How Modern News Aggregators Help Development Communities Shape and Share Knowledge

Maurício Aniche
Christoph Treude
Igor Steinmacher
Igor Wiese
Gustavo Pinto
Margaret-Anne Storey
Marco Aurélio Gerosa

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Martin Fowler
@martinfowler
Programmer, Loud Mouth, ThoughtWorker
Boston
martinfowler.com
Joined October 2008
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Tweets & replies
Media
Martin Fowler Retweeted
Sarah Mei @sarahmei · 12h
As a society we need to let go of this individual genius narrative, which drives the desire to trace the lineage of ideas & assign credit.
That desire is ultimately pathological.
5
47
122
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Martin Fowler Retweeted
Maria Gomez @mariascandella · May 29
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Mosey on in and pull up a stool. These discussion forums are the heart and soul of our Java community.
Our bartenders keep the peace, and folks are pretty friendly anyways, so don't be shy!
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OCMJEA
JSP
SERV LETS
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ORM
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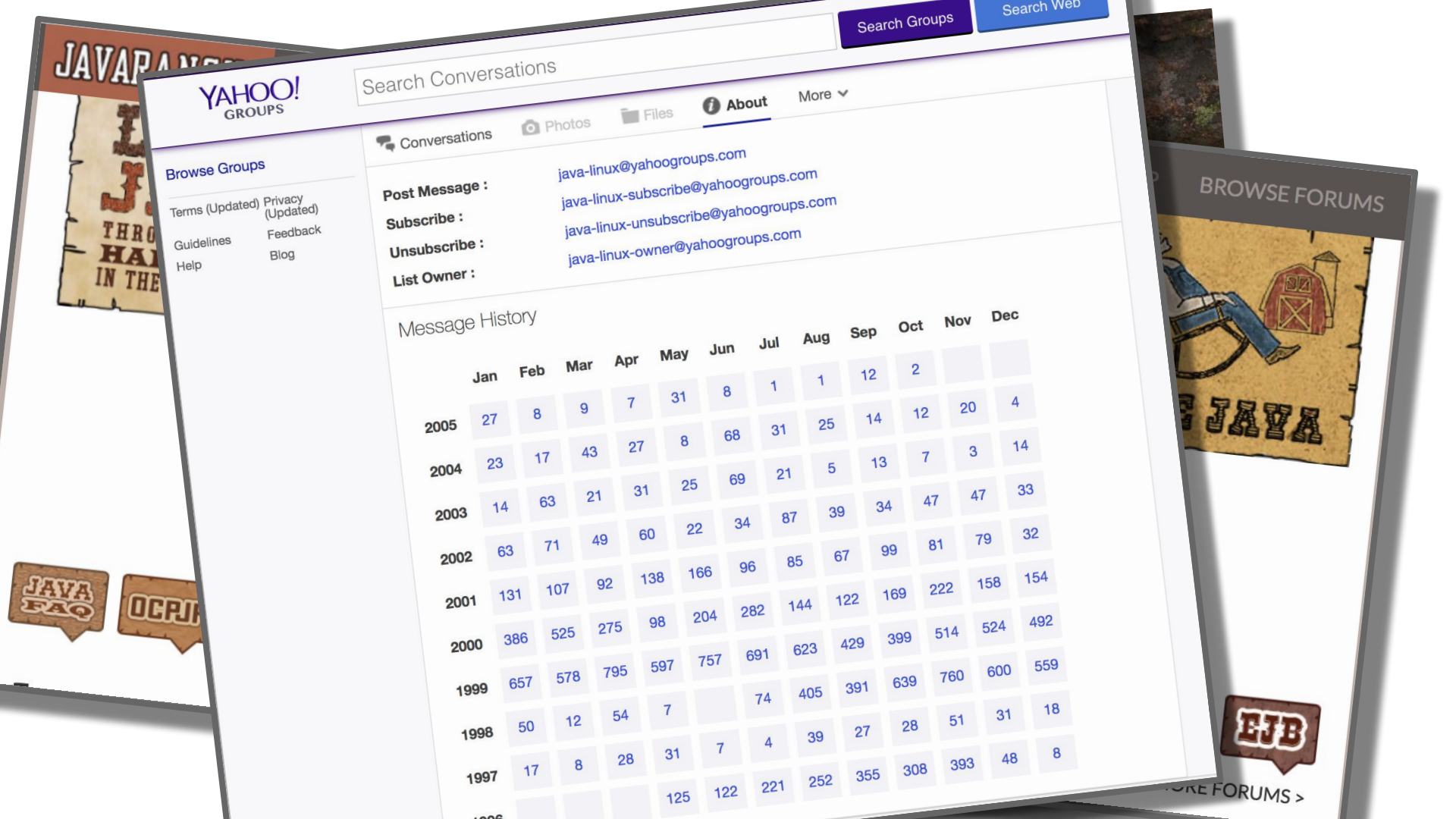
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Search Groups
Search Web
Conversations
Photos
Files
About
More
Browse Groups
Terms (Updated)
Privacy (Updated)
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Blog
Post Message : java-linux@yahoogroups.com
Subscribe : java-linux-subscribe@yahoogroups.com
Unsubscribe : java-linux-unsubscribe@yahoogroups.com
List Owner : java-linux-owner@yahoogroups.com
Message History
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2005 27 8 9 7 31 8 1 1 12 2
2004 23 17 43 27 8 68 31 25 14 12 20 4
2003 14 63 21 31 25 69 21 5 13 7 3 14
2002 63 71 49 60 22 34 87 39 34 47 47 33
2001 131 107 92 138 166 96 85 67 99 81 79 32
2000 386 525 275 98 204 282 144 122 169 222 158 154
1999 657 578 795 597 757 691 623 429 399 514 524 492
1998 50 12 54 7 74 405 391 639 760 600 559
1997 17 8 28 31 7 4 39 27 28 51 31 18
125 122 221 252 355 308 393 48 8
BROWSE FORUMS
JAVA FAQ
EJB

Developers sharing knowledge is among the best things we have as a community!

(and the way they get together changes over time...)

Community of practice: "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly".

Lave and Wenger (1991)

High Five, mauricioaniche!

You seem to have the hang of this subscribing thing. Now go make the perfect page!

See what's new in Popular

Learn SQL!

SELECT * FROM sql_knowledge WHERE start = 'basics';

SQL for Data Analysis Workshop (for Beginners) || AMSTERDAM || 6 June 2018 || Super Hands-on Workshop to go from Zero to Hero with SQL for Data Analysis in 1 day (https://data36.com/sql-data-analysis-workshop-amsterdam-beginners/)

promoted by mestitomi

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trending subreddits r/HighQualityGifs r/educationalgifs r/ConanExiles r/dadjokes r/AteTheOnion 4 comments

1 14.7k

Schizophrenia is considered a disorder of the mind, influencing the way a person thinks, feels and behaves. But latest research shows that organs, other than the brain, also change at the onset of the disease. Psychology (theconversation.com)

submitted 10 hours ago by Wagamaga to r/science

513 comments share save hide give gold report crosspost

2 1875

John Carmack: My Steve Jobs Stories (facebook.com)

submitted 15 hours ago by rararaaaaaaa to r/programming

498 comments share save hide give gold report crosspost

3 327

[Discussion] Dear Industry Researchers: "If researchers are not incentivized to do reproducible research (or penalized for not doing so), something is flawed in the industry." Discussion (self.MachineLearning)

submitted 16 hours ago by feedthecreed to r/MachineLearning

42 comments share save hide give gold report crosspost

4 193

React in patterns - A book about common design patterns used while developing with React. It includes techniques for composition, data flow, dependency management and more (krasimir.gitbooks.io)

submitted 16 hours ago by magenta_placenta to r/javascript

3 comments share save hide give gold report crosspost

5 77

Transgender in academia? (self.AskAcademia)

submitted 13 hours ago * by tossawaytransasker to r/AskAcademia

68 comments share save hide give gold report crosspost

6 50

On the weekend I wrote about the "Testing Context", An easier way to write Unit Tests in .NET (dotnetcoretutorials.com)

submitted 11 hours ago by pyronautical to r/csharp

16 comments share save hide give gold report crosspost

7 13

Python online course oriented around excel automate/ data analysis (self.datascience)

submitted 4 hours ago by citizenofacceptance2 to r/datascience

10 comments share save hide give gold report crosspost

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1

My Keybase proof [reddit:mauricioaniche = keybase:mauricioaniche] (4QHgXBJwRoFTh9dTbIVHaiyGQXqpiYZ07oXBQbbCSO8) (r/KeybaseProofs)

submitted 1 month ago by mauricioaniche to r/KeybaseProofs

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2

What do we (not) know about Domain-Driven Design? (medium.com)

submitted 5 months ago by mauricioaniche to r/programming

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mauricioaniche commented on a post in r/softwaretesting

5

Refactoring a method so it doesn't query the database? (r/softwaretesting)

submitted 7 months ago by NelsonBelmont to r/softwaretesting

mauricioaniche • 1 point • submitted 7 months ago

That makes sense to me. I commonly make my domain code as testable as possible. This basically means isolating it from any infrastructure.

Then, later I write the glue that puts everything together (eg database, logic,etc).

3

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Dr.Dobb's

Software engineering != computer science (drdobbs.com)

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20

Why I left academia (parts 1, 2, 3) (allisonharbin.com)

submitted 9 months ago by mauricioaniche to r/highereducation

u/mauricioaniche

1,993 Karma

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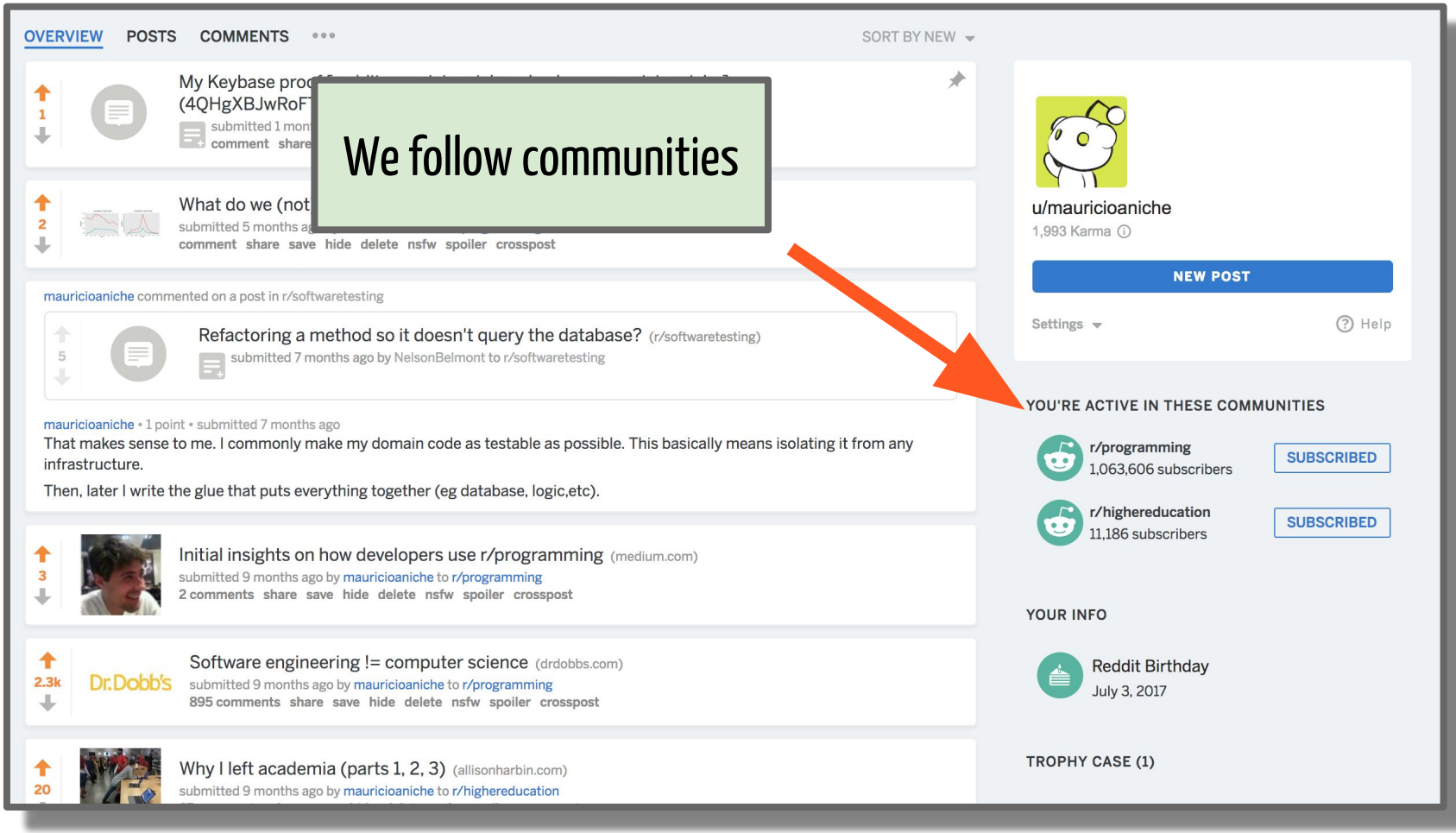
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We follow communities
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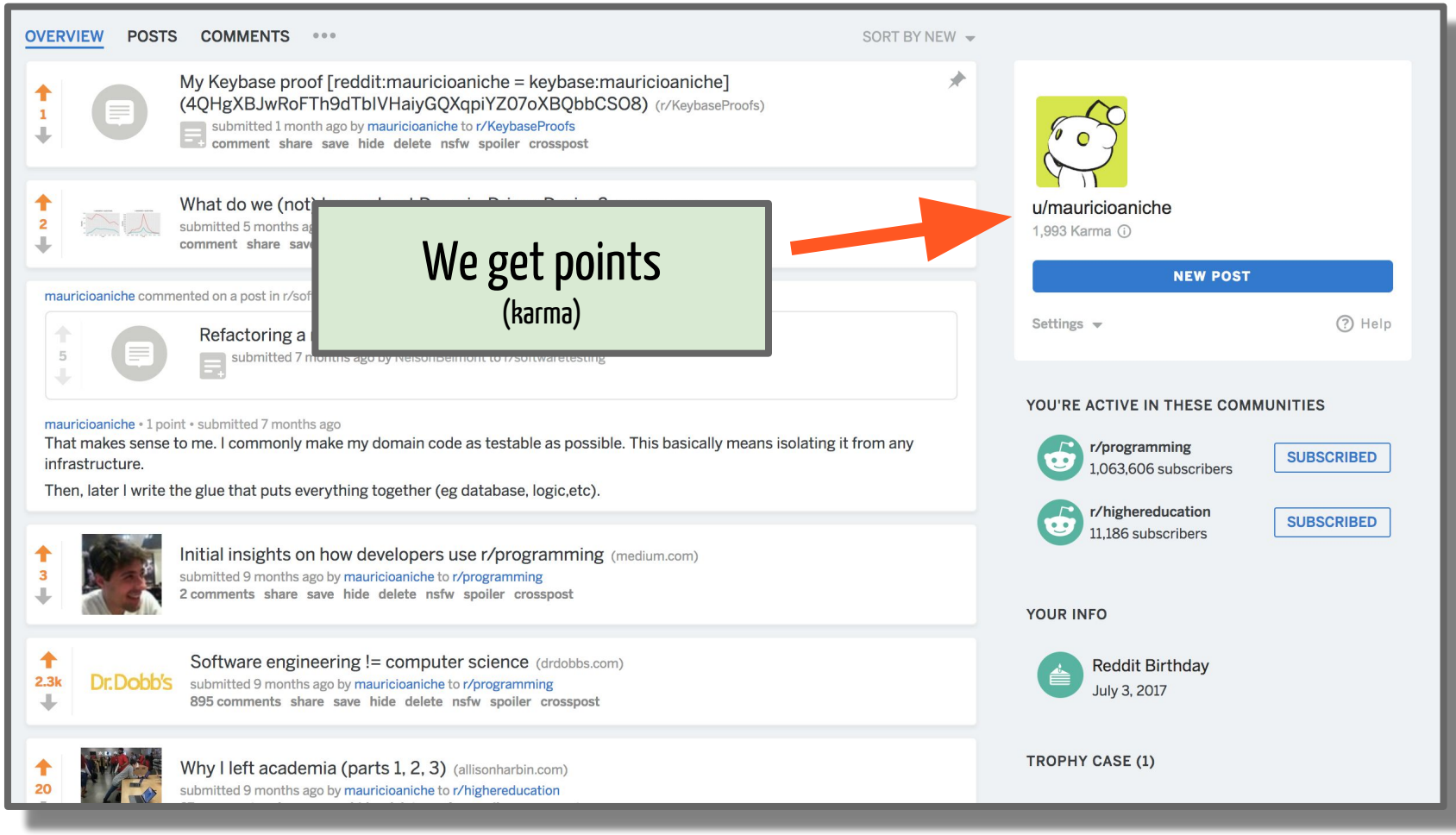
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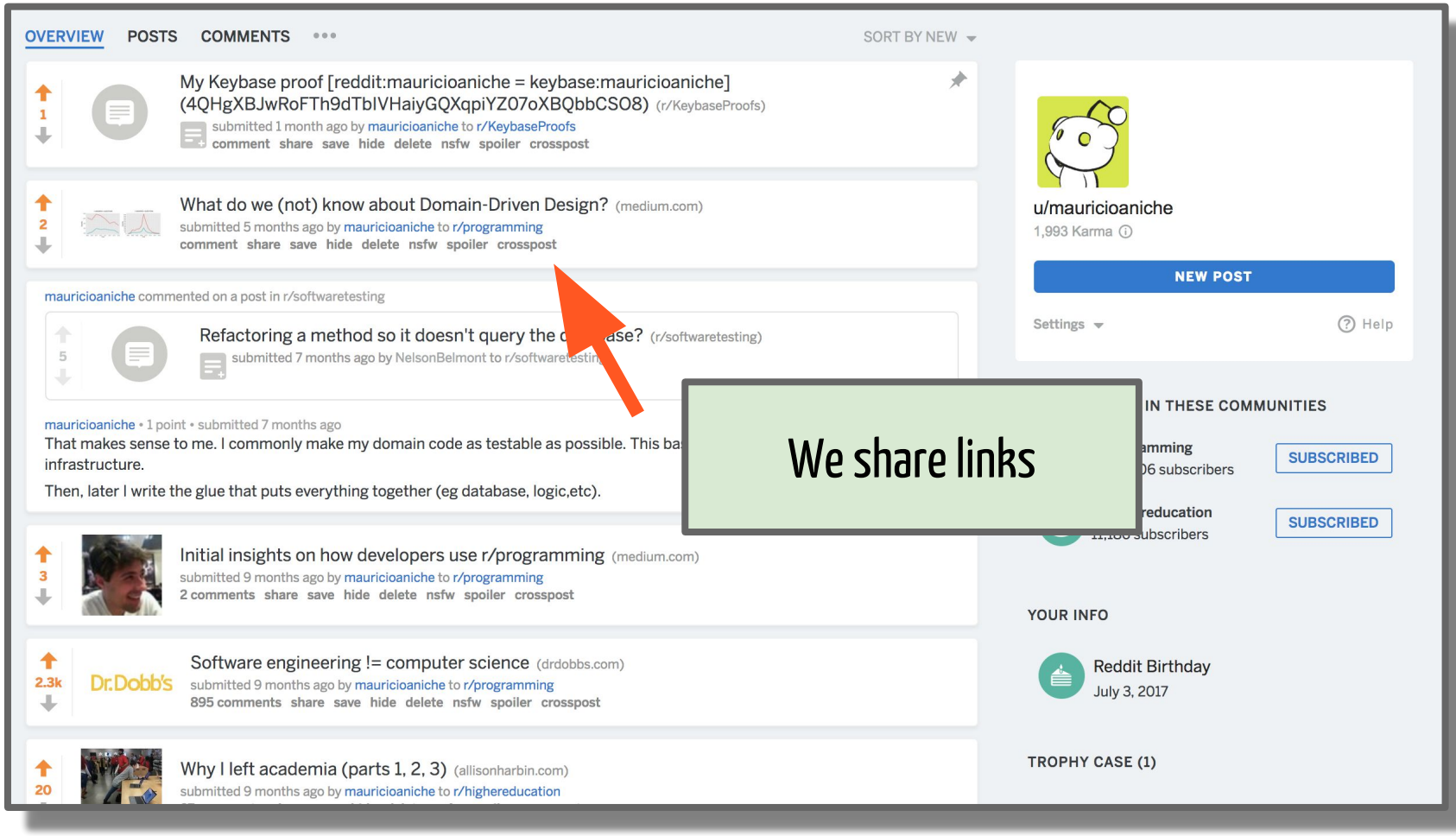
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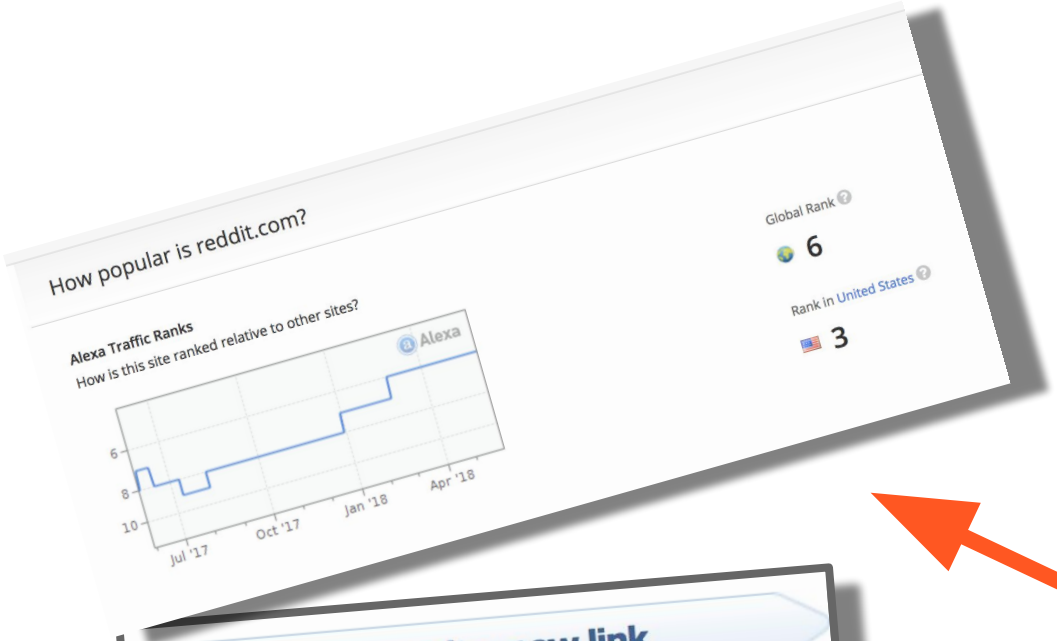
You comment on someone else's post



Developers really use it!

Hacker News

Reddit

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@martinfowler
Programmer, Loud Mouth, ThoughtWorker
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martinfowler.com
Joined October 2008
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Search Conversations
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Post Message : java-linux@yahoogroups.com
Subscribe : java-linux-subscribe@yahoogroups.com
Unsubscribe : java-linux-unsubscribe@yahoogroups.com
List Owner : java-linux-owner@yahoogroups.com
Message History
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2005 27 8 9 7 31 8 1 1 12 2
2004 23 17 43 27 8 68 31 25 14 12 20 4
2003 14 63 21 31 25 69 21 5 13 7 3 14
2002 63 71 49 60 22 34 87 39 34 47 47 33
2001 131 107 92 136 166 96 85 67 99 81 79 32
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Hacker News new | comments | show | ask | jobs | submit
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1. Memory transfer between snails challenges view of how brain remembers (statnews.com)
2. Safe ways to do things in bash (github.com)
3. Open source tutorial for hackintosh && macOS installation (github.com)
4. An Analysis of vgo (sdboyer.io)
5. Wi-Fi alliance announces mesh networking standard (wi-fi.org)
6. Archive of Operating Systems (archives.org)
7. Learning to See in the Dark (illinois.edu)
8. Pure CSS Francine (github.com)
9. Launch HN: Nectu (YC W18) – ISP Starter Kit
10. When physics meets biology: a less known Feynman (arxiv.org)
11. Xerox calls off $6.1B sale to Fujifilm (ft.com)
12. I Don't Know How to Waste Time on the Internet Anymore (nymag.com)
13. Announcing Fuse Open (fusetools.com)
14. Enslaved and then marooned on Tromelin Island for fifteen years (2014) (archaeology.org)
15. GHC Parser Principles (haskell.org)
16. Life as a stepmother (theguardian.com)
17. High-Resolution Mandelbrot in Obfuscated Python (2011) (preshing.com)
18. AquilaOS: Posix Compliant/mostly ISA Transparent Operating System (aquilaos.com)
19. A short history of tap (spectator.co.uk)

We should understand how modern news aggregators are used by software developers to curate and disseminate knowledge!

Research Questions

RQ1. What motivates developers to participate in programming-related news aggregators?

RQ2. What are the characteristics of the content posted in programming-related news aggregators?

RQ3. What suggestions do the participants have to improve the community and features of programming-related news aggregators?

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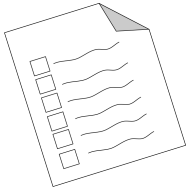
Interviews with 22 active members



Survey with 99 users

Manual analysis of 600 posts
(CL=95%, CI=6%)

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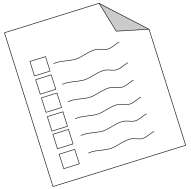


Survey with 99 users

P9: *"It's particularly interesting when the consensus differs from the conclusion I came to regarding the article".*

P14: *"If you wanna share something and get people's opinion, it's a very quick way to do it. I started using Reddit to get feedback about my blog post."*

Motivation to post: To promote their own work, get feedback, and see different opinions!

You have a crowd that you *never* had before!

You have a crowd that you *never* had before!

You need followers!

P4: *"I only have time to work with a single stack. [In Reddit] you see perspectives from people that work on different stacks".*

P12: "My main goal is to keep in touch with what happens in the industry. Especially as our industry is really really wide and university is more focused on theory. So, I need to find other sources to see other technologies".

Motivation to read: Get in contact with what's going on in the sw development world.

To help other people to find the "best" content.

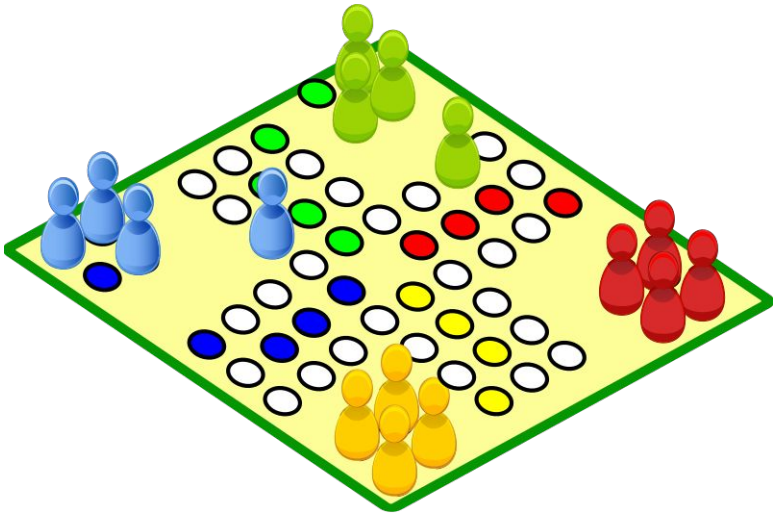
P14: *"Because I'm interested in other people's opinions."*

Motivation to upvote: To help the community to curate the content.

P12: *"if I downvote a comment, it's because it's terribly off-topic or really offensive and it doesn't add anything to the discussion".*

Do not downvote simply because I disagree.

Motivation to downvote: To help the community to curate the content.



Gamification is still tricky!

(for the good and for the bad!)

Indirect effects:

- motivates some to participate
- you are respected if you have a lot of karma
- Indication of how good a post is
- P14: "*you can get karma by basically just being a troll.*"

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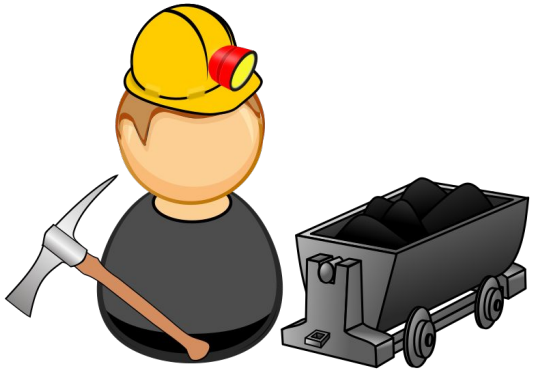
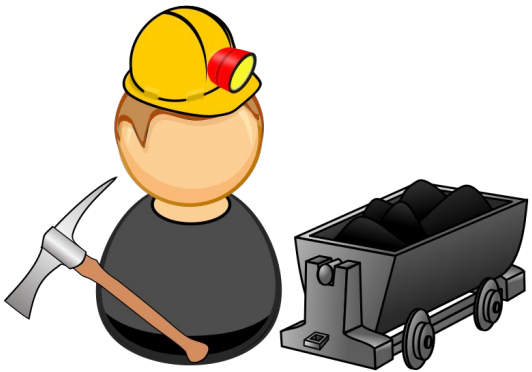
Discussed technologies
(Reddit)



- Programming Languages (~52%)
- Libraries/Frameworks (~30%)
- System software (e.g., OS, DB) (~20%)
- Software Tools (IDEs, package managers) (~10%)
- Application software (~10%)
- Hardware/Gadget (~5%)

Sources



- Blog posts
  - Personal posts way more than company blogs
- Software home pages
  - GitHub is the most common source
- Also (but not very popular): YouTube videos, Q&A sites, Wikipedia.
- Scientific sources: only on HackerNews

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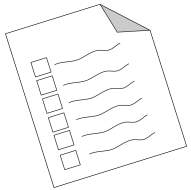

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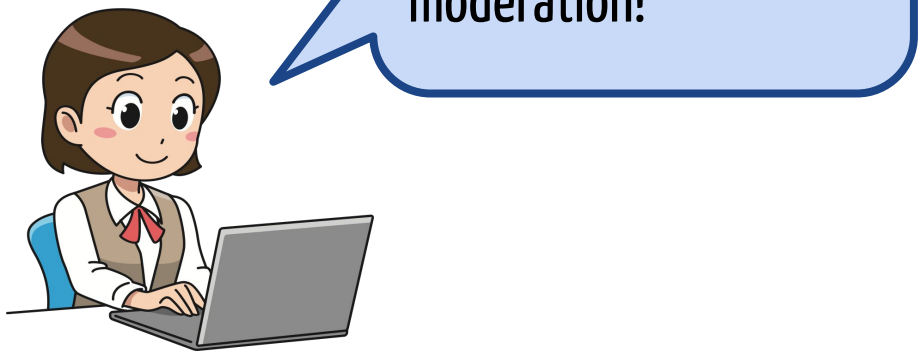


Ignore users that are always negative.

Not to let derailed discussions to go to the top of the website.

Complex posts may attract fewer upvotes (thus, less publicity).

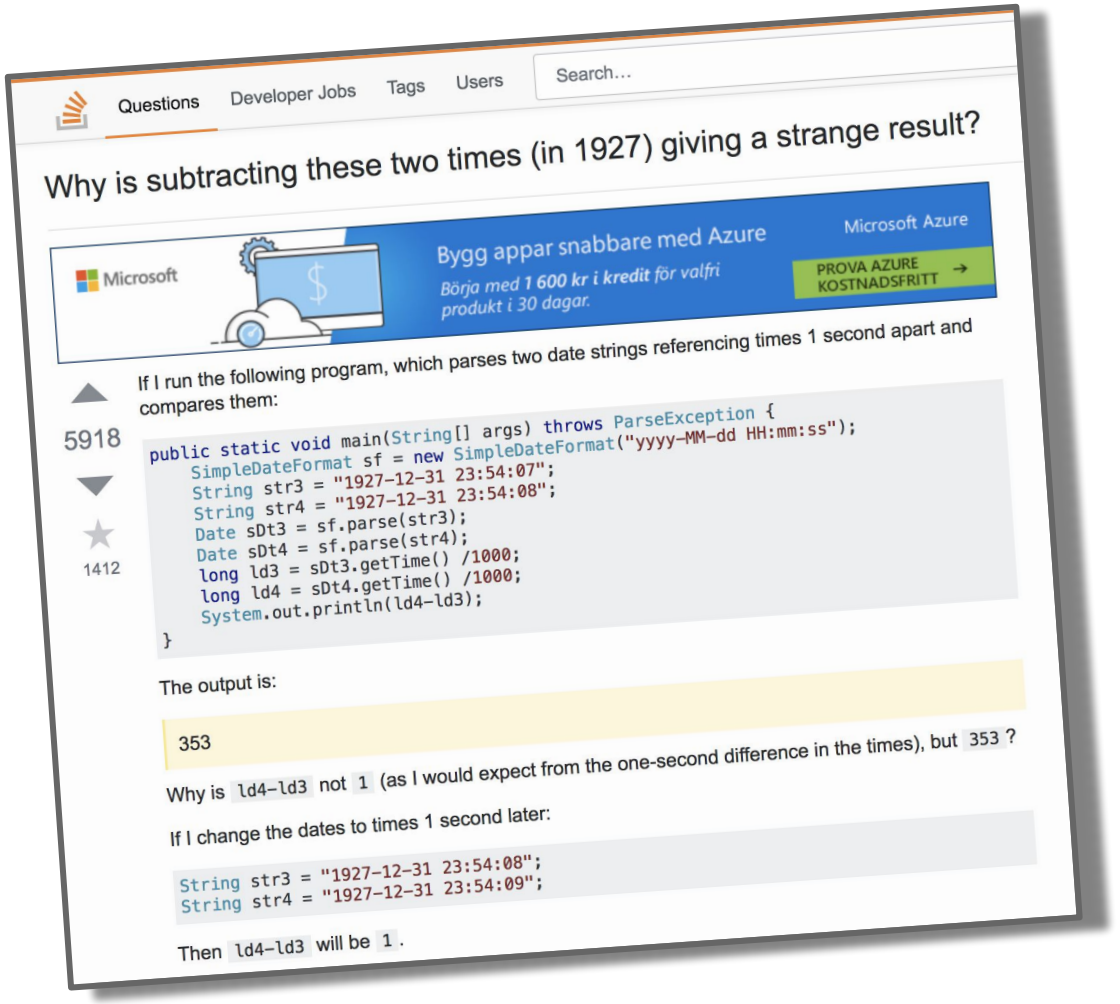
Aggressive users
(almost all participants mentioned it)

Watch out for the pitfalls.

- Not engage with trolls
- Avoid flame wars. P18: *"if you are in a heated conversation, take a step back and ask yourself why".*
- Avoid (posting) click-baits
- Read the comments of good posts
- Be critical

Implications

Look beyond Stack Overflow and formal documentation as sources for developer knowledge.



Future work

Study a different sample

(our sample was focused on core users; the periphery is also interesting)

Improve gamification, curation, and moderation mechanisms

R/Programming and Hacker News shape and are shaped by software development communities of practice.

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