Choice Architecture

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A Food Service Example

▷ A series of experiments show in cafeterias, what the children eat depends on the order of items.
  ○ Foods displayed at the beginning or end of the line are more likely to be eaten than items in the middle,
  ○ Foods at eye level are more likely to be consumed than those in less salient locations.

What use should the director make of this newfound knowledge?

▷ Arrange the food to make the students best off, all things considered.
▷ Choose the food order at random.
▷ Try to arrange the food to get the kids to pick the same foods they would choose on their own.
▷ Maximize the sales of the items from the suppliers that are willing to offer the largest bribes.
▷ Maximize profits

Choice Architect

▷ A choice architect has the responsibility for organizing the context in which people make decisions.

Assume everything matters

▷ Door handle example
  ○ reflective system
  ○ automatic system

▷ Stroop test

Basic principles of effective choice architecture

▷ Defaults

▷ Expect Error

▷ Feedback

▷ Mappings

▷ Structure complex choices

▷ Incentives

Defaults

▷ If for a given choice, there is a default option that will obtain if the chooser does nothing— then we can expect a large number of people to end up with that option, whether or not it is good for them.

▷ These behavioral tendencies toward doing nothing will be reinforced if the default option comes with some implicit or explicit suggestion that it represents the normal or even the recommended course of action

Defaults

▷ Defaults are ubiquitous, powerful, and also unavoidable

▷ For any node of a choice architecture system, there must be an associated rule that determines what happens to the decision maker if she does nothing.
  ○ Usually if nothing happens, nothing changes;
  ○ Not always

Defaults

▷ Software installation often come with a choice between a "recommended" installation and a "custom" one.

▷ It is a good idea to help non-expert users by designing the recommended installation so that it is a good choice for most non-experts

▷ This recommended option should be pre-selected, not just offered

▷ However, the custom option should be available for those confident enough to use it

Defaults can be abused

▷ Our willingness to stick with the default option chosen for us can be abused by the organizations that make us choose

▷ If you are not careful, you may end up 'choosing' a default that gives your 'permission' to a company to send you unwanted mail or phone solicitations

The US Defense Department

▷ A provision in the No Child Left Behind Act requires that school districts supply the names, addresses, and telephone numbers of students to recruiters in the armed forces

▷ However, the law also says that parents have the right to have their children's information *not* given to the recruiters

The US Defense Department

▷ The Fairport, NY school district interpreted the law as an 'opt-in' policy: information is given to recruiters only for those students whose parents give explicit permission

▷ The Defense Department on the other hand insisted that the law was an 'opt-out' policy: information will have to be given to recruiters for all students *except* the students whose parents explicitly refuse permission

▷ Both sides understood the power of the default option

Default Choice or Mandated Choice?

▷ Instead of specifying a default choice—a choice that will be applied to those who make no choice—the choice architect could force every individual to make a choice

Default Choice or Mandated Choice?

▷ Forcing a choice is a good idea when it is important to get the chooser to think hard about the choice and come to a conclusion, instead of relying on the default

▷ This is likely to be true especially when
   ○ there is no default that is likely to be the right choice for a large number of people, and
   ○ many people will likely end up hating the default

Default Choice or Mandated Choice?

▷ Example: Organ donation

▷ Some countries have adopted an opt-out approach to organ donation called presumed consent. This approach maximizes the number of people who agree to make their organs available.

▷ However, some people strenuously object to this policy, feeling that the government should not presume anything about their organs.

▷ Mandated choice: Illinois when drivers go to get their license renewed they are required to answer the question *Do you wish to be an organ donor?* before they can get their license.

▷ Produced a 60% sign-up rate vs. the national average of 38%.

Default Choice or Mandated Choice?

▷ However, mandated choice is not helpful when the choice requires expert knowledge.
  ○ In such cases, most people would be happier accepting the suggestion of an expert

▷ Moreover, the choice may not be a simple yes or no choice. It may require choices about innumerable little details.
  ○ In such cases, it may be easier to simply rely on the default

Expect Error

▷ A well-designed system anticipates the errors that its users are likely to make and helps them avoid such errors
  ○ Card readers that read data no matter how the card is inserted
  ○ Cars that warn you if you are not wearing seat belts, are running out of gas, should have the engine checked, etc.
  ○ Different nozzles for different fuels (at a gas station), so that a car does not get the wrong fuel

Expect Error

○ The hose and the delivery port should be unique to each important injected drug so that chances of confusion are minimized
○ The use of placebo pills to regularize dosage
○ Some doctors and hospital administrators use checklists for certain treatments where human error can lead to serious harm
○ A user who mentions the word attachment but does not include one would be prompted with "Did you forget your attachment?"
○ The "look right" signs at London crosswalks

Give Feedback

▷ Choice architects should warn users when they are probably making mistakes

▷ You are more likely to take better pictures if you use digital cameras that give instant feedback, than if you use film cameras that require a lot of time and effort to develop film into photographs

▷ Warnings from computers and cars

▷ Ceiling paint that is pink when wet and white when dry

Mappings: From Choice to Welfare

▷ Some tasks are easy, like choosing a flavor of ice cream; other tasks are hard, like choosing a medical treatment.
  ○ If the flavors are all familiar most people will be able to predict with considerable accuracy the relation between their choice and their ultimate consumption experience.
  ○ Call this relation between choice and welfare a mapping

Understand Mappings

▷ People make better choices when they have help in understanding what the various choices mean in terms of their personal happiness
○ Instead of telling customers the number of megapixels in a typical photo taken by a camera, tell them what is the largest recommended print size

Understand Mappings: RECAP

▷ For complex products (especially financial products such as credit cards, insurance, mortgage) one usually has to consider many features of the product and also to anticipate how one would utilize the product and its various features

▷ Here a type of libertarian paternalism (nudge) called RECAP can help

Understand how choices correspond to happiness: RECAP

▷ Record, Evaluate, and Compare Alternative Prices (RECAP):

▷ Require the seller of any financial product to provide
  ○ a downloadable spreadsheet that shows all fees

▷ Require the seller of a financial product purchased by an individual to provide
  ○ a downloadable spreadsheet that shows how the consumer used the product in a typical period in the past

Understand how choices correspond to happiness: RECAP

▷ These documents would enable the consumer to generate an accurate measurement of the full costs that he/she actually paid for the product he/she is using

▷ simulations of what the costs would be under alternative patterns of use of the product or similar products

▷ This would make it a lot easier to compare alternative complex products

Structure Complex Choices

▷ When people need to choose one item from a long list and evaluate each item by another long list of criteria, people use rules-of-thumb
  ○ For example, an apartment hunter may restrict his choice to only those apartments with a commute less than 30 minutes
  ○ Such strategies are imperfect; one may miss out on an outstanding apartment with a 32-minute commute

▷ Naturally, nudges are needed

Structure Complex Choices

▷ Online stores have vast collections. But they also offer
  ○ sophisticated search capabilities by various categories, and
  ○ users' recommendations and comments
  ○ correlation-based recommendations

▷ Such structuring of choices make choosing easier

Incentives

▷ While human beings respond to nudges, they also respond to *incentives*

▷ Make sure users have the right incentives

▷ Make the incentives *salient* so that people don't miss them
  ○ People tend to overweight the costs of a cab ride and underweight the full costs of having a car
  ○ A tax on energy use will have a bigger effect if the thermostat tells the user the savings from turning the temperature down by a degree

NUDGES

▷ i**N**centives

▷ **U**nderstand mappings

▷ **D**efaults

▷ **G**ive feedback

▷ **E**xpect error

▷ **S**tructure complex choices