RUNNING IN-PERSON EXPERIMENTS

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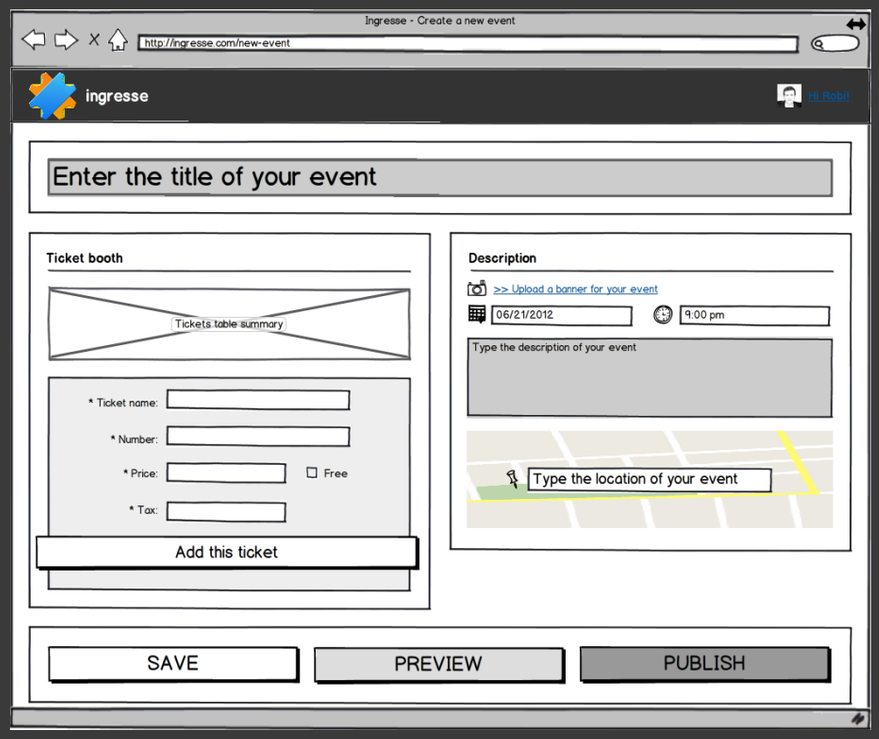
Relative Merits: Online vs. In-person?

In-person Studies

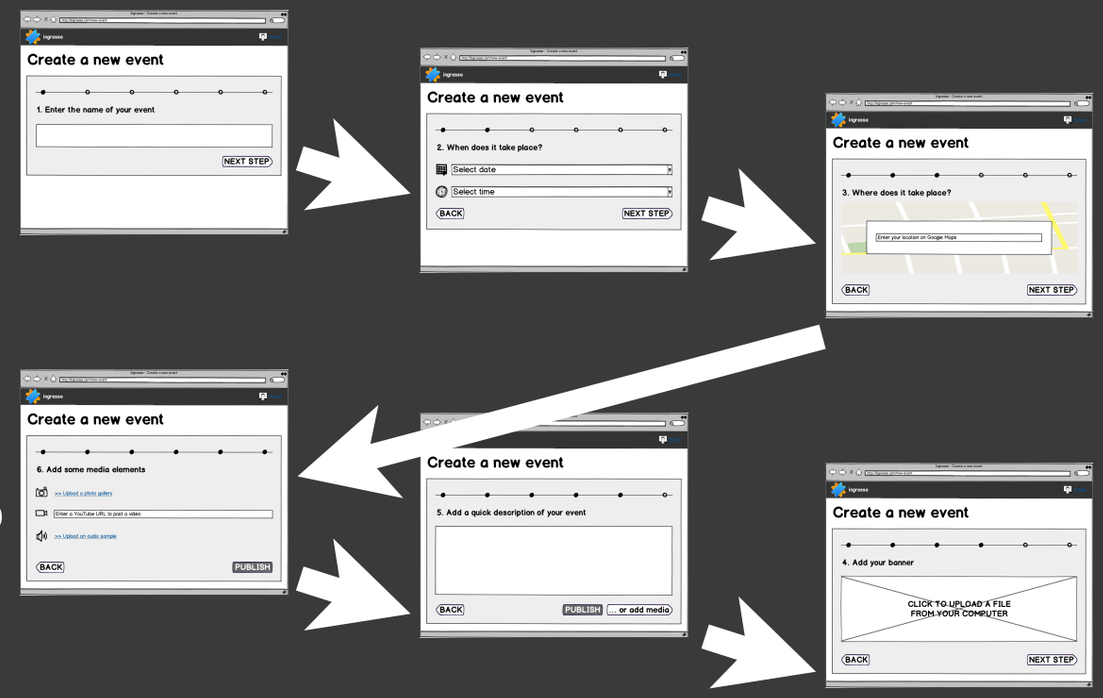
- Planning
- Executing
- Analyzing

Make Clear Goals

- Scope: make a meeting room booking system.
- Purpose: create a system that encourages people to book the right sized room for the right duration
- Hypothesis: splitting the booking process over several screens will encourage more thought and people will book better
- Schedule and location: next week, Design Lab
- Participants: 12 people (4 students, 4 office administrators, 4 professors)
- Scenarios: go through the process of booking a room with the 2 interfaces



VS.



Plan Out the Steps

Questions:

• Will people book the right sized room? For the right length of time?

Data to be collected

• **Size of room booked.**

• **How long is it booked for?**

• Time to complete the task of booking room

• What other actions do people do while booking rooms?-- order food? negotiate with others on email?

Set up

Desktop (for administrators), laptops for profs/students

Roles

Arvind: facilitator; Robi: recorder

Create Concrete Tasks

"Imagine a planet just like Earth existing somewhere else in the universe. It is currently uninhabited. Your task is to design new creatures to inhabit the planet. You will have approximately 15 minutes for this task, with a break after the first 7 minutes. Within this time, draw as many ***new*** *and* ***different*** *creatures of your own creative design as you can.*

Duplication of creatures now extinct or living on the planet Earth is not permitted*."*

Create Concrete Tasks

"Book a room sometime next week for a research group meeting. Andrew will be out of town, so we won't hear his weekly update. The rest of us should be present and give our updates. Besides the usual group members, we'll have two visitors from France who will present their research-- maybe they'll take 10 minutes each.

When you're done booking the room, tell Arvind so he can prepare the next task for you."

Ethical Considerations

You are testing the site (*not the users*)

Experimental Details

Options for capturing results

The "Thinking Aloud" Method

- Need to know what users are thinking, not just what they are doing
- Ask users to talk while performing tasks
  - tell us what they are thinking
  - tell us what they are trying to do
  - tell us questions that arise as they work
  - tell us things they read
- Make a recording or take good notes
  - make sure you can tell what they were doing

Thinking Aloud (cont.)

- Prompt the user to keep talking
  - "tell me what you are thinking"
- Only help on things you have pre-decided
  - keep track of anything you do give help on
- Will thinking aloud give the right answers?
  - not always
  - if you ask a question, people will always give an answer, even it is has nothing to do with facts
  - try to avoid specific questions

Recruiting participants

12 Stanford students

- send email to the different departments
- have the potential participants answer a very quick survey, mainly about demographics
- offer 25$ for participation

Choosing Participants

Website for creating events

- rather young population
- university students are great because they are organizing parties all the time
- male/female ratio = 50/50

Selecting Tasks

Task flow:

- start from the homepage
- try to create an event [people will have to login before that]
- first create an event with version A (resp. B)
- then, create an event with version B (resp. A)

Before “real” users...

Setting up the test sessions

- Laptop set with Internet access
- Post-testing survey ready on a Google Doc
- Consent forms ready to be signed + pen
- Camera ready to use

Greeting Participants

Instructions to Participants

Conducting the study

- The facilitator:
  - welcomes the participant and introduces anyone else who is in the room
  - invites the participant to sit in front of the computer where the participant will be working
  - explains the general goal of the session—to have the participant try out a Web site (or whatever the product is that is being tested)
  - asks participant profile questions and has the participant sign the release form
  - explains thinking aloud (and may demonstrate it and have the participant do a think aloud exercise)
  - asks if the participant has any questions before starting and answers any that will not give away what you want to learn from the participant
  - tells the participant where to start
- The participant starts to work with the Web site (or other product).
  - The participant works on the scenario while thinking aloud. The note-takers take notes.
  - The session continues from scenario to scenario until the participant has done (or tried) them all or the time allotted has elapsed.
- The facilitator asks the end-of-session questions
  - thanks the participant, giving the participant the agreed-on incentive, and escorts the participant out.

Source: Usability.gov

Collecting Data

- process data
  - observations of what users are doing & thinking
- bottom-line data
  - summary of what happened (time, errors, success)
  - i.e., the dependent variables

Measuring Bottom-Line Usability

- Situations in which numbers are useful
  - time requirements for task completion
  - successful task completion
  - compare two designs on speed or # of errors
- Ease of measurement
  - time is easy to record
  - error or successful completion is harder
    - define in advance what these mean
- Do not combine with thinking-aloud. Why?
  - talking can affect speed & accuracy

Debriefing

Analyzing the results

- Quantitative data, which might include:
  - success rates
  - time to complete tasks
  - pages visited
  - error rates
  - ratings on a satisfaction questionnaire
- Qualitative data, which might include:
  - notes of your observations about the pathways participants took
  - notes about problems participants had (critical incidents)
  - notes of what participants said as they worked
  - participants' answers to open-ended questions

Source: Usability.gov

Summarize the Results

Reporting the Results