



## Successful Web Based Business Web Sites

WWW 2006

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## Before We Get Started...

- > Feel free to blog...
- > Blog / photo tag: www2006 + jeffbarr ...
- > Q&A at end...
- > Time for 1-on-1 discussion afterward...

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## Introduction & Background

- > Software development background
- > Veteran of several startups
- > Visual Studio team at Microsoft
- > Nearly 4 Years with Amazon
- > Amazon Web Services Developer Relations Team
- > Web Services Evangelist



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## Goals

- > Introduce our services
- > Explain how they are used to create businesses
- > Show you some successful applications
- > Get you thinking about creating your own business

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## What Is Amazon?

- > Online Retailer
  - Over 57 million active customer accounts
  - Seven countries: US, UK, Germany, Japan, France, Canada, China
- > Technology Consumer
  - Multi-National Web Sites
  - Vast Data Warehouse – 25 TB of business / historical data
  - World-Class Logistics – Multi-national fulfillment centers; 10.2 million ft<sup>2</sup>
- > Technology Provider
  - Hundreds of thousands of Amazon Associates
  - Over 1,080,000 active seller accounts
  - Over 160,000 software developers registered to use Amazon Web Services



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## What Is Amazon Web Services?

- > Amazon Web Services = AWS
- > APIs that give developers programmatic access to Amazon's data and technology:
  - Building-block web services
  - Web-scale infrastructure
  - E-commerce capability
  - Content, data, and information
  - New business models

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## Amazon Web Services History

- > Pre-2002: Outside calls to open up and to share data
- > Early 2002: Decision made to "open up"
- > Mid-2002: First beta release
- > Fall 2002: First service (ECS) released
- > Fall 2002: Developer program rolled out
- > 2002-2004: Multiple releases of ECS
- > 2005-Present: 7 additional services released or in beta
- > 2006: 160,000 developers registered

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## AWS Product Family

- > **Amazon Mechanical Turk**
  - API to Human Intelligence
  - Paid Internet-scale workforce
- > **AWIS – Alexa Information Service**
  - Data warehouse access for web crawl data
- > **AHP – Amazon Historical Pricing**
  - Data warehouse access for product pricing
- > **AWSP – Alexa Web Search Platform**
  - Roll your own search engine
- > **SQS – Simple Queue Service**
  - IT building block
- > **ECS – E-Commerce Service**
  - Direct access to Amazon's product catalog
- > **Alexa Top Sites**
  - Top sites by Alexa traffic rank
- > **Amazon S3 – Simple Storage Service**
  - Storage for the Internet


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## AWS Business Models

- > Free :
  - 1 call per second
  - send us traffic
- > Fixed Monthly Fee
- > Usage / Resource Based:
  - Data transfer
  - Data storage
  - Per call
  - CPU time




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## Amazon E-Commerce Service (ECS) Introduction

- > 4th release
- > Complete access to the Amazon product catalog
  - Millions of products
  - Rich data schema
  - Product images
  - Reviews
- > Shopping cart
- > Wishlists
- > Link to Amazon Associates program



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## Successful ECS Applications



tvmojo.com



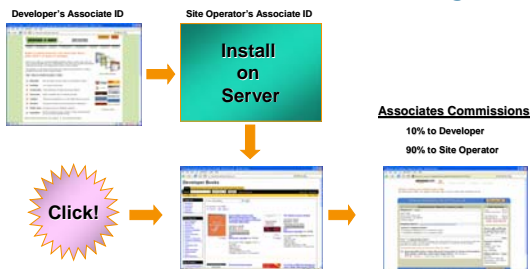
associate-o-matic.com

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## Business Model: Click Sharing



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## Amazon S3 – Simple Storage Service

- > Storage for the internet - web service to read and write data
- > Private and public storage
- > Scalable, reliable, cost-effective, and simple!
- > BitTorrent interface




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## Amazon S3 Properties

- > **Web-scalable**
  - Scale to support unlimited number of applications
  - Use scale to increase reliability
- > **Reliable – 99.99% availability**
  - Managed replication
  - Self-repairing
  - Fast
  - "Take it for granted"
- > **Cost-effective**
  - Pay for what you use – storage and bandwidth
  - 15 cents per Gigabyte-Month to store data
  - 20 cents per Gigabyte to access data
  - Amazon discounts with industry-leading operating costs
  - Expect hardware failures
- > **Simple**
  - Built for use in any application
  - Focus on innovation, not figuring out storage


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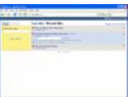
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## Successful S3 Applications

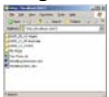
**S3 Explorer**




**filicio.us**




**Jungle Disk**



**S3 Ajax Wiki**



**Backup Manager**



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## Successful S3 Applications

- > [Smug Mug](#)
- > [Ookles](#)
- > [Chicago Crime](#)



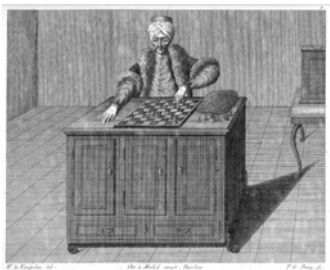


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## Man Versus Machine

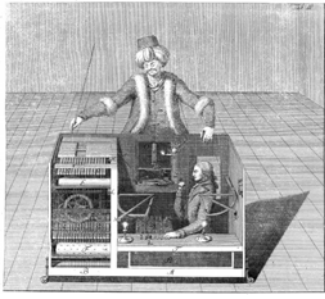


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## But Not Really



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## Easy for a Human, Tough for a Computer

- > Image recognition
- > Approximation
- > Speech processing
- > Subjective evaluation
- > Rendering an opinion

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## Amazon Mechanical Turk

Provide a Web Services API to allow developers to easily integrate human intelligence directly into their processing!

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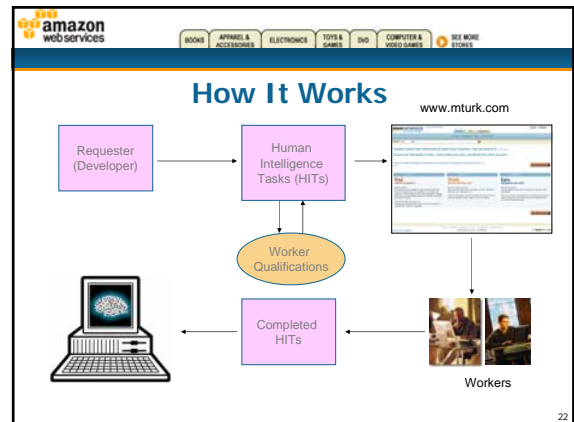
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## Put The Human In The Loop

```
while (read (photo))
{
  ContainsHuman = CallMechanicalTurk("Contains Human?", photo);

  if (ContainsHuman)
  {
    acceptPhoto(photo);
  }
  else
  {
    rejectPhoto(photo);
  }
}
```

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## What This Means

For Software Developers

- > Solves problem of building applications that until now have not worked well without human intelligence

For Businesses

- > Efficiently, effectively and inexpensively complete millions of tasks that require human intelligence
- > Previously unimaginable business ideas are now feasible...

For Anyone

- > Make money using the skills you already have whenever your schedule allows

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## Sample Mechanical Turk Application – Casting Words

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# castngWords.com

- > Podcast transcription service provider
- > Transcribes audio into high-quality text
- > Amazon Mechanical Turk
  - Workers transcribe podcasts and index text within search engine
- > Amazon S3
  - Storing the podcasts and related files

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## castngWords.com

What you always get.

- Transcriptions in plain text, HTML and XML
- Quick turnaround: 24 hours a day
- Human, not computer, transcription and editing
- An RSS feed tracking progress
- An RSS feed with your transcripts and enclosures with your original MP3 files
- 30-day identification of completed transcription

Product	What you get	Price Per Minute	Buy
Transcribe from a URL	A quick transcription, a duration table and a postcard search engine	\$0.42 / Minute	Buy

Other things you should know

- URL needs to link to an MP3 file or a [RSS](#) feed with audio/mpeg (M3U) enclosures
- The audio must be in English. Need another language? [Contact us](#) with details
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Jeff Searles, Technometrics Analysis	Sat, 6 Aug 2005 00:00:00 -0500	39	<input type="checkbox"/>
Paul Hargrave, Technometrics Analysis	Wed, 30 Jul 2005 00:00:00 -0500	50	<input type="checkbox"/>
Tom Wilson, The Digital Revolution	Sun, 24 Apr 2005 00:00:00 -0500	51	<input type="checkbox"/>
Scott Seaman, Headlines That	Wed, 9 Mar 2005 00:00:00 -0500	71	<input type="checkbox"/>

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Thanks for your payment. Your transaction has been completed, and a receipt for your purchase has been emailed to you.

What happens now?

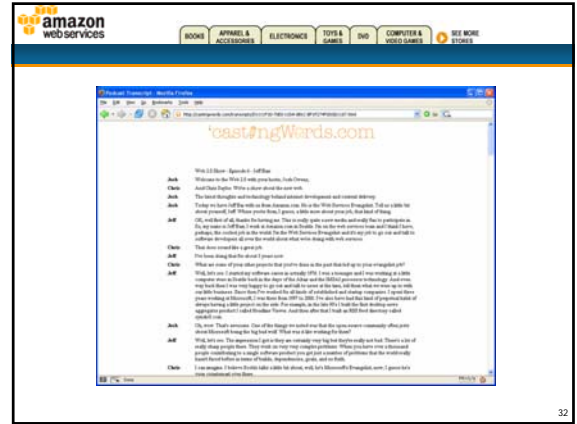
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### Successful Mechanical Turk Applications

- > The Sheep Market
- > Art Project
- > 10,000 sheep
- > 2 cents/sheep
- > Cost of \$220
- > 11 SPH

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### Getting Started With AWS

- > Register as a developer, get a Subscription ID (free)
- > Developer Portal: <http://aws.amazon.com>
- > Mechanical Turk: <http://www.mturk.com>
- > AWS Blog: <http://aws.typepad.com>

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# Questions?

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### Thanks!

- > Contact Info:
  - Jeff Barr
  - Web Services Evangelist
  - [jbarr@amazon.com](mailto:jbarr@amazon.com)
  - <http://aws.typepad.com>

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