



Negative Options and the Limits of Notice

Jens Grossklags

Ph.D. Candidate, School of Information, UC Berkeley

Deirdre Mulligan, Clinical Professor

Chris Jay Hoofnagle, JD

Maryanne McCormick, JD

Nathaniel Good, Ph.D. Candidate

Samuelson Law, Technology & Public Policy Clinic,

U.C. Berkeley Boalt Hall School of Law

Carnegie Mellon

Cornell University

MILLS
COLLEGE

San José State
UNIVERSITY

SMITH COLLEGE

STANFORD
UNIVERSITY

Berkeley
UNIVERSITY OF CALIFORNIA

VANDERBILT
UNIVERSITY

FTC Neg. Options Workshop, January 25, 2007

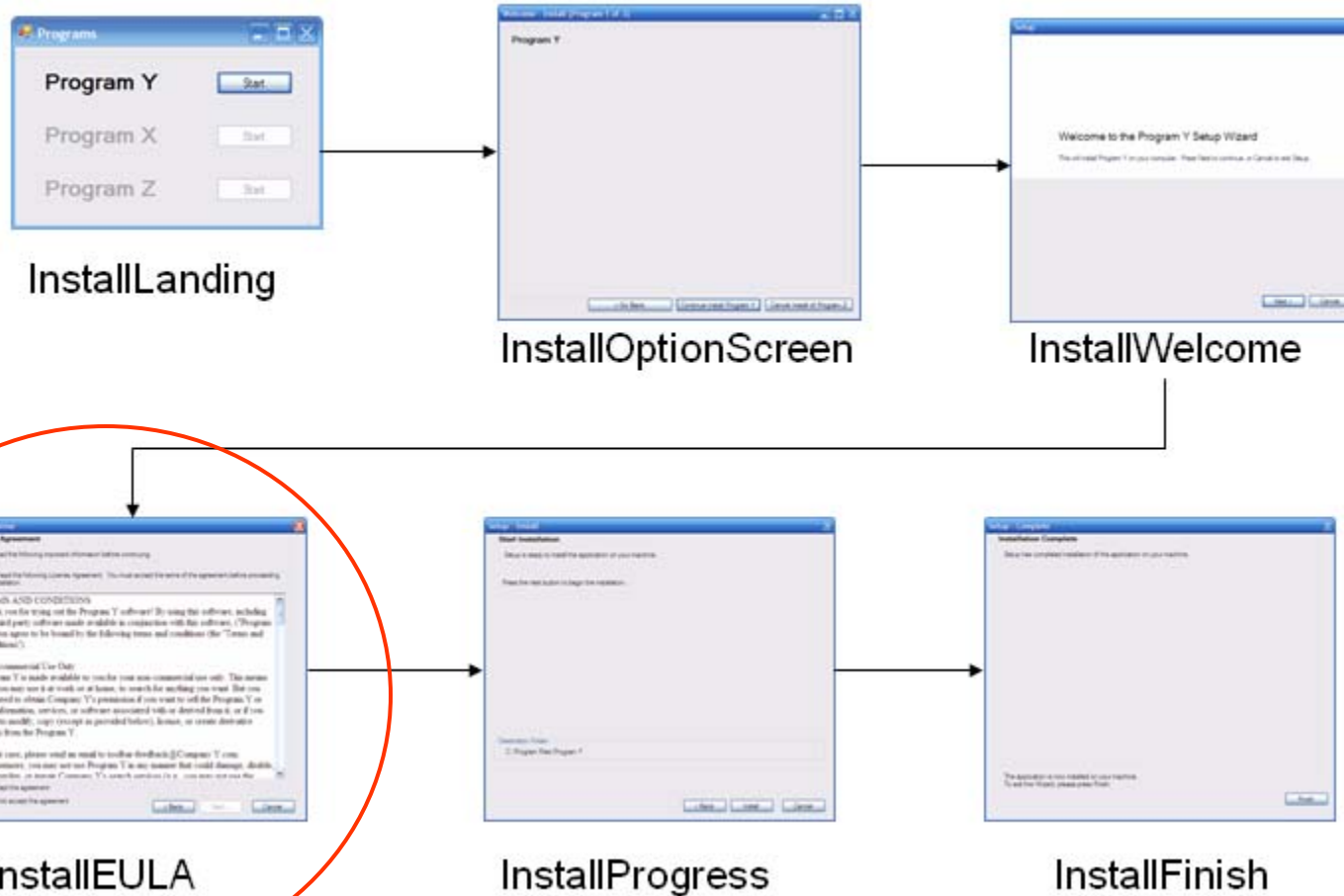
Overview

- I. Short notices produce better outcomes
∴ Notices should be short, conspicuous
- II. But regret is still present, and framing can manipulate behavior detrimentally
∴ Notice should include total cost
- III. Delayed consequences, inertia creates suboptimal decisions
∴ Easy cancellation necessary

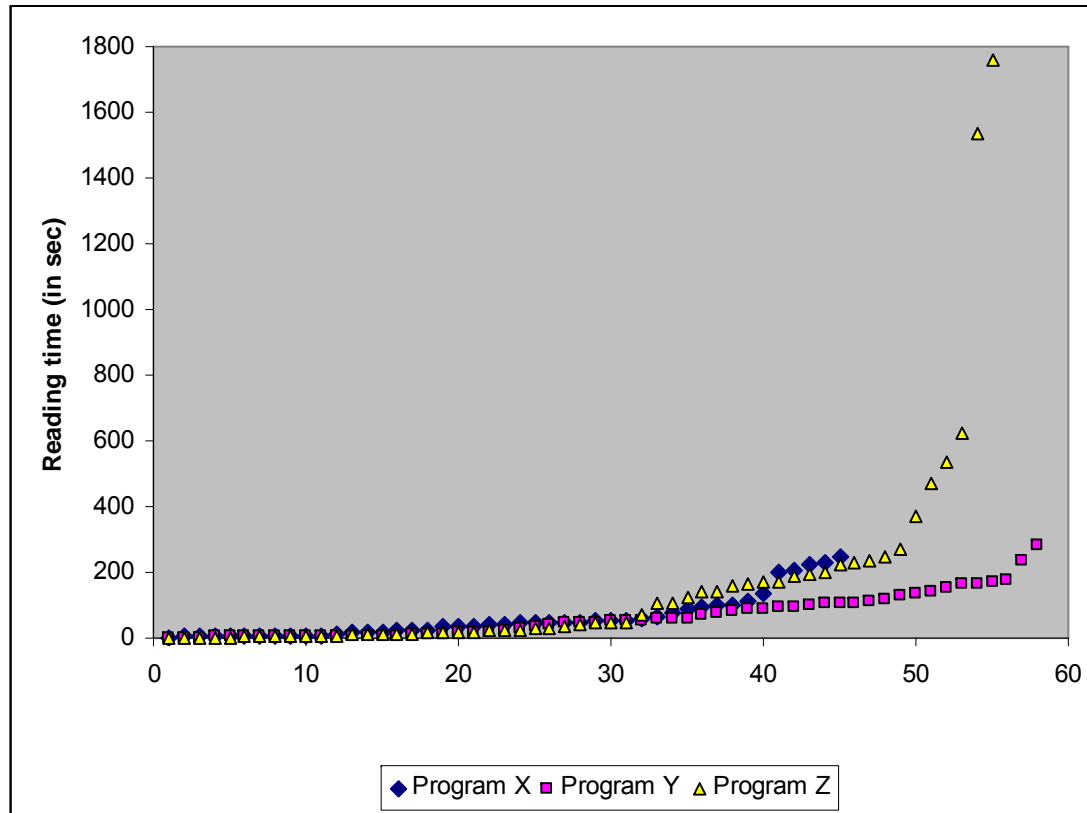
I. Experiment: EULA v. Short Notice

- Subjects were presented with an installation dialog for three potentially harmful, popular programs
- We removed brand information from programs
- Three subexperiments:
 1. Standard EULA (64 subjects)
 2. Standard EULA + short notice before installation (80 subjects)
 3. Standard EULA + short notice after installation (78 subjects)

Subexperiment I: Only Standard EULA



Terms Are Not Read



Graph of reading time for individuals that installed programs (in seconds)

- Majority does not read EULA information
 - Median \approx 45 sec
 - Time required to pass through EULA is more than 10 min per program

EULA Only: Most Install Potentially Harmful Programs

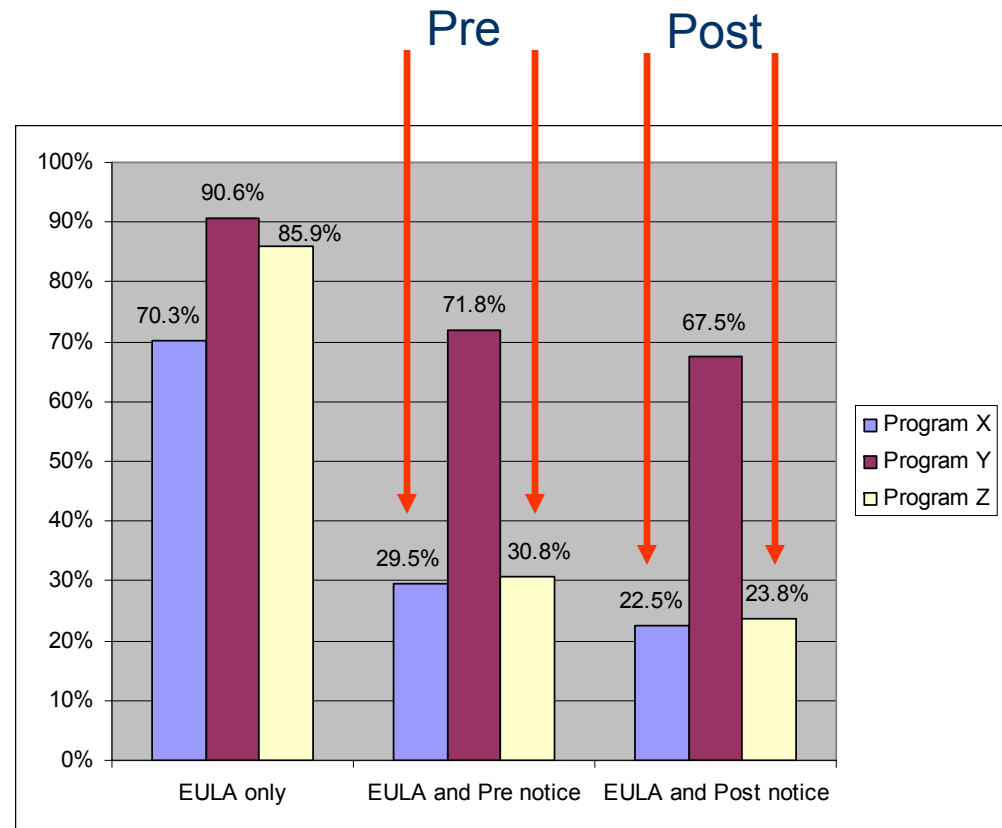
- Most people install all three programs
 - Programs X: 70.3%; Y: 90.6; Z: 85.9%
- Installations are regretted
 - Only few consumers would keep potentially harmful programs installed after consultation; Programs X: 2.2%; Y: 62.1%; Z: 18.2%
- Consumers do care
 - Some differentiate between programs based on standard EULA
 - Strong response to EULA summary
 - In context of privacy and spyware: Motivates use of short notices (favored model by FTC, EU, companies etc.)

Subexperiments II & III: Short Notices Added



Short Notices Reduce Bad Decisions

- Users install fewer potentially harmful programs with Pre- and Post- Notice
- Many users keep less risky program



Programs installed (in percent)

Short Notices Are Better, But Consumers Still Regret Outcomes

- Regret significantly lower in short notice subexperiments, but still high overall
- Up to 70% still regret decision to install in Pre-notice subexperiment, 78% in Post
- Experiment shows that notices can be largely effective

Short Notices: Regret & Other Problems Endure...

- The terms of the bargain are not fully understood
- Optimism colors estimates of risk, ability to make decisions, and interpretation of ambiguous terms
- Excitement often causes them not to read terms
- Even the best notice practices have some limits...

II. Limits of Disclosure

- “Hidden costs” cause suboptimal decision making
- Even costs framed as “fees” affect decisions
 - Experiment in eBay auction setting showed that increasing shipping costs while lowering opening price attracts higher number of bidders and increases sellers’ revenue (Hossain & Morgan)
- ∴ Disclosure should include total cost

III. Delayed Consequences Complicate Decisions

- Because negative options involve charges over time, individuals may depart from perfect rational choice
- Models developed in psychology and economics describe and explain human behavior under these circumstances

Effects of Delayed Consequences

- Overwhelming incentives to sign up
 - Individuals are enticed by immediate benefits
 - Driven by opt-out enrollment; free-to-pay conversions
 - Reinforced by limited information/awareness about total costs
- Consumer intent easily can be frustrated
 - Procrastination of cancellation decision; inertia (or status quo bias)
 - Reinforced by burdensome cancellation procedures

Recommendations

- Short, conspicuous notices will help
 - Consider that pool of consumers is heterogeneous
- “Total cost of ownership” information desirable
 - Disclosures should prevent sellers from hiding costs or moving fees to the “back of the product”
- “Mutuality” in cancellation procedures
 - Protect consumer intent with cancellation procedures that are as facile as enrollment procedures