## Perspective on Quantitative Modelling

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### Three Changes that will affect you!

- > The availability and use of big data.
- How the move to the internet for retailing, survey research and behavioral research affects the environment and expectations for quantitative research.
- People today are having information collected about their habits and behavior without their being aware of it.
  - Credit cards, smartphones (Physicalytics, Nordstrom)

- In the past, we often knew if someone bought before, even their address. Now we know
  - What people do before they buy (pre-purchase behavior)
  - What people do after they buy (post purchase behavior

#### This opens many opportunities

- Probabilities of actions that lead to purchase (improve prediction)
- Influence actions that can increase the likelihood of purchase
- Better understanding of psychological processes that precede buying

- Models
  - Understanding of the buying process
  - Understanding of how marketers can influence buying
  - Understand the process: create hypothetical situations and test them
    - Counterfactuals
    - Real experiments
    - Extend studies to other spheres

#### Future behavior

- Does a purchase of X change people. How does it change them?
- Are there differences in people who are satisfied versus those who are not satisfied
- Are there markers that I can use to modify/improve my product/service

- In the past, if person X buys life is good. If person Y does not buy, life is bad → figure out why they don't buy and fix it.
- Now, we can do much more. Why do people buy? Warning signs, anticipation and opportunity.

## 2. The move to the internet

- The quality expectations for data are much higher
  - When something is easier to get, the quality expectations are higher
  - Don't necessarily use past/published articles as the basis for what is required.
  - You need to get a measure from people that are working in the area. What are they doing.

### 2. The move to the internet

- Support for analytical work, especially assumptions must be solid.
  - If an assumption is not strongly supported by stylized facts, then you may be expected to collect data to support your assumptions.
- Comfort with tools such as Google Analytics are now quite important if you are about to embark on quantitative research.

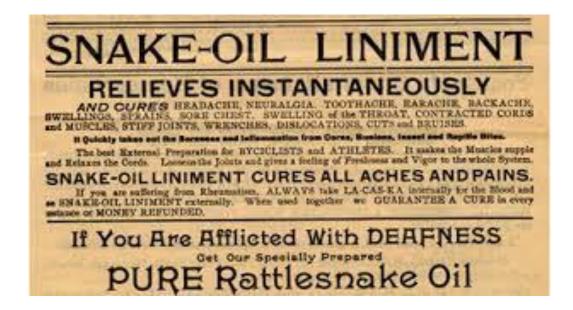
## 2. The move to the internet

- Generalizability of theory is more important now than ever.
  - If you are working on a model of the sharing economy using data from SnapGoods
  - You should expect reviewers to ask for confirmation from AirBnb, Dog Vacay, Relay Rides, Getaround, Lyft (not Uber)

- There are not right and wrong answers in this area...
- What is the cost of upsetting people compared to the benefit of using information?
  - If you buy something and the company knows your name, there is nothing under criminal law that stops the company from using it (exceptions)
    - civil law is different (slander/libel)

- Is the law overly restrictive or too lax
  - Legal versus ethical
  - Quantitative researchers have an opportunity to really add some value here.
    - Objective of rule
    - How do people behave when the rule is in place?
    - Many laws have perverse effects...

- In general, the marketing community (practitioners and academics) spend too much time counting our money and not enough time communicating about the positives we create.
  - Misuse of information (social media).
  - Products or services that don't live up to expectations
  - Pure and simple deception



80 to 90% of the discussion of marketing in the public sphere is negative

- Is there some way to turn the heat down by stimulating/promoting more discussion of the value that marketing creates?
- When someone who serves you has better information about you, is the outcome for you better or worse?
  - A competent physician with better information will serve you better.
  - Secret police (Stasi) with better information will serve you worse.
- Why is the public perspective invariably the latter and not the former?