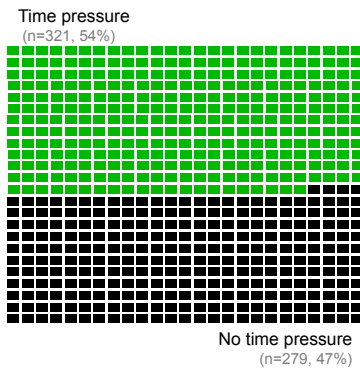




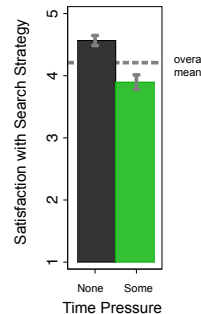
Does perceived time pressure impact satisfaction with search strategy?

With a 15 minute time constraint, 54% of participants reported experiencing some time pressure.



Participants reported lower satisfaction with their search strategy under time pressure...

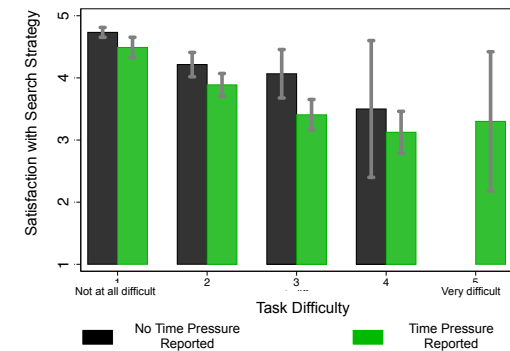
Satisfaction with Search Strategy and Time Pressure (means and 95% confidence intervals)



T-tests show a significant difference in satisfaction with search strategy for those who reported no time pressure (M=4.57, SD=.69) and those who reported experiencing time pressure (M=3.89, SD=1.06); $t(596)=9.01, p<.001$.

...regardless of reported task difficulty.

Satisfaction by Task Difficulty and Time Pressure (means and 95% confidence intervals)



Regression analysis showed that time pressure ($\beta=-.350, p<.001$) and task difficulty ($\beta=-.417, p<.001$) were significant predictors of satisfaction with search strategy with no interaction effects. $R^2 = .2667, F(2, 597)=85.56, p<.001$.

“**Time constraint** exists whenever there is a time deadline, even if the person is able to complete the task in less time.

Time pressure indicates that the time constraint induced some feeling of stress and created a need to cope with the limited time.”

(Ordoñez & Bensen, 1997)

Method

Crowd-sourced user study

- Participants were asked to **search for and bookmark pages** that would help them complete an **imposed information-seeking task** within a **15 minute time constraint**.
- Post-task questionnaire asked about the experienced level of time pressure and difficulty.
- 20 search tasks were randomly assigned to 30 participants for a total of 20 x 30 = 600 search sessions.
- 269 MTurk workers completed 1–8 search tasks (M=3.85, SD=2.5).

Conclusion

Our analysis suggests:

- Perceived time pressure can negatively impact satisfaction with search strategy**, even when searchers are given the same explicit time limit and after taking into account the perceived difficulty of the task,
- Perceived time pressure may be an important, independent situational factor that influences information seeking behaviors and outcomes.**

Background

Time is an important contextual factor of information-seeking; however, the **effects of time pressure are not well-understood**.

- Studies in decision-making, psychology, and computer-supported collaborative work have found **changes in information behavior when people are under time pressure**:
 - Faster information-processing
 - Lower work quality
 - Selective information filtering
 - Lower satisfaction
- The impact of time pressure from imposed time constraints in experimental studies is not clear.

Example Task

Your goal in this HIT will be to search for and bookmark webpages that would help you in completing the information-seeking task shown below. You will not be required to create an actual response. However, in the end, your bookmarks should contain all the necessary information needed to complete the task.

You recently became involved with a conservation group that picks-up trash from local waterways. One of the group members told you that your work was important because it helps keep pollution out of the ocean. What are some of the different types of ocean pollutants? What environmental risks and associated with each pollutant?

Future Work

- Manipulate time constraints** in a more controlled study.
- Investigate the **relationship between time pressure and other contextual variables**.
- Investigate the impact of time pressure on other search outcome metrics** (e.g., time to complete task, # of queries issued, # of pages reviewed).