

# Metadata and Taxonomies for Artificial Intelligence, Personalization and eCommerce

**Jack Aaronson**

CEO – The Aaronson Group

## Who Are We?

- The Aaronson Group is focused on building customer loyalty and satisfaction through personalized **multi-channel marketing** and user experiences
- Write bi-weekly CRM/Customer Loyalty column at ClickZ.com (75+ articles) and in addition to my own newsletter
- Conference topics include: Personalization Best Practices, Email Retention Strategies, Multi-Channel Marketing Best Practices, and Customer Loyalty Strategies
- Academic: World Congress of Mass Customization & Personalization (Germany), Adaptive Hypermedia Association, Contextual Web Group (AKT, Southampton), Wharton School of Business, U. of Malaga, U. of Southampton, Columbia Business School, Stern School of Management, University of Munich, etc...
- Artificial Intelligence Software Architect/Engineer; Solutions Architect (Financial Consulting Company); 3 years as Director of Personalization at **Barnes&Noble.com**

## Some of our clients



# User-centric Experiences

- Can/should use three different type of knowledge
  - Deep knowledge of your products/services/content
  - Deep knowledge of your users
  - Ability to connect two knowledge bases in some meaningful way
- Different types of projects can be built based on any combination of these groups of knowledge

# Case Studies



- ▶ Watch ShopNBC TV FESTIVAL BRASILEIRO
- ▶ Week in Review
- ▶ TV Schedule
- ▶ Find ShopNBC TV



## TODAY INSIDE ShopNBC.com

Aug 24, 2004

- Select Van Belinger jewelry only online
- Save \$100 on a Proform Treadmill!
- Shop fashionable new outerwear for Fall
- Shop a huge array of rings for Fall fashion!
- Official Team USA Olympic Roots gear!

## DEPARTMENTS

[Apparel/ Accessories](#)  
[Beauty](#)  
[Bridal/ Anniversary](#)  
[Clearance](#)  
[Computers/ Software](#)  
[Electronics](#)  
[Gourmet Food](#)  
[Health & Fitness](#)  
[House & Home](#)  
[Jewelry](#)  
[Movies](#)  
[NBC Universal Items](#)  
[Special Collections](#)  
[Sports Merchandise](#)  
[Watches](#)

## FEATURED SHOPS

[Auctions](#)  
[Birthstones](#)  
[Clearance](#)  
[Just Aired Items](#)  
[New Arrivals](#)

## OUR TOP VALUE



**Eureka 5740A**  
**Whirlwind Litespeed**  
**Bagless Genesis**  
**Upright Vacuum**  
 Retail Value: \$119.99  
**Sale Price: \$80.23**  
**Price Good Today Only**

## ON AIR NOW



**18K Diamond Zipper**  
**Ring**  
 Retail Value: \$2411.00  
**ShopNBC: \$1299.99**  
**Tell Me More**

## JUST AIRED



**14K Gemstone &**  
**Diamond Flower**  
**Earrings**  
 Retail Value: \$740.00  
**Sale Price: \$349.98**  
**Tell Me More**

## NBC UNIVERSAL



**The Apprentice:**  
**Season One DVD**  
 Retail Value: \$59.98  
**ShopNBC: \$39.98**  
**Plus 100's of Other**  
**NBC Universal Items**

## ShopNBC CREDIT CARD



**NO PAYMENTS\***  
 90 Days on Fitness  
 Machines & Mattresses  
 365 Days on Computers

\*Subject to credit approval.

Learn More

## FEATURED PRODUCTS



**NEW WALL ART**  
 Dozens of Prints  
 In Styles to  
 Suit Every Taste

Shop Now

## OUR TOP VALUE



Lowest Price  
 of the Season  
 on a New Item  
 Each Day.

Sign Up for Our Daily E-mails

## Body Jewelry Express Yourself

Shop Now



## JEWELRY

Find an unrivaled spectrum of styles, stones, metals,  
and prices to fit every preference and occasion.

All Departments

### JEWELRY

[Anklets](#)  
[Body Jewelry](#)  
[Bracelets](#)  
[Coin Jewelry](#)  
[Diamond Basics](#)  
[Earrings](#)  
[Jewelry Boxes/  
Cleaning Kits](#)  
[Loose Stones](#)  
[Men's Jewelry](#)  
[Necklaces](#)  
[Personalized Jewelry](#)  
[Pins/Pendants/Slides](#)  
[Rings](#)  
[View All Items](#)

Back

### Buyer's Guide

Learn about  
jewelry care &  
cleaning

You Are Here: ShopNBC Home &gt; Jewelry

### TODAY'S HOT BUYS FOR JEWELRY

[View All Items](#)


**14K WG Round &  
Baguette Cut Diamond  
Ring**

Retail Value: \$1607.00

**Sale Price: \$799.95**
[Tell Me More](#)


**18K White Gold Oval  
[Ring](#)**

Retail Value: \$535.00

**ShopNBC: \$199.98**
[Tell Me More](#)


**SS/Rhodium Signity®  
Star Cubic Zirconia  
Ring & Earrings Set**

Retail Value: \$109.00

**ShopNBC: \$79.99**
[Tell Me More](#)


**14K Polished Special  
Clip**

Retail Value: \$45.00

**ShopNBC: \$19.99**
[Tell Me More](#)


**Sterling Silver Oval  
Link Snake Design**



**14K Multi-Gemstone &  
[Diamond Earrings](#)**



**14K WG, RG or YG  
6.5mm Signity® Star**



**14K 1.00ct Diamond  
Hoop Earrings**

## Body Jewelry Express Yourself

Shop Now



## JEWELRY

Find an unrivaled spectrum of styles, stones, metals, and prices to fit every preference and occasion.

All Departments

### RINGS

[Created/Simulated Diamonds](#)  
[Fashion/Costume Gemstones](#)  
[Gold](#)  
[Moissanite](#)  
[Platinum](#)  
[Silver](#)  
[View All Items](#)

Back

[Buyer's Guide](#)  
[Determine Your Ring Size](#)

You Are Here: ShopNBC Home > [Jewelry](#) > [Rings](#)

### TODAY'S HOT BUYS FOR RINGS

[View All Items](#)


**14K TT Three-Row Diamond Row Ring**  
 Retail Value: \$385.00  
**ShopNBC: \$249.98**  
[Tell Me More](#)



**14K White Gold Diamond Accent Dangling Heart Ring**  
 Retail Value: \$435.00  
**ShopNBC: \$179.98**  
[Tell Me More](#)



**SS/Rhodium Signity® Star Cubic Zirconia Ring & Earrings Set**  
 Retail Value: \$109.00  
**ShopNBC: \$79.99**  
[Tell Me More](#)



**Sterling Silver/Rhodium Princess Cubic Zirconia Eternity Band**  
 Retail Value: \$44.00  
**Clearance: \$19.99**  
[Tell Me More](#)



**Sterling Silver Gemstone Ring**



**Sterling Silver Multi-Gemstone Ring**



**SS/Rhodium Signity® Channel Set Eternity**



**14K Band Ring**  
 Retail Value: \$105.00

Sign Out

 Good afternoon  
 JACK

SEARCH

Search by product name or number


 Account  
 Information

 Buyer's  
 Guide

 Customer  
 Service

 Cart  
 Items: 2

## Body Jewelry

Express Yourself

Shop Now



## JEWELRY

All Departments

DIAMONDS

[View All Items](#)
[Back](#)

Buyer's Guide

 Check out our  
 Guide to  
 Diamonds

You Are Here: ShopNBC Home &gt; Jewelry &gt; Rings &gt; Diamonds

Products shown per page: 8 | 16 | 32

COMPARE SELECTED ITEMS

1 - 32 of 452 products displayed

1 2 3 4 5 | Next Page &gt;

Sort By: Price: High-Low


**14K WG Men's Screw Top  
 Diamond Ring**

J124892

Retail Value: \$12894.00

 ShopNBC: **\$6499.98**

Tell Me More

QUICK BUY

ADD TO CART

☐ Compare Selected Items

**14K WG or YG Round Center  
 w/ Sides 2.03cttw  
 Engagement Ring**

V23825

Retail Value: \$12512.00

 ShopNBC: **\$6399.00**

See It in 3D

Tell Me More

QUICK BUY

ADD TO CART

☐ Compare Selected Items

**14K WG or YG Cathedral  
 2.00cttw Diamond  
 Engagement & Wedding Set**

V23813

Retail Value: \$12250.00

 ShopNBC: **\$6249.00**

See It in 3D

Tell Me More

QUICK BUY

ADD TO CART

☐ Compare Selected Items

**14K WG or YG Round &  
 Princess 1.67cttw Diamond  
 Engagement Ring**

V23821

Retail Value: \$11515.00

 ShopNBC: **\$5895.00**

See It in 3D

Tell Me More

QUICK BUY

ADD TO CART

☐ Compare Selected Items

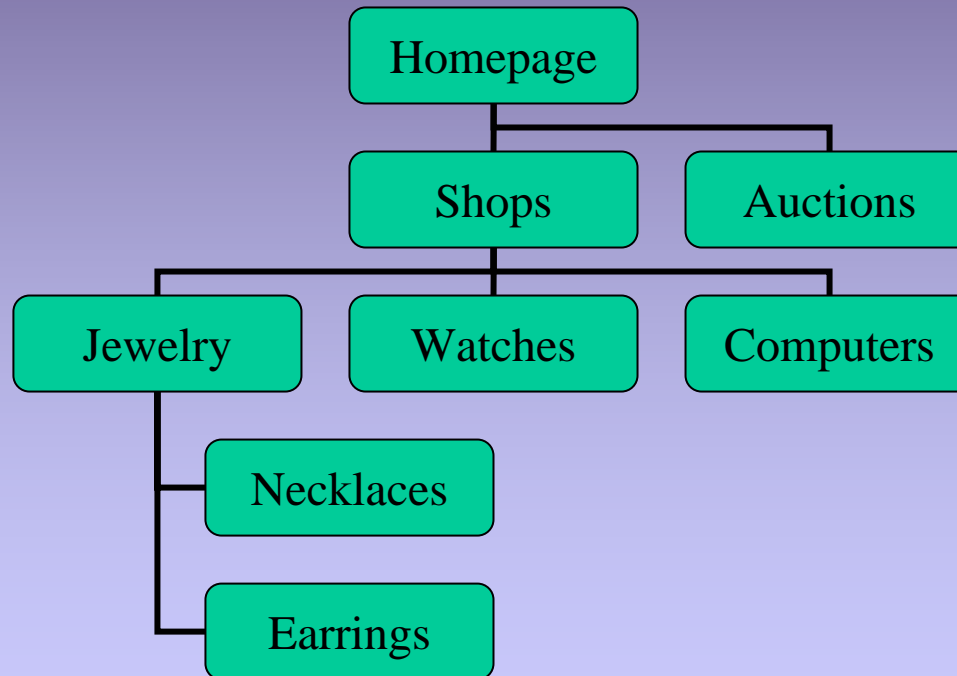
**14K WG or YG Antique Style  
 1.72cttw Engagement &  
 Wedding Set**

**14K WG or YG Round &  
 Princess 1.32cttw  
 Cathedral Engagement Ring**

# Typical Site Wireframe

Logo – targeted for each segment		
Lifestyle photo	Promo box #1	
Promo box #2:	Promo box #3:	Call to actions
Copyright 2004 ABC Company   <a href="#">Privacy Policy</a>   <a href="#">Contact Us</a>		

# Typical Information Architecture



Welcome, Jack! ([logout](#))

**Taxonomies (Site and Product)** ([view different project](#))



overview



Websites /  
CMS



contacts



deliverables



schedule  
& tasks



**Navigation:**

- [Root](#)
- [Shops](#)
  - [Jewelry](#)
  - [Watches](#)
  - [House & Home](#)
  - [Computers & Electronics](#)
  - [Beauty](#)
  - [Apparel/Accessories](#)
  - [Health & Fitness](#)


[View Site](#) | [Edit Content](#) | [View Taxonomy Doc](#) | [View Category/Attribute Doc](#) | [View Taxonomy Doc 2](#)


**Change Section name/order**

<b>Name:</b>	<input type="text" value="Shops"/>
Parent:	<input type="text" value="0"/> Sort Order: <input type="text" value="1"/>
<b>Display Type:</b>	<input type="text" value="Use default attribute display settings"/>
<b>Selection Type:</b>	<input type="text" value="Single"/>
<b>Page Type:</b>	<input type="text" value="Homepage (2)"/>
<b>Related/Dependant Attribute:</b>	<input type="text" value="0"/>
<a href="#">Edit defaults for this page</a> <a href="#">Delete</a>	
<b>Name:</b>	<input type="text" value="On Air"/>
Parent:	<input type="text" value="0"/> Sort Order: <input type="text" value="2"/>

Welcome, Jack! ([logout](#))  
**Taxonomies (Site and Product)** ([view different project](#))


 overview


 **Websites / CMS**

 [View Site](#) | [Edit Content](#) | [View Taxonomy Doc](#) | [View Category/Attribute Doc](#) | [View Taxonomy Doc 2](#)


 contacts

 deliverables

 schedule & tasks



**Navigation:**

-  [Root](#)
-  [Jewelry](#)
  -  [Jewelry Items](#)
  -  [Material](#)
    -  [Gold](#)
    -  [Silver](#)
    -  [Platinum](#)
    -  [Gold Over Silver](#)
    -  [Platinum Over Silver](#)

**Change Section name/order**

**Name:**   
Parent:  Sort Order:

**Display Type:**  ▼

**Selection Type:**  ▼

**Page Type:**  ▼

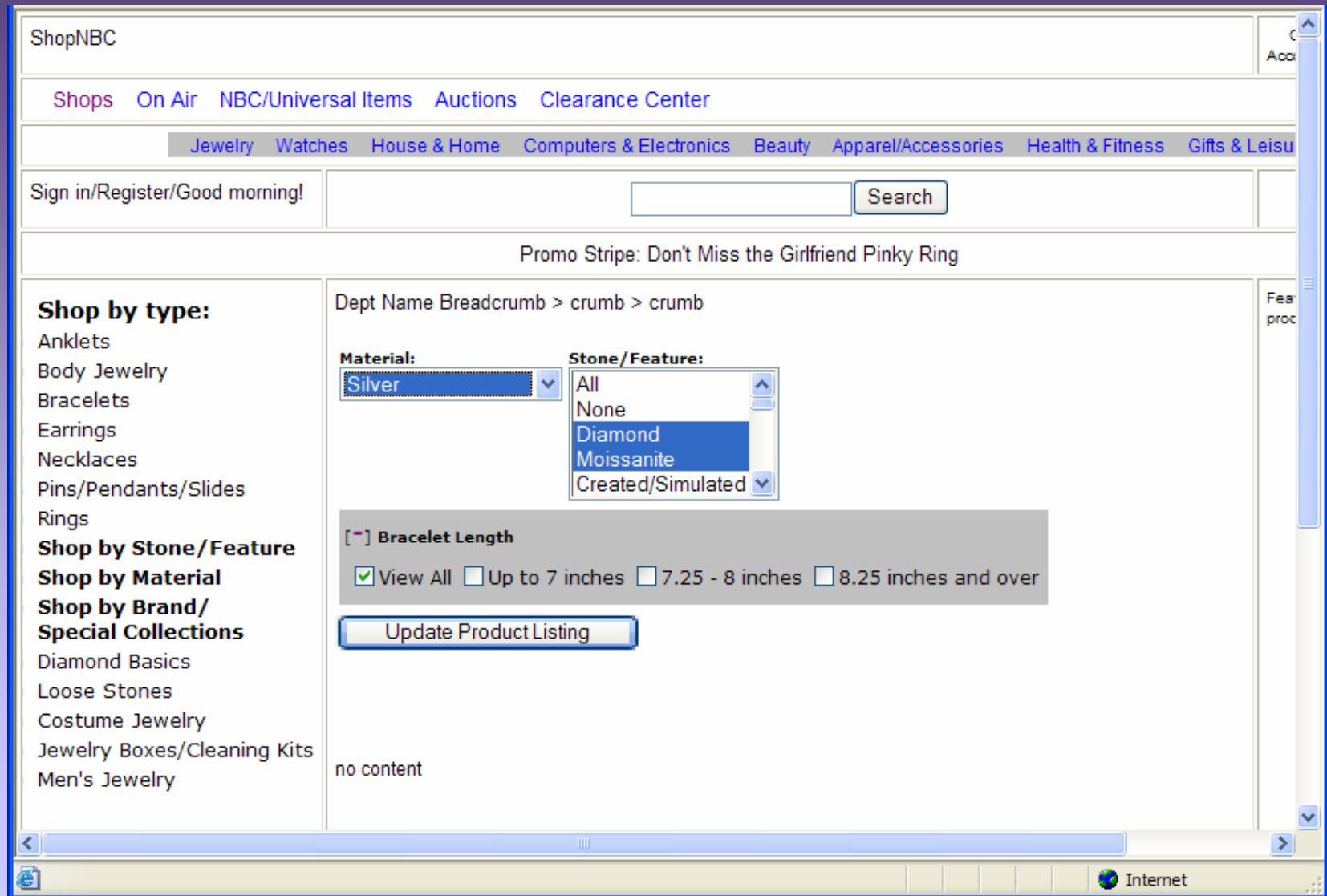
**Related/Dependant Attribute:**

[Edit defaults for this page](#) [Delete](#)

**Name:**   
Parent:  Sort Order:

ShopNBC		Cart items: 2 Checkout Account Info Cust Service
<a href="#">Shops</a> <a href="#">On Air</a> <a href="#">NBC/Universal Items</a> <a href="#">Auctions</a> <a href="#">Clearance Center</a>		
<a href="#">Jewelry</a> <a href="#">Watches</a> <a href="#">House &amp; Home</a> <a href="#">Computers &amp; Electronics</a> <a href="#">Beauty</a> <a href="#">Apparel/Accessories</a> <a href="#">Health &amp; Fitness</a> <a href="#">Gifts &amp; Leisure</a>		
Sign in/Register/Good morning!	<input type="text"/> <input type="button" value="Search"/>	Order by phone (800) 884-2212
Promo Stripe: Don't Miss the Girlfriend Pinky Ring		
<b>Shop by type:</b> Anklets Body Jewelry Bracelets Earrings Necklaces Pins/Pendants/Slides Rings <b>Shop by Stone/Feature</b> <b>Shop by Material</b> <b>Shop by Brand/ Special Collections</b> Diamond Basics Loose Stones Costume Jewelry Jewelry Boxes/Cleaning Kits Men's Jewelry	Dept Name Breadcrumb > crumb > crumb  [+] <b>Jewelry Items</b>  [-] <b>Material</b> <input type="checkbox"/> View All <input checked="" type="checkbox"/> Gold <input checked="" type="checkbox"/> Silver <input type="checkbox"/> Platinum <input type="checkbox"/> Gold Over Silver <input type="checkbox"/> Platinum Over Silver <input type="checkbox"/> Other  [+] <b>Stone/Feature</b>  <input type="button" value="Update Product Listing"/>  no content	Featured product/brand #1





[Jewelry](#)
[Watches](#)
[House  
Home](#)
[Computers  
Electronics](#)
[Beauty](#)
[Apparel  
Accessories](#)
[Health  
Fitness](#)
[Gifts  
Leisure](#)
[Sign In/Register](#)

**Search**
[Order by Phone 800-884-2212](#)

## Jewelry

[Anklets](#)
[Body Jewelry](#)
[Bracelets](#)
[Earrings](#)
[Necklaces](#)
[Pins, Pendants & Slides](#)
[Rings](#)
[Shop by Stone/Feature](#)
[Shop by Metal](#)
[Jewelry Boxes &](#)
[Cleaning Kits](#)
[Loose Stones](#)
[Men's Jewelry](#)
[Browse all](#)

## Newsletters

Sign up for our Coin  
Jewelry Newsletter

## Necklaces

**PerfectMatch™**

Browse further by:

[+ Necklace Length](#)
[- Metal](#)
☒ View all

☐ Gold

☐ Silver

☐ Platinum Over Silver

☐ Gold Over Silver

☐ Other

[+ Stone/Feature](#)
**Update**

Displaying items **1 - 9** of 853

Items per page: [9](#) [27](#) [36](#)

**1**
[2](#)
[3](#)
[4](#)
[5](#)
[Next](#)

Sort by: [Top Sellers](#)




[14K 6.7GM Necklace Set](#)  
Your price: **\$129.47**




[14K 17" 12.4GM Woven  
Necklace](#)  
Sale price: **\$249.95**






[14K 18" or 20" 1GM Solid  
Box Chain](#)  
Your price: **\$22.99**



**The Professional's Source**  
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contact | help | live help 

LOG IN / REGISTER | MY ACCOUNT | WISH LIST |  MY CART





Search  
All New Products   
enter item# / keyword 





Audio - Professional  
Binoculars & Scopes  
Books & Tutorials  
Cameras/Photo Gear  
Computer Video  
Darkroom  
Digital Photography  
Film & Storage  
Filters & Accessories  
Home Entertainment  
Lighting & Studio  
Portable Entertainment  
Projection & Viewing  
Tripods & Supports  
Video - Consumer  
Video - Professional  
**USED EQUIPMENT**


Home < [Digital Photography](#) < On Camera Accessories < [Lenses & Lens Accessories](#) < SLR Interchangeable Lenses < **for Nikon**

**for Nikon**


Refine Results


**Brands**  
All   
Kodak   
Nikon   
Sigma 


**Type**  
All   
Macro   
Fisheye   
Super Wide 




For multiple selections hold the CTRL key down while you click the mouse.

Showing Page:  
1 of 12 

Show Me:  
All [In stock](#) | All [USA](#) [Imported](#) 


Sort by :  
Brand: A to Z 

Prev | [Next](#)



**Kodak**  
Zoom Telephoto AF 80-210mm f/4.5-5.6 Autofocus Lens for Nikon AF [More Info >](#)  
B&H # KO802104NAF  
**Availability : In Stock**

**Price : \$ 59.95**  
Shipping Cost >

(1 item remaining) Downloading picture <http://www.bhphotovideo.com/images/smallimages/97413>  Internet



Shop in  
**Sports  
& Outdoors**  
(Beta-What is this?)

amazon.com  $\pi/2\%$



VIEW CART

WISH LIST

YOUR ACCOUNT

HELP



SEE MORE **Jack's Gold B**  
STORES

WELCOME

JACK'S  
STORE

BOOKS

APPAREL &  
ACCESSORIES

ELECTRONICS

TOYS &  
GAMES

DVD

MAGAZINE  
SUBSCRIPTIONS

JEWELRY &  
WATCHES

BROWSE SELLERS  
& DESIGNERS

TOP  
SELLERS

FINE  
JEWELRY

FASHION  
JEWELRY

WATCHES

WEDDING  
& ENGAGEMENT

LEARNING  
CENTER

Search:

Current results ▾

GO!

Expand Your Results

[Any Category in Jewelry,](#)  
[not just Earrings](#)

1 - 24 of 12477 results in: [Categories](#) > [Fine Jewelry](#) > Earrings

Sort by: Bestselling ▾

GO!

Narrow by Category

[3-Stone](#) (148)  
[Ball](#) (131)  
[Birthstone](#) (8110)  
[Cluster](#) (62)  
[Dangle](#) (487)  
[Diamond Accented](#) (3183)  
[Drop](#) (883)  
[Earring Jackets](#) (73)  
[Etruscan](#) (4)  
[Gem-Set](#) (436)  
[Half-Ball](#) (1)  
[Hinged](#) (85)  
[Hoop](#) (1307)  
[Love Knot](#) (10)  
[Nonpierced](#) (10)  
[Stud](#) (2953)  
[Twisted Hoop](#) (67)



**14k Yellow Gold Four  
Prong 4mm Round Peridot  
Stud Earrings**

**\$20.00**

[Show only Amazon.com Collection  
items](#)



**14k Yellow Gold Round  
Diamond Stud Earrings  
(1/4ct tw, J, I3)**

**\$69.00**

[Show only Amazon.com Collection  
items](#)



**14k Yellow Gold Princess  
Cut Diamond Stud Earrings  
(1/4ct tw, J, I3)**

**\$79.00**

[Show only Amazon.com Collection  
items](#)



**14k Yellow Gold Perfect Fit  
Earrings**

**\$35.00**

[Show only Amazon.com Collection  
items](#)



**14k Yellow Gold Perfect Fit  
Earrings**

**\$45.00**

[Show only Amazon.com Collection  
items](#)



**14k Yellow Gold Round  
Hoop Earrings**

**\$20.00**

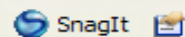
[Show only Amazon.com Collection  
items](#)

Narrow by Material

[Jade](#) (40)  
[Mother Of Pearl](#) (26)  
[amethyst](#) (322)  
[aquamarine](#) (233)  
[bead](#) (21)  
[blue sapphire](#) (1)

# Multi-lingual Universes

Meta-data separates **display** from  
**internal** nomenclature

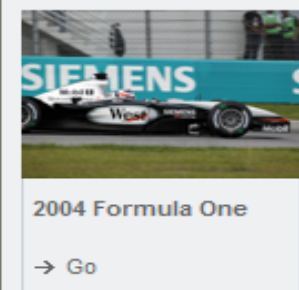
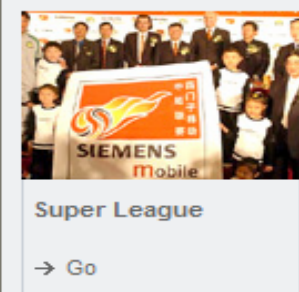
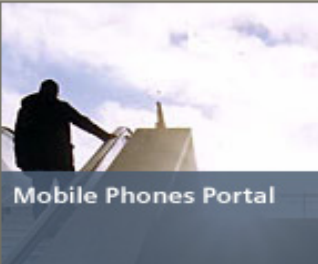


Window [Auto Scroll]

Automatic File Name

Address http://www.siemens-mobile.com/cds/frontdoor/0,2241,cn\_en\_0\_10071\_rArNrNrN,00.html

Links Jack aaronson edit login ShopNBC ShopNBC - Extranet Site Taxonomy Live Wireframe



[Home](#) | [Mobile Phones](#) | [Accessories](#) | [Customer](#)  
Generation

SEE SIEMENS LATEST MOBILES



- China / english
- International / english
- Argentina / spanish
- Australia / NZ / english
- Austria / german
- Bahrain / english
- Belgium / dutch
- Belgium / french
- Bolivia / spanish
- Brazil / portuguese
- Canada / english
- Canada / french
- Chile / spanish
- China / chinese
- China / english
- Colombia / spanish
- Costa Rica / spanish
- Croatia / croatian
- Czech Republic / czech
- Denmark / danish
- Ecuador / spanish
- Egypt / english
- El Salvador / spanish
- Estonia / estonian
- Finland / finnish
- France / french
- Germany / german
- Greece / greek
- Guatemala / spanish
- Hong Kong / chinese
- Hong Kong / english

Global Home

Service Center

Search term

[Advanced]

Go

Product Quickfinder

Go

Product support



-Please choose pro

Go

Siemens Online Shop



→ Go



Siemens Download  
World  
Games  
Ring tongs  
Graphics  
Applications

S65

## Network

→ Data sheet

Network frequency	Triple Band EGSM 900 / GSM 1800 / GSM 1900
Voice encoding	EFR, HR, FR, AMR
SIM card	SIM Plug-in (3V/1,8), SAT class 3
SIM Application Toolkit	yes, class 3

## Technical Specifications

Antenna	integrated
Weight	98 g
Volume	85 cm <sup>3</sup>
Dimensions (L x W x H)	109 x 48 x 18 mm
Colour variant (availability may vary by country)	steel black, bordeaux
Improved water, shock & dust resistance	no

## Battery

Standard battery	Li-Ion 750 mAh
Stand-by time <sup>2)</sup> (with standard battery)	up to 250 h

### S65 - Office functionality

When work becomes pleasure. Find out more about how the S65 can assist you with your daily business.

→ Click here to watch the animated presentation.



### S65 - The design story

Beauty lies in the pen of the designer. Find out how our design team creates a phone as stylish as the S65.

→ Click here to enter the interactive presentation.

etails

itez les autres  
tails Siemens

tail Gigaset

OK

## S65

Réseau → Fiche caractéristique

Fréquence réseau	Tri-bande EGSM 900 / GSM 1800 / GSM 1900
Codage voix	EFR, HR, FR, AMR
Carte SIM	SIM Plug-in (3V/1,8), SAT classe 3
Application SIM Toolkit	Oui, classe 3

## Spécifications techniques

Antenne	Intégrée
Poids	98 g
Volume	85 cm³
Dimensions (L x L x H)	109 x 48 x 18 mm
Couleur (disponibilité selon pays)	steel black, bordeaux
Résistance (projections d'eau, poussière et aux chocs)	non

## Batterie

Batterie standard	Li-Ion 750 mAh
Autonomie en veille <sup>2)</sup> (avec batterie)	jusqu'à 250 h



**Câble Data**  
Avez-vous pensé au câble data pour échanger les données entre votre mobile et votre PC ?  
→ En savoir plus



**S65 - Une histoire de design**  
La beauté naît sous la plume d'un designer. Découvrez comment une équipe de design crée un téléphone aussi raffiné que le S65.  
→ Entrez dans la présentation interactive



**S65 - Office**  
Quand le travail devient plaisir. Découvrez comment le S65 peut optimiser votre business.

S65

Netz

→ Datenblatt

Netz-Frequenz	Tri-band GSM 900/1800/1900
Sprachkodierung	AMR, FR, EFR, HR
SIM Karte	Plug-in 1.8V od. 3V
SIM Application Toolkit	Klasse 3

#### Technische Merkmale

Antenne	integriert, externer Stecker
Gewicht	ca. 98 g
Volumen	ca. 85 cm <sup>3</sup>
Abmessungen (L x W x H)	109 x 48 x 18 mm
Farbvarianten	steel black

#### Akku

Standard Akku	Li-Ion 750 mAh
Standby-Zeit <sup>1)</sup>	ca. 250 Std.

S65 - Die Design-Story  
Schönheit liegt im Bleistift  
des Designers. Schauen  
Sie unserem Designer-  
Team über die Schultern!  
→ zur Präsentation



S65 - Büro-  
Funktionalitäten  
Wenn Arbeit zum  
Vergnügen wird. Lassen  
Sie sich doch bei der  
täglichen Arbeit von  
Ihrem S65 unterstützen!  
→ zur Präsentation

# Metadata, Artificial Intelligence and Personalization

Metadata-based personalization answers the question “**why?**” and not “**what?**”

## Metadata

- Understand **why** someone is shopping, not just **what** they are shopping for
- Recommend products and services based on their **needs**, not on their history
- Let's look at an example...

# Metadata Example

A Tale of Two Book buyers

**Book 1**

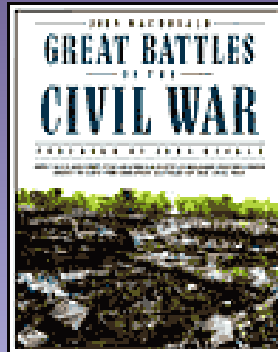
The Civil War



History  
United States  
Civil War

**Book 2**

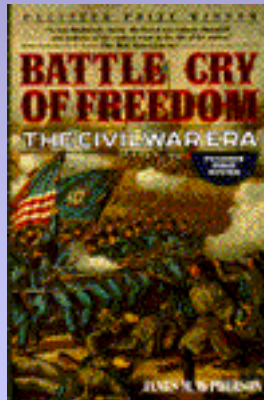
Great Battles  
of the Civil War



History  
United States  
Civil War  
Campaigns  
Battlefields

**Book 3**

Battle Cry  
of Freedom



History  
United States  
Civil War  
Campaigns  
Children

## Person #1

### Book 4

The Red Badge  
of Courage



History

United States

Civil War

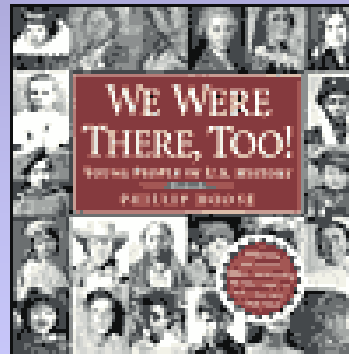
Juvenile Drama

Children

Virginia

### Book 5

**We Were There, Too!:**  
Young People in U.S.  
History



History

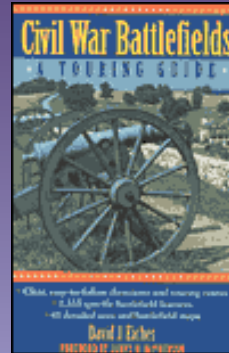
United States

Youth

Children

## Person #2

### Book 4 Civil War Battlefields



History  
Civil War  
Battlefields

United States  
Guidebooks  
Historic Sites

### Book 5 Historic Walks in Old Boston



Guidebooks  
Massachusetts  
Tours

Boston  
Walking

# In a statistical world...

## Affinity Group

### Person 1



### Person 2

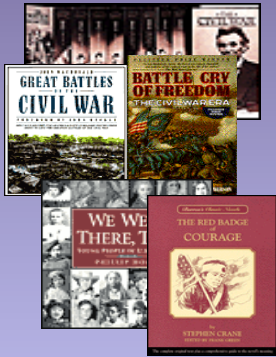


Recommendations

## In a world of metadata...

- Person 1

- **History (5)**
- **United States (5)**
- **Civil War (4)**
- **Children (3)**
- **Campaigns (2)**
- Youth
- Virginia
- Juvenile Drama



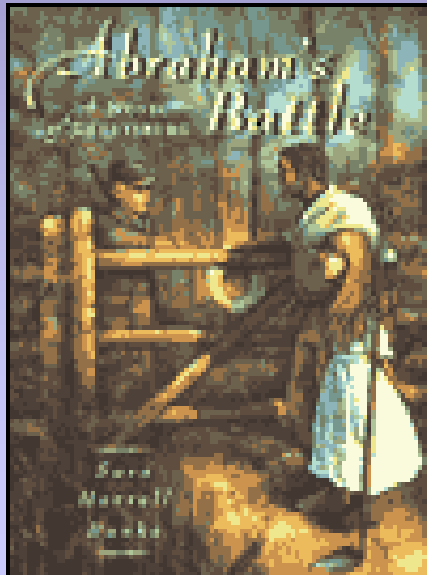
- Person 2

- **History (4)**
- **United States (4)**
- **Civil War (4)**
- **Campaigns (2)**
- **Guidebooks (2)**
- **Battlefields (2)**
- Historic Sites
- Walking
- Tours
- Boston
- Massachusetts
- Children



# Recommendations

## Person #1

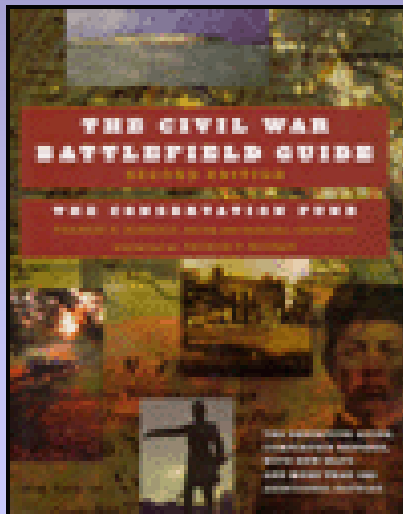


## Abraham's Battle: A Novel of Gettysburg

In 1863, as the Civil War approaches his home in Gettysburg and he realizes that a big battle is about to begin, a freed slave named Abraham decides to join the ambulance corps of the Union Army.

# Recommendations

## Person #2



## The Civil War Battlefield Guide

Definitively depicting the 55 major battlefields of the Civil War, this complete guide describes each battle vividly in an essay by a distinguished historian. Color photographs show the battlefields as they are today, while detailed maps plot the movements of the armies as well as the topography of the land.

## For more information

- Articles at **AaronsonGroup.com** or **ClickZ.com**:
  - Meta-data and Personalized Shopping and Gift Advisors
  - Meta-data to drive Configurators
  - User-centric Meta-data for connecting people and products
  - Product Meta-data to Simply Product Categories
  - Meta-data for multi-lingual applications
  - Needs-based (user-centric) browsing and searching
  - Unifying customer view over multiple channels
- Other projects we have done or are working on:
  - Meta-data driven visual gift advisors
  - Meta-data driven site syndication

Thank you!

Jack Aaronson  
jack@aaronsongroup.com