NUDGE

at University of the Philippines

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What is Nudge?
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Officially it started in 2008 with a book by Richard Thaler and Cass Sunstein called *Nudge: Improving decisions about health, wealth, and happiness*.

However, the book is the culmination of several decades worth of research, questioning (making lists) and insights by Thaler dating back to the 1970’s.

But it is the explosion of awareness and implementation that has occurred since the books release in 2008 that is of real interest, culminating in Thaler winning the 2017 Nobel prize in Economics.
Example: A School Cafeteria

Imagine a cafeteria, with dozens of food items on the menu - from healthy snacks and meals to fast foods, sweet and desserts.

You have a few options, you could:

- Arrange the food to make the students best off, all things considered;
- Choose the food order at random;
- Arrange the food to get the kids to pick the same foods they would choose on their own;
- Maximise sales of the items from the suppliers that are willing to offer the largest bribes;
- Maximise profits, period.
Example: A School Cafeteria

Option #1 (best for students) has obvious appeal but is intrusive and possibly paternalistic, but the alternatives are worse!

- Option #2 (random) fair, but if all schools are random some kids at some schools will be better off than others, i.e. healthier diets!
- Option #3 (mimic preferences) may be neutral, but impossible to implement given the wide range of all potential preferences.
- Option #4 (bribes) might appeal to a corrupt person but does not result in the best outcomes for the kids or the cafeteria.
- Option #5 (profit) might appeal to a business minded individual but does not result in the best outcome for the kids.
Choice Architecture

This process is what Thaler and Sunstein call *Choice Architecture*, where a design decision can be made to organise the context in which individuals make decisions.

Many people are choice architects and do not realise it . . .

- deciding on the order of a ballot vote
- a professional offering alternative options to a client
- a doctor describing alternative treatments
- a parent describing educational or career options for a child
- all sales people . . .

Unfortunately it is often done with very little thought or planning . . . it just sort of . . . happens.
Choice Architecture

A crucial problem is **there is no such thing as a neutral design!**

Every variation in the way choices can be presented will likely result in some variation in the choice behaviours. A good rule of thumb is that ... **“Everything matters”** even the tiniest thing can change behaviour.

A great example of this is the ‘fly’ or ‘target’ on male urinals
Choice Architecture

Apparently, men do not pay a lot of attention whilst standing at a urinal, and as a result their aim is somewhat random.

The cleaning staff at Schiphol Airport in Amsterdam tried to fix the problem and started etching the image of a fly on the back of their urinals . . . to give customers a focus and a specific place to aim.

After the target was introduced the ‘spillage’ rate dropped by approximately 80% . . . men were not being told where to aim (or even that they should) but if they chose to do so the fly was a good target.
Choice Architecture

The insight that everything matters is empowering and more than a little intimidating.

It is important to realise that while it is impossible to build a perfect system, it is possible to make design choices that will have major beneficial effects.

Conversely, bad choice design can lead to poor, even disastrous, outcomes ... ones that were never intended.
Choice Architecture

The Australian attempt to save water, the *dual flush* toilet, was a great idea that suffers from poor choice architecture.

The problem is understanding the nature of the buttons . . . What does the big button represent?

a) The most commonly used flush (i.e. the low water option)? or
b) The larger flush that uses the most water?
Choice Architecture

We might expect that the small button is associated with “small flush.”

Conversely, we also might associate the size of the buttons with the frequency i.e. the big button could signal “small flush” and the small one “big flush.”

There is no (natural) internal consistency with what the button should mean . . . but seeing the larger button so well used in the previous image will definitely direct the next users.
Choice Architecture

A key element of nudging is that of libertarian paternalism.

People should be free to do what they like and to opt out of undesirable arrangements if they so choose (freedom of choice).

And to try influence people’s behaviour to ways to make them better off, specifically in ways that make the choosers better off as judged by themselves.

In short, if individuals want to smoke, eat lots of candy, fail to save for retirement, not join a health care plan . . . that is their choice and libertarian paternalists would not force them.
Choice Architecture

Libertarian paternalists try to track the choices that individuals make and implement some choice architecture.

They anticipate the choices individuals are likely to make design the system such that options that would make them better off are placed in a more prominent position without forbidding or removing other options.

In other words choice architects, *nudge* individuals, and to count as a true nudge the intervention must be easy and cheap to avoid. Nudges are not mandates, individuals can still choose to avoid them.
Behavioural Economics

Neoclassical economics and rational choice theory would have us believe that humans are already fantastic at making decisions... *homo economics* is a self-interested, maximiser after all.

Obesity rates have tripled since 1980 in areas of North America, United Kingdom, Eastern Europe, Middle East, Pacific Islands, Australia and China - And the evidence is overwhelming that obesity increases the risks of heart disease and diabetes, leading to premature death.

It is difficult to believe that many people are intentionally choosing to end their life prematurely... therefore they must be making bad decisions.
Behavioural Economics

While it might be impossible to ensure that everyone eats a healthy, well balanced diet . . . not all overweight individuals are failing to act rationally.

But what is true for dieting is also true for many risk-related behaviours (smoking, binge drinking, drug abuse, etc.), many of peoples choices can not be reasonably claimed to be the best means of promoting their wellbeing.

We know for a fact in a lot of situations individuals are willing to pay large sums of money to third parties in order to try to help them make better decisions (e.g. coaches, gyms, etc.).
Biases and Irrationality

Humans make mistakes. We have a large number of known biases and fallacies that we continually fall afoul. For example:

- Overly optimistic (Driving quality)
- Present Bias, Status Quo Bias, Confirmation Bias
- Loss Averse, Inequity Averse, Endowment Effects
- Temporal Biases ($100 today or $120 next week?)
- Sunk Cost Fallacies
- Mental Accounting
- Dual System thinking
- and many, many more . . .
Biases and Irrationality

Many of these biases lead us into making poor choices, but our myopic attitudes often results in the status quo bias becoming the significant option.

In many situations not making a choice leads to the worse possible outcome, one that people would never would have chosen normally.

This includes things like joining retirement plans, setting up emergency plans, pre-organising funeral requests ...
Biases and Irrationality

There are many things that individuals could choose to do that would improve their well-being, but do not actively choose to do so.

This is where the choice architect comes in, by identifying the barriers or hurdle that appears to stop individuals making certain choices and either removing the hurdle or redesigning the choice set to help the better option to be selected.

Again, remember this does not mean removing the individuals choices, merely designing it in such a way so as to allow the individual to choose to be better off.
Nudges

Understanding how humans make decisions lays at the core of any nudge, as it directs the way in which policy is designed to modify the choice architecture of individuals.

In effect it leverages the heuristics and biases that have been identified by behavioural economics and used in such a way as to modify the context in which a decision takes place without changing constraints.

However, this can not be seen as a one-size-fits-all magic policy because as preferences differ between individuals, so too will the effectiveness of any nudge.
Nudges

Why one nudge may work fantastically well in one instance but not in another, really comes down to two basic points:

- Not everyone needs to be nudged, and
- Not everyone will respond the same to a nudge.

Some people will already be acting in their best interests and as such a nudge will have no effect on them. Some may be mostly acting in their best interest and only need a slight nudge, others more so.

Another point to think about is the barrier that often prevent individuals from being able to act, and without the removal of those barriers they will not be able change options.
Nudges

So when do we need a nudge?

Thaler & Sunstien (p.72) point out that people will need nudges for decisions that are difficult and rare, for which they do not get prompt feedback, and when they have trouble translating aspects of the situation into terms that they can easily understand. And list the following times when nudges are needed:

- Benefits now - Costs later (Self-Control Issues)
- Degree of Difficulty
- In-Frequency
- Lack of Feedback
- Unclear Preferences
Nudges

Codagnone et al. (2014: p. 51) point out that **any form of policy intervention will impose a criterion against someone’s will (it will always be the case) and democracy requires:**

a) transparency from the political system in terms of the values selected in deciding and designing an intervention;

b) and at least an evidence based justification of choice.

Overt and explicit coercion by ‘nudgers’ is arguably better than covert manipulation by those designing environmental and contextual cues.

In other words, forcing someone into an action *you* think is in their best interest is **not a nudge**, it is what *they* choose based on what *they* think is in their best interest.
Nudges

So the question is how do we go about this *nudging* and how do we know what will work and what does not?

There are really two methods to go about doing this:

1. The first is more of loose conceptual approach, you design policy using a standard set of behavioural insights and examine the results afterwards. This ad hoc approach pretty rough and ready but will do a somewhat better job that using no insights at all.

2. The second is using a a much more scientific approach or testing and implementation, which we will focus on next.
Fischoff and Eggers (2013) outlined the policy supporting behavioural research as comprising three steps:

- **Normative analysis**: Identify, using consolidated theory and evidence, the possible outcomes of choices ‘X’ and decision makers’ values to weight them.
- **Empirical analysis**: Predict, using behavioural experiments, the choices ‘X’ that consumers would actually make, under the conditions created by possible policies.
- **Prescriptive analysis**: Characterise the gap between the normative ideal and the descriptive reality, with each policy option.
Nudging

Joshi and Duke (2017) of London Economics (retail finance) describe the three step process for applied choice architecture:

- **Laboratory Experiments:** Incentivised under controlled conditions and using treatments to mimic different features of a policy - to identify how decisions change and establish causality. i.e. identify which specific features lead to changes in behaviour.

- **Online Experiments:** with much larger samples than would be possible in a laboratory, to identify regional variations to behaviour.

- **Randomised Control Trial:** where the interventions are tested in the field, with subjects randomly allocated between a control group and a treatment group. The random allocation allows for a ‘clean’ assessment of the intervention in the wild.
Nudges

At its core all nudges share similar feature, i.e. a choice problem that is resulting in poor outcomes for individuals and the need to identify a policy intervention that would help choosers make better decisions in their own best interest.

It is this exact point where behavioural economics is required, as the neo-classical models assume individuals are rational and are decision maximisers.

We know this is not true, so we need to understand what is affecting the decision makers in order to create policy to help adjust it.
Nudges

Just in case you have been living under a rock for the last decade … *Behavioural Economics* and *Nudging* are a thing … a big thing!

The practical uses of behavioural economics and nudging have become abundantly clear, assisting governments and business to implement the advantages of behavioural economics.

In fact so many behavioural units have sprung up all around the world that rather than list them, it is easier to do so graphically, but include:

- the OECD
- the EU JRC and EP
- World Bank
- the UN DP
Nudgeathons

As behavioural economics and behavioural insights have become a global phenomenon the need for graduates with these skills has exponentially increased. As a result all leading universities in the world include some form of behavioural studies.

Starting in Warwick University (UK) competitive Nudgeathons have sprung up around the world, bringing academics, university students and policymakers together to create policy suggestions.

The recent (2017-18) topics under discussion in Australia have been:

- How to increase volunteer participation rates for 18-35 year olds
- Open Banking and the Consumer Data Right
The team captain may look familiar . . . second from the left (Jeff)
Choice Problems

So what are some of the choice problems that we face?

- Humans will make mistakes and as we know from behavioural studies they make fairly predictable mistakes. So a well-designed system expects its users to err and is as forgiving as possible, i.e. does not punish users for being wrong.

- The best way to help us Humans improve our performance is to provide feedback. A well-designed system will inform users when they are doing well and when they are making mistakes - and may provide advice on how to improve.
Choice Problems

- Some choices are easy (choosing a flavour of ice-cream), some choices are hard (choosing a medical treatment). When the options are familiar most people are able to predict with considerable accuracy, but when the option are not we very often fail to understand the complexities of the choices.
- When faced with simple choices, we use simple strategies, often heuristics. But, when the choice set gets large, we need to use unfamiliar alternative strategies which often gets us into trouble.
Incentives

It is important to note that behavioural economics does not abandon or suggest that standard theory is completely incorrect, more that it is incomplete.¹

Choice architects must think about incentives when they design a system, as such it is sensible to ensure that the right incentives are placed in front of the right people. So we must ask:

- Who uses?
- Who chooses?
- Who pays?
- Who profits?

¹See Herbert Simon
The US Health System

A good example of incentive based problems can be found in the US health care market.

A patient receives the health care services that are chosen by their physician, paid for by the insurance company by way of premiums from the patient, with everyone from equipment manufacturers to drug companies to malpractice lawyers taking a piece of the action.

Problems occur when there are incentive and decision mismatches.

- The patient pays for and uses health insurance, but . . .
- The doctor chooses the patient care and benefits, but . . .
- The insurance company benefits and pays the doctors, but . . .
- The insurance company chooses who and what to cover . . .
The Power of Defaults

Many people (aka students) end up taking the option that requires the least amount of effort or *the path of least resistance*.

Behaviourally we would chalk this up to inertia or the status quo bias, meaning that if we are the choice architect and there is a default option we know a large number of people will end up with that option.

Regardless of whether or not it is good for them, when doing nothing is a choice then the behavioural forces kick in . . .

Not because they are stupid, but because there are thousands of other decisions that needs to be made and it will look after it self . . . there is a default option.
The Power of Defaults

Historically the default option has caused a lot of problems, mainly due to poor choice architecture.

Organ Donors are a great example of the power of default options. In most countries the rates of organ donation are incredibly low even though many surveys indicate a willingness of a majority of people. Why?

If an individual wants to become an organ donor they usually need to fill out a lot of forms and opt-in to the program. As a result the default position is not to be an organ donor, and many individuals who may like to be a donor never get around to opting-in.
The Power of Defaults

An alternative approach or nudge is to flip the default position, that is rather than requiring individuals to opt-in to the system, the default would be reversed to an opt-out.

All individuals would be automatically included as a donor by default and if they decide they would rather not be a donor they choose to opt-out.

In countries that have changed to default from opt-in to opt-out have experienced a dramatic reversal in organs being donated, saving the lives of many of the citizens who would have otherwise died waiting for a transplant.
The Power of Defaults

It is important to note that none of the individuals’ options have been removed, nor have they been impeded in the process of the redesign.

The only part of the system that has been changed is the default position and all individuals need to take an action to change their position in relation to the default.

This process works across a vast range of decisions when there is a range of options (e.g. power, water, health, etc.).

The default option does not have to be the worst or lowest option, rather it could be the most common or the one that suits the largest number of individuals.
The book revolves around two major points:

1. The first is that small features can have massive effects on behaviour; nudges are everywhere, even if we do not see them. Choice architecture, both good and bad, is pervasive and unavoidable, and it greatly affects our decisions.

2. The second is that libertarian paternalism is not impossible. Choice architects can preserve freedom of choice while also nudging people in directions that will improve their lives.
Discussion

Thank you for your time.

Any questions or comments?