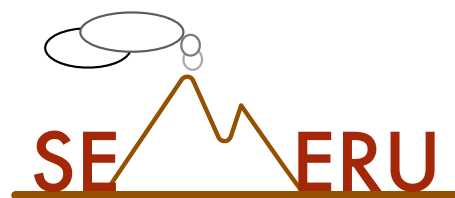


▲ An Exploratory Analysis of Mobile Development Issues using Stack Overflow



MSR'13 Challenge

May 18 '13



Mario Linares-Vásquez
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Denys Poshyvanyk



Research questions

- ▲ Are there developers (AAOs) that provide **accepted answers** for **several mobile platforms**? Do developers provide answers only for **a specific platform**?

RQ1

- ▲ Which are the **hot-topics** that describe the **answered questions** related to **mobile development** in SO?

RQ2

- ▲ Which are the **hot-topics** that describe the **unanswered questions** related to **mobile development** in SO?

RQ3

Approach

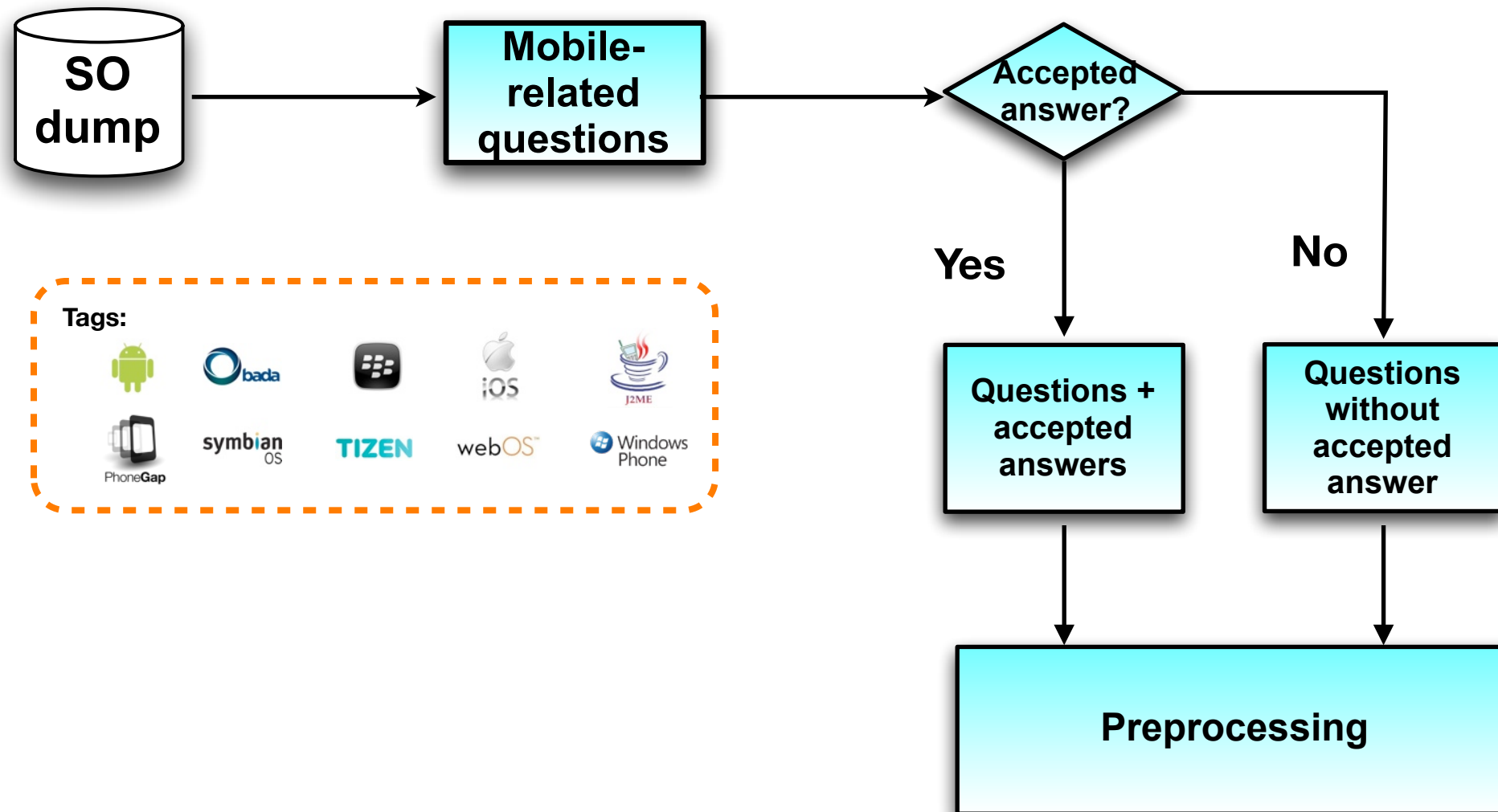


Tags:

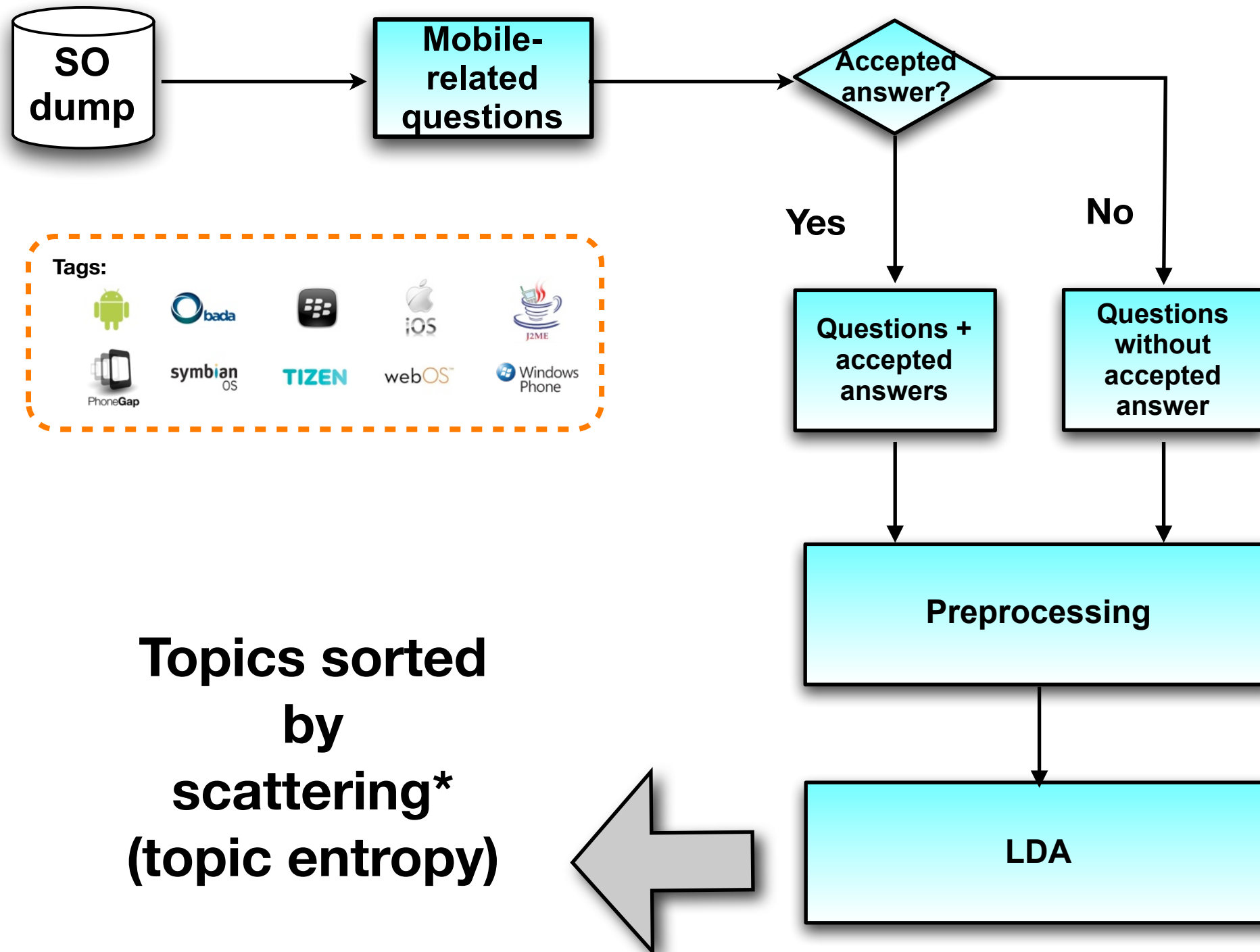


PhoneGap

Approach

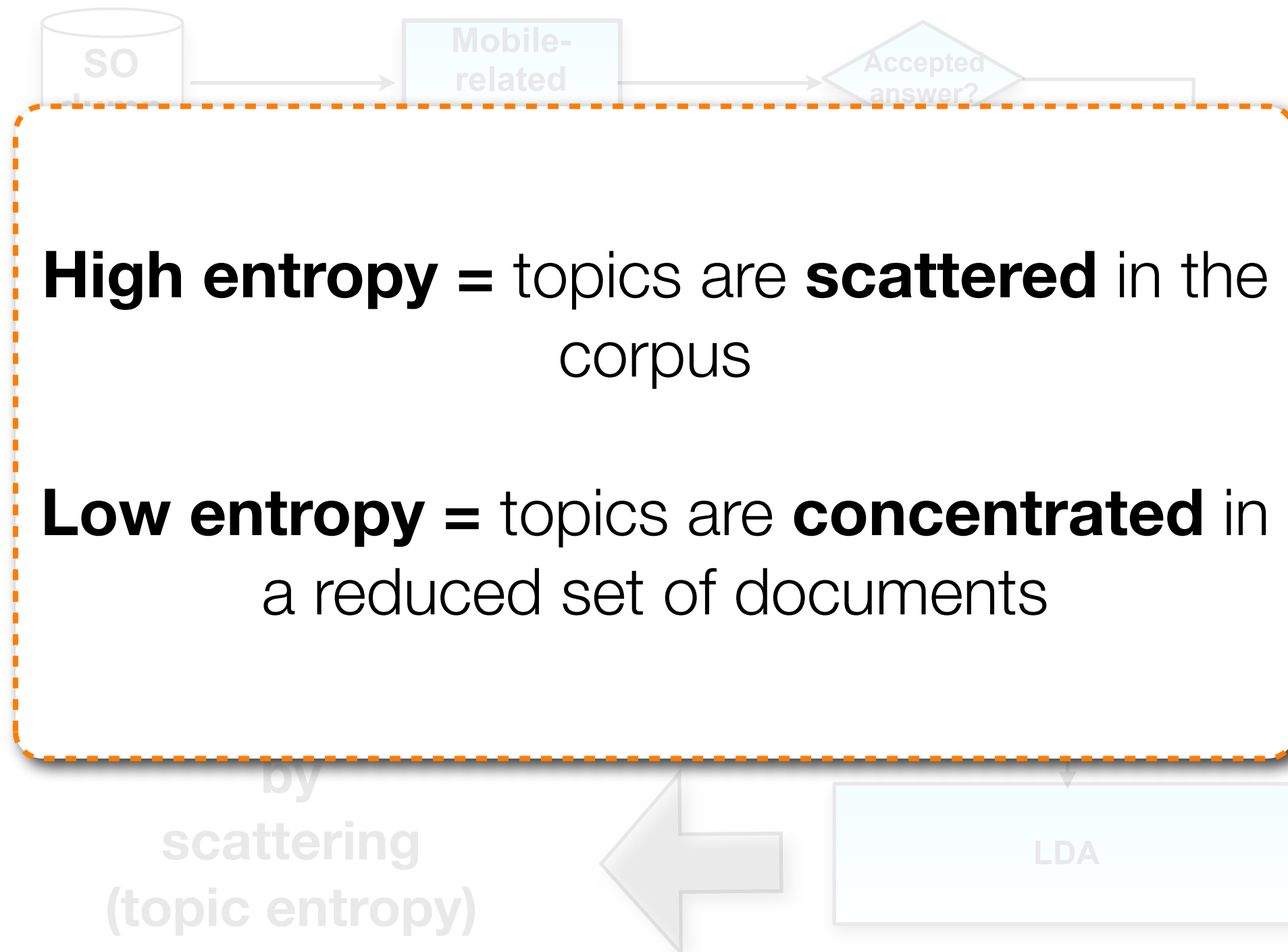


Approach



*P. Baldi, E. Linstead, C. Lopes, and S. Bajracharya, "A Theory of Aspects as Latent Topics," in *OOPSLA'08*, 2008, pp. 543-562

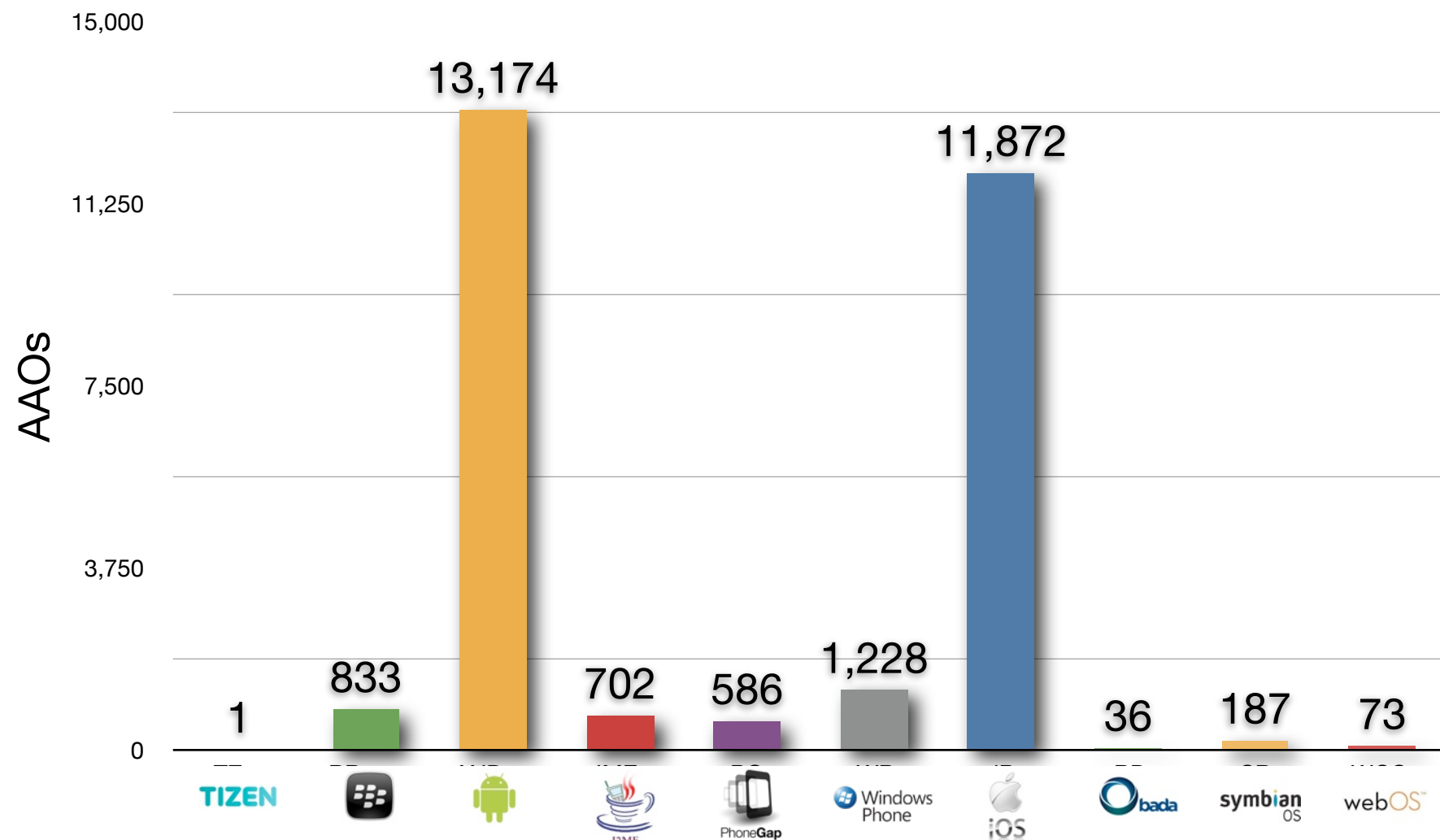
Approach



Findings...

- ▲ Are there developers (AAOs) that provide **accepted answers** for **several mobile platforms**? Do developers
- ▼ provide answers only for **a specific platform**?
- ☆

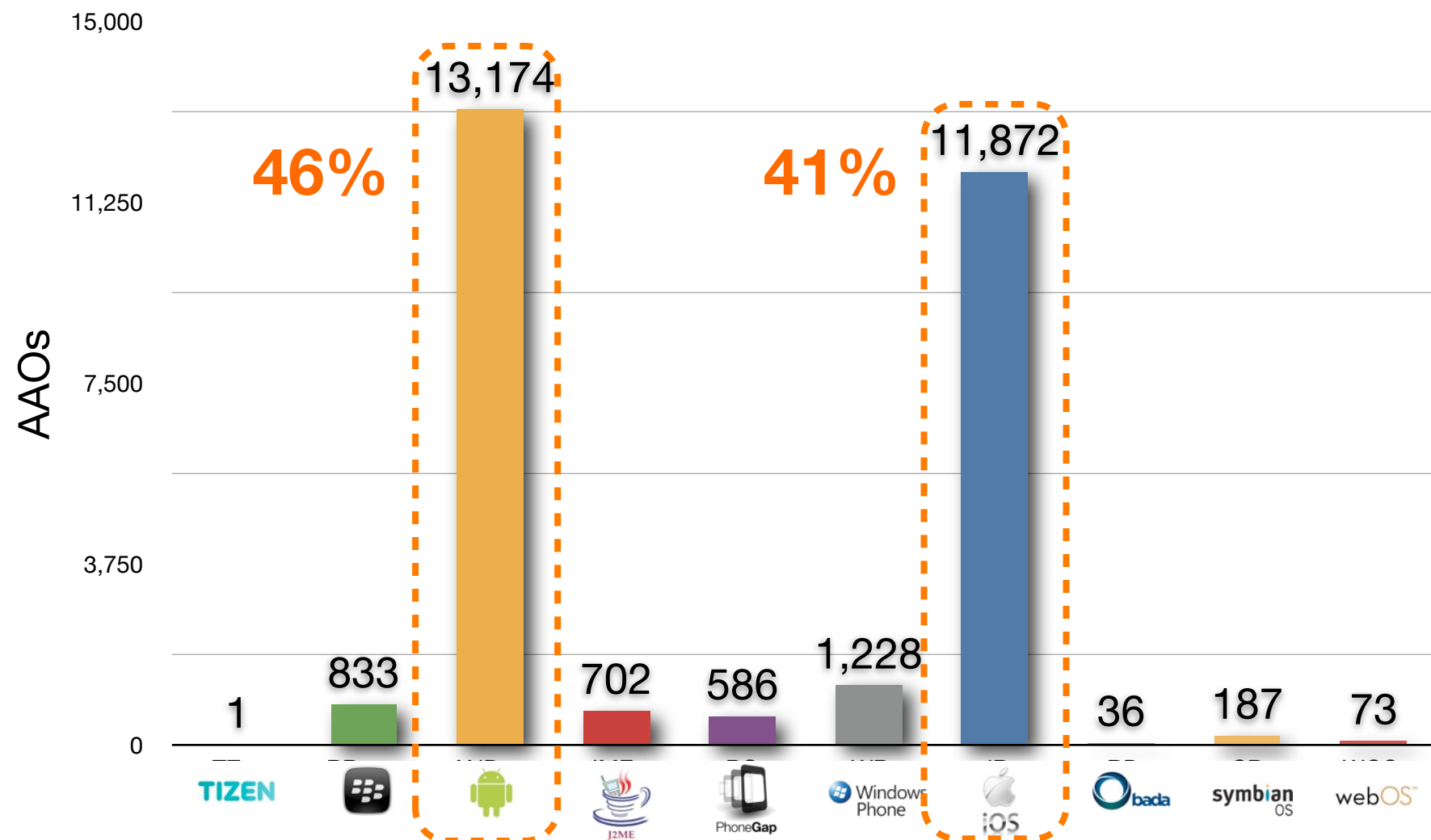
RQ1



Findings...

- ▲ Are there developers (AAOs) that provide **accepted answers** for **several mobile platforms**? Do developers
- ▼ provide answers only for **a specific platform**?
- ☆

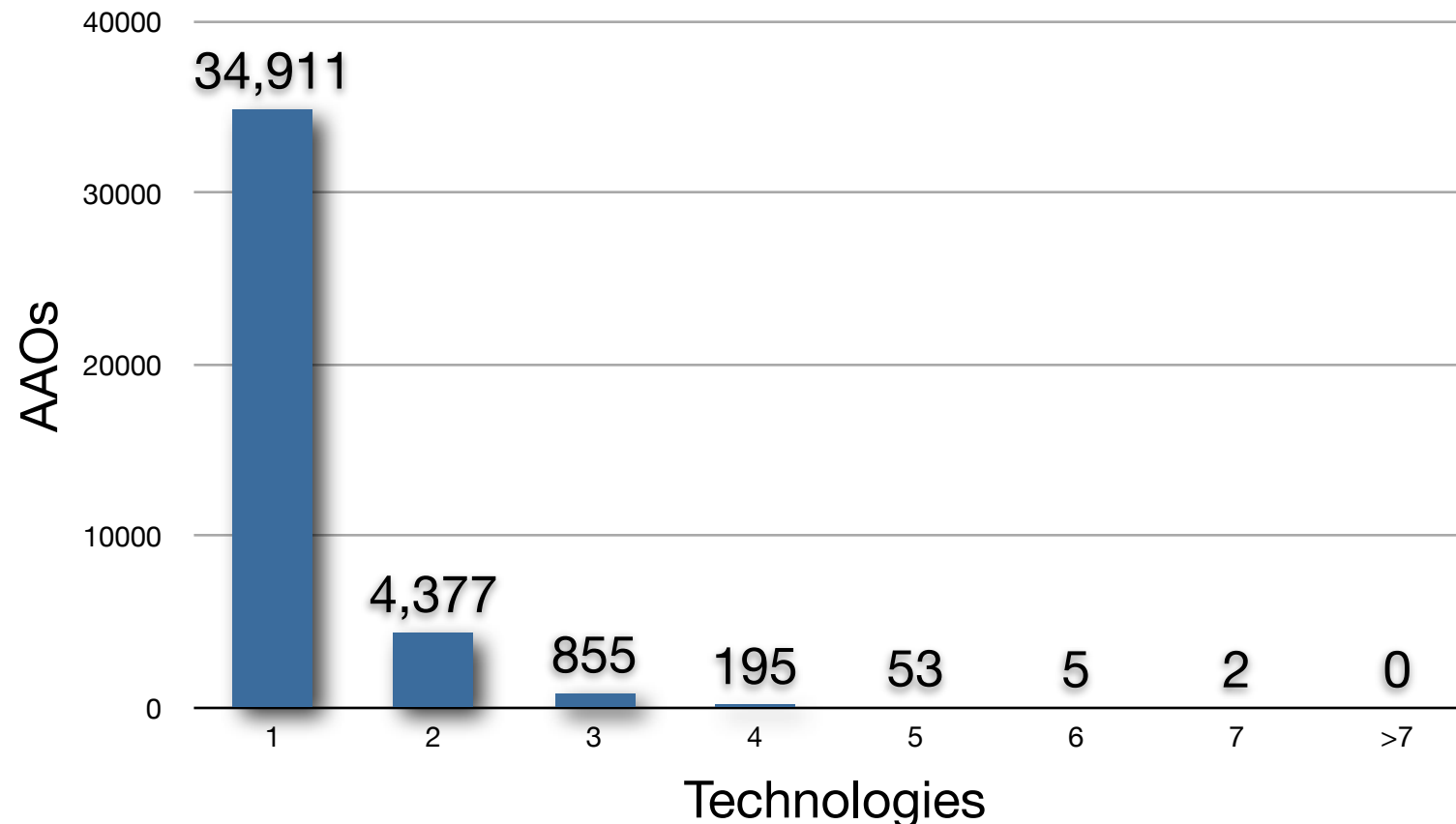
RQ1



Findings...

- ▲ Are there developers (AAOs) that provide **accepted answers** for **several mobile platforms**? Do developers
- ▼ provide answers only for **a specific platform**?
- ☆

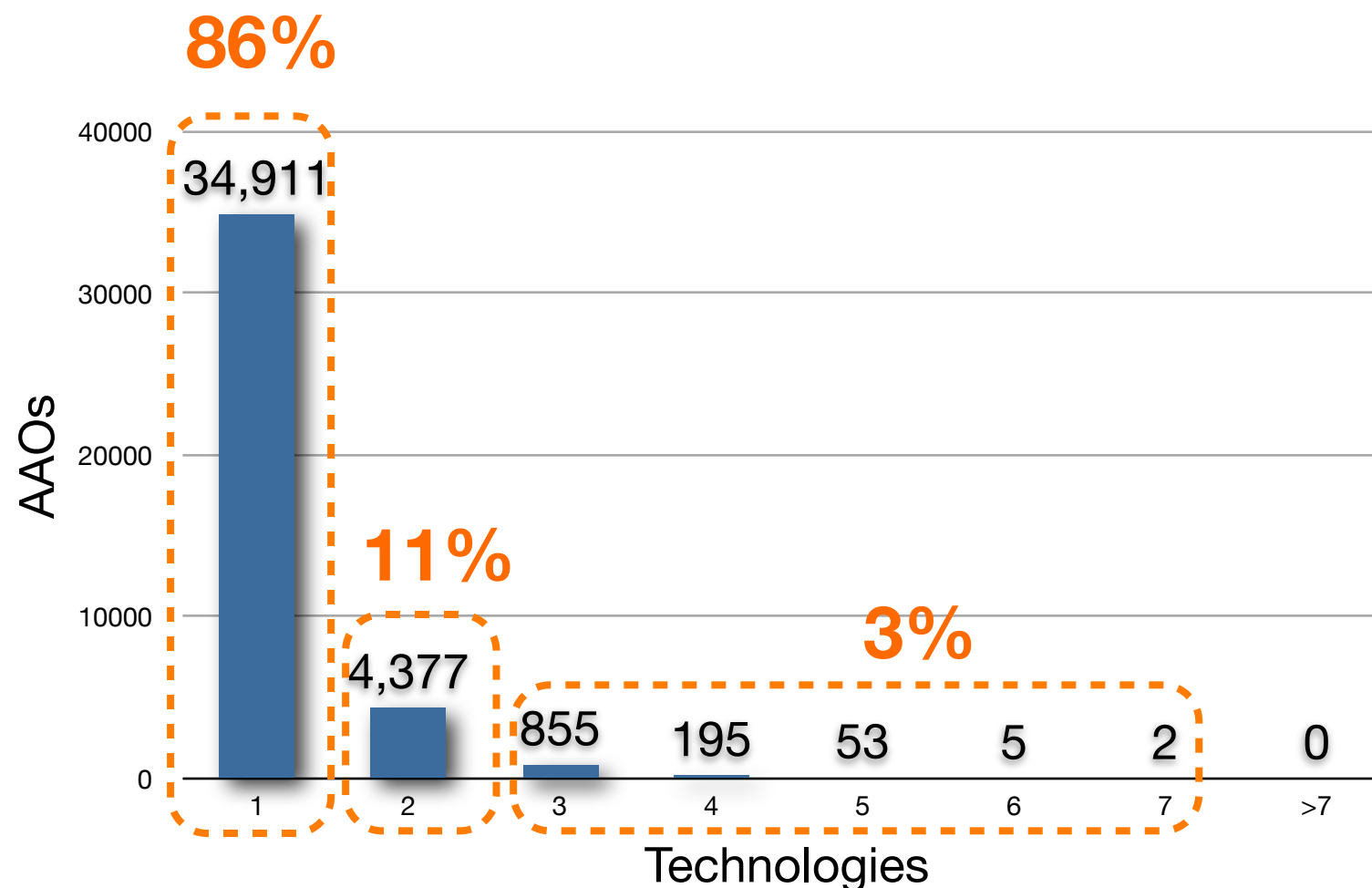
RQ1



Findings...

- ▲ Are there developers (AAOs) that provide **accepted answers** for **several mobile platforms**? Do developers
- ▼ provide answers only for **a specific platform**?
- ☆

RQ1



Findings...

- Which are the hot-topics that describe the answered questions related to mobile development in SO?

☆ RQ2

	Questions with accepted answers		
Pos	Entropy	Label	Stemmed Words
1	0.9	General	need, want, object , data, class
2	0.86	Compatibility	devic, version, build, need, os
3	0.83	GUI	view, control, ui, button, bar
4	0.83	Data types	string, arrai, kei, data, dictionary
5	0.83	IDE	eclips, devic, java, run, test


16	0.76	Layout	layout, view, height, width, parent
17	0.75	Database	db, cursor, tabl, sqlite, queri
18	0.75	Media	player, audio, video, media, sound
19	0.75	Maps	locat, map, point, latitud, longitud
20	0.69	Crash	core, system, buffer, armv, dylib

Findings...

- Which are the hot-topics that describe the answered questions related to mobile development in SO?

★ RQ2

	Questions with accepted answers		
Pos	Entropy	Label	Stemmed Words
1	0.9	General	need, want, object , data, class
2	0.86	Compatibility	devic, version, build, need, os
3	0.83	General	need, want, object , data, class
4	0.82	General	need, want, object , data, class
5	0.81	General	need, want, object , data, class

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Stack Overflow is a question and answer site for professional and enthusiast programmers. It's 100% free, no registration required.

How to discover memory usage of my application in Android

I would like to know how I can find the memory used on my Android application, programmatically.

291 I hope there is a way to do it. Plus I would like to understand how to get the free memory of the phone too.

★ [java](#) [android](#) [memory](#) [memory-management](#)

Findings...

- Which are the hot-topics that describe the answered questions related to mobile development in SO?

★ RQ2

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QuestionsTagsTourUsers

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“Conversion to Dalvik format failed with error 1” on external JAR

▲
391
▼
★
109

In my Android application in Eclipse I get the following error.

UNEXPECTED TOP-LEVEL EXCEPTION:
java.lang.IllegalArgumentException: already added: Lorg/xmlpull/v1/XmlPullParser;
....
Conversion to Dalvik format failed with error 1

This error only appears when I add a specific external JAR file to my project. I searched for a long time for the possible solution, but none of the possible solutions work. I even tried to change to Android 1.6 instead of 1.5 (the current version I use).

16			
17	0.75	Database	db, cursor, tabl, sqlite, queri
18	0.75	Media	player, audio, video, media, sound
19	0.75	Maps	locat, map, point, latitud, longitud
20	0.69	Crash	core, system, buffer, armv, dylib

Findings...

- Which are the hot-topics that describe the unanswered questions related to mobile development in SO?

★ RQ3



	Questions without accepted answers		
Pos	Entropy	Label	Stemmed Words
1	0.89	General	want, need, thank, devic, help
2	0.87	GUI	view, button, screen, event, click
3	0.83	Web browsing	web, url, http, request, page
4	0.82	IDE	project, test, run, error, install
5	0.79	GUI	view, control, ui, button, bar

16	0.72	Maps	locat, map, point, latitud, longitud
17	0.72	Graph. edition	draw, bitmap, canva, textur, paint
18	0.72	Database	db, cursor, null, column, sql
19	0.7	Crash	java, runtım, thread, error, except
20	0.63	Crash	armv, system, core, dylib, info

Findings...

Pos.	Questions with accepted answer		Questions without accepted answer	
	Entropy	Topic	Entropy	Topic
1	0.90	General	0.89	General
2	0.86	Compatibility	0.87	GUI
3	0.83	GUI controls	0.83	Web browsing
4	0.83	Data types	0.82	IDE
5	0.83	IDE	0.79	GUI controls
6	0.82	GUI controls	0.79	Graphics
7	0.82	Web browsing	0.79	Events
8	0.82	User input	0.78	Data types
9	0.82	Camera/image processing	0.78	Runtime
10	0.81	WS integration	0.77	Media reproduction
11	0.81	Graphics	0.75	WS integration
12	0.79	Input/output stream	0.75	XML/JSON parsing
13	0.78	Runtime	0.73	Layout
14	0.78	Graphics edition	0.73	HTML
15	0.78	Date and time formatting	0.72	GUI
16	0.76	Layout	0.72	Maps
17	0.75	Database	0.72	Graphics edition
18	0.75	Media reproduction	0.72	Database
19	0.75	Maps	0.70	Crash
20	0.69	Crash	0.63	Crash

Thanks

May 18 '13



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