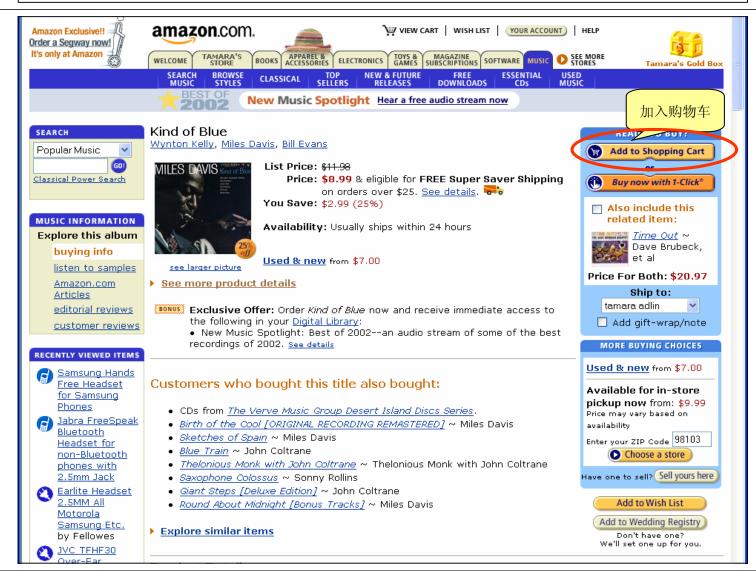
Technology, Information, and Innovation 技术, 信息与创新

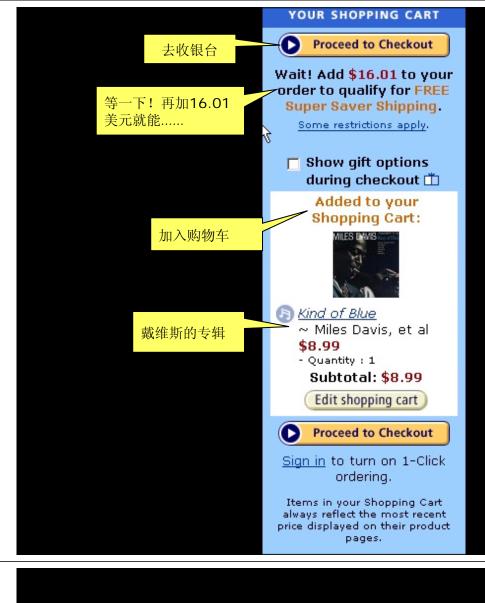
Web 2.0: Getting Users to Participate

2 November 2005 INSEAD, Singapore

www.weigend.com

章思岸教授 Andreas S. Weigend, PhD





Also want to make recommendations! 添加推荐!

购买戴维斯专辑的消费者也买了另两张专辑

Customers who bought Kind of Blue also bought:

₱ <u>Time Out</u> ~ Dave Brubeck, et

al Our Price: \$

Our Price: \$8.99

<u>Used & new</u> from \$5.79



A Love Supreme ~ John

Coltrane

Our Price: \$13.49

Also want to make recommendations! 添加推荐!

- Complements
 (buy in addition to)
 互补(额外购买)
 - Customers who bought X also bought Y 消费者买了X就会再买Y

 Substitutes (buy instead of)
 替代(选择购买)

想买戴维斯专辑的消费者同时浏览了其它同类专辑

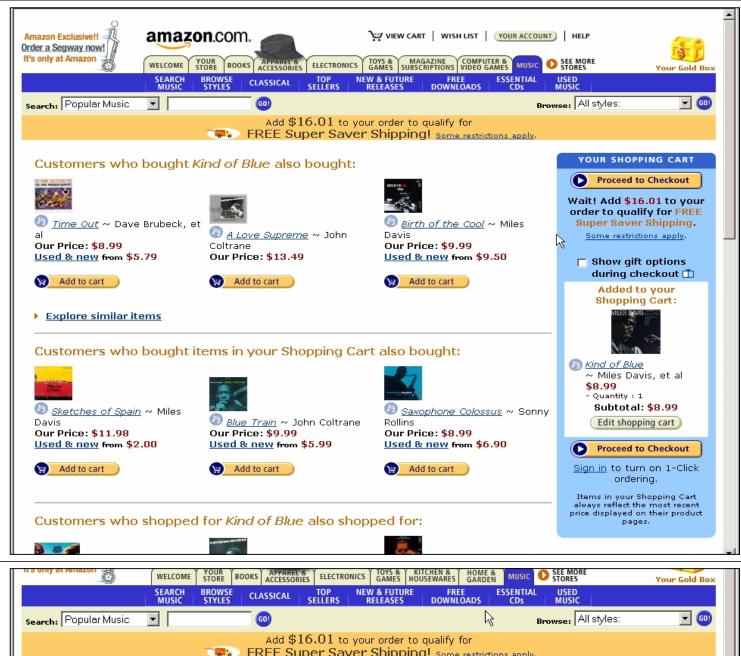
Customers who shopped for X also shopped for Z
 Customers who shopped for Kind of Blue also shopped for:

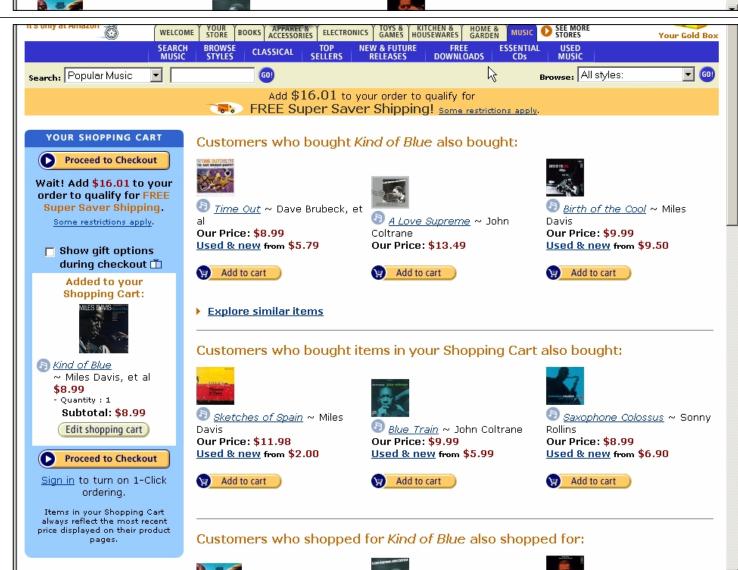
for Z 消费者想买X 也想买Z

No. of Contract of









Result: Right vs Left 对比结果: 左还是右

Metrics

衡量标准

► Conversion rate: Percentage of visits placing an order 转化率: 百分之几的人访问页面并购买

▶ Order size: Number of additional (from the second page) items put in cart 订单大小: (从第二页起)新购多少商品

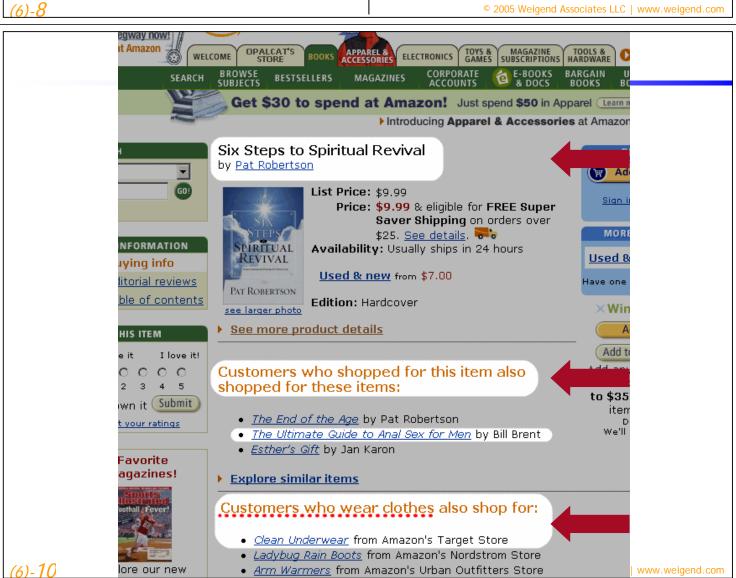
Result

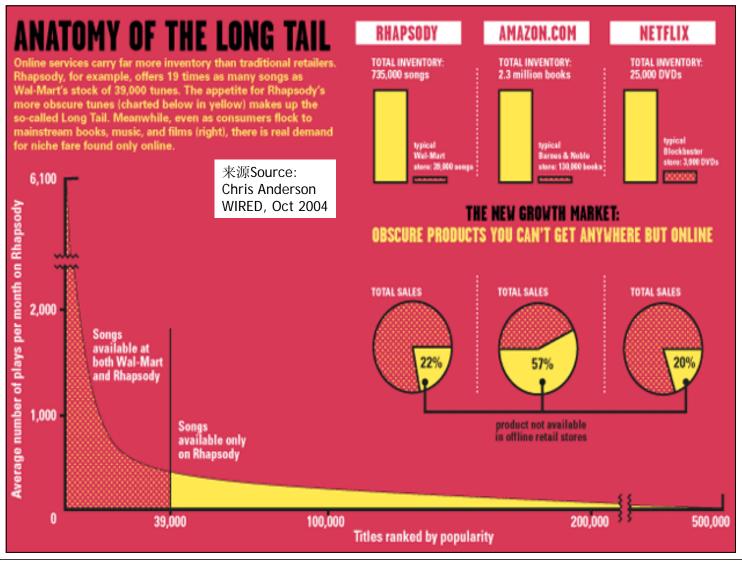
结果

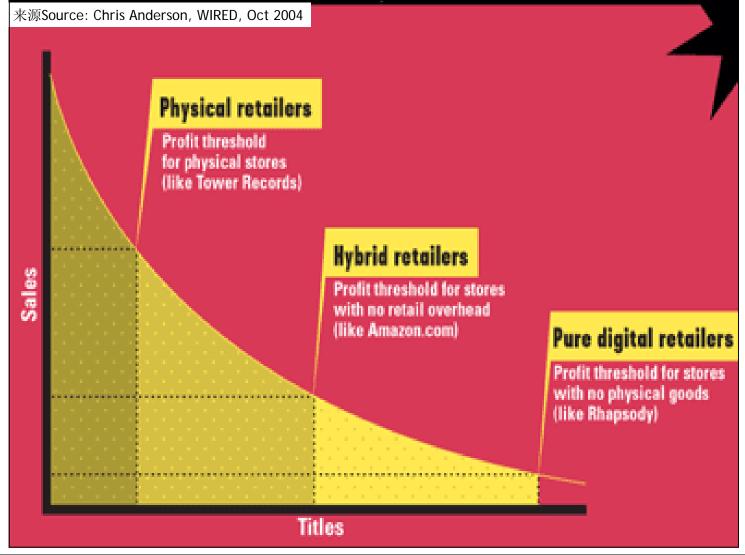
▶ "Your Shopping Cart" on right is about 1% better than on left "Your Shopping Cart" 置于右侧比置于左侧的效果提高1%

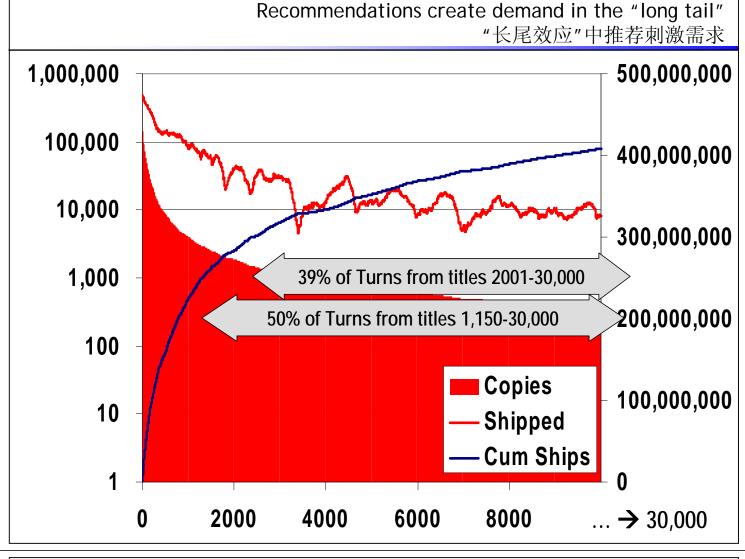
Some details

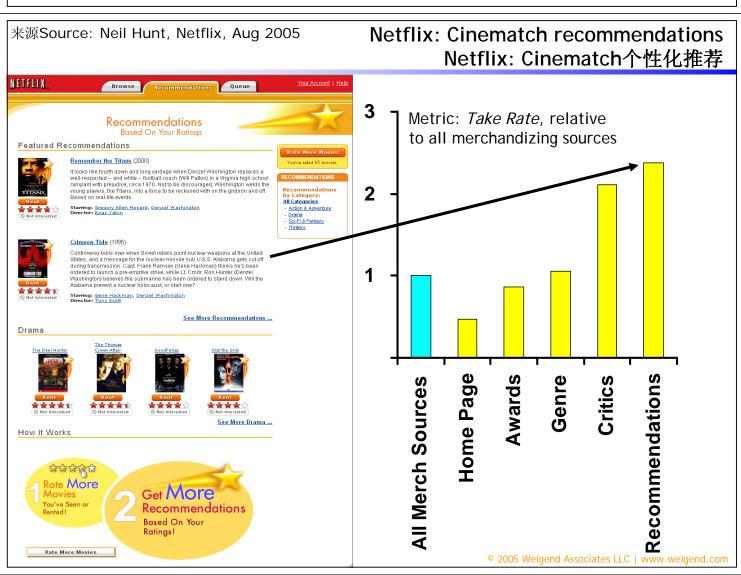
细节	All customers 所有消费者		Existing customers 现有消费者	
	Cart-adds from 2 nd page: 从第二页起新购商品数量:	+0.6%	Cart-adds from 2 nd page: 从第二页起新购商品数量:	0.8%
	Wishlist-adds: 选择礼物清单:	+1.4%	DVD Cart-adds: 新购DVD:	0.8%
3	DVD (\$):	+1.1%	DVD (\$): +' © 2005 Weigend Associates LLC	











Netflix: Rigorous testing Netflix: 精确测试

 Better customer experience with... 改善上网体验

NETFLIX Julie Raymond ▼ | Your Account | Help SEARCH Browse Recommendations Movies, actors, directors, genres Friends Get Recommendations (263) Rate Movies Movies You've Rated (67) Intro Step 1 Step 2 Step 3 **Finish** Working Analyzing your ratings Finding personalized recommendations Organizing the Netflix website to reflect your tastes

(7)-17

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Click 点击

Only able to click on links given by site. 只能点击网站链接



We are what we search for," says Andreas Weigend. He says that a powerful compression of people's lives is encoded in the list of their search queries.

I SEARCH, THEREFORE I AM

s the former chief scientist of Amazon.com and one of the world's leading data mining experts, Andreas Weigend and his opinions are widely respected. If you missed his talks at SAS Forum International or M2004, the world's largest data mining conference, you won't want to miss him now. In the following article, Weigend explains

how data can be used to accurately predict customer behavior. The question-

JochenWegner

Shop in amazon.com. VIEW CART | WISH LIST | YOUR ACCOUNT | HELP Jewelry & Watches WELCOME ANDREAS'S BOOKS APPAREL & ELECTRONICS TOYS & MUSIC CELL PHONES & SEE MORE STORES Andreas's Gold Box ► INTERNATIONAL ► TOP SELLERS ► TODAY'S DEALS ► SELL YOUR STUFF

Hello, Andreas Weigend. We have recommendations for you. (If you're not Andreas Weigend, click here.)

All results for: blue pants

Search: Amazon.com for blue pants 搜索: 蓝色长裤

Refine your search:

Find blue pants in these categories:

Books (41,731)

<u>Apparel</u> (2,017)

Sports & Outdoors Beta (what is this?)

(351)

Health & Personal Care

(what is this?) (4) Home & Garden (2)

Kitchen & Housewares

(2)

Toys & Games (1)

Industrial Supplies (67) Lifestyle & Gifts (38)



Giorgio Sant Angelo Silk Dress Slacks

Apparel: See all 2,017 items (Rate this item)

Buy new: \$49.99 Sale: \$7.49



ruffle capris (The Children's Place)

Apparel: See all 2,017 items (Rate this item)

Buy new: \$14.50 Sale: \$6.99

Sponsored Links: What's this?

广告链接

Buy Jeans - The Buckle -- Lucky Brand, Silver, Mavi, Ecko, BKE &

Shady. -- www.buckle.com

Blue Jeans -- Shop for deals on Clothing here! Simply Fast Savings -www.Shopping.com

The boys in the sky-blue pants: the men and events at Camp

Monetizing attention 注意力货币化

- Pay upon transaction 行动(交易)时付费
 - ► CPA = cost per action CPA=每次交易成本
- Pay when clicked 点击时付费
 - ► CPC = cost per click CPC=每次点击成本

Easiest to verify: both parties know this information

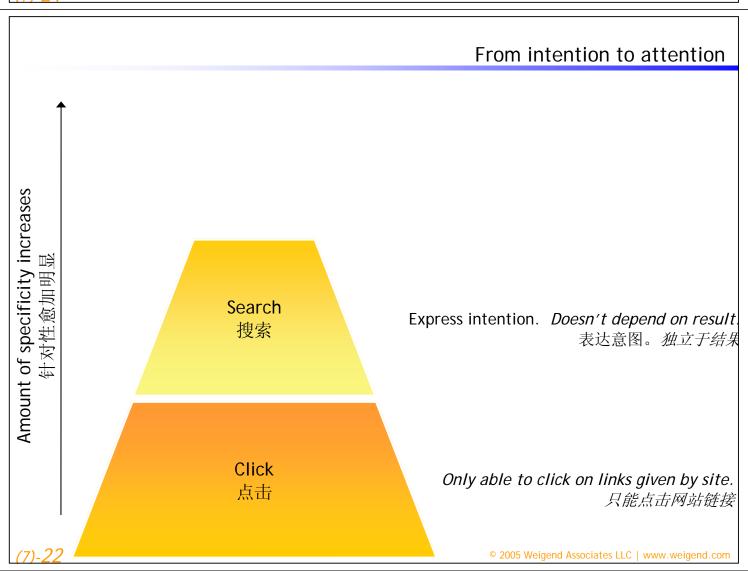
最容易验证:双方都知道该信息

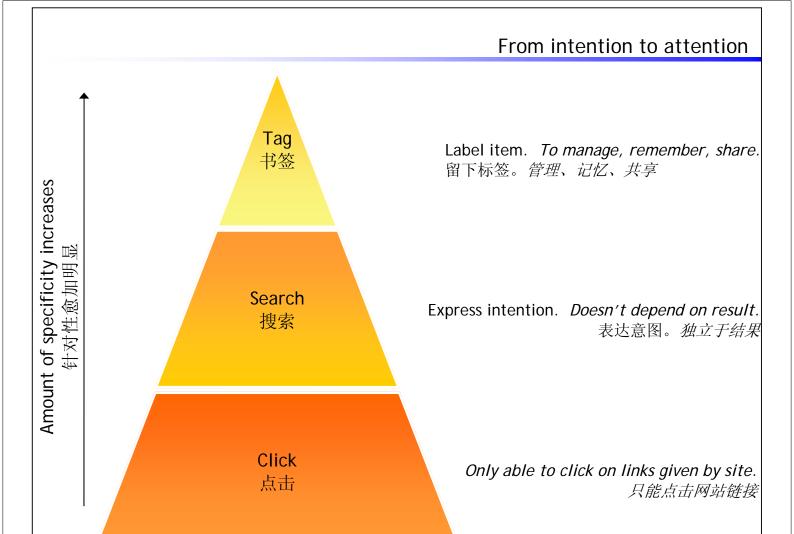
Pay by impression

广告浏览付费

- ► CPM = cost per mille (French language for thousand) CPM=每千人浏览成本
- Rent the space for a flat fee (fixed amount)
 租用空间,价格固定
 - Reach, as in traditional media 影响范围如传统媒体

(7)-21





Wikipedia on Tagging 维基百科定义网络书签

- Tagging is a term used in a number of contexts for different purposes, mostly referring to adding a tag of some form.
- In many <u>computing</u> and <u>information processing</u> contexts, *tagging* is the process of labelling a piece of <u>data</u> with <u>metadata</u>.
 - Content on webpages is displayed as <u>HTML</u> which uses the construct of <u>HTML tags</u>
 - ▶ In the practice of collaborative categorization using freely chosen keywords known as folksonomy, Tags are descriptors that individuals assign to objects.
 - 合作式的大众分类中, 网民用于描述任何对象所选取的任意关键词。
 - ▶ It is also often used in relation to <u>audio data compression</u>, in which case it refers to adding <u>ID3</u> tags or an equivalent to label a piece of music.
- The simplest form of <u>graffiti</u> is a simple signature known as a *tag*, and is consequently referred to as *tagging*.
- The labelling of an object or person with <u>RFID</u> (or similar technology) is also known as *tagging*.

Platform: Tags 平台: 网络书签

What is a tag? 何谓网络书签

- ▶ Descriptor that individual users assigns to objects, such as webpages, blogs, people, shops 网民针对任何对象(如网页、博客、商店)的自定义描述
- ▶ Used in social software 应用于社会软件
- Example: del.icio.us 举例

Google Maps - Flickr + Google

to geoblogging maps by lawrenceli ... and 3 other people ... on 2005-05-13 ...

HousingMaps craigslist housing google

t (maps) (lawrenceli) and 446 other people).. on 2005-05-13 ... copy this i

The History of Sampling

discover other users

tagto music visualizer by lawrenceli ... and 253 other people ... on 2005-05-10 ...

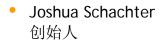
LGBT-CRC of Stanford University - Supporting Stanford

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del.icio.us

(no www..., no ...com, ...net, etc.) 没有常见后缀



- VC funding (Spring 2005) by Amazon.com, B V C A P I T A L, and Union Square
 Ventures 由Amazon.com、B V C A P I T A L 与Union
 Square Ventures 于2005年春提供创业资金
- Sold to Yahoo in December 2005

Facts (June 2005) 概况(2005年6月)

- 120k users 用户12万
- 30k items posted per day 每天帖子3万
- 60k tags used per day 每天书签6万
- 50% of user base is active in a given month 每月活跃用户比例为50%



- You are what you tag. 书签展示真我
- ▶ You are what you are tagged as / who you are tagged by. 书签决定你的存在
- ▶ "Tagito ergo sum". ("I tag, therefore I am"). 我tag故我在

Follow a tag and discover a topic 探索别的网友 如何使用书签

Follow a user and discover what he is interested in 探索该网友的兴趣爱好

Discover other users who have tagged the page 探索给同一网站贴上

书签的其他网友

Soogie iviaps - Frickr + Google

geoblogging may's by lawrenceli ... and 3 other people ... on 2005-05-13 ...

HousingMaps craigslist housing google

t (maps) (lawrenceli ... on 2005-05-13 ... copy this it

The History of Sampling visualizer by lawrenceli ... and

discover other users r people ... on 2005-05-10 ...

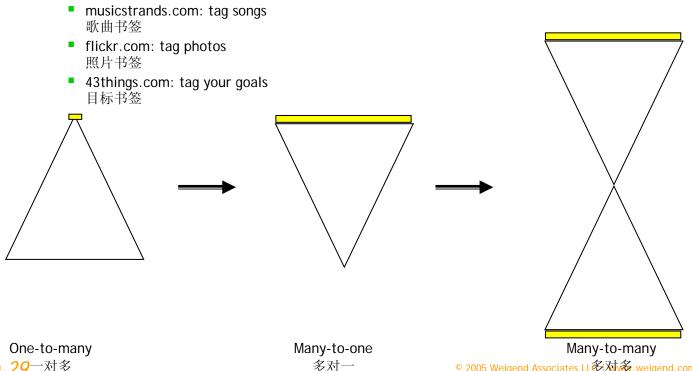
LGBT-CRC of Stanford University - Supporting Stanford Id.com

(7)-27

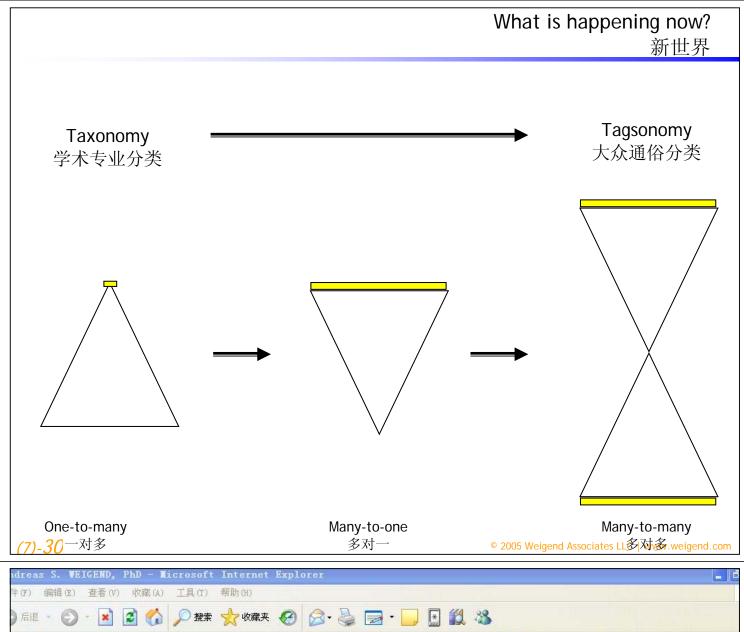
What is happening now?

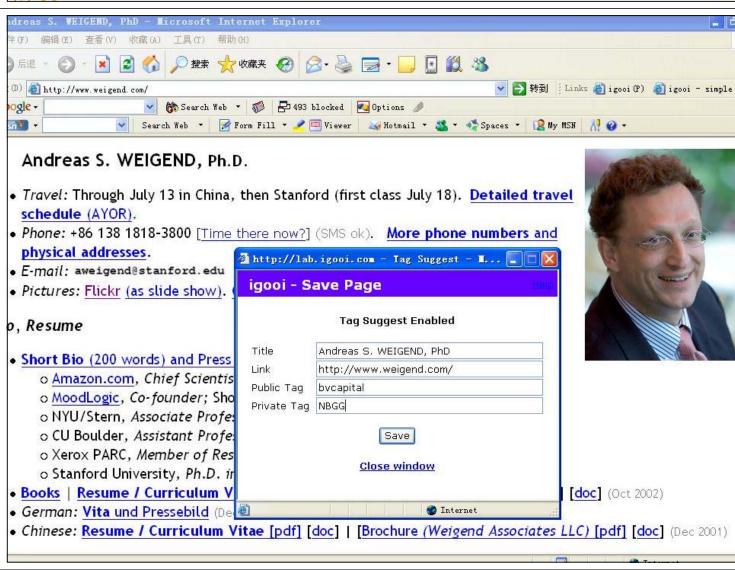
新世界

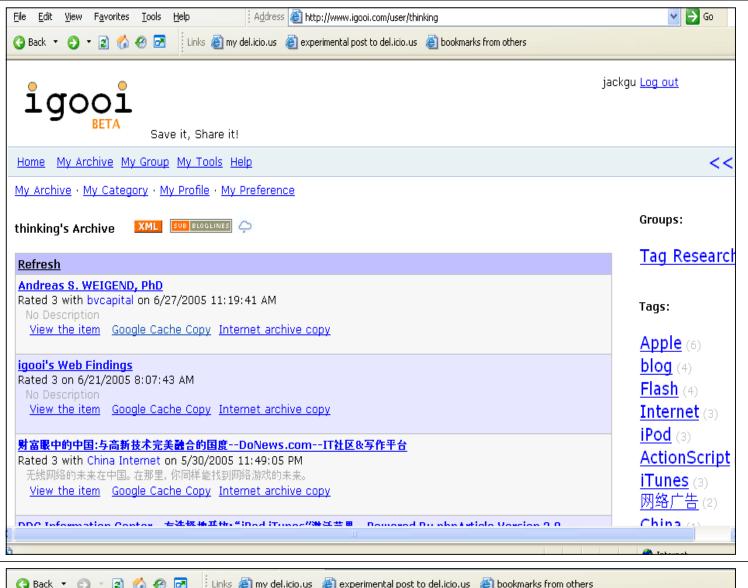
- Empower millions of users to contribute 上百万网民共同参与
 - del.icio.us: tag web pages 网页书签
 - flock.com: tag blogs 博客书签



多对一

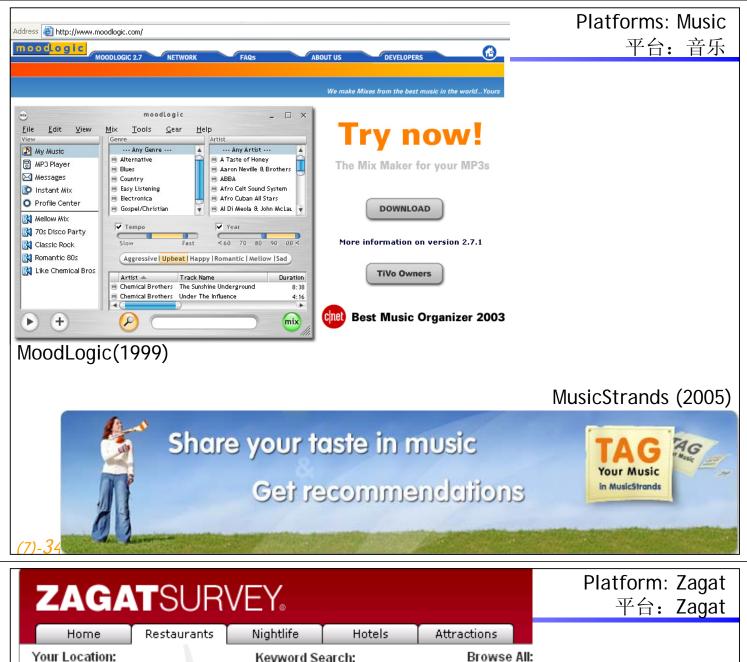


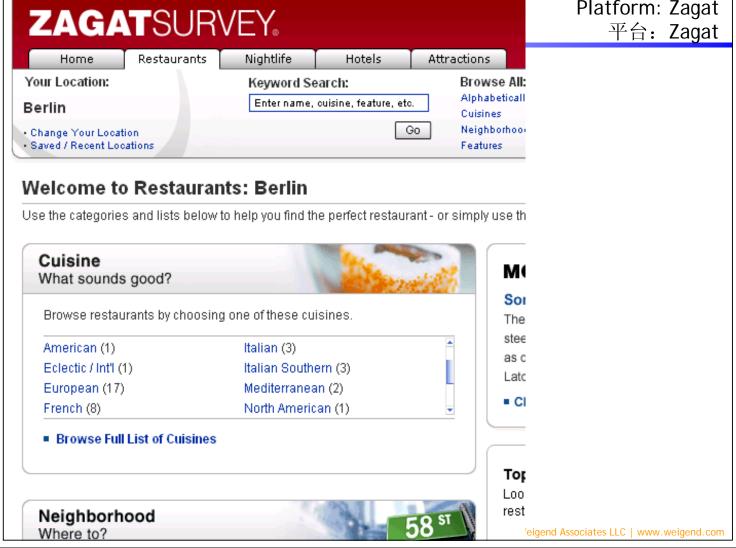














Platform: eBay feedback (ratings, reputation system)

gadgetuniverse 's feedback

Feedback Help | FAQ

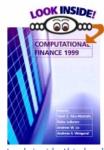
Feedback 1 - 25 of 4094

[1] <u>2 3 4 5 6 ... 20 ... 40 ... 60 ... 80 ... 100 ... 120 ... 140 ... 160 ... 164 (next page)</u>

leave feedback for gadgetuniverse	If you are gadgetuniverse : Respond to comments		gadgetuniverse was the Selle gadgetuniverse was the Buye					
Left by		Date	Item# 9	S/B				
cuervolady (1) Praise: Very easy transaction,	excellent response time.	Dec-04-01 20:36:08 PS	ST <u>1671681788</u> 9	S				
softdesk (11) 😭		Dec-04-01 19:27:26 PS	ST <u>1658493594</u> 9	S				
Praise: ITEM ARRIVED PROFESSIONALLY PACKAGED AND AS SHOWN A++++++ STIFF SIDES!!								
softdesk (11) 😭		Dec-04-01 19:26:19 PS	ST <u>1292831548</u> 9	S				
Praise: ITEM CAME LATE BECAUSE IT WAS BACK ORDERED BUT AS ADVERTISED								
softdesk (11) 😭		Dec-04-01 19:25:09 PS	ST <u>1658493476</u> 9	S				
Praise: ITEM ARRIVED PROFESSIONALLY PACKAGED AND AS SHOWN A++++++								
lorijo3 (65) ☆		Dec-04-01 17:55:24 PS	ST <u>1302374548</u> 9	S				
Praise : SUPER-fast shipping. Neat little clock with great reception! Thank you.								
cveta234065 (2)		Dec-04-01 17:31:13 PS	ST <u>1300341058</u> 9	S				
Complaint : Rebate merchandise	e. Never buy again.	Dec-04-01 17:31:13 P9	1666017054 0	S				
cveta234065 (2) ₩ Complaint : Rebate merchandise	e. Never buv again.	Dec-04-01 17:31:13 PS	ST <u>1666917254</u> S	5				
jennifer2716 (41) 🖈		Dec-04-01 17:24:05 PS	ST <u>1666176914</u> 9	S				
Neutral : Difficult to communicate with. No responses to email. Did receive item though.								
navarone23@aol.com (137) 🖈		Dec-04-01 14:26:08 PS	ST <u>1039092576</u> S	S				
Praise : Clock Arrived Thanks!								
chloe2u law (4)	26 (27 8595 3597 3597 65 7205 35	Dec-04-01 14:06:09 PS	ST <u>1655890086</u> S	S				

Computational Finance 1999

by Yaser S. Abu-Mostafa (Editor), Blake LeBaron (Editor), Andrew W. Lo (Editor), Andreas S. Weigend (Editor)



Look inside this book

Edition: Paperback

10 used & new from \$20.00

List Price: \$52.00 Price: \$52.00 & This item ships for **FREE with** Super Saver Shipping. See details.

Availability: Usually ships within 24 hours

READY TO BUY? Add to Shopping Cart Buy now with 1-Click® Ship to: AMEX to AMZN Add gift-wrap/note MORE BUYING CHOICES 10 used & new from Have one to sell? (Sell yours here)

Add to Wish List

Add to Wedding Registry

Don't have one? We'll set one up for you.

Review

评论

2 of 6 people found the following review helpful:

**** This is a great book!!, September 17, 2000 Reviewer: A reader from New York, NY, USA

Finally, an insightful, easy-to-read collection that bridges the gap between lofty academics and down-to-earth practitioners!

Was this review helpful to you?



6 of 10 people found the following review helpful:

**** Great book, June 19, 2000 Reviewer: A reader from Boston, MA

Rating (1 ... 5 stars) 评级(1-5星)

Helpfulness of review

(by other customers)

有用评论(其他网友意见)

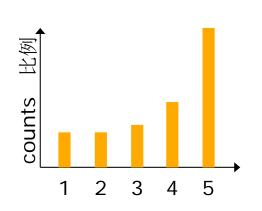
Platform: Amazon reviews

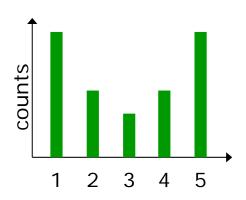
- Ratings 评级
 - ▶ When customer writes review, is asked to rate the item by giving it between 1 and 5 stars 当一个消费者写评论时,他同时也被要求给相关商品评级(1-5星)
 - Amazon.com has more than 5M of such ratings 亚马逊网站有500多万个这样的评级
- Fields 内容
 - ▶ Rater ID (obfuscated) 评级人身份
 - ▶ Date (when rating was submitted) 日期(评级是什么时候递交的)
 - ▶ Item 商品
 - Product ID (ASIN) 商品编号
 - Our Price, List Price 我们的价格,报价
 - Product Group 产品类别
 - ▶ Rating of item 被评级商品
 - ▶ Helpfulness of review 有用的评论
 - Feedback from customers who found this Review "helpful" / "not helpful", computed from: 发现这条评论的消费者认为"有帮助"或者"没有帮助"通过下面实现:

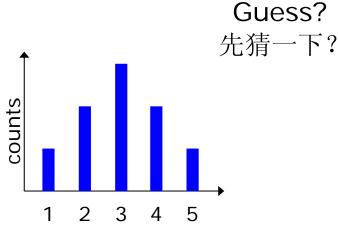
Was this review helpful to you? yes no

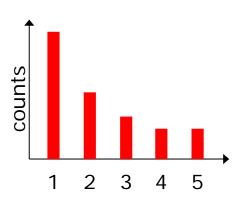
这条评论对您有用吗?

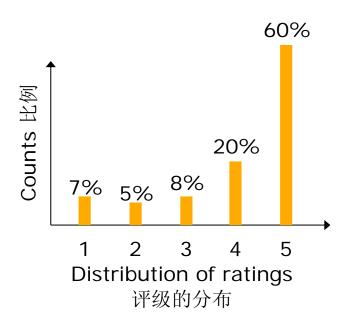
What is the Shape of the Distribution of Number of Stars? 评出的各星级的分布形状如何?











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Make customer feedback trivially easy 获取消费者反馈易如反掌

► Capture context automatically 自动捕获内容

Suggestion Box

Your comments can help make our site better for everyone. If you've found something incorrect, broken, or frustrating on this page, let us know so that we can improve it. Please note that we are unable to respond directly to suggestions made via this form.

If you need help with an order, please contact Customer Service.

Please mark as many of the following boxes that apply:

- Product information is missing important details.
- □ Product information is incorrect. Propose corrections using our Online Catalog Update Form.
- The page contains typographical errors.
- ☑ The page takes too long to load.
- The page has a software bug in it.
- □ Content violates <u>Amazon.com's policy on offensive language</u>.
- □ Product offered violates <u>Amazon.com's policy</u> on items that can be listed for sale.

Comments or Examples:

Examples: Missing information such as dimensions and model number, typos, inaccuracies, etc.

I went to the bathroom and came back, and the page was still loading!!



Platform: Yellow Pages

平台: 黄页

BLOCK VIEW FIND IT ON THE BLOCK Walk Up and Down the Street View larger image

See other businesses along 10th St



Interactive Map and Directions

Share your own customer images





Harry Potter and

the Order of the

Phoenix (Book 5) by J. K. Rowling Time Series

Forecasting the

Prediction:

Future and

Walk

Help improve this business listing















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Walk

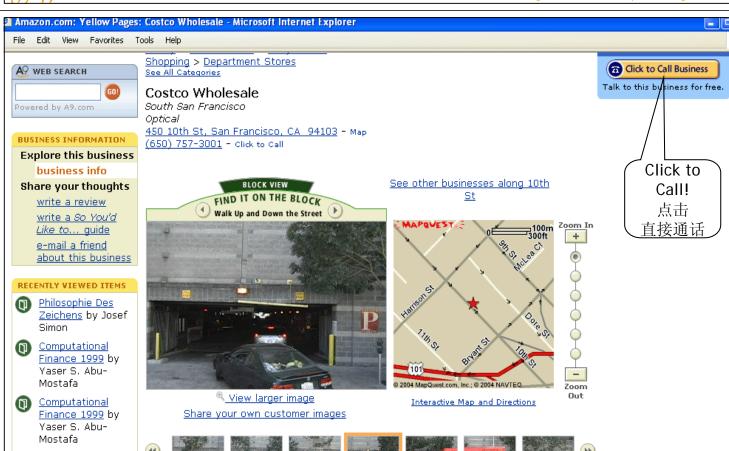
Right

Attention Business

Update and promote

Owners & Managers:

your business for free!



· Click one of the check boxes above to indicate the best image of the business.

Tell us more about this husiness, undate/correct name, contact information, services

Share pictures of this business (e.g. exteriors, interiors, signage, etc.)

Sponsored Links

Online Refinancing Rates

Compare & save on refinance rates. Apply now before rates go up again! www.Rates.LowerMyBills.com

Home Refinance 📞

Fast Home Refinance & Equity Loans From Countrywide® Home Loans Countrywide

Low Rate Mortgages 📞

California Mortgage has low rates for **refinance** & purchase loans. California Mortgage

Chase Refinance Loan &

Take advantage of today's low rates Speak with a mortgage consultant Chase Home Finance

Ameriquest Loan Refinance

Refinance with a Company You Trust. Lower Payments - Prequalify Online refinance.ameriquestmortgage.com

Sponsored Links

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Compare & save on refinance rates. Apply now before rates go up again! www.Rates.LowerMyBills.com

Home Refinance &

Speak with Countrywide now. Enter your telephone number. more»

Connect for free

Save my number on this computer

Home Refinance

Fast Home Refinance & Equity Loans From Countrywide Home Loans No Obligation Loan Consultation For Licensing and Registration Info Visit Countrywide.com Countrywide

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You are now connected with Countrywide 18003780454

Home Refinance

Fast Home Refinance & Equity Loans From Countrywide Home Loans No Obligation Loan Consultation For Licensing and Registration Info Visit Countrywide.com Countrywide

Low Rate Mortgages &

California Mortgage has low rates for refinance & purchase loans. California Mortgage

Web 1.0 vs Web 2.0

Web 1.0 Web 2.0

DoubleClick --> Google AdSense

Ofoto --> Flickr

Britannica Online --> Wikipedia

personal websites --> blogs

domain name speculation --> search engine optimization

pay by impression --> pay for click

screen scraping --> web services

publishing --> participation

directories (taxonomy) --> tagging (tagsonomy)

stickiness --> syndication

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ATTENTIONTRUST.ORG

- Property (Co-Ownership)财产
- Mobility (Portability)
 移动
- Economy 经济
- Transparency透明



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Brand Measurement?

- Selected Google Alerts for Weigend between April 8 and May 8 2005
- Technorati: Tag: Weigend
 - ... This page shows goodies from the web about **Weigend**. To contribute, just make a post to your blog about **Weigend** and include the link below. More Info » ... 5/08
- Santander's Botin Acquitted in Executive Pay Case (Update2)

Bloomberg - USA

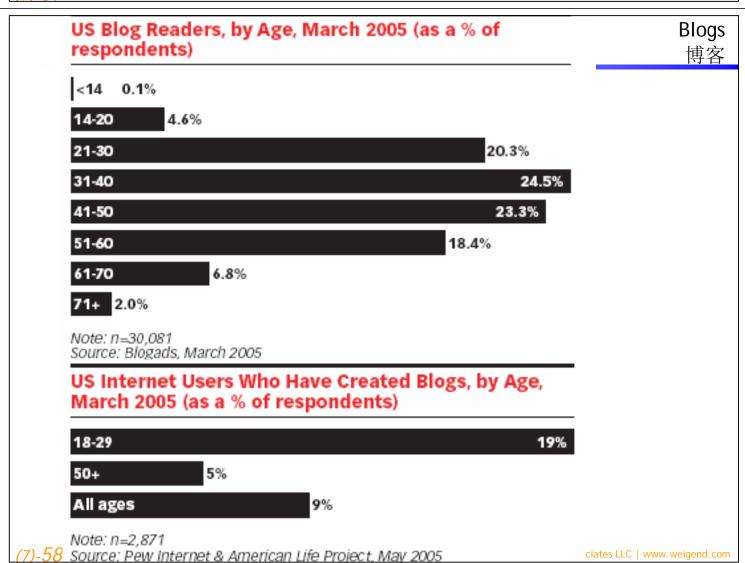
- ... `There's a gray area between a golden handshake, which is legal, and commercial corruption," said Thomas Weigend, a law professor at the University of Cologne ... 4/14
- Amazon's Former Chief Scientist Joins MusicStrands as ...
 Scotsman UK
 MusicStrands, the music discovery company, announced today that Dr. Andreas Weigend, formerly Chief Scientist at Amazon.com, has joined MusicStrands as ... 4/13
- Met with Dr. Weigend

I met with Weigend, the former Chief Scientist of Amazon.com in Shanghai tonight. It was a great experience to talk with them on the new ideas around ... 4/8

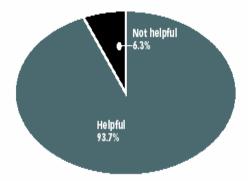
ScienceDaily Books : Search

... by: Andreas S. Weigend December 01, 1993. Amazon.com's Price: \$58.00. Prices subject to change. 3. Books: Decision Technologies for Financial ... 4/8

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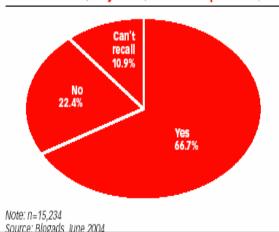


US Internet Users Who Find Information on Blogs Helpful in Making Purchasing Decisions, March 2005 (as a % of respondents*) Blogs and Marketing 博客与市场营销



Note: *among respondents who have referred to blogs to look for information on products and services they were considering buying Source: Hostway Taylor Nelson Sofres (TNS). April 2005

US Blog Readers Who Have Clicked on Blog Advertisements, May 2004 (as a % of respondents)



US Bloggers' Feelings about Blog Advertisements, 2005 (as a % of respondents)

Not acceptable 29%

Acceptable 71%

Note: Over 1,000 bloggers were surveyed Source: BlogKits, April 2005

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Example: Travel

举例:旅游

- Continental Airlines's CEO
 Laurence Keller invited 274
 bloggers and commentators to dinner and a behind-the-scenes tour of IAH (April 2005)
 大陆航空CEO宴请274名博客并组织参观公司
- Obtains feedback including website redesign 征求意见,包括网站设计
- Starwood uses web as informal focus group
 Starwood利用网站组织焦点讨论



Robin Korman, the Starwood vice president for loyalty marketing, said he was impressed by the savoir-faire of "Starwood Lurker." "Sometimes we'll even say to William, 'We've noticed this, can you ask FlyerTalkers what they think?" Korman said. "We use it as sort of an informal focus group."

"I was almost taken aback at how well Continental embraced that event," said Randy Petersen, editor of Inside-Flyer magazine.

"The biggest guys in the company, rubbing elbows with some mileage fanatics."

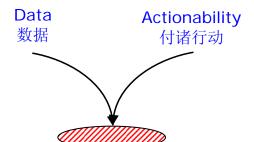
The New York Times

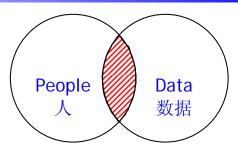
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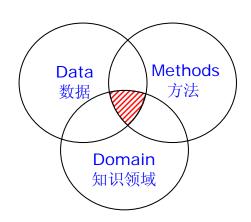
Questions?

请提问

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分析行为数据让个人与组织作出更佳决策

To empower individuals and organizations to make better decisions based on the analysis of behavioral data