A brief overview of my research 2023

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Yale University

Prepared for the PhD admission day meeting, 2023

Substantive interests

My research lies in the intersection of strategy, innovation, entrepreneurship, and social networks. Connections to marketing and IS.

I study how socially structured information such as categories, awards, online reviews, and networks shape audiences' perceptions and evaluations in creative domains such as music, literature, dining, or innovation.

In creative domains quality and relevance are often difficult to discern, making social evaluations particularly critical.

Methodological interests

Online reviews to capture audience dynamics and valuations

Natural Language Processing and Machine Learning / AI to understand review texts, innovativeness etc.

Methodological papers to understand/validate online reviews, star rating, text analysis, etc

Study the biases introduced by rating systems and AI.

Large-scale experiments

Repositioning attempts

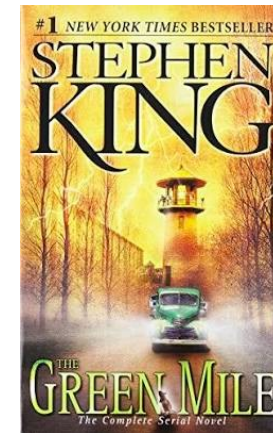It is common for individuals and firms to reposition and move across categorical boundaries.
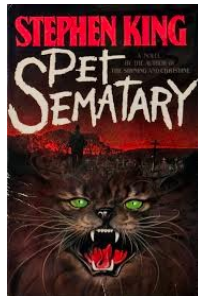

Research question

How do audiences react to repositioning attempts?

This question is relevant to companies, artists, academics, etc.

Example: Stephen King

Goodreads user review:

"…when I think of King, I think of The Shining, IT, and Pet Sematary. I also link King to horror automatically. So, when I started reading the Green Mile, I was expecting the horror to creep up… and it never did"

Goodreads user review:

"I didn't really like this book. I was expecting a horror, because it was Stephen King, and I was extremely disappointed. I had no fun with this dry, slow read."

Our arguments

1. Once a producer is associated through prior work with particular labels (e.g. author of "horror" books), this anchors how audiences label future offerings ("<u>categorical stickiness</u>")

2. Because of categorical stickiness, repositioning is likely to result in <u>mismatch between label(s) and content</u>

3. This label-content mismatch is results in <u>devaluation</u>

Our arguments #2

4. The effect will be stronger for repeat readers of the author because they have stronger expectations about the author.

5. Repositioning of famous authors will be met with more resistance than repositioning by less famous authors.

6. The effect will be weaker for <u>authors</u> with a more varied portfolio.

7. The effect will be weaker for <u>readers</u> with a more varied portfolio.
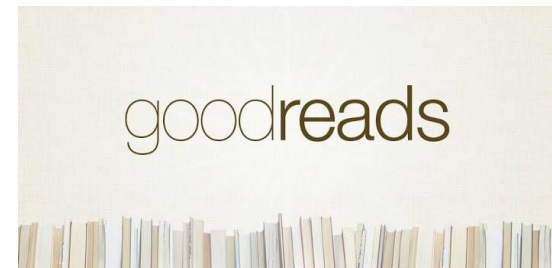
Setting

Book publishing
Online reviews on Goodreads.com

Sample

All books and reviews added from 2006 to 2017
- 529,770 English language books with at least five genre tags and a description
- 101,064 authors
- 140 million reviews/ratings
- 859,006 Goodreads users
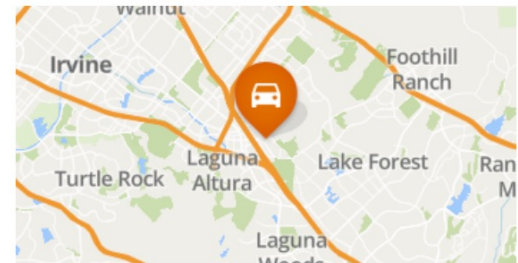
"the world's largest site for readers"

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Price Range
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✓ **Verified Products** ⬤

	Indica	1G	2G	4G	1/8
	Blackberry OG	$9	$15		$27

	Indica	1G	2G
	Blueberry OG Moon Rocks	$10	$20

Research questions

Paper #1	Paper #2
How do medical dispensaries react to the entry of recreational dispensaries? (Category competition)	How can dispensaries learn from their customers? How does the audience composition influences adaptation to the changing environment?

Hsu, Kocak, Kovacs (2018)

Hsu, Kovacs, Kocak (2019)

Why did we choose this setting?

-Large variance in regulation

-Quickly changing market

Data from Weedmaps, July 2014- June 2016

- 1st type: basic info on dispensary's characteristics
  - Name, physical address, hours of operation, phone #, website, email current # of "hits", recreational or medical, storefront or delivery-based
- 2nd type: dispensary self-descriptions
- 3rd type: product menus, prices
- 4th type: reviews of dispensary
  - Rating along 5 dimensions, text of review, timestamp, user ID, dispensary reply (optional)

Overall Rating	✪✪✪✪◐	4.2
Price	✪✪✪◯◯	3.0
Bud Quality	✪✪✪✪◯	4.0
Atmosphere	✪✪✪✪✪	5.0
Staff	✪✪✪✪✪	5.0
Accessibility	✪✪✪✪◯	4.0

Lester15378
April 13th, 2015

Great Eastside Shop

Went to the IMAX and had stopped by these guys on our way there. Good thing we did, great staff and just wonderful shop all around. Thanks guys!

Please login or sign up to comment.

Research questions

Paper #1	Paper #2
How do medical dispensaries react to the entry of recreational dispensaries? (Category competition)	How can dispensaries learn from their customers? How does the audience composition influences adaptation to the changing environment?

Paper #1

How do medical dispensaries react to the entry of recreational dispensaries? (Category competition)

We are looking at the **self-positioning** of dispensaries vis-à-vis other dispensaries.

Are medical dispensaries trying to be dissimilar from recreational dispensaries, or do they try to be similar to them and take over their markets?

Dispensary self-description excerpts

Dispensary A: … Modern research suggests that cannabis is a valuable aid in the treatment of a wide range of clinical applications. These include pain relief particularly of neuropathic pain (pain from nerve damage), nausea, spasticity, glaucoma, and movement disorders….

Dispensary B: …we offer exceptional service. Our knowledgeable staff is professional will assist you with any questions you may have…With wellbeing of our clients at heart and security in mind, you can feel safe when visiting our dispensary and relax in the comfort whilst we help you chose the best product for your needs.

Dispensary C: <Dispensary name> provides small-batch craft cannabis for discerning cannabis patients… Clean cannabis matters! To experience the most pristine expression of the plant's medicine, to enjoy the entourage of cannabinoids, terpenes, and flavonoids and to know it is mindfully-grown and hand-watered with lots of TLC is the birthright of every Cannasseur!

Coding identity statements

Table 1. Dispensaries' Self-Description Themes and Example Features

Themes	Example Features
community - general	locally-owned, family, community
community - political	activist, patients' rights, NORML
community - social responsibility	charitable, citizen, earth friendly
compliance - general	application, background check, lawfully authorized
compliance - medical	doctor's rec, medical card, registered MMJ patient
compliance - age or residency	21+, age of 18, resident
convenience	easy, convenient, ATM on site
medicine	medication, insomnia, depression
organization	collective, nonprofit, private association
price	affordable, budget, pricing
product	edible, sativa, kush, strain
promotions	raffle, discount, refer a friend
quality	highest grade, top shelf, connoisseur
process of production	cold water extract, freshly farmed, greenhouse
service - approach	friendly, honest, professional
service - security / protection	privacy, unmarked cars, security

Figure 1. Thematic Content in Medical vs. Recreational Dispensaries' Self-Descriptions
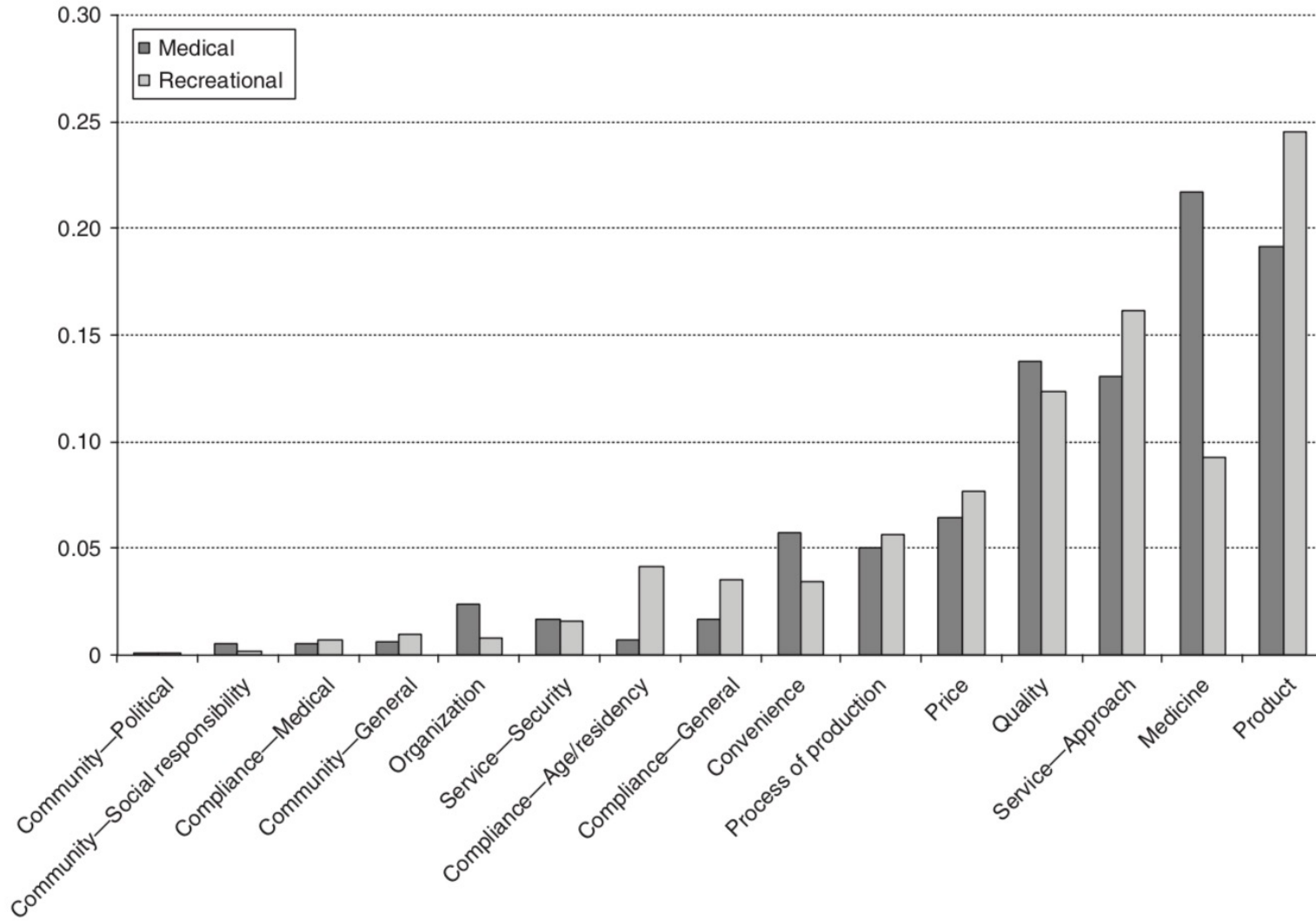
Hypothesis 1A. *In locations where voter support for recreational cannabis legalization is weak, medical cannabis dispensaries' identity claims will emphasize their medical orientation as recreational cannabis dispensary density increases.*

Hypothesis 1B. *In locations where voter support for recreational cannabis legalization is strong, medical cannabis dispensaries' identity claims will de-emphasize their medical orientation as recreational cannabis dispensary density increases.*

More details

Co-Opt or Coexist? A Study of Medical Cannabis Dispensaries' Identity-Based Responses to Recreational-Use Legalization in Colorado and Washington

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Abstract. When recreational cannabis dispensaries first entered the U.S. market in 2014, how did incumbent medical cannabis dispensaries react? Did they emphasize their distinct identity as medical providers, distancing themselves from recreational dispensaries and those consumers who consume cannabis recreationally? Or did they downplay their medical orientation to compete directly for potential resources? In this study, we propose that how incumbent organizations position their identities in response to increasing competition from an emerging rival form depends on key audiences' acceptance of the new form. Using data on the evolving cannabis markets in the states of Colorado and Washington during the year following the initial emergence of the recreational category, we find a sharpening of identity among medical dispensaries in communities with low voter support for recreational-use legalization. Medical dispensaries accentuated the medical orientation of their identities as recreational dispensaries increasingly set up operations and as buyers inclined more toward recreational use. In contrast, we find a blurring of medical/recreational identity in communities where voters demonstrated support for recreational-use legalization in the state-level ballot. Overall, the theoretical framework we advance integrates cultural and strategic approaches by explicitly considering conflict in different audiences' beliefs about the legitimacy of products and its implications for market producers seeking to connect with and appeal to current/potential consumers.
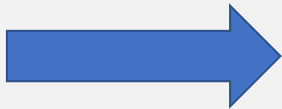
Research questions

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How do medical dispensaries react to the entry of recreational dispensaries? (Category competition)	How can dispensaries learn from their customers? How does the audience composition influences adaptation to the changing environment?

H1. Feedback from customers with diverse organizational experiences increases the congruence between an organization's market-positioning claims and the preferences held by consumers in its market.

H2. The positive effect of feedback from customers with diverse organizational experiences on the congruence between an organization's market-positioning claims and the preferences held by consumers in its market will be stronger for producers in markets with more quickly changing demand landscapes.

H3a. Organizations whose market-positioning claims are more congruent with the preferences held by consumers in their market will be more likely to survive.

H3b. Organizations whose market-positioning claims are more congruent with the preferences held by consumers in their market will attract and appeal more to new customers.

Review excerpts

Reviewer A: I was diagnosed with liver cancer. The staff was more than knowledgeable in not only top cancer fighting products as well as effective pain management.

Reviewer B: The staff here are compassionate, and truly care about us, the patients! Anyone in the area looking to find quality meds, compassion, and professionalism should come here.

Reviewer C: Untouchable quality! I would have to say that <dispensary name> is by far the best dispensary I have been to. From their flower to the concentrates it's all top quality and grown in house by some of the nicest guys in the business. I explicitly shop at <dispensary name> because it's hard to find a medical shop with finer medicine. Simply put amazing in their craft.

Using the same themes to code reviews

Table 1. Dispensaries' Self-Description Themes and Example Features

Themes	Example Features
community - general	locally-owned, family, community
community - political	activist, patients' rights, NORML
community - social responsibility	charitable, citizen, earth friendly
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promotions	raffle, discount, refer a friend
quality	highest grade, top shelf, connoisseur
process of production	cold water extract, freshly farmed, greenhouse
service - approach	friendly, honest, professional
service - security / protection	privacy, unmarked cars, security

		Theme Mentioned								Similarity Scores	
Dispensary	Self-description	conven-ience	medicine	price	product	process of produc-tion	quality	service - approach	service - security	with Disp. A	with Disp. B
A	Our mission is to preserve the art of artisan medicinal cannabis. All of our strains are grown organically, with the highest quality nutrients.	Yes			Yes	Yes	Yes				
B	Fast and friendly service! Open late, with a great product selection and helpful budtenders. Come check us out!	Yes			Yes			Yes			
Customer	Review text										
1	Good variety of product, but getting there was a hassle and long wait time.	Yes			Yes					1/5	2/3
2	Best budtenders. Super friendly and well informed. Ask for Judy!							Yes		0/5	1/3
3	Love the selection of strains. Fast service, amazing prices, great staff.	Yes		Yes				Yes		0/7	2/3
4	Shady place. Tried to push me into buying overpriced crap. Unprofessional-- avoid this club!			Yes				Yes	Yes	0/7	1/5
5	Staff is nice and knowledgeable. Clean and comfortable atmosphere!							Yes		0/5	1/3
								Average Similarity with Reviewers		0.04	0.44

Main result:

Restaurants that span multiple categories get lower ratings

Do people value authenticity?

You know, I'm not really sure if it mattered what they served me here.

The inside is beautiful. If you have good taste, you appreciate mid century modern design. This place is gorgeous, I cannot say it enough times. It looks so well kept that you'd have thought it was built last week. While some diners are pretty soulless, this place feels like you stepped back into 1963. This place is **authentic**.

Danny A.
South Gate, CA

8/30/2010

Definitely the go-to joint to experience the **authenticity** of a true Hollywood cafe/diner. It's just like in the movies, but everything is real life! Definitely a neighborhood favorite for that late night tip. Shop closes up at 3am. And try the Purple Haze milkshakes. It is exactly what it tastes like what it sounds like... HELLA GOOD!! YEE!

Anthony T.
Los Angeles, CA

12/15/2010   16 Check-ins Here

Main result:

Restaurants that are perceived authentic receive higher ratings

Main result:

Restaurants that self-claim authenticity are rated as less authentic and receive lower ratings.

United States Patent [19]

Hirth et al.

[11] Patent Number: 4,836,431

[45] Date of Patent: Jun. 6, 1989

[54] **SEMI-AUTOMATIC LOADING PAPER FEED TRACTOR**

[75] Inventors: **Gregory F. Hirth,** San Jose, Calif.; **Terry L. Branson,** Plano, Tex.

[73] Assignee: **Dataproducts Corporation,** Woodland Hills, Calif.

[21] Appl. No.: **148,883**

[22] Filed: **Jan. 27, 1988**

Related U.S. Application Data

[62] Division of Ser. No. 863,704, May 15, 1986.

[51] Int. Cl.^{4} **B65H 17/40; B41J 11/32**
[52] U.S. Cl. **226/74; 400/616.1**
[58] Field of Search 226/74, 75; 400/616–616.3; 16/298

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4,566,618	1/1986	Seitz et al.	226/74

Primary Examiner—David Werner

Attorney, Agent, or Firm—Spensley Horn Jubas & Lubitz

[57] **ABSTRACT**

A tractor is provided with an endless belt which travels in a triangular path and a drive shaft located well below the level of the paper path. The tractor body has both an inner and outer body portion, each of which contains a journal bearing for support on the support shaft. An adjustable torsion spring lock is provided on the outer body portion and surrounds the support shaft to allow for easy locking adjustment of the axial location of the tractor on the support shaft. A front and rear closeable panel are provided along the document feed path. Only the front panel need be opened during feeding while both front and rear panels may be opened to clear the feed path during advancement jam. Two mirror image features are provided at the entrance of the feed path on either body portion such as to cover document pins located on the belt path and thereby decrease likelihood of injury to an operator during feeding operations. A unique configuration of belt teeth pitch, pin pitch, and number of drive sprocket teeth is provided to allow for easy adjustment of belts in each tractor located at opposite sides of a document.

6 Claims, 5 Drawing Sheets

Main results:

Innovations that belong to high-contrast technology category exhibit, on average, a higher impact than those classified in fuzzier technology categories.

The positive effect of category spanning on an innovation's impact is negatively moderated by the contrast of the technology category to which the innovation is assigned.

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