Day labour E-organization
Organizing day labour workers using mobile phone applications and Internet Technologies

PhD Proposal Presentation
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Motivation

- Global unemployment rose to 6.5% in 2009 with Sub-Saharan Africa being at 8.2% [UN Economic Commission for Africa]
  - 25-30% in SA [GPRG-Global poverty research group]
  - 40% in Kenya [the world factbook]
- Most unemployed continue to actively look for jobs (e.g. Day labourers going to worker collection points everyday)
- Live below $1.25 a day [field data & dailymirror]
- The cost of looking for a job is expensive
Day labour workers

Day labourer

Worker collection point

Intermediary organization

nifulie

Virtual Collection point

Worker collection point
Thousands of day labour workers in the world (mostly in Africa)

- Organized (formal) and self-organized (informal)
- Most are semi-literate or illiterate
- Very few have access to computers and the internet

Thousands of day labour employers

*Day labour is work done where the worker is hired and paid one day at a time, with no promise that more work will be available in the future*
There are few intermediary* organizations

- Can use mobile phones, computers and the internet
- Have literate work force
- Have (can acquire) high end phones

*intermediary organizations organizes and solicits jobs on behalf of day laborers.
Millions of mobile phones (e.g. over 17M in Kenya and 45M in SA - ITU 2010.)

- In the hands of employers and some day labourers (below 30% in SA and over 90% in Kenya)
- Can access powerful computer servers and act as client computers
- Can be used to call, SMS and run applications
Problems: Day labourers

- Spend high % (about 12% of daily income) of their earnings and time looking for work at collection points
  - Job or no job, they travel to collection points
  - Call or SMS charges
  - Food

- Wait at collection points even during harsh weather conditions
Problems: Employers

- Use money and time looking for workers
  - E.g. driving in heavy traffic congestions

- May pick up wrong skilled workers or even criminals

- Sometimes get mobbed up by workers
Problems: Intermediary Organizations

- Resources go into work searching (e.g. R 20 per job per day [MSR.org.za])
- Challenges in vetting and organizing workers
- Sustainability issues and worker union threats
Research Questions

- What ICT innovations and architectures can be used to design systems that can allow employers, day laborers, and intermediary organizations corporate in such a way that job seeking and worker search is made more efficient and cost effective?

- Can such innovations be extended to other day labour environments (both formal and informal in other parts of Africa)?

- How can Action Research model be appropriated for system development in day labour environment?
My approach will follow Action Research model

- Specifics will include:
  - Preliminary findings - Observation, interviews, LR
  - Data collection stage (Diagnosis, action planning) - Observations, interviews, focus groups, informal chats (chitchats)
  - Design stage (Action taking): Using UCD and PD approaches, horizontal prototyping
  - Evaluation stage: prototype usability tests, application usefulness
  - Results analysis and interpretations
Methodology: Aim

- To find out the most reasonable ICT application(s) which can:
  - combine mobile phone and Internet technologies
  - support employers, self-organizing and organized groups of job seekers and intermediary organizations corporate
  - alleviate some of the problems related to job seeking and worker search

- To design and evaluate a prototype application based on the above findings
Methodology: Initial Architecture
Related work

- Most related work is in context and methodology e.g. target group or environment, technology (e.g. mobile phones)
  - Mobile Phone Job Services: Linking Developing-country Youth with Employers, via SMS [Amber Houssain et al, 2009] (by a Palestinian NGO)
  - Challenges in Computerized Job Search for the Developing World [Medhi et al] -(paper based)
  - Socially Aware Software Engineering for the Developing World [Blake & Tucker]
  - Comparing semiliterate and illiterate users' ability to transition from audio+text to text-only interaction [Findlater et al]
  - Adapting User-Centered Design Methods to Design for Diverse Populations [Putnam et al]
  - A field computer for animal trackers [Blake et al]
## Work schedule

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<th>End Date</th>
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<th>Days Remaining</th>
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Thank you!

Comments

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