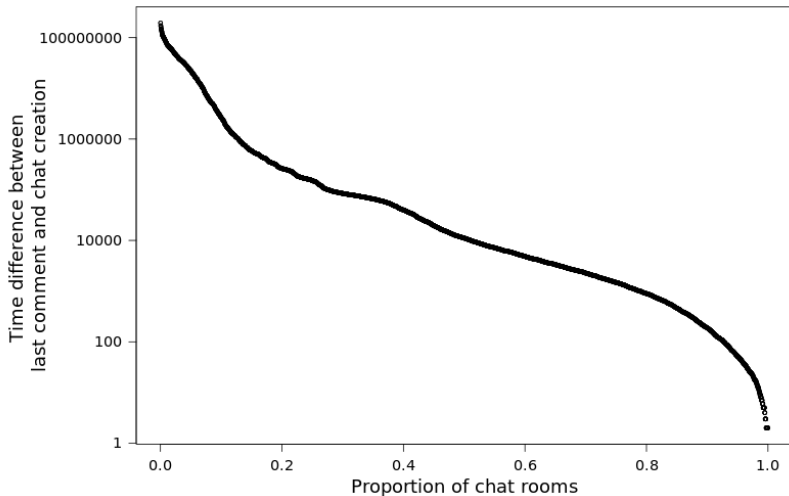
What are the effects of chat rooms?

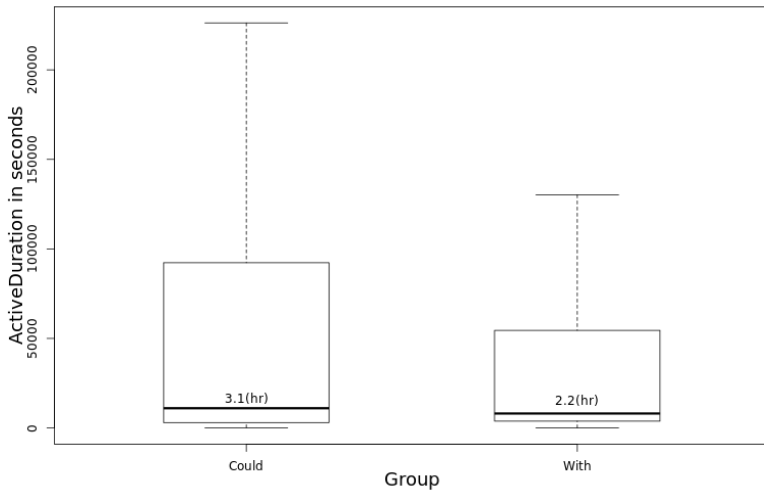# 69.7% of the discussion migrates to chat room after its creation

Distribution of time difference between time of last comment and chat room creation time

88.0% of comments are posted when the chat room is active

Discussions finishes faster for Question$_{\text{WithChat}}$

Extras! Interesting bits

Information shared in chat rooms

External resources in chat rooms

- ▶ 51,800 messages contain at least one URL in 17,911 (68.13%) chat rooms

```
             domain freq
 1:  stackoverflow.com 9891
 2:         github.com 3852
 3:        jsfiddle.net 2838
 4:        pastebin.com 2115
 5:  i.stack.imgur.com 1912
 6:        gravatar.com 1594
 7:     gist.github.com  913
 8: msdn.microsoft.com  678
 9:           imgur.com  655
10:    en.wikipedia.org  598
```

Information shared in chat rooms continued..

Code segments in chat rooms

- ▶ 92,011 (6.11%) of messages contain code segments in 18,756 (71.35%) of chat rooms

Beyond the chat room conversation

- ▶ 6,580 messages in 2,440 (9.28%) chat rooms mentioned "e mail", "e-mail" or "email"
- ▶ 2,428 messages contains an email address in 1,578 (6.00%) chat rooms

Thank you!