

# Spatial Crowdsourcing

## Challenges and Opportunities



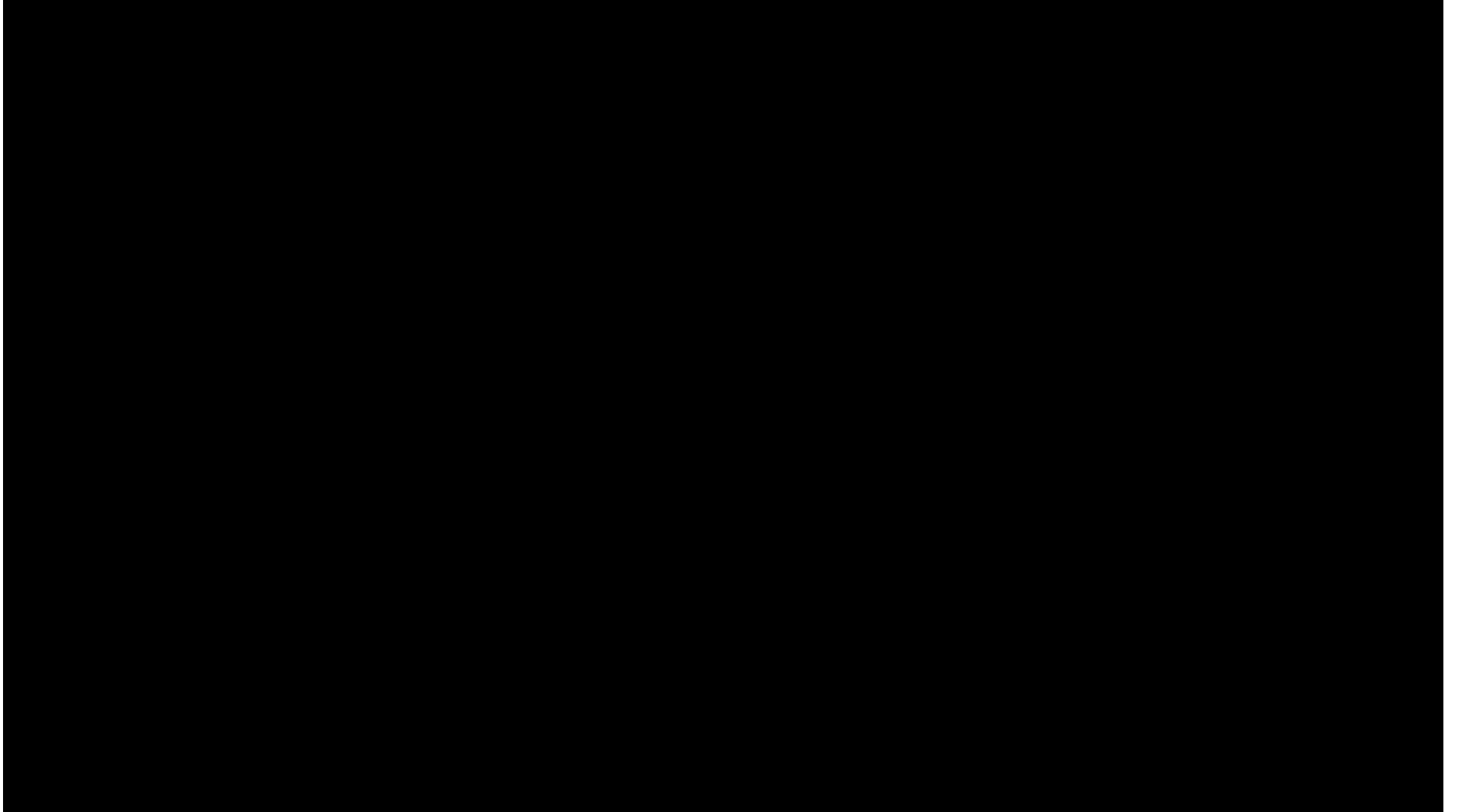
**Lei Chen**

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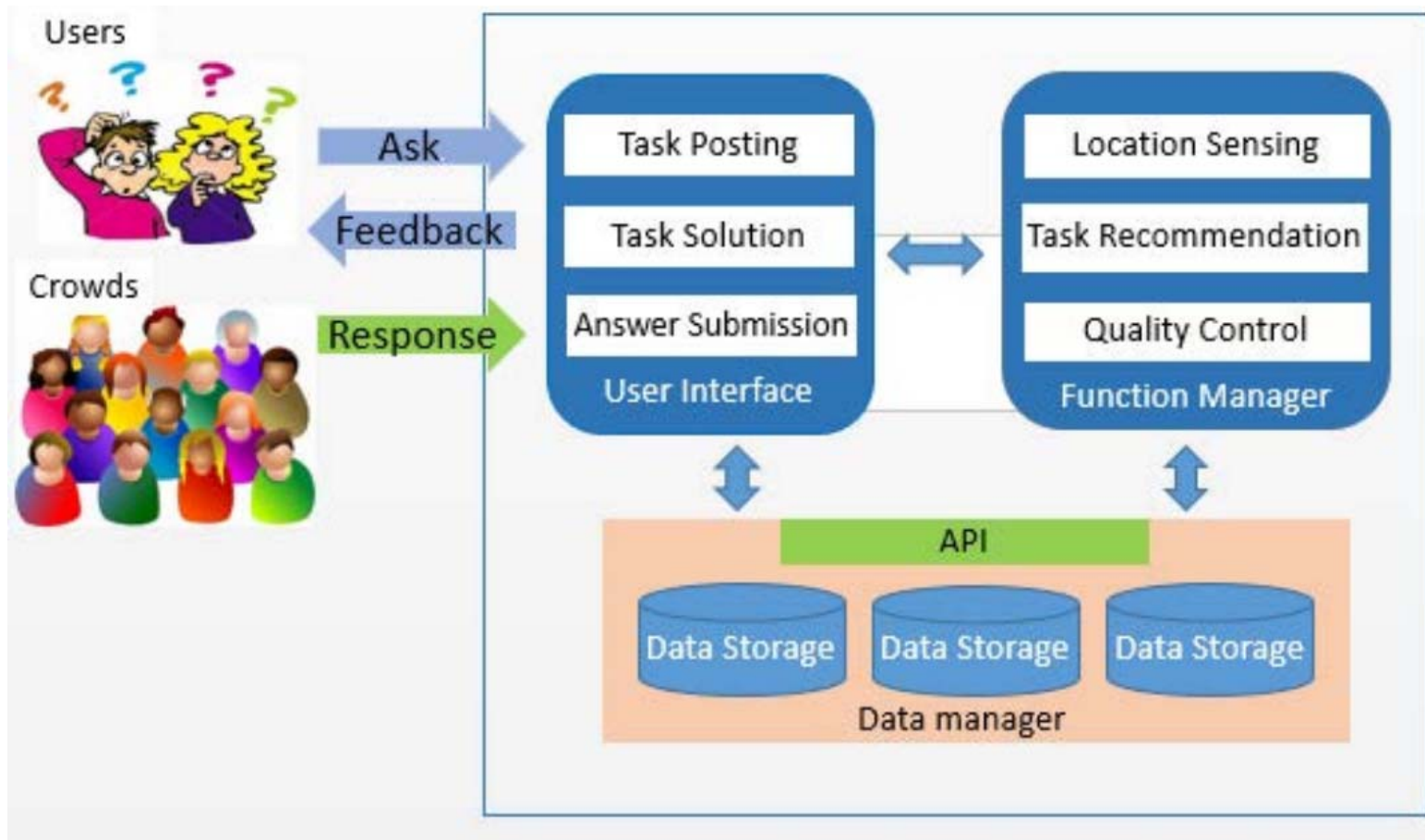
# Gmission Demo

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# The Framework of gMission

- gMission: A general spatial crowdsourcing system



# The Award about gMission

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- gMission: VLDB 2014 Best Demo Award





# My student achievement

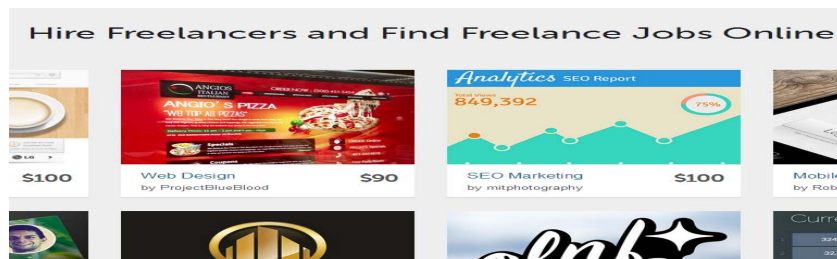


# Challenges

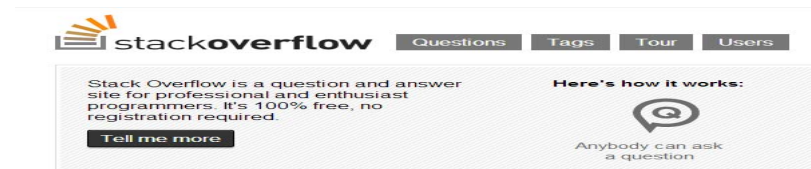
- Incentive Design Altruistic?



## Money-expecting?



From freelancer.com

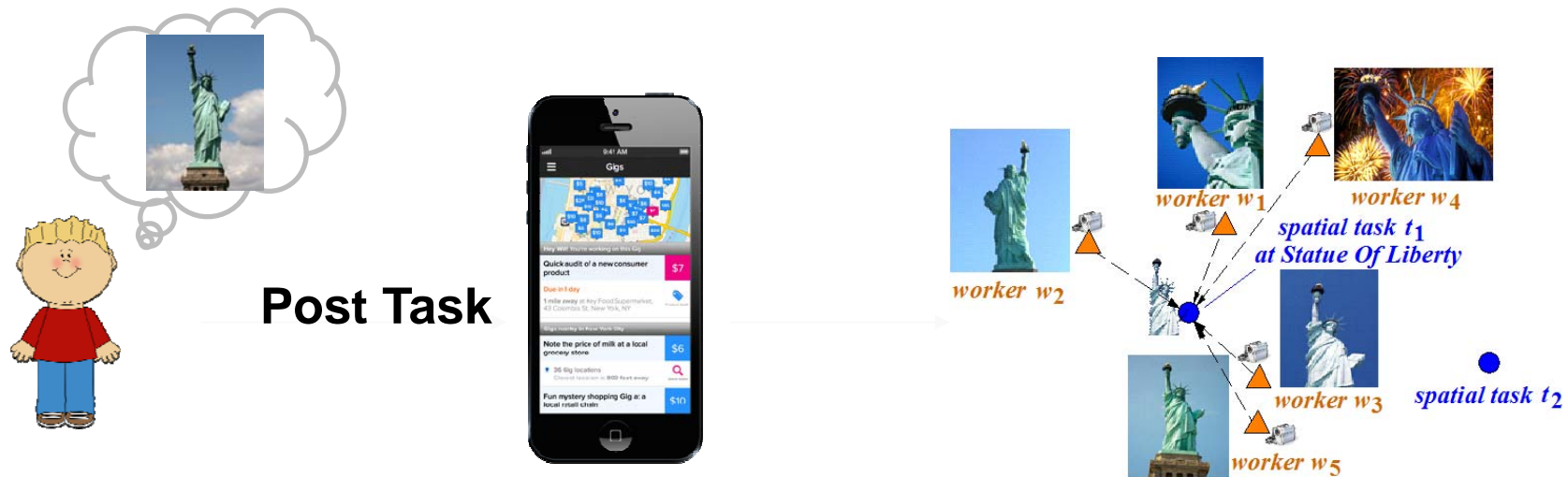


From odesk.com

- Xinglin Zhang, Zheng Yang, Zimu Zhou, Haibin Cai, **Lei Chen**, Xiangyang Li: Free Market of Crowdsourcing: Incentive Mechanism Design for Mobile Sensing. **TPDS**. 25(12): 3190-3200 (2014)
- Caleb Chen Cao, Yongxin Tong, **Lei Chen**, H.V. Jagadish, "WiseMarket: A New Paradigm for Managing Wisdom of Online Social Users", KDD 2013
- Caleb Chen Cao, **Lei Chen**, H. V. Jagadish From "Labor to Trader: Opinion

# Challenges

- Task Assignments

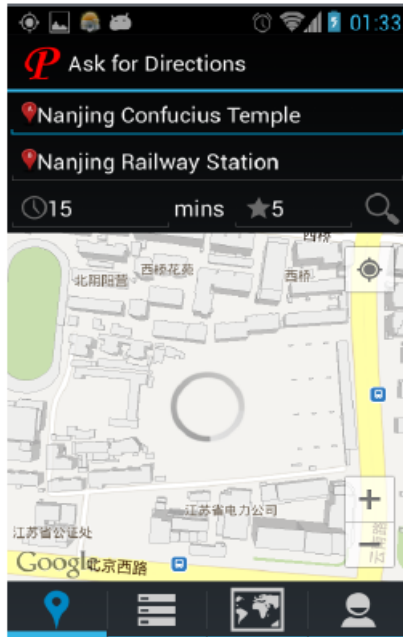


- Peng Cheng, Xiang Lian, Zhao Chen, Rui Fu, **Lei Chen**, Jinsong Han, Jizhong Zhao: Reliable Diversity-Based Spatial Crowdsourcing by Moving Workers. **VLDB 2015**.
- Ting Wu, **Lei Chen**, Pan Hui, Chen Jason Zhang, Weikai Li: Hear the Whole Story: Towards the Diversity of Opinion in Crowdsourcing Markets. **VLDB 2015**
- Caleb Chen Cao, Jieying She, Yongxin Tong, **Lei Chen**: Whom to Ask? Jury Selection for Decision Making Tasks on Micro-blog Services. **VLDB 2012**

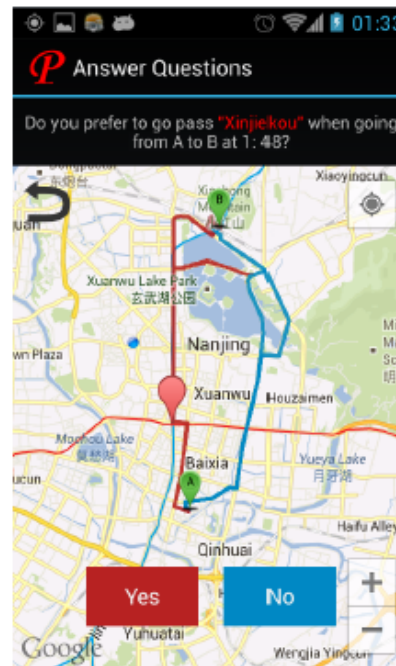


# Challenges

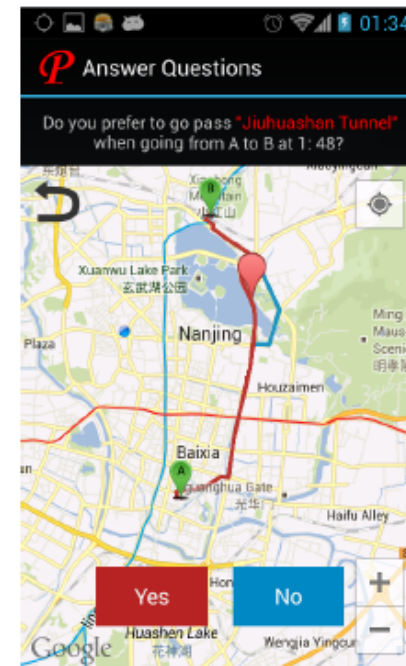
- Quality Control



A request for route evaluating



(a) Question 1



(b) Question 2

- Chen Jason Zhang, Lei Chen, H. V. Jagadish, Caleb Chen Cao, "Reducing Uncertainty of Schema Matching via Crowdsourcing", **VLDB 2013**
- Chen Jason Zhang, Yongxin Tong, Lei Chen, "Where To: Crowd-Aided Path Selection", **VLDB 2015**
- Han Su, Kai Zheng, Jiamin Huang, Hoyoung Jeung, Lei Chen, Xiaofang Zhou: CrowdPlanner: A crowd-based route recommendation system. **ICDE 2014**



# Opportunities

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Our team is working towards the first open source spatial crowdsourcing platform

Gmission!, Welcome join us!

