An empirical study on discussions for Stack Overflow questions

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Developer communication channels

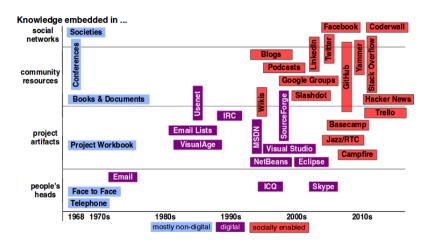


Figure 1: Communication channels over time¹

¹10.13140/RG.2.2.28208.61441

Stack Overflow

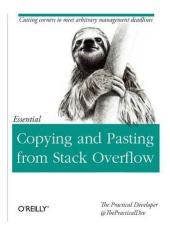
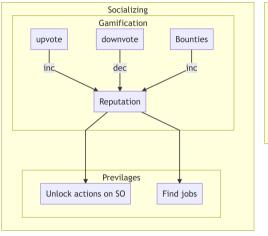


Figure 2: Made up book

Copying and Pasting from Stack Overflow — by *Vinit Nayak*

How Stack Overflow works



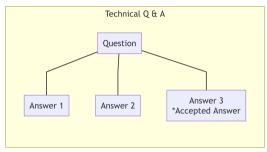


Figure 3: Stack Overflow overview

Developers learn new technologies all the time

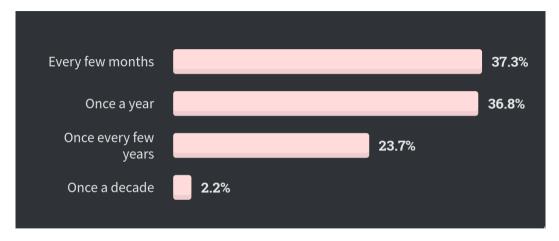


Figure 4: Learning new tech frequency²

²Stack Overflow Developer Survey 2020

Developers visit Stack Overflow when they get stuck

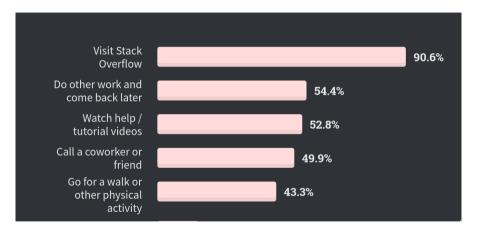


Figure 5: What do you do when you get stuck³

³Stack Overflow Developer Survey 2020

Questions and answers may not be as isolated as it seems

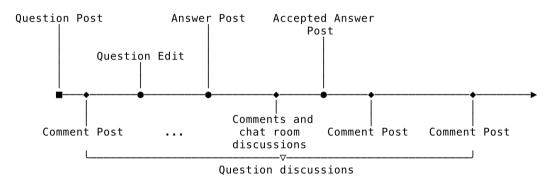


Figure 6: Stack Overflow question timeline

Discussion mechanics

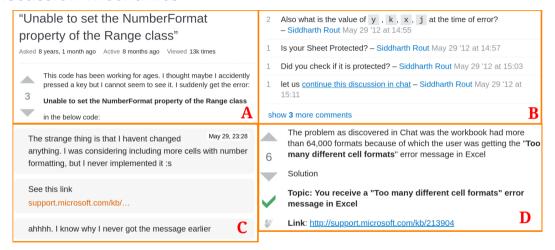


Figure 7: Example question flow⁴

⁴Unable to set the NumberFormat property of the Range class

Question discussions are gaining more popularity overtime but plateauing in recent years

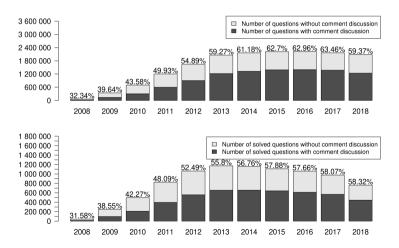


Figure 8: Popularity of question discussions over the years

Active users on Stack Overflow participate in question discussions

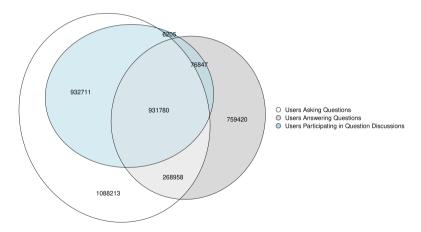


Figure 9: User participation on Stack Overflow events

Askers and answerers participate in high proportion of question discussions

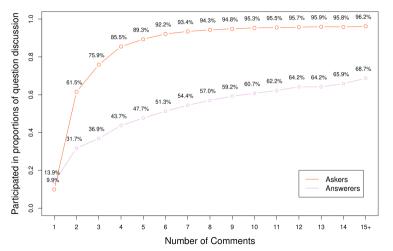


Figure 10: User participation in question discussion by role

Question discussions occur during all phases of Q&A

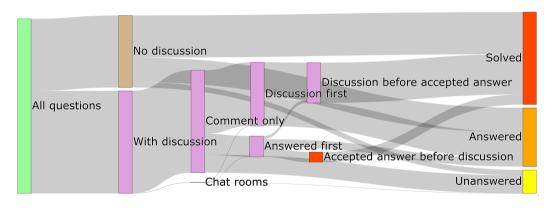


Figure 11: Question by Q&A events

Questions with a small amount of discussion in comments receives answers faster

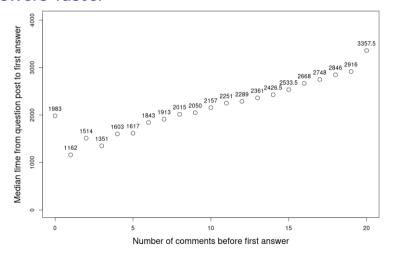


Figure 12: First answer receive time by amount of question discussion in comments

Questions with extended discussions receives more editing

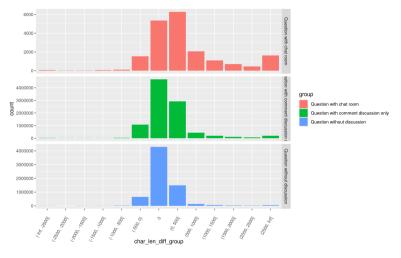


Figure 13: Question body edit by amount of discussion

GitHub introducing discussions

Discussions

Discussions is the dedicated space for your community to come together, ask and answer questions, and have open-ended conversations. Discussions make it easier to curate and maintain conversation threads, with controls for customizing categories, transferring, and pinning discussions, and converting Issues into discussions.



Figure 14: New discussions section introduced on GitHub ⁵

 $^{^5} https://github.blog/2020-12-08-new-from-universe-2020-dark-mode-github-sponsors-for-companies-and-more/ <math display="inline">\,$

Summary

How Stack Overflow works

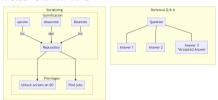


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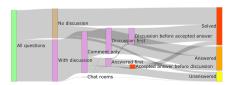


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Discussion mechanics



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