

Web ~~2.0~~^{3.0} Technology Impact on Hospitality

Robert Cole – RockCheetah LLC

Michael Robinson – InterContinental Hotels Group

Presentation Overview

- Case for Change
 - Why do I care?
 - Web 1.0 / 2.0 / 3.0 Differentiation
- What is this Really?
 - Web 2.0 Foundational Technologies
 - Web 2.0 Competencies / Social Web
- What's Next?
 - Web 3.0 Technologies
- Hospitality Best Practice Examples



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Case For Change

Why Should I Care?

- Maturation of the Web
 - Crawl with WEB 1.0
 - Walk with WEB 2.0
 - Run with WEB 3.0
- Everyone Born within Last 20 Years Wedded to Web
 - Traditional encyclopedias have all but been eliminated in lieu of Search – and why not?
 - Phone directories are ancient artifacts with issues like naming and publication dates
 - Social Media is their playground
 - Defy traditional marketing demographics and grouping
- These are Our Guests and They are More Unique Than Any Preceding Generation
 - 90% of teenagers have made online purchase
 - 80% of teenagers (50% of kids 8-12) carry cell phones
 - Main use for e-mail - confirm purchase or social identity



Web 1.0 - Was Like Finding Fire

- Read-only Web - Static Web Pages
 - Echoed the books and libraries of the past
- User Interaction was Controlled
 - Traditional publishing / broadcast model
 - Limited to e-mail, guestbooks, forums
 - Search was limited to old ways of organizing
 - Keywords & Directories
- Lack of Standards Led to Proprietary Browser Wars
- Web Applications were Brittle
 - Interface + Content (Data) + Program Logic

“Uniform access to disparate sources of information, without differences between data sources.”

- Tim Berners-Lee (1989)



Web 2.0 Restated Everything

- The Network is the Platform is the Web
 - The Read/Write Web - The Social Web
 - Rich Content, extensive user participation
- User Interaction
 - Leverages collective intelligence, communication & collaboration
 - Openness, transparency & respect
- Search
 - Contextual (Bing / Wolfram|Alpha)
 - Users organizing content with tagging

“A platform that gives users the possibility to control their data”

- Tim O'Reilly – O'Reilly Media (2005)



Web 2.0 Rewrote Everything

- Standards
 - XML – Open formats / Data transformation / ease of use
 - AJAX - Platform independence
- Web Applications
 - Blogs, wikis, podcasts, mashups, web based communities
- Web Services & Browser Based Software
 - Software as a Service - Easy to update/replace
 - Open API's provide access to public services



What Will Web 3.0 Look Like?

- Intelligent Search, Behavioral Advertising
 - Oriented around the way they want to buy, not necessarily the way we want to sell
- Applications are Pieced Together
 - Relatively small & very fast
 - Data is in the Cloud (the Web)
 - Can run on any device (PC or phone)
 - Very customizable, distributed virally

“Computers become capable of analyzing all the data on the Web – the content, links, and transactions between people and computers. A ‘Semantic Web’... machines talking to machines.”

- Tim Berners-Lee (1999)



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What is This Really?

Web 2.0: Basic Characteristics

- Rich User Experience
 - Tightly integrated active elements, flash multimedia
 - Gmail & Google Maps – Rich user interfaces & mashups
- Radical Decentralization
 - eBay – Occasional transactions, many merchants
 - BitTorrent – Architecture of participation; users as servers
- Radical Trust
 - Wikipedia – Content created by & for the community
 - TripAdvisor – Leverages collective community intelligence
- Rapid Software Development & Release Cycle
 - Open Source mantra – release early & release often
 - Lightweight software environment – easily remixable
- Application Support - Multiple Devices/Platforms
 - Provides user with anytime, anywhere access to content
 - iTunes – Store, Library, Player & Phone - Audio & Video



Web 2.0 Technology: XML / RSS

- XML – eXtensible Markup Language
 - Defines content separately from formatting
 - Enables reuse of information across applications without requiring conversion
 - Foundation for Open Travel Alliance Data Standards & Interoperability Specifications
 - XML Schema Formats
 - DTD (Document Type Definition) Older / Easier
 - XSD (XML Schema Definition) Newer / More Robust
- RSS – Really Simple Syndication
 - Automatic Publishing of Updated Feeds
 - Drives Blogs, New Articles, Press Releases
 - RSS 2.0 now most common – 67% usage
 - Leading format for Podcasting



Web 2.0 Technology: Ajax

- Asynchronous JavaScript and XML (Ajax)
- Combines Underlying Technologies
 - Markup and Styling of Information
 - Hypertext Markup Language (HTML)
 - Cascading Style Sheets (CSS)
 - Dynamic Display & Data Interaction
 - Document Object Model (DOM)
 - Scripting Language - JavaScript
 - Standard Format for Data Sent to Browser
 - eXtensible Markup Language (XML)
 - JavaScript Object Notation (JSON)
 - Asynchronous Data Exchange
 - Eliminates Page Reloads



Web 2.0 Technology: Web Services

- Applied on the Server Side
- Key Components
 - Service Oriented Architecture (SOA)
 - Simple Object Access Protocol (SOAP)
 - Web Services Description Language (WSDL)
- Deployment Methods
 - SOA Web Services
 - Remote Procedure Calls
 - REpresentational State Transfer (RESTful)



Web 2.0 Success Characteristics

- Services, not packaged software, with cost-effective scalability
- Control over unique, hard-to-recreate data sources that get richer as more people use them
- Trusting users as co-developers
- Harnessing collective intelligence
- Leveraging the long tail through customer self-service
- Lightweight user interfaces, development models, AND business models



The Social Web's Role in Web 2.0

- Social Media Only One Aspect of Web 2.0
 - User Engagement Results from Integration of Marketing Strategy & Technology Deployment
- Five Eras of the Social Web
 - (Jeremiah Owyang – Forrester)
 - Era of Social Relationships 1995 - 2007
 - People connect to others and share
 - Era of Social Functionality 2007 - 2012
 - Social networks become like operating system
 - Era of Social Colonization 2009 - 2011
 - Every experience can now be social
 - Era of Social Context 2010 - 2012
 - Personalized and accurate content
 - Era of Social Commerce 2011 - 2013
 - Communities define future products and services



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What's Next?



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What's Next? Web 3.0

- The Semantic Web
 - Systems Read and Categorize the Web
- Personalization
 - Web Contextualized Based on Individual
- Artificial Intelligence
 - Meaning Extracted from Web Interactions
- Dynamic Expert Communities
 - Leverages Collective Intelligence
- Mobility
 - Everything, Everywhere, All the Time
- The Logical Outcome?
 - Relevant, Real-time Search, Behavioral Targeting



Web 3.0 – Know Your Data

- RDF - Resource Definition Format
 - Need to Describe, Capture Knowledge & Define Relationships between “Stuff”
- Defines Semantic Web Relationships Through MetaData
 - RDF Triplet Incorporates
 - Subject – HITEC Web 2.0 Presentation
 - Property – Presenter
 - Object – Robert Cole
 - RDFS (RDF Schema)
 - Describes Properties & Classes of RDF's
- OWL (Web Ontology Language)
 - Vocabulary Describes Characteristics of RDF Properties
 - Relationships between RDF Classes



Web 3.0 – Leverage Your Partnerships

- Enables Relevant Community Engagement
 - Customers
 - Employees
 - Suppliers
 - Colleagues
 - Competitors
- Transitional Travel Initiatives
 - Open Travel Alliance FastRez
 - Simplifies XML Schema Interoperability
 - HEDNA Universal Global Identifier (UGI)
 - Organizes Travel Suppliers & Distributors



The Next Big Step? Google Wave

- Leverages the Internet (The Cloud)
 - Integrates Real-Time Communication, Collaboration and Sequencing of Rich Content “Stuff”
- Creates Threaded Conversations for
 - E-mail, Instant Messaging, Twitter, Blogging
 - Document Edits & Game Play
- Leverages Open Source Applications
 - Global Developer Community Engaged
 - Direct Assault on Microsoft Desktop
- How it Dramatically Changes the World
 - Integrates Messaging into the Hypertext Link Space
 - Provides New Participants with a Full Backstory
- It's Real & It's Coming Soon
 - Developer Sandbox Available Now
 - Public Release Expected in October, 2009



Web 1.0 / 2.0 / 3.0 Summary

Crawl	Walk	Run
Web 1.0	Web 2.0	Web 3.0
Mostly Read-Only	Wildly Read-Write	Portable & Personal
Company Focus	Community Focus	Individual Focus
Home Pages	Blogs / Wikis	Lifestreams / Waves
Owning Content	Sharing Content	Consolidating Content
Web Forms	Web Applications	Smart Applications
Directories	Tagging	User Behavior
Page Views	Cost Per Click	User Engagement
Banner Advertising	Interactive Advertising	Behavioral Advertising
Britannica Online	Wikipedia	The Semantic Web
HTML / Portals	XML / RSS	RDF / RDFS / OWL



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Best Practice Examples

<http://prezi.com/96967/>



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