



The Virtual Customer Initiative

Marketing Group
MIT Sloan School of Management

MIT Sloan Retreat
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The Voice of the Customer

- Thirty years of impact on practice
 - Silk & Urban: pretest markets started industries
 - Little: central to the data explosion
 - many other high-impact papers
- The VOC has been successful and has evolved over the last 15 years.
 - best praise is that it is now generic
 - key papers with hundreds of citations
 - both Bass dissertation and Little best paper prizes (INFORMS)

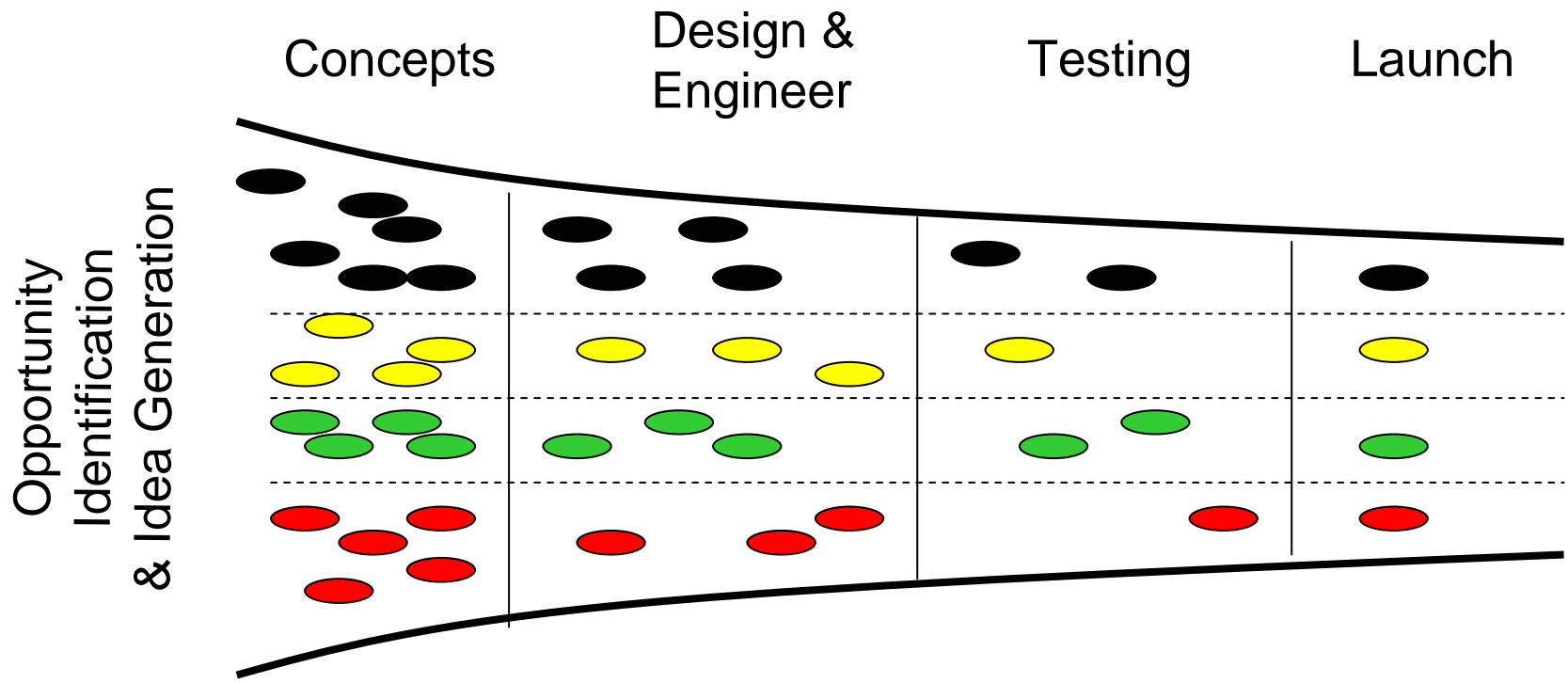


Virtual Customer Initiative

- to improve the speed, accuracy, and usability of customer input to the product development process
- take advantage of multimedia, computation, and new algorithms
 - rich media
 - rapid, dispersed communications
 - highly adaptive interactions with respondents

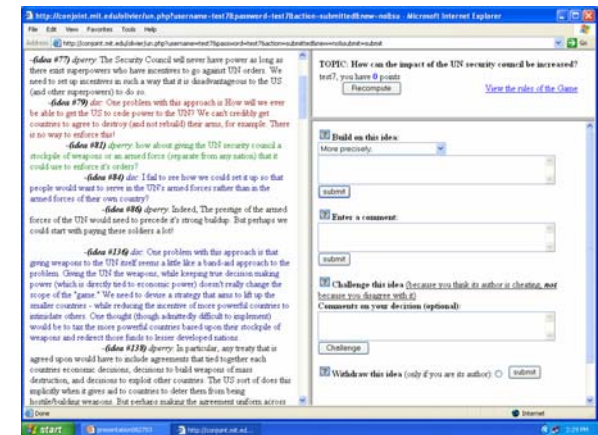


Product Development Process



Opportunity identification

- Prelec's information pump
 - incentive compatible “parlor” game
 - think hard, be non-redundant
- Toubia's idea generation game***
 - asynchronous, no need for co-location
 - incentives balance “search” and “exploitation”
 - e.g., rewarded for others building on your idea
 - self-monitoring mechanisms

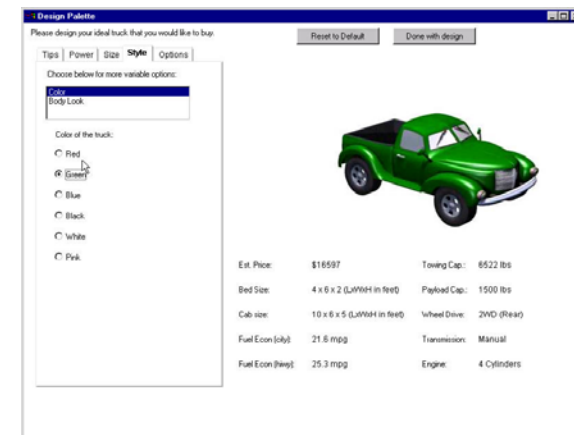


Opportunity identification II

- “Listening In” to web-based advisors***
 - when customers ask for that which is not currently being made
 - identify new platform stars
 - intervene with virtual engineer and design palette



- Genetic algorithms for aesthetic design***



Design

- Polyhedral conjoint analysis***
 - Freund’s algorithm
 - optimally adaptive, reduce respondent burden
 - enhance accuracy and overcome “endogeneity”

- Greedoid-based lexicography
 - theory from Orlin and Yee
 - identify “must have” and “must not have” features
 - provide a feasible means to investigate rich theories in psychology (seconds rather than years)

EP EXECUTIVE PROGRAMS

Please choose

Please examine the following four programs, each described by their features and tuition. Of these four programs, which do you prefer? Click on the circle below the program you would **MOST** prefer. Click the 'Next' button to continue to the next question.

FEATURES	PROGRAM A	PROGRAM B	PROGRAM C	PROGRAM D
Program Focus	Tech-Driven Enterprise	Global Enterprise	Innovative Enterprise	Tech-Driven Enterprise
Program Format	Full-Time Residential	Flexible	Weekend	On-line
Classmates' Background	General Management	Tech. Management	50 - 50 mix	General Management
Classmates' Age	30 - 35 years	35 - 40 years	30-40 years	35 - 45 years
Classmates' Geographic Comp.	75% North American	75% International	50 - 50 mix	75% North American
Classmates' Org. Sponsorship	Company Sponsored	Self Sponsored	50 - 50 mix	Company Sponsored
Classmates' Company Size	Small Companies	Large Companies	Mix of large and small	Small Companies
Program Tuition	C	C	C	C

NEXT >>

There are 32 smartphones shown below. Please select those smartphones that you would seriously consider purchasing for your own use.

As you click on a smartphone, a blue box will appear. Click on as many or as few as you would consider. When you are done, click NEXT, which is at the bottom of the page.

If you would like, you may sort the smartphones on up to three features. You may also simply scroll through the smartphones to indicate those that would consider.

(attribute 1) (attribute 2) (attribute 3) Sort

Practical applications

AFTER HOURS

GEAR & GAMES



Messenger-Bag It

The **Timbuk2 Commute** messenger-style laptop bag is a cool way to carry work or school essentials. It is made of sturdy ballistic nylon and has a waterproof vinyl interior liner. You'll find pockets for your laptop and all your other digital accessories, as well as exterior water-bottle pockets, a wide adjustable-length shoulder strap, and a padded handle.—*Carol A. Mangis*

\$100 direct. Timbuk2 Designs, www.timbuk2.com. ●●●●○



Comfortina Beads

Testing

- Prelec's Information scoring
 - “truth serum” for subjective beliefs
 - published in science
 - applied to forecasting
- “Truth telling” game
 - clues and guessers
 - incentive compatible to provide best information
- Web-based concept evaluation
 - simple but effective
 - careful empirical tests
- Simulated “stock” markets in product concepts
 - Dahan, Lo, and Poggio
 - still being tested



Many marketing science methods

- Urban's research on trust-based initiatives***
- Simester's research on catalogue companies***
- Tucker's research on technology diffusion
- Braun's research on pseudo-deductables
- (Zhang's research on silent word of mouth)



Scaling up trust-based methods

My Auto Advocate

My Rewards AutoShow In Motion New Vehicle Advisor Driver Forum e-Brochure Vehicle Specs.

MY AUTO ADVOCATE

Rewards Center AutoShow

360° Panoramic Show Room

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To navigate the site please click on the tabs above or interact with the virtual auto showroom in the picture panel above. Move your pointer to the right side of the picture panel to scroll right and vice versa. Click on the showroom banners to visit specific areas.

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My Auto Advocate

My Rewards AutoShow In Motion New Vehicle Advisor Driver Forum e-Brochure Vehicle Specs.

AutoShow Vehicle Advisor Driver Forum

360° Panoramic Show Room

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AutoShow In Motion

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You'll have the opportunity to test-drive our family of GM vehicles and then compare them with Honda, Ford, Toyota, BMW, Chrysler, Lexus, Dodge and Mercedes to see how we stack up! That's why AutoShow in Motion is known as the world's largest test-drive event.

Fun for the whole family:

- This is a free event
- Driving sessions are all day long rain or shine
- Lunch is provided, free of charge

Dates in the Los Angeles area:

Jan. 20 - Jan. 23rd - Pomona Fairplex
Jan. 27 - Jan. 30th - El Toro
Feb. 10 - Feb. 13th - Hollywood Park

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OVER 150 VEHICLES TO SELECT FROM AND DRIVE

YEAH!

Summary of the Virtual Customer

- **Industry impact**
- As the VOC moves to the web, we can exploit new capabilities for more accurate and faster feedback
- Quiet revolution
 - rich media
 - instantaneous communication
 - fast, hidden computation
- Better managerial decisions
- Adoption, e.g., GM, Colgate, Harris, NFO, AMS, and seven start-ups
- **Academic recognition**
- Polyhedral
 - Little Best Paper (INFORMS) Award 2004
 - Bass Dissertation (INFORMS) Award 2005
 - Howard Dissertation (AMA) Award 2005
 - Finalist, Green Market Research (AMA) Award 2004
- Greedoid
 - Explor Practice (AMA) Award 2004
- Web-based testing
 - Hustad Best Paper (PDMA) Award 2001
 - Hustad Finalist (PDMA) 2002 & 2003
- *MKS(5), JMR, JM, JPIM(3), Science, book chapters and many others under review*

