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Incentivizing Social Media Users for Mobile Crowdsourcing

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Abstract

We focus on the problem of contributor-task matching in mobile crowdsourcing. The idea is to identify existing social media users who posses domain expertise (*e.g.*, photography) and incentivize them to perform some tasks (*e.g.*, take quality pictures). To this end, we propose a framework that extracts the potential contributors' expertise based on their social media activity and incentives them within the constrain of a budget. This framework does so by preferentially targeting contributors who are likely to offer quality content. We evaluate our framework on Flickr data for the entire city of Barcelona and show that it ensures high levels of task quality and wide geographic coverage, all without compromising fairness.

Keywords: Mobile Crowdsourcing, Flickr, Incentives

1. Introduction

The computing power of mobile phones nowadays allows notifications to be sent to users on the fly, and thus labour and services can now be supplied in real time. This is made possible by the raise of mobile crowd-sourcing sites. We focus on the problem of contributor-task matching on those sites.

The main idea is that there are many social media users - especially power users - who passionately contribute to existing online communities and, as a result, become experts in specific areas but their talent remains untapped. Hence, there is a need for mechanisms to engage those experts in crowd-sourcing tasks.

To this end, we need to 1) identify experts from, e.g., their social media activity, and we do so by borrowing ideas from previous work such as (Amintoosi and Kanhere,

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