Providing action plans helps people complete tasks

Nicolas Kokkalis, Johannes Huebner, Moontae Lee, Steven Diamond, Michael Chang, Dominic Becker, Binna Kim, Scott R Klemmer
Stanford HCI Group
taskgenies@cs.stanford.edu

ABSTRACT
People complete tasks more quickly when they have concrete plans. However, task lists place the burden of developing plans on the user. This paper investigates the effects of providing people with action plans created by online crowds. A between-subjects experiment found that people who received action plans from the crowd completed more tasks than a control group that did not. This paper also introduces two techniques for scaling the provision of action plans. First, we created a social variant where participants both used the task lists and provided action plans for others. In a between-subjects experiment, participants using this social approach completed more tasks than those who maintained a conventional task list. Second, we developed a natural language processing technique that uses WordNet and synonym detection to group similar tasks and reuse action plans across them. Running this technique on a corpus of 2872 tasks with two human auditors of the results found that 69.4% tasks had at least one match. This suggests automatically providing action plans is quite scalable. We have incorporated these principles into a system, the *TaskGenies Community*.

Author Keywords
Task management, Crowdsourcing

ACM Classification Keywords
H.4.1. Information Systems Applications: Office Automation – Time management (*e.g.*, calendars, schedules)

General Terms
Design, Human Factors, Experimentation