



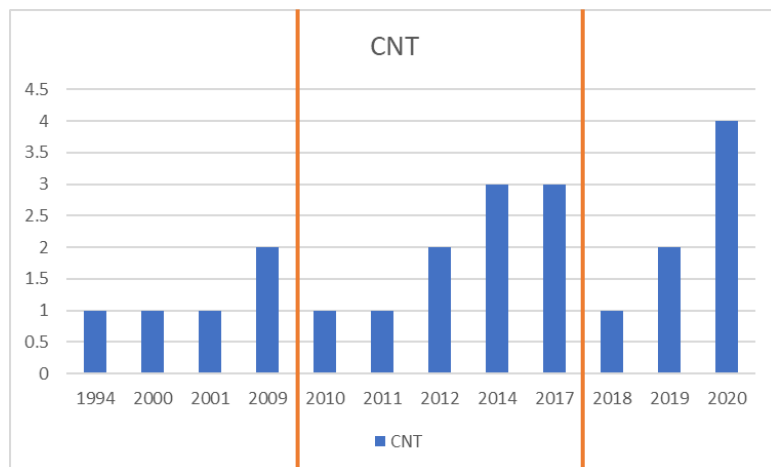
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'Copycat' Literature



Overview

- WOS: Copycat in Business&Econ = 77 → use 23 of 77



- 早期copycat和近期概念差异比较大
 - Lab experiment → Machine learning / Econ
 - Innov model OR MKT theory → Gaming theory
- 在OM和MKT做的比较多，IS最近也有几篇，2018 ISR & 2020 MISQ.

Trend

- **Consumer – Product relationship**
 - ‘judge’ → consumer mindset
 - Quality / similarity / familiarity
- **Copycat and original arrangement → Physical Arrangement**
- **Method: lab experiment -----→ econ + ml**
- **Objects:**
 - brand name or description(text)
 - Package (img)
 - Resource (enterprise perspective, too old)

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Copy alert: A method and metric to detect visual copycat brands

Satomura, T., Wedel, M., & Peters, R. (2014). Copy alert: A method and metric to detect visual copycat brands. *Journal of Marketing Research*, 51(1), 1–13. <https://doi.org/10.1509/jmr.11.0467>

Copy alert

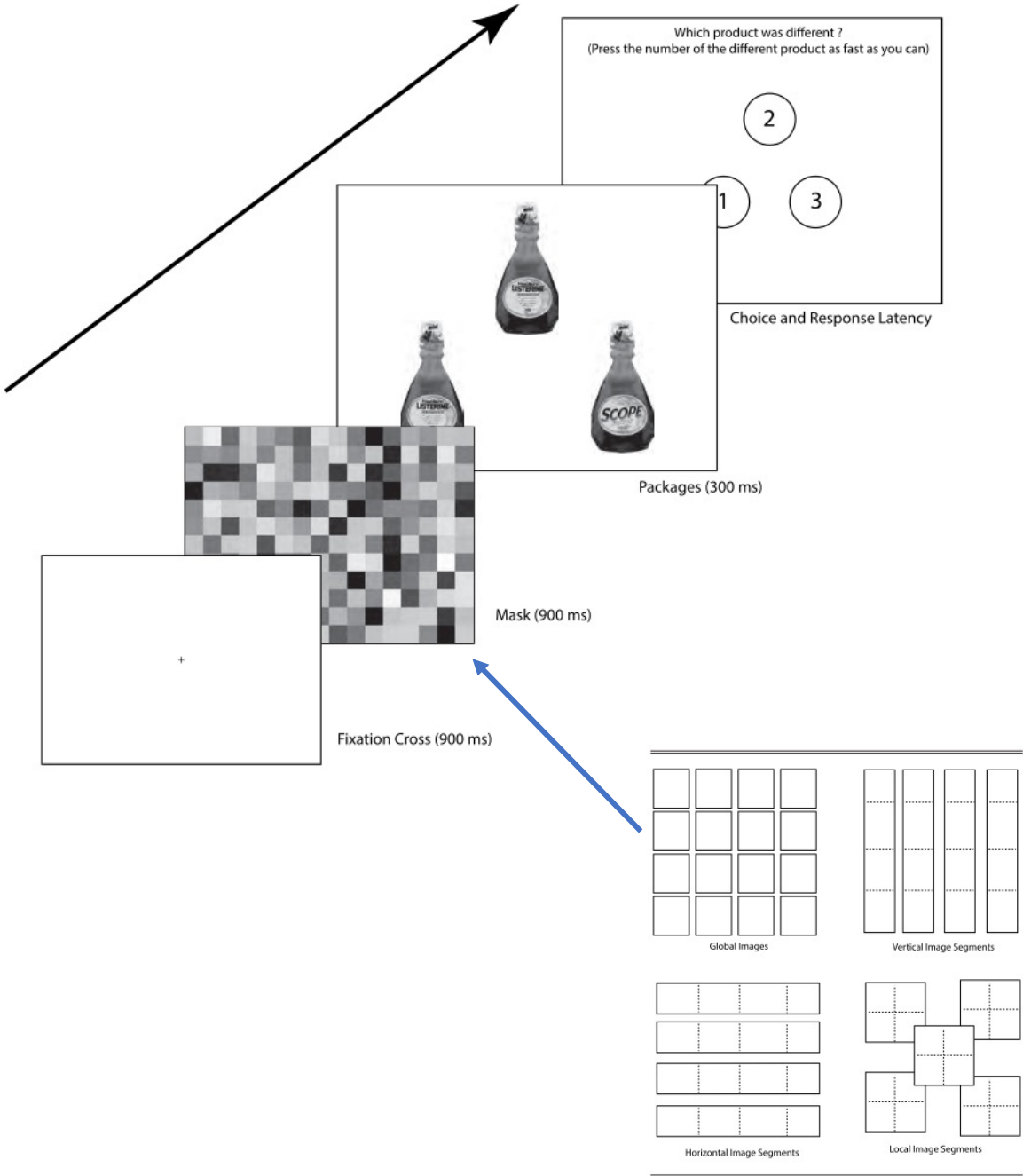
- **Topic**
 - Establish a standard to measure brand confusion (What causes brand confusion)
- **Literature**
 - Competing accumulator models (Smith and Ratcliff 2004; Usher, Olami, and McClelland 2002).
 - reaction times are right-skewed and that people make correct responses more quickly than incorrect ones

Copy alert

- Data
 - lab experiment: triangle test
- How to define imitation?
 - Color hist
 - Texture similarity

Model	Visual Features That Contribute to Brand Similarity					
	Color Similarity		Texture Similarity			
	Global	Dominant	Global	Vertical	Horizontal	Local
1	X					
2		X				
3	X	X				
4	X		X			
5	X			X		
6	X				X	
7	X					X
8	X			X	X	
9	X			X	X	X
10	X		X	X	X	
11	X		X			X
12	X	X	X	X	X	X

^aDenotes the highest log-marginal likelihood value.



Copy alert

- Findings
 - during brief exposures, people accurately identify advertising images on the basis of mostly coarse visual information (Pieters and Wedel 2012).
 - global color instead of dominant color
 - texture does not matter

Model	Visual Features That Contribute to Brand Similarity						Log-Marginal Likelihood
	Color Similarity		Texture Similarity				
	Global	Dominant	Global	Vertical	Horizontal	Local	
1	X						-5,414.6
2		X					-5,468.1
3	X	X					-5,383.9
4	X		X				-5,381.8 ^a
5	X			X			-5,419.5
6	X				X		-5,411.7
7	X					X	-5,653.7
8	X			X	X		-5,414.0
9	X			X	X	X	-6,983.0
10	X		X	X	X		-5,565.2
11	X		X			X	-5,414.6
12	X	X	X	X	X	X	-1,1438.8

^aDenotes the highest log-marginal likelihood value.

Consumer evaluation of copycat brands: The effect of imitation type

Van Horen, F., & Pieters, R. (2012). Consumer evaluation of copycat brands: The effect of imitation type. *International Journal of Research in Marketing*, 29(3), 246–255.
<https://doi.org/10.1016/j.ijresmar.2012.04.001>

Consumer evaluation of copycat brands





- **Topic**

- Theme imitation (VS feature imitation)

- **Data**

- Lab Experiment * 3:

- 1. similar brand name (semantic similarity VS literal similarity)
 - literal similarity includes simple mimic and similar words with meaning (Puma VS Buma VS Fuma)
 - 2. similar package image
 - 3. the imitation acceptability

Leader brand	Feature copycat
	
Theme copycat	Differentiated brand
	

Consumer evaluation of copycat brands

- **Literature**

- Knowledge accessibility theories (Martin, 1986; Schwarz & Bless, 1992; Wegener & Petty, 1995)
- Contextually activated information influences people's impressions and evaluations of the target (Higgins, 1996; Sherif & Hovland, 1961).
- The direction of such context effects on assessments of the target can be assimilative or contrastive.

Consumer evaluation of copycat brands





- **Findings**
 - Theme imitation is effective even when the theme is unique to the leader brand and not just when the theme is associated with the category as a whole.
 - Both text and image (package) imitation shows similar result.
 - Theme imitation is evaluated more positively than feature imitation because theme imitation is perceived to be more acceptable and less unfair, despite consumers' awareness of the imitation strategy used.

Out-of-category brand imitation: Product categorization determines copycat evaluation

van Horen, F., & Pieters, R. (2017). Out-of-category brand imitation: Product categorization determines copycat evaluation. *Journal of Consumer Research*, 44(4), 816–832. <https://doi.org/10.1093/jcr/ucx065>

Out-of-category brand imitation

- **Topic**
 - is it indeed the case that copycat brands do not unduly gain from such “out-of-category brand imitation”?
- **Data**
 - 4 experiment (using Evaluation and Williness to Buy as Y)
 - a. brand name imitation
 - b. brand name imitation (more general demographic samples / more samples
 - c. visual packaging design (the valence of familiarity / the appropriateness of similarity as mediation analysis)
 - d. "backlash" Effect

A Imitated national brand	B Copycat in core category: Chocolate bar
	
C Copycat in related category: Chocolate spread	D Copycat in unrelated category: Spreadable butter
	

Out-of-category brand imitation

- Findings

- Ex1: when in same similarity, in same category evaluation < < in different category
- Ex2: when more similar, in same category evaluation < < in different category
- Ex3:
 - (1) imitation in the related category is more effective than in a totally unrelated category
 - (2) copycat evaluation, valence of familiarity, and judged appropriateness of similarity are most positive when imitation takes place in a related yet different category. --> category norm
- Ex4:
 - (1) out-of-category imitation indeed has a damaging effect on the imitated brand;
 - (2) in-category imitation results in an increased evaluation of the imitated brand through a contrast effect away from the copycat

Copycats vs. original mobile apps: A machine learning copycat-detection method and empirical analysis

Wang, Q., Li, B., & Singh, P. V. (2018). Copycats vs. original mobile apps: A machine learning copycat-detection method and empirical analysis. *Information Systems Research*, 29(2), 273–291.
<https://doi.org/10.1287/isre.2017.0735>

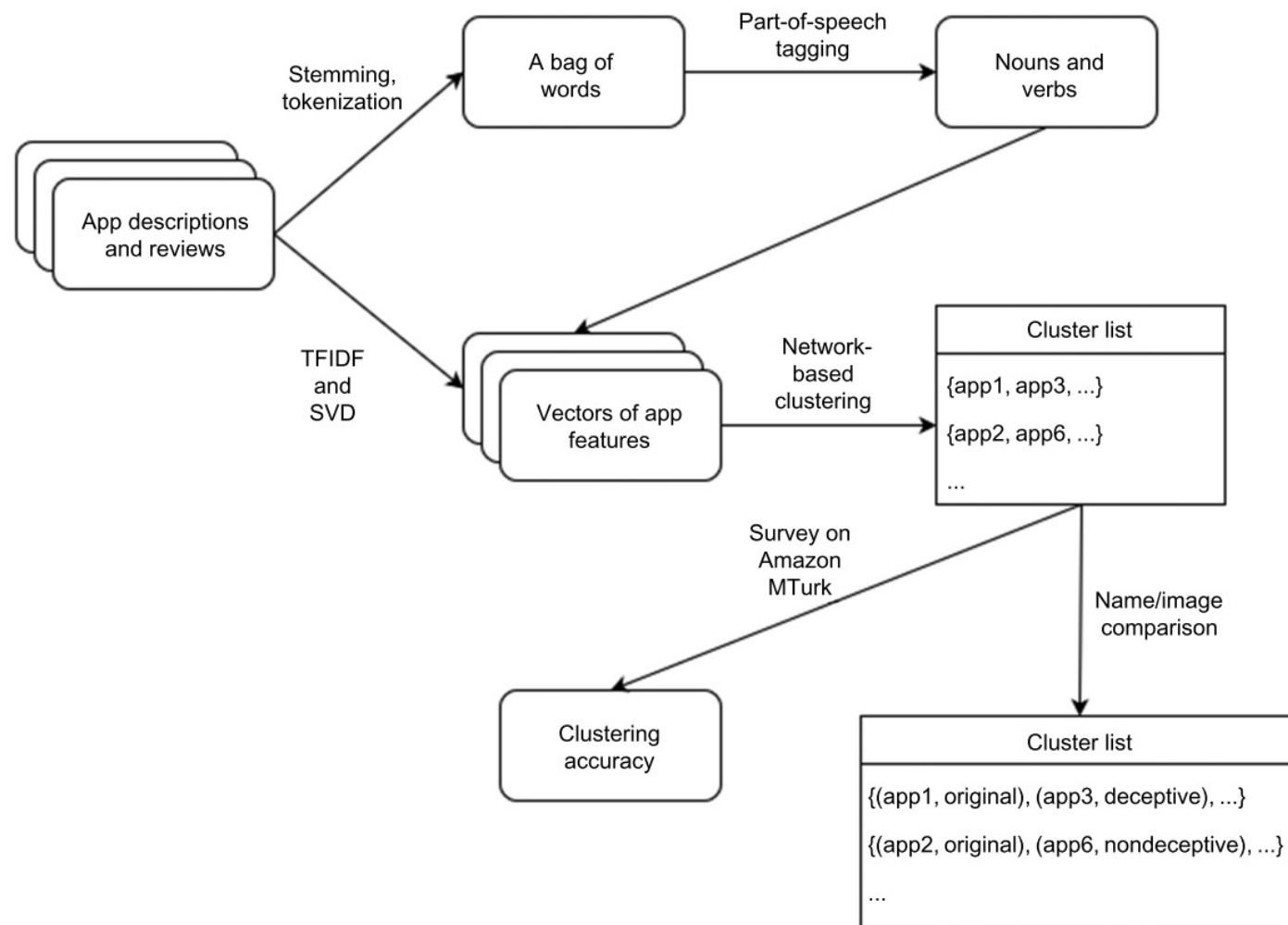
Copycats vs. original mobile apps

- **Topic**

- whether and how copycats affect an original app's demand

- **Data**

- sample of 10,100 action game apps by 5,141 developers that were released in the iOS App Store over five years.
 1. NLP (TF-IDF+SVD)
 2. Markov Clustering Algorithm
 3. Matching: (tagging for score)
 - a) String Soft Matching
 - b) img matching(SIFT)
 4. Evaluation: Amazon Mechanical Turk (MTurk)



Copcats vs. original mobile apps

- **Literature**

- The mobile app industry is one where sellers have very limited branding power.
- two types of consumers: (1) aware of the original version (2) not aware
 - substitution effect:
 - for type 1 --> sale from fake are recognized as the real origin
 - for type 2 --> sale from fake are not recognized as fake, but still remain effect
 - promotion effect
 - for type 1 --> promotion from fake are recognized as the real origin
 - for type 2 --> promotion from fake are not recognized but find new

Copycats vs. original mobile apps

- Findings

$$y_{it} = \alpha x_{it} + D_{it}\beta_1 + \lambda_i + \varphi_t + \varepsilon_{it},$$

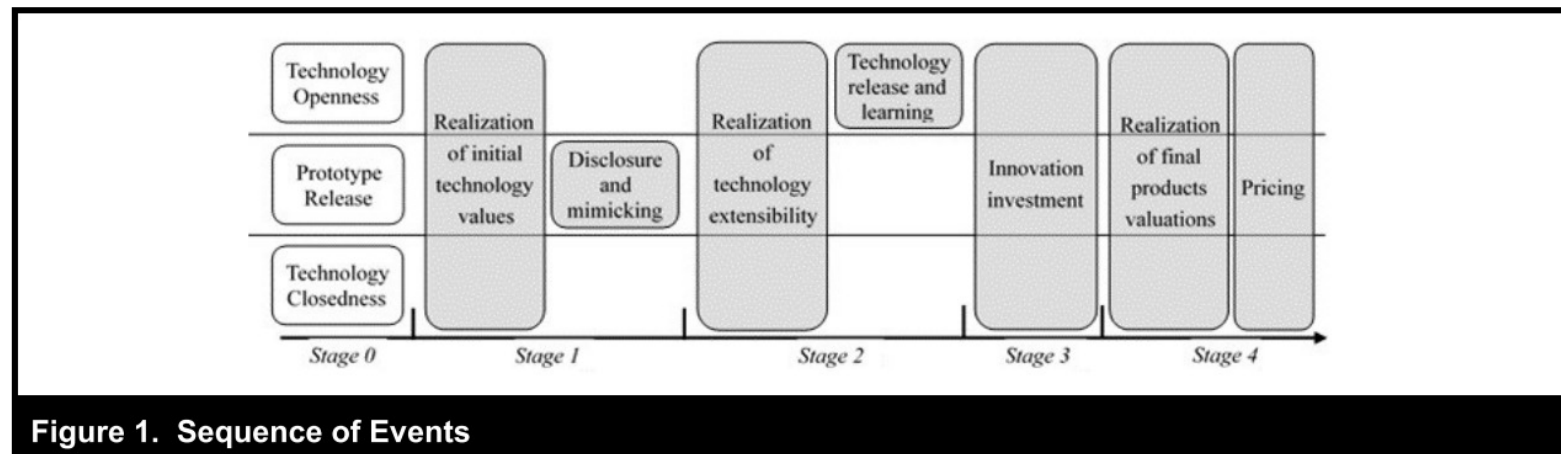
Copycat quality	Copycat deceptiveness	Effect on original app
high	low	neg
high	high	non
low	high	pos
low	low	non

Altruism or shrewd business? Implications of technology openness on innovations and competition

Huang, H., Parker, G., Tan, Y., & Xu, H. (2020). Altruism or shrewd business? Implications of technology openness on innovations and competition. *MIS Quarterly: Management Information Systems*, 44(3), 1049–1071. <https://doi.org/10.25300/MISQ/2020/14607>

Altruism or shrewd business

- **Topic**
 - We explore the rationale behind this unusual sharing behavior in order to understand whether it is altruism or a shrewd business move.
 - When do competing firms choose technology openness, prototype release, or technology closedness as the technology openness strategy ?
- **Data**
 - Gaming theory → Hotelling Model
 - (Invent → imitate → invest)*2 + pricing



Altruism or shrewd business

- **Literature**

- Technology openness leads to:

- (1) information disclosure (information effect). → benefit the firm that shares the technology or releases the prototype because it can reduce costly innovation competition.
 - (2) technology access (access effect). → easy to mimic the prototype under prototype release.

- **Contribution**

- Focus on the whole process, including the result of information disclosure.
 - Discussion (3*3) cases



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Thanks

