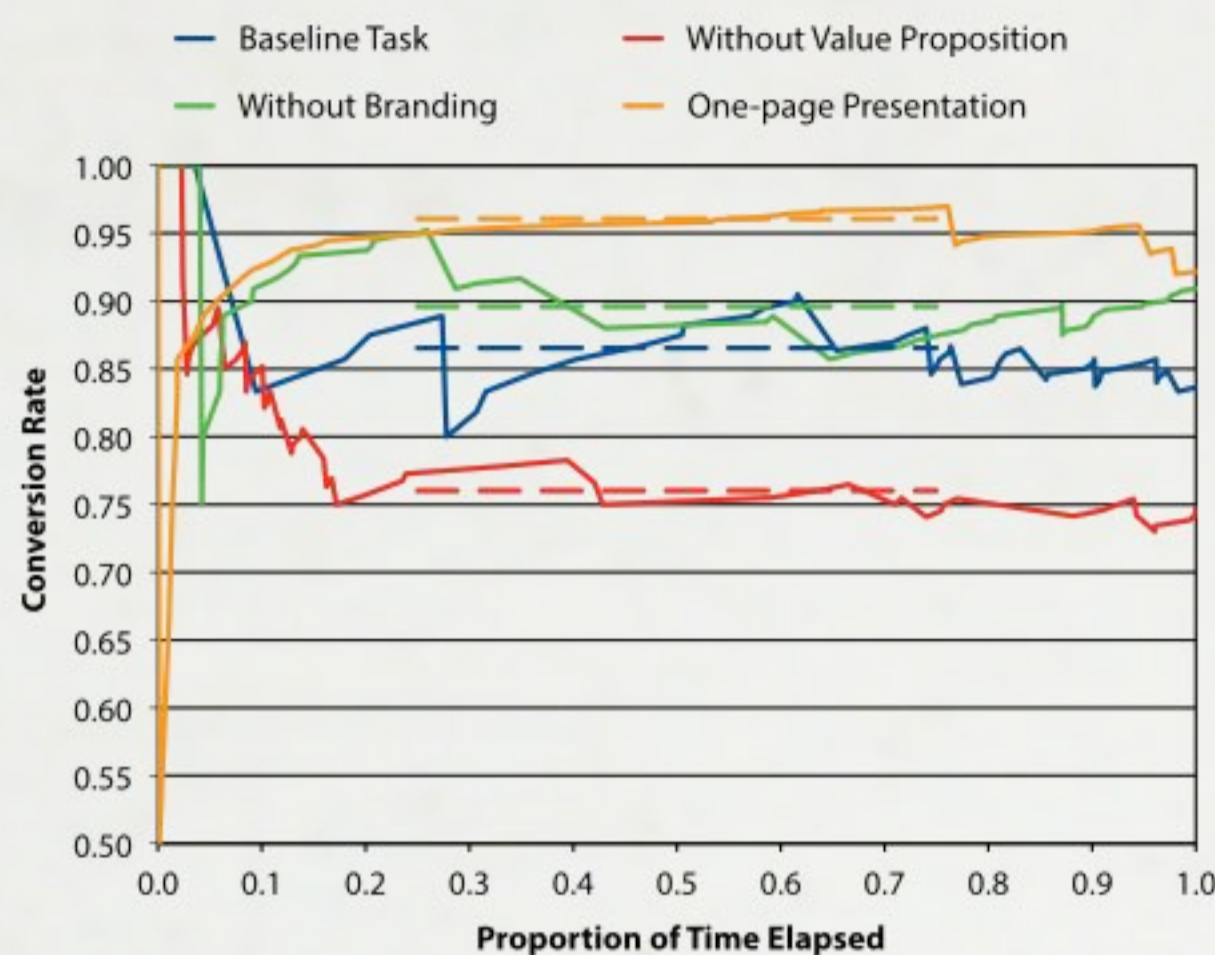


#### 4. Y U NO DO MY TASKS?

UNDERSTANDING WHY WORKERS DO THE THINGS THEY DO IS ESSENTIAL TO PROVIDING EFFECTIVE EXPERIMENTAL CONTROLS.

WE DEVELOPED A SET OF CONVERSION RATE METRICS TO MEASURE WORKER INTERACTIONS AND PUBLISHED THESE AND OUR EXPERIMENTAL RESULTS AT HCOMP 2013.



CONVERSION RATES OF TASK VARIATIONS OVER TIME

"CROWDSOURCING A HIT" @ HCOMP '13

#### WILL CODE FOR FOOD?

2014

IN OUR UNPUBLISHED STUDY OF OVER 3,000 CROWDWORKERS WE FOUND THAT NEARLY 40% HAVE NO OTHER SOURCE OF INCOME, WITH 25% AT OR BELOW THE POVERTY LINE. THESE INDIVIDUALS MAY LITERALLY BE CODING FOR FOOD.

#### CROWDSOURCED LABOUR 3. USING THE FORCE

USING CROWDSOURCED LABOUR, SUCH AS AMAZON MECHANICAL TURK, WE CAN GET HUNDREDS OF DEVELOPERS TO DO OUR EXPERIMENTS AND USE OUR TOOLS FOR A VERY SMALL FEE.

#### 5. WYSIWYG - OR IS IT?

DO DEVELOPERS UNDERSTAND WHAT THEY ARE SEEING? TO FIND OUT, WE ASKED DEVELOPERS TO INTERPRET CODE, BOTH WITH AND WITHOUT AUGMENTATION - IN THE FORM OF FONT SMOOTHING AND LUMINANCE - WE ARE CURRENTLY INTERPRETING THESE RESULTS TO IDENTIFY ANY SIGNIFICANT EFFECT ON BOTH SPEED AND ERROR RATES.

## CROWDSOURCING CODE PERCEPTION

BY JASON T. JACQUES SUPERVISED BY PER OLA KRISTENSSON

#### 6. GETTING REAL (ER)

WHILE UNDERSTANDING CODE IS IMPORTANT, SO IS WRITING IT. WE NEED TO SEE HOW DEVELOPERS REALLY CODE. SO, WE'RE DEVELOPING A FULLY INSTRUMENTED, WEB-DEPLOYABLE CODE EDITOR. NOT ONLY DOES THIS ALLOW US TO USE VETTED CROWDWORKERS TO IDENTIFY BOTTLENECKS EXPERIENCED BY CODERS, BUT WILL ALSO ALLOW MORE RIGOROUS TESTING OF ADDITIONAL AUGMENTATIONS WE MAKE TO THE EDITOR.

START HERE!



#### 2. LET'S WATCH DEVELOPERS CODE

WE CAN DISCOVER WHAT DEVELOPERS REALLY WANT BY WATCHING THEM.

BUT DEVELOPERS ARE EXPENSIVE.



#### 1. PROGRAMMING HASN'T REALLY CHANGED

SURE, WE HAVE SYNTAX HIGHLIGHTING AND A FEW CLICKABLE BUTTONS BUT CODE IS STILL PRETTY HARD TO READ AND WRITE.

### PLAN:

