Interactive Virtual Architecture as a tool for Online Branding of e-stores

M.S. Thesis presentation
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Online shopping is on the rise...

The numbers...

By 2008, Forrester research says, online shopping will account for 10 percent of all purchases and involve 63 million U.S. homes.

American consumers spent nearly $6.2 billion online in November (2002), up 22% from $ 5.1 billion spent in the same period last year (2001) in the U.S., according to a report from Harris Interactive, Goldman Sachs, and Nielsen/ Net Ratings.
Introduction…

Online e-store

Branding

Case Study

Technical Feasibility

Proof of Concept

Conclusion

Credits/references

Introduction

Why?

Shopping online…

• Log in
  • Compare prices
• Check availability at a local store
• Calculate Shipping and Handling
• Have it door delivered

Exclusive internet offers like online rebates

All from the comfort of ‘home’

Harsh weather no longer deters

No more walking from store to store

Welcome to the world of Online shopping!

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Introduction…

Branding is important

With more and more people thronging the online stores…

Internet is becoming a potential Marketing and Branding Zone

Branding of the website is becoming important

**Branding** is the way a company communicates with the customer.
Introduction to Online e-store Branding:

Reflects the unique identity of a brand
Strengthens the Brand
Increases Sales

Case Study
Technical Feasibility
Proof of Concept
Conclusion
Credits/references

Nike
Product placement (celebrity endorsements) [ADVERTISEMENTS]

In the 1984 Summer Olympics, with 58 Nike supported athletes taking home 65 medals, International sales increased 70% ($158 million)
Architecture and Branding

Architecture, layout, lighting

Reflect Brand values (Visual Identity)

Examples:
NikeTown
Prada Flagship Store

These stores create unique brand experiences

And the amount of time a shopper spends in a store depends on how comfortable and enjoyable the experience is. –Paco Underhill “Why we buy? The science of shopping”
Online Branding

Webpage design → reflects brand values → brand experience

Interactive Virtual Architecture → new tool → new brand experience

Virtual Architecture → Visual Identity
Interactivity → Non Visual Identity
Do we have the technology?

Hardware, software and bandwidth is improving → technological advancements

New ideas/better representation
Thesis Claim

Interactive Virtual Architecture is a new tool for Online Branding

Method:

Logical argumentation and case study method

Evidence:

Advertisements and Branding
Architecture and Branding
Online Branding
Technical feasibility

Proof of concept:

Design of an e-store for Swatch with
• Virtual Architecture
• Interactivity
• Multimedia

Target Audience:

Broadband users and the tech savvy populace
Components of an e-store

The fundamentals [Front end]

Product:
2d image /3d product simulation

Environment:
Visual design [Interface] with the navigation tools like links.
Components of an e-store

The skeletal structure

Front end (Graphical User Interface GUI)
1. Graphics
2. Text
3. Navigation elements [hyperlinks, buttons, text boxes, search boxes]
4. Multimedia
5. Layout
6. Dynamic/Interactive content

Back end
1. Database
2. Transaction processing
3. Security
4. Customer Support

Surface credibility

trust

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Some important considerations while designing a website (e-store)

- Loading time
- Ease of Navigation
- Language and Communication
- Layout
- Interactivity
Loading time

Don’t make the users wait too long for the page to download

Faster the page loads → more customers

“The one-second response-time limit is required for users to feel that they are moving freely through the information space. Staying below the 10-second limit is required for users to keep their attention on the task.”

~Jakob Nielsen
e-store design guidelines

Ease of navigation:
Where am I?
Where have I been?
Where can I go?
According to a survey by Georgia Tech’s Graphics, Visualization and Usability (GVU) Center in October 1997, ‘The number one request that scares the user is ‘please enter your credit card information’ followed by ‘tell us more about yourself’.
e-store design guidelines

Layout:
Clear and consistent

This is a clear navigation, which highlights the segment (link) the user is in and also has links to the other segments of the website.
e-store design guidelines

Interactivity:

Unique to the Online media as
User takes control and participates than being a passive observer

Virtual Host
Chat windows
Interactive product simulation

http://www.alicebot.org/
In Summary

- Effective Front End and Integrated back end
- Interface [Front end] with
  - less load time,
  - easy navigation,
  - simple language,
  - clear layout and
  - interactive content
- are fundamental structure of an e-store design

Branding is a layer added to the skeletal system
What is a brand?

Brand:
“A mixture of tangible and intangible attributes, symbolized in a trademark, which, if properly managed, creates influence and generates value. It is a ‘relationship’, a ‘reputation’, a ‘set of expectations’, a ‘promise’.”

What is a branding?

Branding, in all its shapes and forms, comes down to how an organization presents itself and more importantly, how its audience perceives it. It has grown beyond a simple visual depiction to more of an attitude, enforced through a series of interactions a person has with any one organization.
Brand...
Key Characteristics of great brands

1. Clarity of Vision
2. Consistency across media
3. Leadership

Gillette, a manufacturer of shaving accessories, has been remarkable successful at managing the brand for long-term strength. It is clear in positioning and values, consistent in brand presentation and personality, and leads technology and customer understanding in its sector.
Branding strategies for various media [establishing a dialogue…]

**Print** – Frozen still image [strength of the visuals and tone of the language]

**Television** – Visuals, motion, pause, voice, music

**Environmental design** – architecture, lighting, music, fragrance

**Internet** – Interactivity, visual design, multimedia
Online Branding

Online Brands

Yahoo ------ email

Google ----- search

Amazon---- books and e-commerce
Online Branding Strategies

**Visual Identity → Brand recognition**
Visual Design (Color scheme, layout, typography, navigation)

**Non Visual Identity → builds relationship**
Taglines, tone of the textual content, interaction design

‘According to Jerry Johnston, president of Critical Mass, the Canadian based interactive shop that won the Nike ID redesign in May 1999, mass customization defines the future of online branding. The brand would now adapt to the fit the individual and not the other way round.’
Branding...
Branding…

www.bmwusa.com

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Customizability: BMW configurator

Multimedia: BMW films screened exclusively on the internet
There is an acknowledgement of the need for Online Branding
Technology is influencing communications
Branding is extending into the Online Media
Staging the product is important, hence design of the context is important.

Retailers such as Marchall Field’s in Chicago and Wanamaker’s in Philadelphia recognized, as nineteenth-century mercantilists had not, that seeing products was not merely a matter of placing items on shelves and waiting for consumers to buy them. Instead products had to be staged within culturally desirable spaces.
Prada Flagship store in SoHo district of New York

Confluence of architecture, media, technology and fashion
Change is the constancy of the store

Architects: Rem Koolhaas and Kazuyo Sejima
Architecture enhances the experience of the brand by

- Staging the product
- Branding to complement the product
- Creating a Visual Identity for the brand

Extrapolating → Online → Virtual Architecture for Online Branding
Interactive Virtual Architecture for Online Branding

Components of Interactive Virtual Architecture

Virtual Architecture [Visual Identity]
- creates a context

Interactivity [Non Visual Identity]
- engages the consumer
- establishes the dialogue

Virtual Architecture
- Reflect the brand
- create a brand statement
- Doesn’t have to have semblance to real world counterpart

Interactivity
- Dynamic content [live chat, virtual host]
- Custom configuration
- Walk around the space, view product in 3d
Interactive Virtual Architecture is a promising tool

- New media of expression
- Creates unique identity
- Portrays the brand
- Stages the product
- Facilitates interaction
- Would let the customer sculpt the environment to their liking
- Early adopters will establish themselves and stand out from the crowd

And it opens a new market for architects to specialize in
In Summary…

Clarity, consistency and leadership across different media.

<table>
<thead>
<tr>
<th>Media of communication</th>
<th>Visual Identity (Brand recognition)</th>
<th>Non Visual Identity (builds relationship)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print</td>
<td>Image, graphics</td>
<td>Tone of the text, tagline</td>
</tr>
<tr>
<td>Television</td>
<td>Image, graphics, pause, motion</td>
<td>Music, tone, voice</td>
</tr>
<tr>
<td>Environmental design</td>
<td>Architecture, signage, graphics, lighting, layout, landscaping</td>
<td>Ambient music, fragrance, architectural experience, customer support</td>
</tr>
<tr>
<td>Online (Internet)</td>
<td>Visual design( color scheme, layout, typography, navigation), multimedia [IVA- Virtual Architecture]</td>
<td>Interactive experience design tone of the textual content, multimedia [IVA-Interactivity ]</td>
</tr>
</tbody>
</table>
The case study will show

- Innovative use of the channel → increases brand image → increase in sales
- Early adopters of technology → set the brand apart from the crowd
- Clarity of vision, consistency and leadership → success of brand

Nike

Advertising
Architecture
Online
Branding Strategy [clarity of vision]

Nike would not promote or sell shoes per se, but what they represented—“the athletic ideals of determination, individuality, self sacrifice and winning”

Kept it consistent across media

Leadership reflected in innovative design, out of the box campaigns, pushing the limits of technology

“It is Nike’s shift “from pure performance to brand-conscious product development” that accounts for its stellar 47 percent share of the American sports apparel and shoe market.”
Case Studies...

“Spirit of the sports”

Campaigns:

1983: City campaign with billboards across the city [visual presence]

1984: 58 Nike endorsed athletes took home 65 medals. International sales increased 70%

1986: Michael Jordan becomes an icon for the brand. Revenues topped the billion-dollar mark, reaching $1.07 billion

1996: “You don’t win silver, you lose gold.” tagline [non visual identity] for the Atlanta Olympics

City campaign
Nike- Advertising

Reasons for the success of the strategy

• Celebrity endorsements
• Product placement
• Harnessing people’s perceptions
• Consistent Theme – “spirit of sports”
• Appeal to the individual’s spirit of athleticism
Case Studies...

Nike- Architecture for branding

Case Study

NikeTowns

Consistent with the city campaigns, in 1991 Nike launched NikeTowns reflecting Nike’s version of the city in the architecture of the space.

In essence, this (NikeTown) is fashion shop as excited advertisement, where vertiginous staircases, complex floor plates, explosive sounds and serial video screens are brought together to insert brand consciousness into the urban masses.
Case Studies...

Nike- Architecture for branding

NikeTown, Orange County, California

- Town square theme
- Concrete floors
- Central space—several stories high, displays like storefronts
- Scattered movement corridors
- Outdoor court—15deg cooler, artificial fragrance of mountain air
Nike - Architecture for branding

Architecture for branding…

Strong themeing to reinforce the brand values
Nike- Online branding

Case Study

Technical Feasibility

Nike’s website

Reflects the spirit of the times

Early adopters of technology

Reflects passion, speed, energy of sports

Nikelab has a 3d virtual architecture and new interactive technology
Nike- Online branding

3d Virtual Architecture

- Sharp geometries
- Clean lines
- Acute angles
- Simulation of speed
- Upbeat music
- Voice-over
- High tech lab environment feel

Sense of movement
- Vibrancy
- Speed
- Energy
- Volatility

www.nike.com/nikelab
Design: R/GA, New York
Nike- Online branding

Product presentation

Peel away process

www.nike.com/nikelab
Design: Tronic, New York

Customizability-Nike ID

www.nike.com/nikeid

Case Studies

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• Advertising
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• Summary

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Nike- Online branding

Multimedia

Interactive story telling →story of the design concept of shoes
Interactive games →entertainment
Videos on the theme ‘Art of Speed’
Case Studies...

Nike- Online branding

Nikelab

3d Virtual Architecture → Visual Identity

Interactivity and Multimedia → Non Visual Identity

Shares the qualities of great brand

• Clarity
• Consistency
• Leadership
The case study showed that Nike

- Innovatively used the channel → increasing brand image → increasing sales
- Early adoption of technology → sets the brand apart from the crowd
- *Clarity of vision, consistency and leadership* → success of brand
Technical Feasibility

Real time technology:

http://www.eonreality.com/

1. Software
2. Computer Hardware
3. Bandwidth
Software

Content Generators
3d Studio Max, Maya

Real Time Editors
Macromedia Director, Eon Reality

Viewers and Plug-ins
Shockwave player, VRML players, Eon Viewer
Software- Content Generators

Wireframe model of the 3d geometry

3d Model with textures

Rendered 3d model

- Software
  - 3ds Max
  - Maya

- Computer Hardware
- Bandwidth
- Summary

Credits/references

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Technical Feasibility...

Software - Real Time Editors

Eon Reality interface

Macromedia Director
Eon Reality
Software- Viewers and Plug-ins

Macromedia Director – **Shockwave Player**

Eon Reality – **Eon Viewer**

63% users have shockwave player installed
Computer Hardware

Processor Power

More polygons → more rendering time → more processing power
Computer Hardware

Moore’s law:

Processing power doubles every 18 months
Technical Feasibility…

Computer Hardware

Increased fidelity in Games

Image of Doom1 (1993)

Image of Quake (1996)

Image of Doom3 (2003)

Prince of Persia (2003)

• Software
• Computer Hardware
• Bandwidth
• Summary

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Bandwidth

“Bandwidth has the general meaning of how much information can be carried in a given time period (usually in a second) over a wired or wireless communications link. In digital systems, bandwidth is expressed as bits of data per second (bps)”

**Dial up**: 28.8-56kbps (Kilobits per second) [date transfer rate]

**Broadband**: (1000kbps) [date transfer rate]

- Cable
- DSL
- WiFi (Wireless)
Bandwidth

Jupiter analysts forecast that the number of households (in the US) accessing the Internet via broadband connectivity (cable, DSL, satellite or fixed wireless) will increase from 5.2 million in 2000 to 35.1 million in 2006, with cable modems leading the way. (Oct 2001)

US home broadband connections have increased from 38% in July 2003 to 51% in July 2004. (Nielsen/NetRatings, Aug 2004)

According to Nielsen/NetRatings, more than 50% of the Web-surfing public is doing so via broadband connections.

- 59% → 18-20 year olds
- 58% → 2-11 year olds
- 55% → 25-34 year olds
- 53% → 21-24 year olds
- 34% → 65-99 year olds

-Aug 2004, Adage
Issues and further research

Issues

• Large File Sizes
• Internet Bandwidth
• Human Computer Interactions (HCI)

Research is close to commercialization for the use of tactile and olfactory features

http://www.trisenx.com/product.html

http://www.immersion.com

Haptic mouse: Nostromo n30
Game mouse (46$)

Orbit 3d USB mouse: The Orbit® 3D takes your Web experience to a whole new level, by allowing you to actually feel buttons, icons, links and more as you scroll across them.
Design of the Swatch e-store

Online Branding:
• Visual Design [Visual Identity]
• Interactivity [Non Visual identity]
• Multimedia [Visual identity, Non Visual identity]

The Swatch e-store has a Virtual Architecture, it is Interactive and has multimedia features to create Online Branding.

http://www.arch.ttu.edu/visualization/5345-VIZ-Studio-FA03/Amaran/thesis/final/swatch.html
Attributes of a great brand:

Clarity, consistency and leadership

Online branding:

Visual Identity → Brand recognition
Visual Design (Color scheme, layout, typography, navigation, [IVA-Virtual Architecture]), multimedia

Non Visual Identity → builds relationship
Taglines, tone of the textual content, interaction design, multimedia, [IVA-Interactivity]

Interactive Virtual Architecture is a new visual design medium for online branding

We have the technology to realize Interactive Virtual Architecture
Further Research

• Multi User Interface
• Intuitive User Interface for better HCI in a 3dRT environment
• Integration of Virtual Host, Live Chat and Personal Digital Assistant
• Tactile and Olfactory features for a more immersive environment

Opens a new market for architects to specialize in Virtual Architecture design for the online media
Walk into a virtual store, have a digital assistant assist you in your shopping, interact with other shoppers, interact with the product on display and interact with the architecture. Have the architectural style change to suit your taste, walk into a landscaped court, smell the fresh blossoms and feel the textures and get doused in the virtuality of the environment.

Step into the realm of Online Branding!
Thank you!

Thanks to every soul* that was associated with my thesis!

Please refer to the thesis manual for a complete list of references.

* Includes Dell Dimension 8300, books, internet, music and nature and all the people who brightened up the days!