



Negative Options and the Limits of Notice

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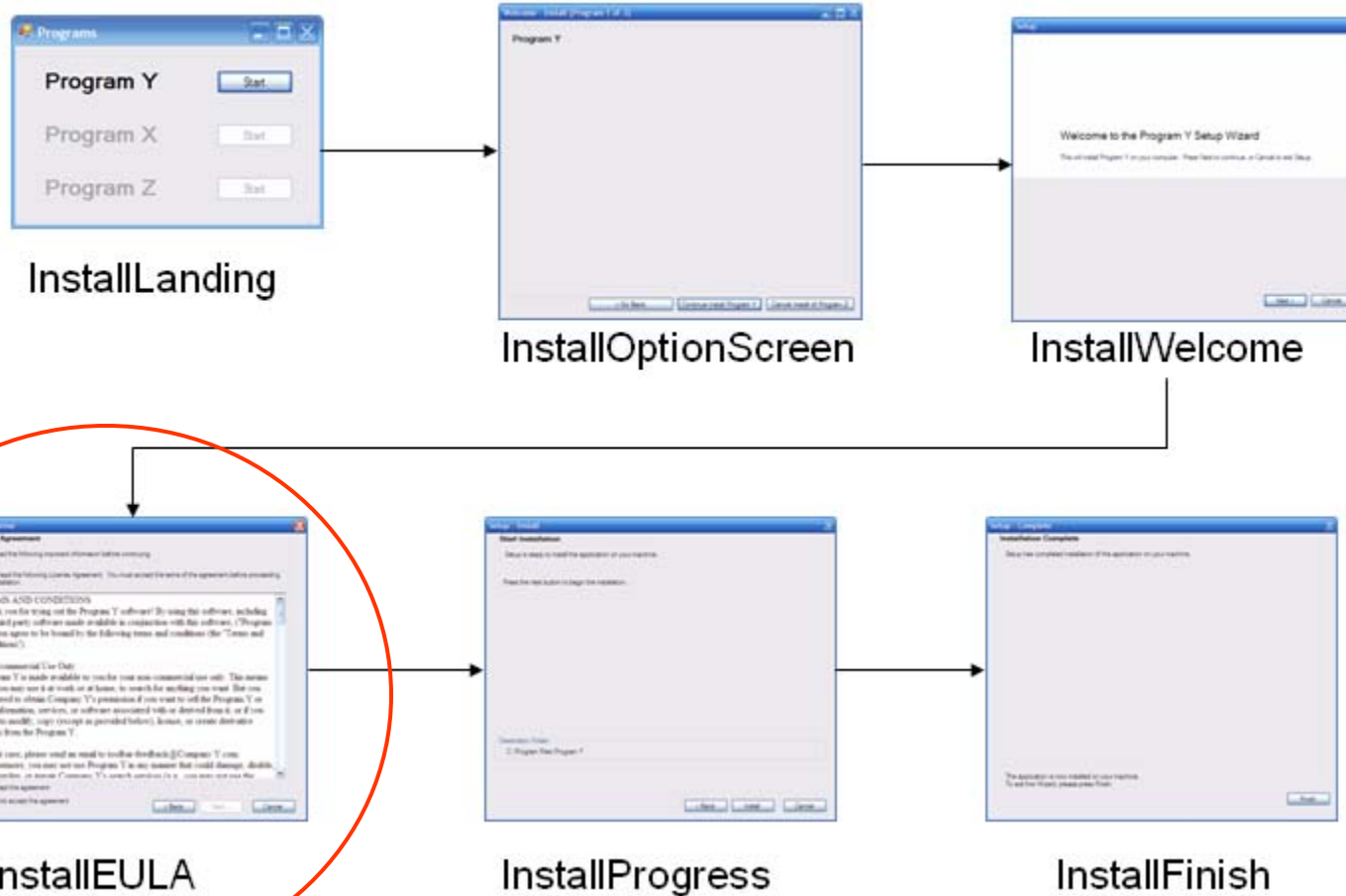
Overview

- 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

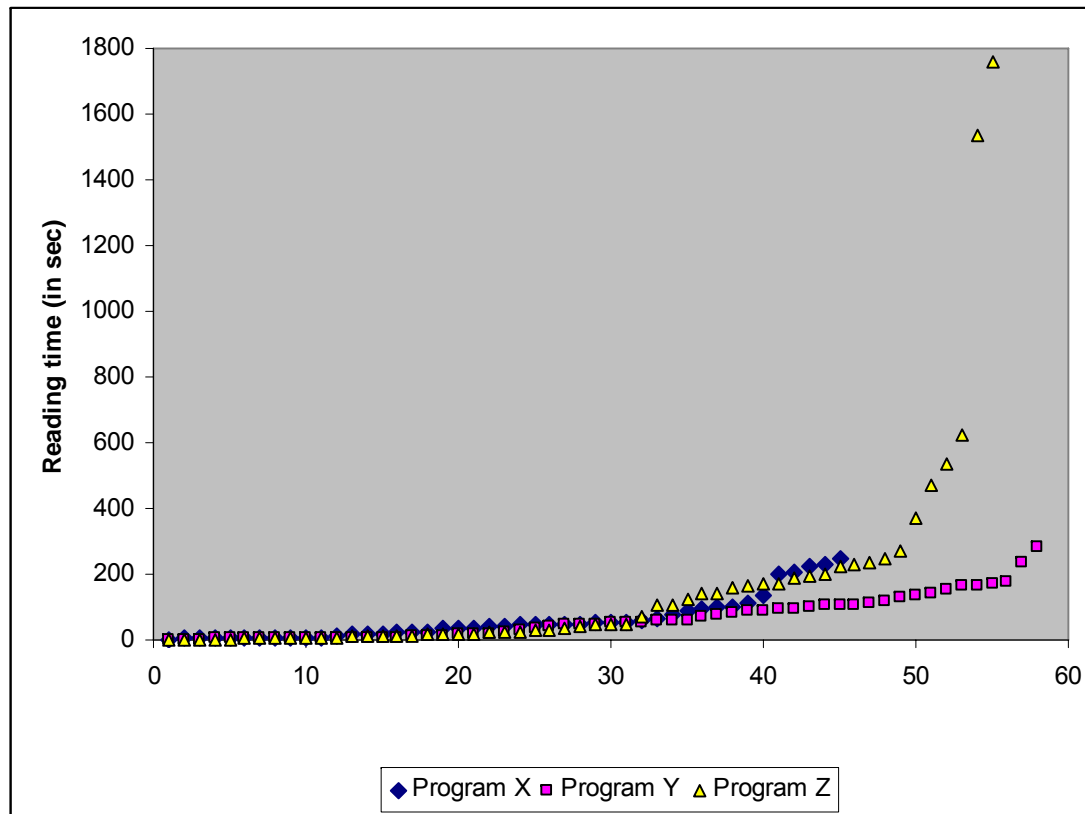
I. Experiment: EULA v. Short Notice

- 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)

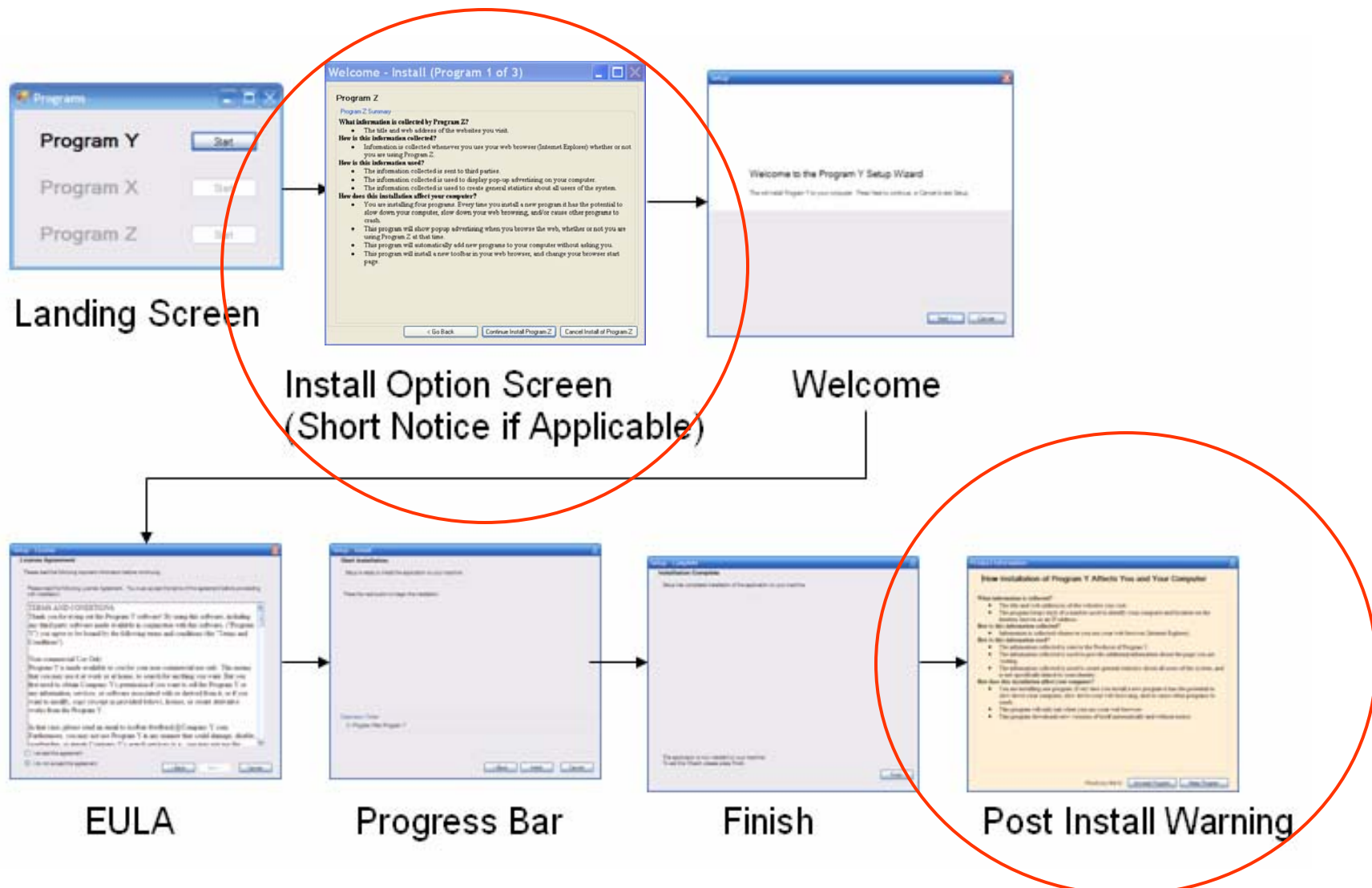
- Majority does not read EULA information

→ Median \approx 45 sec
→ Time required to pass through EULA is more than 10 min per program

EULA Only: Most Install Potentially Harmful Programs

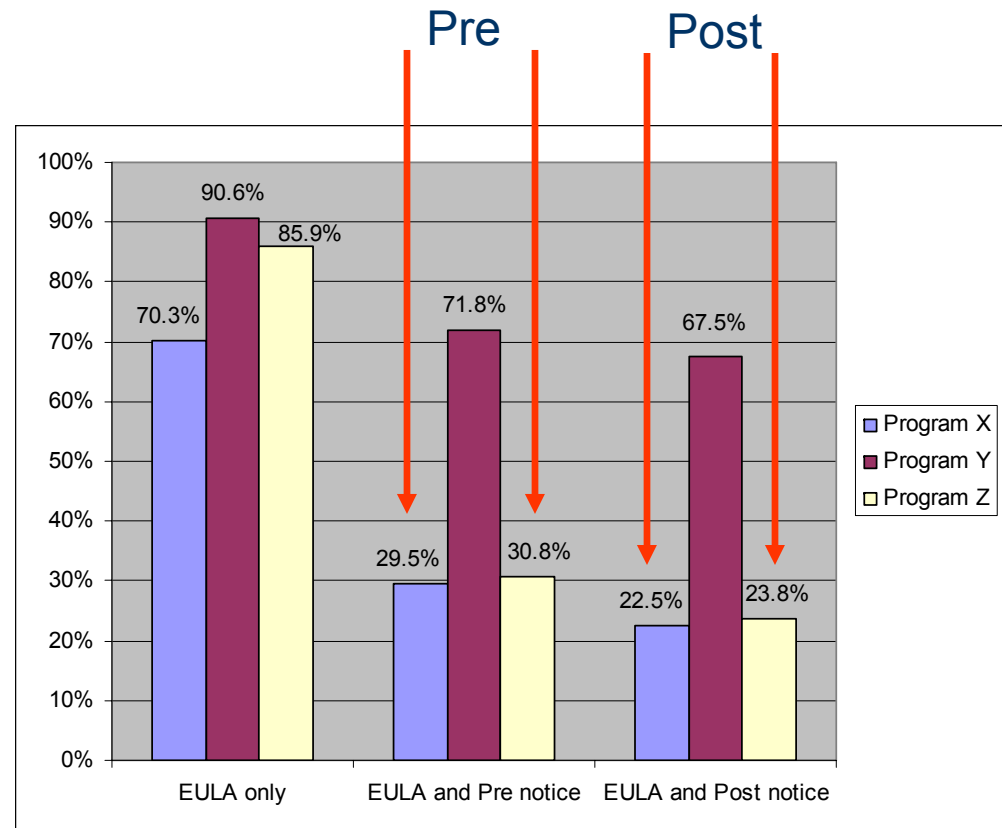
- Most people install all three programs
 - Programs X: 70.3%; Y: 90.6; Z: 85.9%
- Installations are regretted
 - Only few consumers would keep potentially harmful programs installed after consultation; Programs X: 2.2%; Y: 62.1%; Z: 18.2%
- Consumers do care
 - Some differentiate between programs based 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