

# On the Querying for Places on the Mobile Web

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The web is undergoing a fundamental transformation: it is becoming mobile and is acquiring a spatial dimension. Thus, the web is increasingly being used from mobile devices, notably smartphones, that can be geo-positioned using GPS or technologies that exploit wireless communication networks. In addition, web content is being geo-tagged. This transformation calls for new, spatio-textual query functionality. The research community is hard at work enabling efficient support for such functionality.

We refer to points of interest with a web presence as spatial web objects or simply as *places*. Such places thus have a location as well as a textual description. Spatio-textual queries return places that are near an argument location, typically the location of a user, and are relevant to a text argument, typically a search engine query. The talk covers recent results by the speaker and his colleagues aimed at providing efficient support for the spatio-textual querying of places. Specifically, the talk touches on questions such as the following:

- How to use user-generated content, specifically large collections of GPS records, for identifying semantically meaningful places?
- How to assign importance to places using GPS records and logs of queries for driving directions?
- How to retrieve the  $k$  most relevant places according to both text relevancy and spatial proximity with respect to a query?
- How to support continuous queries that maintain up-to-date results as the users who issue queries move?
- How to take into account the presence of nearby places that are relevant to a query when determining the relevance of a place to a query?

## References

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