Understanding a platform's strategic entry into the marketplace Mentor: Xintong Wang

Robert Jaworski

DIMACS REU 2024

June 3, 2024



- Definitions
- The problem

3 Acknowledgements

э.

æ

Definitions

Robert Jaworski (DIMACS REU 2024) Understanding a platform's strategic entry int

<ロト <問ト < 目ト < 目ト

Ξ.

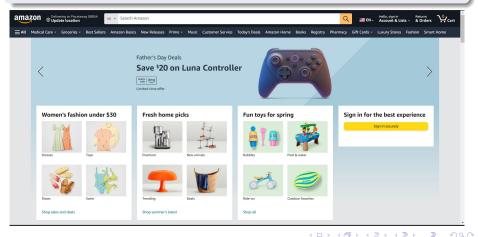
Platform

Facilitates trade between sellers and buyers by providing a marketplace and promoting products to buyers. Example: Amazon

Definitions

Platform

Facilitates trade between sellers and buyers by providing a marketplace and promoting products to buyers.



Platform

Facilitates trade between sellers and buyers by providing a marketplace and promoting products to buyers.

Seller

Anyone who uses the marketplace to sell products.

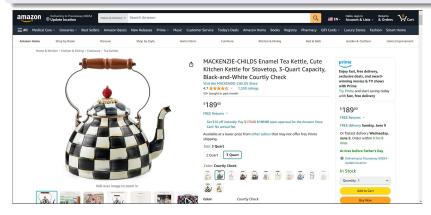
Buyer

Anyone who uses the marketplace to buy products. Example: You

Definitions

Platform

Facilitates trade between sellers and buyers by providing a marketplace and promoting products to buyers.



.∋...>

< □ > < □ > < □ > < □ >

Definitions

Platform

Facilitates trade between sellers and buyers by providing a marketplace and promoting products to buyers.



3/7

Robert Jaworski (DIMACS REU 2024) Understanding a platform's strategic entry int

< □ > < □ > < □ > < □ > < □ >

3

Platform's entry into the marketplace

Platform's entry into the marketplace

mazon _©	elivering to Piscataway 08854 Ipdate location	Home & Kitchen +	Search Amazon					Q	Helio, sign in EN - Account & Lists -	& Orders
All Medical Care	 Groceries - Best Sell 	ers Amazon Basics	New Releases Prim	e - Music Custon	er Service Today's	Deals Amazon Hon	ne Books Regist	ry Pharmacy Gift	Cards – Luxury Stores Fa	ishion Smart Home
nazon Home	Shop by Room	Discover	Shop by Style	Home Décor	Furniti	ure Kito	chen & Dining	Bed & Bath	Garden & Outdoor	Home Improvement
Home & Kit		Rill over image to 2		Ċ	Quart, Tez Visit the Amazon 4.4 * * * * * Amazon Stole 300+ bought in past *2563 Get Fast, Free Sh FREE Returns ~ Get \$10 off inst. Card. No annual	Basics Store ~ 2,023 ratings in Tea Kettles by An month ipping with Amazon I antly: Pay \$15.63 \$25.63	mazon Basics Prime IS upon approval for t ellers that may not c	the Amazon Store	Enjop fast, free deliver exclusive deals, and , with Prime Try Prime and start size with fast, free deliver by preve: \$2563 Get Fast, Free Shippl Anszon Prime FREE Returns - FREE delivery Sundle on order Shipplet by over 355 Or fastes Edivery Sundle or fastes tedlivery Sindle answer Store Fast	ward- shows wing today y Pickup Pickup mg with , June 9 9 hrs 9 9 hrs 9
	ALL		1. C	2	About this iter	n			Update location	way 08854 -

Platform's entry into the marketplace

Platform starts selling its own products on its own marketplace.

• Reasons for platform's entry

Platform's entry into the marketplace

- Reasons for platform's entry
 - Profit the platform notices a lot of buyers are interested in a certain kind of product and decides to use this knowledge

Platform's entry into the marketplace

- Reasons for platform's entry
 - Profit
 - Quality control the platform notices that a certain type of product has only few options which are overpriced and/or of poor quality

Platform's entry into the marketplace

- Reasons for platform's entry
 - Profit
 - Quality control
- Potential problems

Platform's entry into the marketplace

- Reasons for platform's entry
 - Profit
 - Quality control
- Potential problems
 - Unfair advantage the platform controls how products get recommended to buyers

Our goal

Our goal

Use existing data to understand Amazon's strategy when introducing its products.

Gather data

Our goal

	inder Product Viewer Pro	duct Best Sellers	Top Seller List	Seller Lookup Category Tree	e Keepa API						
ionfigure (Columns 🏩 Import list 🛓 Exp	ort 🗑 Remove 🕻	Update product dat	a							Quota left: 100
		Sales Rank						Reviews			
Image	Title Amazon Basics Stainless Steel Tea		IO days avg. ≡ Drops	last 90 da Reference	Subcategory Sal	Tea Kettles	Bought in pas =				Count - Fo = Last - 26 r
B	Amazon basics stainess steel rea Kettle					lea kettes					- 201
R	MACKENZIE-CHILDS Enamel Tea Kettle, Cute Kitchen Kettle for Stovetop, 3-Quart Capacity, Black-	# 10,664	# 9,250	105 Kitchen & Dining 🕼		Kitchen & Dining Tea Kettles	50+ (Last update: 1	4.7	1,329	190	39 14 8

Our goal

Use existing data to understand Amazon's strategy when introducing its products.

	eepa 🚆	Track Ap	ops Data	Information	n Comment	Search				azon .COI	m ^a platform_pr
roduct	Finder Product Viewer Pro	duct Best Sellers									
											Quota left: 91
Configure	onfigure Columns 🔻 Advanced Fiter 🔚 20 rows 📥 Export 🚯 Displaying 20 rows (out of a total result of 108,797) 🕒 Show active fites 🔒 Show API query										
			Sales Rank							Reviews	
Image						ps last 90 da	Subcategory Sales Ranks		Bought in pas =	Rating =	: Review Count = Review
ß	Primula Stewart Whistling Stovetop Tea Kettle Food Grade Stainless Steel, Hot Water Fast to Boil, Cool	tpoca	# 177	# 329	46 % 🖸	106 Kitchen & Dining 🗭	# 177 Top 0.01% # 1 Top 0.01%			43	
3	Primula Stewart Whistling Stovetop Tea Kettle Food Grade Stainless Steel, Hot Water Fast to Boil, Cool	Ероса	# 188	# 333	44 % O	250 Kitchen & Dining 🗭	# 188 Top 0.01% # 1 Top 0.01%		10,000+ (Last update: 3	***** 4.3	
6	Mr. Coffee Flintshire Stainless Steel Whistling Tea Kettle W/Nylon Handle, 1.75-Quart, Matte Black	Gibson Overseas, Inc.	∉ 1,263	# 1,468	14 % O	154 Kitchen & Dining 🗭	# 1,263 Top 0.01% # 2 Top 0.01%		300+ (Last update: 1	****	
6	Mr. Coffee Flintshire Stainless Steel Whistling Tea Kettle w/Nylon 3 Handle, 1.75-Quart, Linen	Gibson Overseas. Inc.	# 1,263	# 1,462	14 % 🔿	148 Kitchen & Dining 🗭	# 1,263 Top 0.01% # 2 Top 0.01%		50+ (Last update: 1	*****	
	Mr. Coffee Twining 2.1 Quart Pumpkin Shaped Stainless Steel Whistling Tea Kettle, Metallic Red	Gibson	# 1,263	# 1,468	14 % 🔿	229 Kitchen & Dining 🗭	# 1,263 Top 0.01% # 2 Top 0.01%		300+ (Last update: 1	*****	
1	Mr. Coffee Flintshire Stainless Steel Whistling Tea Kattle W/Nylon Handle, 1.75-Quart, Metallic Royal.	Gibson Overseas. Inc.	# 1,301	# 1,458	11 % 🛛	147 Kitchen & Dining 🗭	# 1,301 Top 0.01% # 2 Top 0.01%		50+ (Last update: 1	*****	
1	Mr. Coffee Flintshire Stainless Steel Whistling Tea Kettle, 1.75-Quart, Brushed Satin	Gibson Overseas, Inc.	₹ 1,301	# 1,464	11 % 🔿	177 Kitchen & Dining 🗷	# 1,301 Top 0.01% # 2 Top 0.01%		2,000+ (Last update: 1	*****	
6	Mr. Coffee Flintshire Stainless Steel Whistling Tea Kattle W/Nylon Handle, 1.75-Quart, Metallic Teal	Gibson Overseas. Inc.	# 1,301	# 1,464	11 % 🛛	144 Kitchen & Dining 🗭	# 1,301 Top 0.01% # 2 Top 0.01%		50+ (Last update: 1	*****	
	Mr. Coffee Flintshire Stainless Steel		# 1.301	# 1,465	11 % 0	124 Kitchen & Dining 🗭	# 1.301 Top 0.01%		100+	*****	21,767

э

Our goal

Use existing data to understand Amazon's strategy when introducing its products.

• Gather data - using the website Keepa.com

Our goal

Use existing data to understand Amazon's strategy when introducing its products.

• Gather data – using the website Keepa.com (or rather its API)

Our goal

- Gather data using the website Keepa.com (or rather its API)
 - And pay attention to categories of products where the platform introduced its own

Our goal

- Gather data using the website Keepa.com (or rather its API)
 - And pay attention to categories of products where the platform introduced its own
- Analyze data

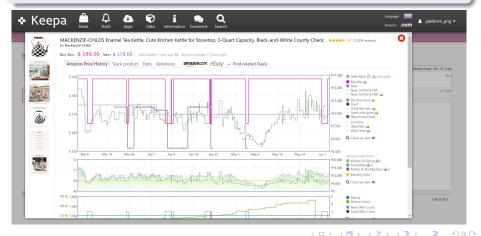
Our goal

- Gather data using the website Keepa.com (or rather its API)
 - And pay attention to categories of products where the platform introduced its own
- Analyze data using unsurpervised learning to see which properties lead to platform's entry

Our goal

- Gather data using the website Keepa.com (or rather its API)
 - And pay attention to categories of products where the platform introduced its own
- Analyze data using unsurpervised learning to see which properties lead to platform's entry
- Make predictions

Our goal





Our goal

- Gather data using the website Keepa.com (or rather its API)
 - And pay attention to categories of products where the platform introduced its own
- Analyze data using unsurpervised learning to see which properties lead to platform's entry
- Make predictions retroactively try to predict which products the platform will start selling

This work was carried out while the author, Robert Jaworski, was a participant in the 2024 DIMACS REU program at Rutgers University, CNS-2150186. The author was supported by CoSP, a project funded by European Union's Horizon 2020 research and innovation programme, grant agreement No. 823748.

Thank you for your attention!