


# Auto-answering in the semantic space

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# The problem

- Customer service doesn't scale
  - Even with the use of online boards and communities!
- Users repeatedly ask the same or very similar questions
  - How can we improve the speed of question answering?



The screenshot displays the Cisco Support Community website. The header includes the Cisco logo, navigation links (Community Directory, Expert Corner, Community Corner, Solutions), a search bar, and a user profile for 'alvaro.barbero'. The main content area features a banner for 'The Cisco Support Community' with a call to action to 'Ask A Question', 'Answer Questions', or 'Participate in Events'. Below the banner, there is a 'Hot Topics' section with a table of questions. To the right, a 'Stats' section shows the user's profile statistics.








Subject	Views	Author
<a href="#">extension mobility in CME</a> 5 hours 10 min ago	0	engamb1991
<a href="#">how to connect cisco spa5xx to ldap</a> 7 hours 37 min ago	0	ruben.gracia1
<a href="#">Arp coming but other end is not pinging</a> 1 day 1 hour ago	19	prashirsha1
<a href="#">Cisco Small Business RV220W Router</a> 1 day 3 hours ago	21	Rajesh Roshan Dash


**alvaro.barbero's Stuff**

Stats	Activity	Shortcuts	Following
Points	0		
Answers marked as Correct	0		
Endorsed	0		
Content Rated	0		
Discussion started	0		




[View my Profile](#)

# Solutions out there

 StackExchange    7,771  2  18  36 review help

 [Questions](#) [Tags](#) [Users](#) [Badges](#) [Unanswered](#) [Ask Question](#)

## Should the Java “this” keyword be used when it is optional? [duplicate]

 14   4

From what I gather as a Java beginner, when accessing instance members, the `this` keyword may apparently be used, but is not mandatory.





I wonder whether there is any official recommendation of sorts of a style guide (though I was unable to find anything in the actual Java style guide).

How do people usually do this, or is there maybe even something like a consensus in the Java community?





[java](#) [coding-style](#) [this](#) [keyword](#)

share edit reopen (1) flag

edited Aug 18 '14 at 16:08

 Servy 121k  10  108  199

asked Apr 7 '09 at 13:42

 miracle2k 4,297  5  36  42

**marked** as duplicate by [Marc Gravell](#) ♦, [Bill the Lizard](#), [Michael Myers](#) ♦, [Outlaw Programmer](#), [bobince](#) Apr 7 '09 at 15:36

This question has been asked before and already has an answer. If those answers do not fully address your question, please [ask a new question](#).

2

Good luck on getting any kind of consensus on that topic - it'll need a miracle2k :-p – [Marc Gravell](#) ♦ Apr 7 '09 at 13:47

Yep. Pretty much anything that is 'optional' or subjective in nature will start a religious war (or at least a small battle). – [Robin](#) Apr 7 '09 at 13:53


Looks like a duplicate of [stackoverflow.com/questions/516291/the-use-of-this-in-java](#) and [stackoverflow.com/questions/516768/...](#), or at least pretty close. – [Michael Myers](#) ♦ Apr 7 '09 at 13:55

asked 6 years ago

viewed 13961 times

active 21 days ago

Featured on Meta

 [April 2015 Community Moderator Election Results](#)

Hot Meta Posts

29

[Followup to “Blacklist the \[microsoft\] and \[apple\] tags”](#)

22

[Is it appropriate to share the results of my research toward solving my own m...](#)

4

[Flagging questions with details only in comments](#)

Linked

7

[The use of “this” in Java](#)

6

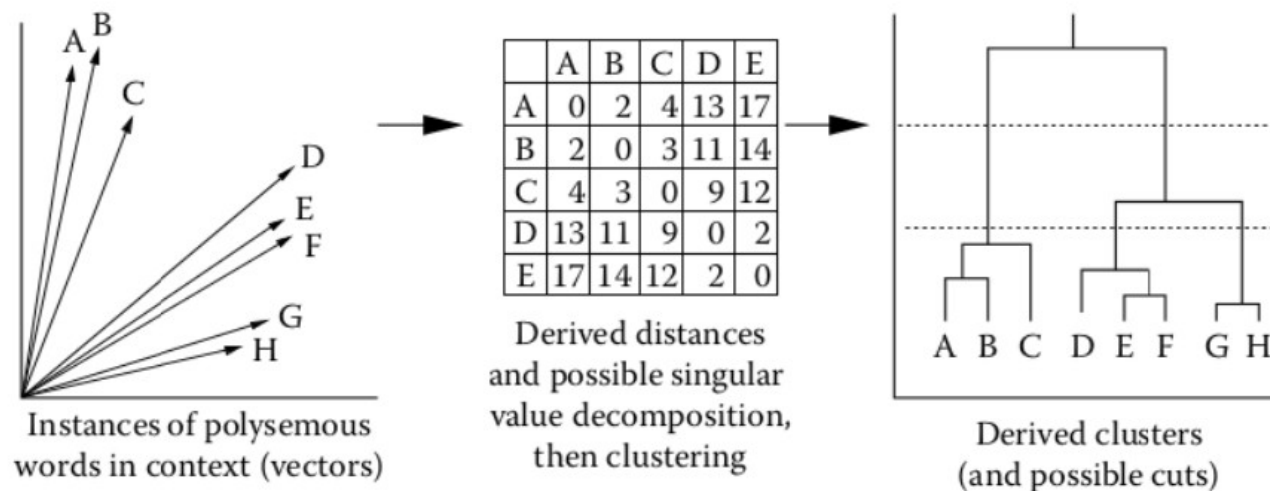
[Using “this” with methods \(in Java\)](#)

-1

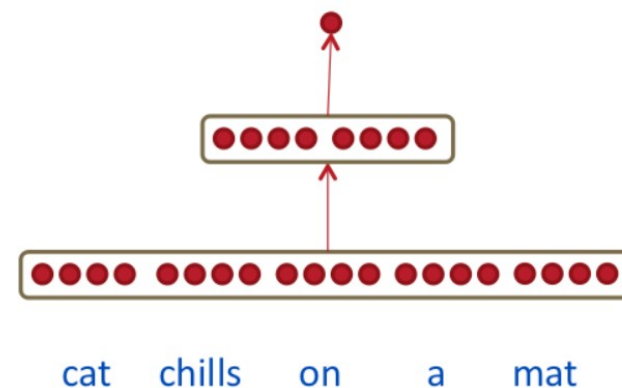
[Proper usage of this keyword in java](#)

Can we automate this?

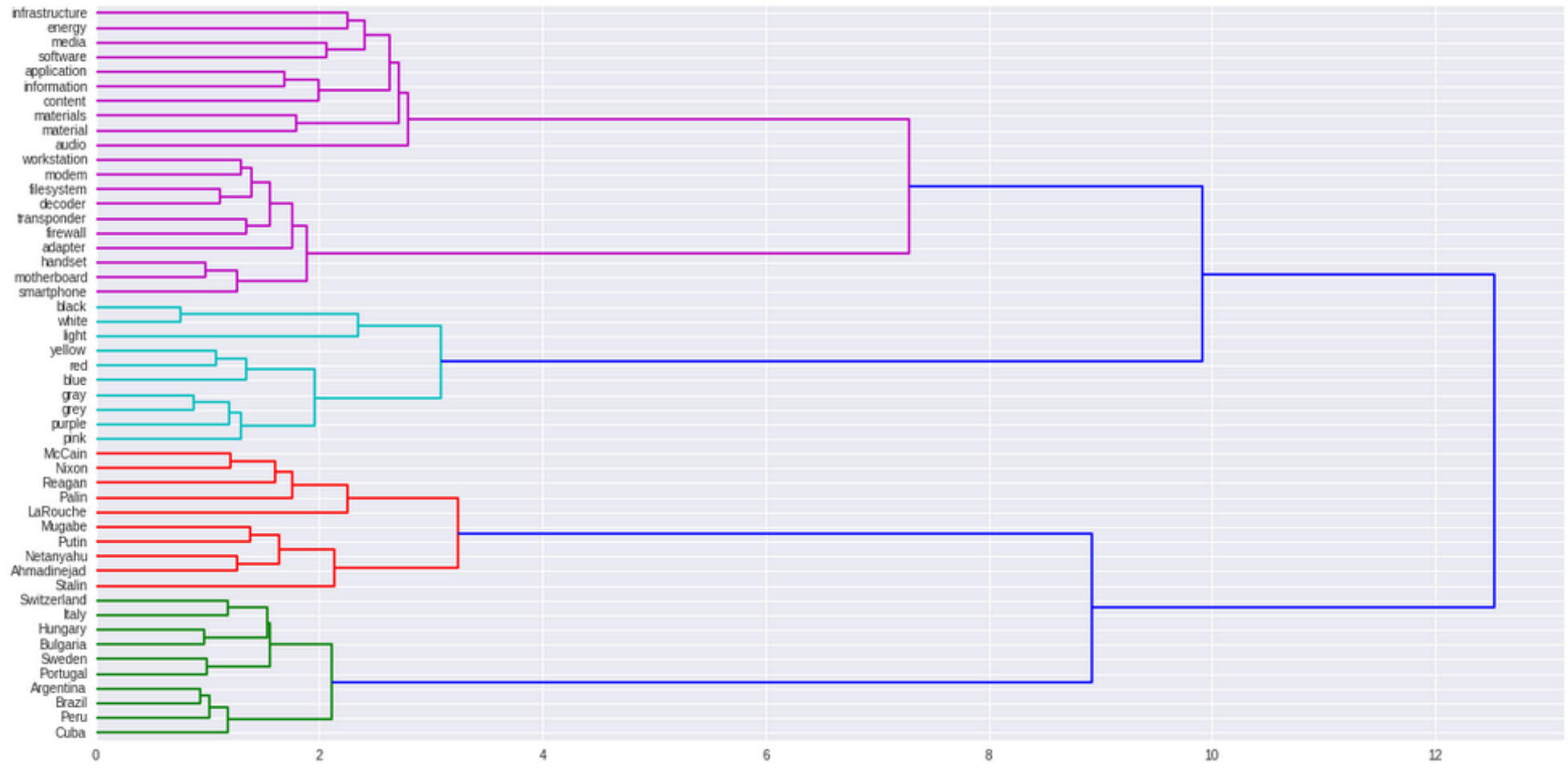
# The key idea: semantic embeddings



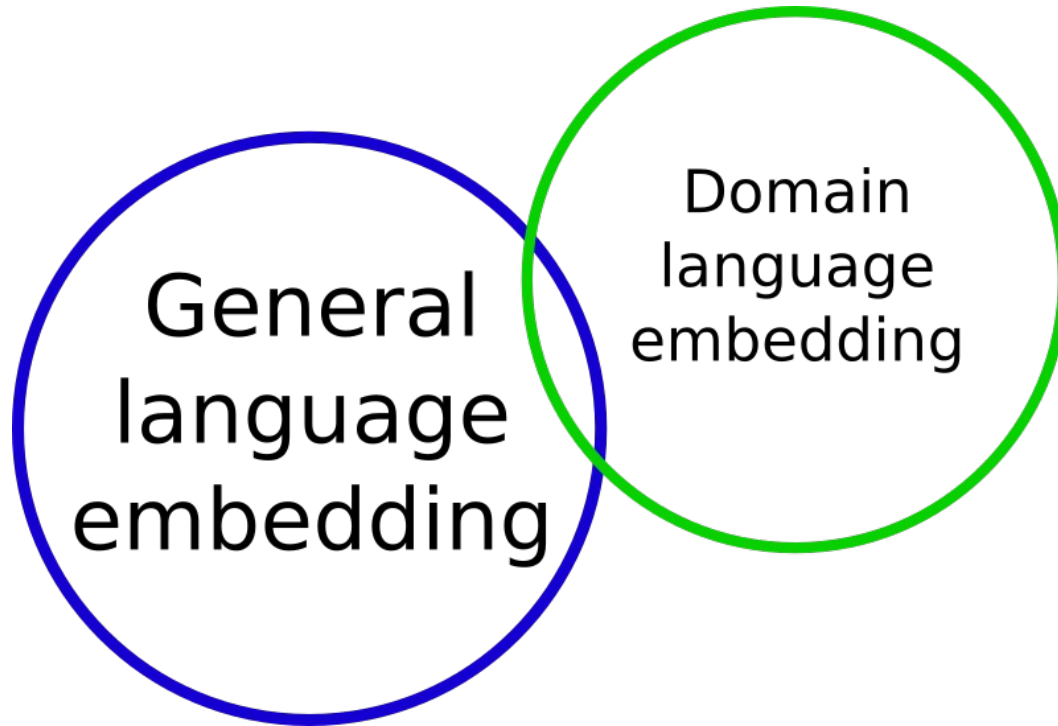
~~motel [0 0 0 0 0 0 0 0 0 1 0 0 0 0] AND  
 hotel [0 0 0 0 0 0 0 0 0 0 0 0 0 0] = 0~~



# Wikipedia Embedding

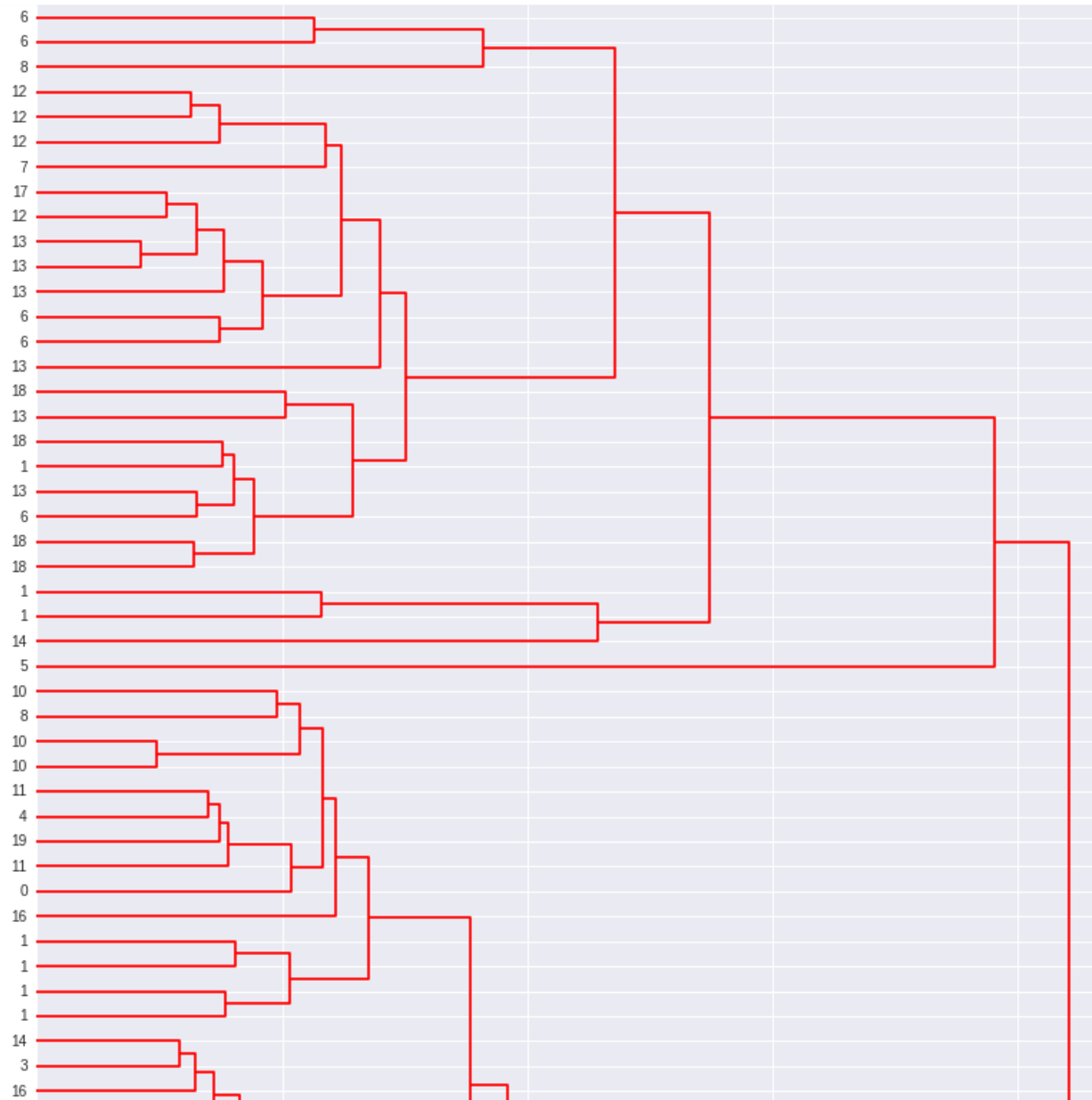


# Combining embeddings



# CISCO posts embedding

Post ID

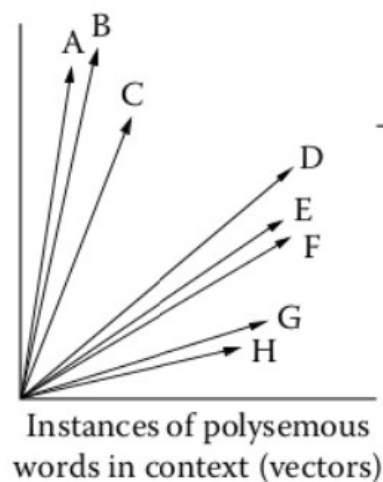


# Label agreement score on stackexchange community

With only Wikipedia embedding	With Wikipedia + CISCO + Stackexchange embedding
0.519374504602	0.7300018904

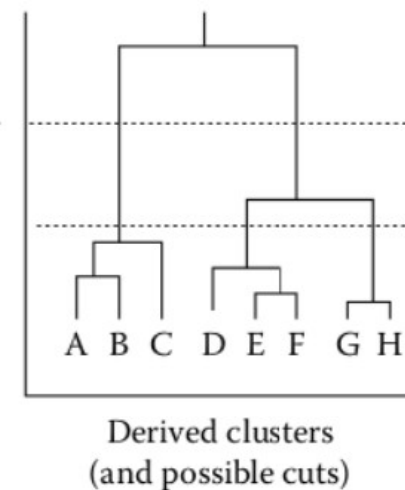


# Fast search filtering



	A	B	C	D	E
A	0	2	4	13	17
B	2	0	3	11	14
C	4	3	0	9	12
D	13	11	9	0	2
E	17	14	12	2	0

Derived distances  
and possible singular  
value decomposition,  
then clustering



# Conclusions

- Recommendations for already existing solutions to new questions might be possible using this technology.
- Scalability guaranteed by fast search.