

**COLUMBIA UNIVERSITY**  
**Graduate School of Business**

**Syllabus**  
**B8691-001: Becoming Better Choice Architects**

**One-Half Semester Course**  
**Spring Semester, Second Half**  
**Wednesday 4:00pm – 7:15pm**  
**Classroom: Uris 303**

**[Professor Eric J. Johnson](#)**

Norman Eig Professor of Business  
Columbia Business School

525 Uris Hall  
[ejj3@columbia.edu](mailto:ejj3@columbia.edu)  
212-854-5068

Teaching Assistant: Maayan Malter  
Email: [MMalter22@gsb.columbia.edu](mailto:MMalter22@gsb.columbia.edu)

## **Introduction**

There is great interest in decision-making, and no shortage of books detailing people's shortcomings. Yet decisions do not get made in the abstract. They get made in environments: in conversations with friends and salespeople, by reading catalog pages, or increasingly, on websites and mobile devices. Increasingly, they get made in what we will call *choice* engines that not only present options but let us sort, search, and eliminate them.

This course is based on a simple premise: *how* we are presented options helps determine *what* we choose, and that by improving these presentations we can improve choices. The forthcoming book used as the course text is a user's guide to the new field of *choice architecture*. This is the science and art of presenting choices to deliver better outcomes for our friends, family, customers, citizens, and our present and future selves. This is relevant to everyone: we are all both choosers and choice architects.

As choosers, we want to know how choice architecture affects us and when we are being manipulated. Does the website favor the most expensive option? Have we made it easy for people to pick the health insurance that is cheapest for them? Does the name given to a bill make it more likely to be passed in Congress? Understanding how presenting options changes choice is an important element of decision-making self-defense.

But we also present choices to customers ("which car would you like to purchase?"), family (asking a toddler "do you want to fly into bed or jump into bed"), and even ourselves ("when

should I work out today?"). We want to avoid stupid mistakes, and design others' choices wisely.

The course will present a series of tools and a chance for

### **Defaults: A Case Study**

Careless design can create terrible outcomes, making both the chooser and the choice architect unhappy. Organ donation worldwide is one example, characterized by two troubling statistics: First, 120,000 people are on the waiting list for organ donations in the US alone. Many will die before they find donors. Second, different countries show remarkable differences in the willingness of their citizens to be organ donors. For example, 99.9% of all Austrians are registered as donors, but only 12% of their neighboring Germans seem willing. What was the difference? Could understanding the cause of these differences help increase donations?

It turns out that the reason is surprisingly simple: it depends on what happens if they don't make a decision, something we call a *no-action default*. Some countries ask you to choose **to be** an organ donor, but others ask you to choose **not to be** a donor. If you do not make an active choice, you are, by default, not a donor in Germany but are a donor in Austria. This affects not only people's willingness to donate, but also the actual number of transplants that occur, and results in lives saved. Based on research like this, the default for organ donation has been widely debated and changed in Singapore, Chile, and Wales. Until we did our research on donation decisions, no one seemed very clear on whether defaults made a difference or why. In fact, when I tried to find out why defaults were set the way they were, there were no answers. Policy-makers had ignored how choice architecture might affect this incredibly consequential decision. These concepts have also been widely applied in retirement savings and elsewhere.

### **Sample: Other Topics**

- **Sorting Options:** Whenever we see alternatives, they are presented in some order, sometimes randomly, sometimes alphabetically, or sometimes according to attributes.
- **Presenting Attributes:** All choices are described by properties, like the calories of food or the square footage of a house. These *attributes* need to be labeled and described. Most choices are based on aspects of the options: for selecting a car this might be gas mileage, acceleration, electronic gadgets, etc. For evaluating potential jobs, it might be salary, work environment, commute time, etc.
- **Timing Decisions:** We often make choices now that have consequences later. Moving the choice closer or further from the consequence, or reminding people of their past choices, can be very important.
- **Choosing Defaults:** Returning to defaults, I will discuss how defaults influence important decisions and then suggest when to use defaults and how to pick the right default.

- **Building Choice Engines:** One of the most powerful concepts in choice architecture is the idea of a *choice engine*. The idea is simple: in the past, we made choices between physical things. We only could process information that would fit on the can, or we would have to walk from car to car (or dealer to dealer) to compare information. Now technology allows us to customize the “aisles” of our online stores for each customer and show only the subset of information that is important to them. This gives the choice architect a much more powerful set of tools, and enables the customer to become a partner in designing the display that is right for them.
- **Risk:** Uncertainty is a part of most decisions. We will discuss ways of presenting risk that can improve decisions.

This content may seem radical to some, but even when we don’t realize it, we are choice architects for ourselves and others. There is no such thing as avoiding choice architecture. We all use choice architecture. We often make decisions about presenting choices intuitively and without awareness, but this can lead to potentially disastrous outcomes. We can be choosers blissfully unaware of how we are affected by the way our choices are molded by the way they are presented. If, instead, we think about how the presentation affects the process and outcomes of choice, we can make decisions easier, increase decision-makers’ confidence, and choose outcomes that will make us and others happier.

### **Who should take this course? Why?**

This course should appeal to a wide variety of students:

- First, those who are choice architects. This includes anyone who interfaces with customers.
- Second, those who are interested in how the way that decisions are presented changes their choices.
- Third, those interested in marketing and consumer decisions more generally.
- Fourth, those interested in broader public policy issues (choice architecture is involved in many important public policy debates).
- Finally, the course will be helpful to anyone interested in learning how to better manage his or her *own* decisions.

The course is open to both MBA and EMBA students.

### **Course structure**

The course will consist of six meetings. I am planning on doing a bit of a flipped class structure, with the book chapters being the impetus for the discussion. In other words, I won’t be lecturing extensively from the book, and assume that you will have read those chapters ahead of time. I will briefly review what is in the chapters you have read, but spend most of the time presenting new material and answering questions for the first part of class (probably less than 60 minutes). Most weeks we will discuss your real-world examples and other applications, and close with a guest speaker.

By the second meeting students should have a potential project/client. You do not need to have the cooperation or sponsorship of the client, but it should represent a decision or choice that has significant consequences, either because it is important to the decision maker or because, in aggregate, it has important consequences for the firm, or both. Examples of important decisions for the individual might be choice of a school, for example a primary school or MBA program, buying a major consumer good, or investment options (more below).

Projects may be done by groups three to four individuals, and I will encourage you to find examples that don't overlap with others, and which you are **not** doing for another class. It is valuable to have a fresh perspective in applying these tools.

**In-class Presentations:** As described in short assignments below, I'll ask some of you to present the real-world choice architecture examples you have described.

### **Project Details.**

As the syllabus says, you should come to class, if possible, as a team of 3-4 people, and a potential choice architecture project. The syllabus has some details, but I've given some thought to examples

### **Culture**

This course adheres to Columbia Core Culture. You are expected to be i) Present, ii) Prepared, and iii) Participating.

### **Course materials**

The text will be preprints from an in-press book, and couple of example readings. They will be distributed on Canvas.

**Short Assignments:** Choice architecture in the real world.

Canvas documents 4 assignments where I ask you to find an example of the concepts in the real world. You should describe the example and either compliment or criticize the the application. For the course, I would like you to do 2 of the 4. You should upload by 12:01 am Wednesday morning, either a 1-2-page description or 2-3 PowerPoint slides. These should describe the example, and provide our analysis of it as good or bad using the concepts from the book. Further details are available with each assignment.

I will select a few of these each week for you to describe briefly in the class and for us to discuss. I anticipate you would present the initial discussion for 2-3 minutes to inspire discussion

Each of these assignments are described more completely under their assignment name on

Canvas. Remember you need to do **two of the four** assignments. Because I will bet that people will procrastinate, I will offer 1 point of extra credit to answers to the first question, .5 for the second and none for the third and fourth.

### Final Project

The final assignment will be done by groups of 3-4. I will make details available later, but think of it as a rehab of an existing choice architecture. These will differ in how drastic they will be: Some will need the equivalent of moving a couple of walls and some fresh paint, others will be a complete tear-down. I anticipate something like a critique being provided by fellow students and the instructor during the last session.

. Here are some examples are in no particular order:

- High School choice
  - One is NYC matching style
  - And many others: Washington DC, New Orleans.
- College choice
- College loan choice
- Mortgage Choice Any attempt to redesign Truth in Lending forms
- Electronic Health Records can be used to improve medical outcomes
  - Examples:
    - Increasing prescription of generics
    - Increasing appropriate evidence-based practice, for example, in prescribing on opioids.
- Firms presenting choices of products, services, policies, particularly those in financial services.
- Any kind of funnel dynamics that lead to a choice: For example getting people to sign up for subscriptions, internet services, health care.
- Personal Choice Architecture: How are you structuring your job choice? Etc.

You should pick a **concrete** example (think of it as an imaginary client, but a real web site, paper form, business process, etc.) that either needs to design a new way of presenting choices or needs to improve an existing method.

### Course grading

Grades will be based on the assignments and short case write-ups, class participation, and a final exam, as follows:

Weights for grading	
2 Short Assignments	15% each
Class participation	30 %
Final project	40 %

### **Office hours**

I am generally available via e-mail and also by appointment. Please feel free to contact me with any questions or feedback about the course.

### **Auditing**

Depending up on the availability of space, we may accept auditors, but first priority for seats goes, of course, to registered students. If you are interested in auditing, please send an email to [ejj3@columbia.edu](mailto:ejj3@columbia.edu) with the Subject: *Audit Request: Choice Architecture*. If you would share a couple of sentences, no more, about why you would want to audit the class that would be useful.

### **Instructor Bio**

For the last 33 years, Eric has studied decision-making, taught in the best business schools in the country (Wharton, Columbia, MIT) and become one of the most cited scholars in the field, authoring about 100 journal articles and book chapters, and co-authoring two academic books. He has won teaching awards and developed courses that have been big hits in three fields: Electronic Commerce, Behavioral Economics and Decision-Making, and most recently Consumer Finance. Some of his research has been used as best practice examples of choice architecture, particularly the result that showed that changing the default option for organ donation could save thousands of lives. He also speaks at large non-academic conferences and is quoted in media outlets ranging across CBS Evening News, All Things Considered and the New York Times, not to mention Readers Digest. He has also been a consultant to political candidates (non-disclosure limits the ability to be specific).

His academic background includes a BA with Highest Honors at Rutgers University, a MS and PhD in Psychology at Carnegie-Mellon, and a National Science Foundation post-doctoral fellowship at Stanford where he worked with Amos Tversky, one of the founding fathers of Behavioral Economics. At Wharton, he started the Wharton Center for Electronic Commerce in 1997 – anticipating the e-commerce trend – and has been co-director of the Columbia Center for Decision Sciences since 2001. He has been the President of the Society for Judgment and Decision-Making and of the Society for Neuroeconomics. His academic awards include receiving the Distinguished Scientific Achievement Award of the Society for Consumer Psychology, being recognized as a Fellow of the Association of Consumer Research, and receiving an honorary doctorate in behavioral economics from the University of St. Gallen in Switzerland.

He has served in government as a senior visiting scholar at the Office of Research at the new Consumer Financial Protection Bureau, participating in the formulation of regulation and the design of disclosure and other consumer decision-making aids. He has also worked with large firms in the automotive, insurance and online retail industries and many of these experiences also inform the book.

## Course Schedule

Date	Session	Topics	Readings
3/28	1	<p>Introductions: What is Choice Architecture?</p> <p>Guest Speaker: <a href="#">Chris Graves</a> President and Founder of the Ogilvy Center for Behavioral Science.</p>	Chapters 1-3
4/04	2	<p>Drivers and Goals.</p> <p>Guest Speaker: Jessica Ancker, Associate Professor of Healthcare Policy and Research, Cornell Weill Medical College on the Choice Architecture of Electronic Health Records.</p> <p>Short Assignment 1: The Voice of Choice Architecture (2 of 4 to be submitted)</p>	Chapters 4-6
4/11	3	<p>Choosing and not choosing: The power of defaults Options: How many, which ones?</p> <p>Guest Speakers: Daniel Goldstein and Jake Hoffman, Microsoft Labs on Making Numbers Understandable</p> <p>Short Assignment 2: How many options</p>	Chapter 7, 8 Goldstein et al.
04/18	4	<p>Attributes: How many? Which ones? How do describe them?</p> <p>Guest Speaker: Jennifer Jennings, Princeton, on School Choice</p> <p>Assignment 3: Describing Attributes.</p>	Chapter 10 -12
04/25	5	<p>Sorting, Partitioning and Choice Engines.</p> <p>Guest Speaker: Linnea Gandhi, Founder BehavioralSight.</p> <p>Assignment 4: Your favorite or least favorite choice engine.</p>	Chapter 9, 13
TBA	6	Wrap up, Implementation and Critiques.	

