



Ruby on Rails



Internet Marketing Clinic
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This session is on the Ruby on Rails web development technology. The session is offered in the Internet Marketing Clinic that is available through the University of Houston Small Business Development Center.

The presenter for the session is Don Parsons. Don can be reached by e-mail at parsons.don@gmail.com.

Agenda

- Who is the *session* for?
- Who am I, & Why am I here?
- What is Ruby?
- What is Rails?
- Why *do we care*?
- Live Demo
- *Resources*

The questions in this slide gives a practical representation of what will be covered in this session. However, this slide does not strictly represent the exact order of the presentation. For example, aspects of “Who is this session for?” and “Why do we care?” are in some ways distributed through much of the presentation.

In addition to this slide show, the presentation will include a live demo of portions of the process of creating parts of a Ruby on Rails website. Those that were not able to attend the session when it was being delivered live can view similar demonstrations through online screencasts. Some possible screencasts can be found at:

<http://www.rubyonrails.org/screencasts>

<http://railscasts.com/>

<http://www.buildingwebapps.com/learningrails>

Audience Profile

- *Local Small Business Owners (Present or Future)*
- *Most Attendees Not Experienced Web Developers*
- *Limited Time - Necessitating Efficiencies*
(i.e. Minimize Dev Time, Greater Focus on Content Maint.)
- *Limited Startup Budget for Website Development*
- *Has Need to Work Smarter, Not Harder*

The target audience for this session are attendees in the Internet Marketing Clinic (IMC) offered at the University of Houston Small Business Development Center (U of H SBDC). Typically, the people that attend these sessions are those that either currently have a small business, or intend to start one. Most wish to use the Internet as a marketing tool for their business, or as an online store-front. Most also have a limited budget for starting the website.

There is a broad range of skill levels among the attendees in these sessions. Although there are sometimes a small number of individuals in attendance that could be considered advanced web developers, the vast majority of the attendees would be more appropriately characterized as beginner, and a few as intermediate. Most of the small business owners in the sessions are creating their website on a DIY basis, and some have hired custom development done for them.

Almost all small business owners have many responsibilities. The amount of time most small business owners can afford to devote to their website is usually limited. From a Search Engine Optimization (SEO) point of view, there is greater value in spending more time working on content than developing website infrastructure. So there is real value in adopting techniques and solutions that allow these small business owners to as the saying goes “work smarter, not harder”.

My Background

- Tech Trainer, Tech Support Since 1984
- Web Developer Since 1995
- Attending These IMC Sessions Since 2003
- Now Standardized On:
 - Ruby on Rails and (XHTML, CSS)
- Previously Used:
 - PHP & MySQL, CMSs (Drupal, WordPress)

The presenter's background pertinent to this session includes:

Since 1984, Don has held various technical training and technical support positions within the high tech industry.

Don began learning how to develop websites to make it easier to publish rapidly changing training material to a geographically diverse audience as a technical trainer in 1995 at Apple Computer, Inc. After leaving Apple in 1996, Don continued using those web development skills for a variety of other purposes.

Don started attending the the Internet Marketing Clinic sessions in about 2003. This has given Don an in-depth understanding of what the typical needs are for the average persons attending these sessions.

Don currently develops web websites using Ruby on Rails, XHTML (Extensible HyperText Markup Language), and CSS (Cascading Style Sheets). Don chose Ruby on Rails to minimize the time spent on the mechanics of web development, and to maintain a greater level control of the final solution than what many configurable Content Management Systems such as Drupal and WordPress typically offer.

Realizations

- *Spending time developing your website structure contributes less to your profits than time spent on content.*
- *Small business owners need to focus more on Content & their Products / Services*
- *Maintaining a good website can be a time consuming process.*
- *The website owner needs to be in control of the website content.*
- *There has got to be a better way... Than with Static HTML*

The main point of attending these Internet Marketing Clinic sessions is to help small business owners increase the success of their business. Even if we enjoy developing websites, that part of the process is not the reward or the end goal. Creating the website (regardless of if you create it yourself, or you hire someone to create it for you), is only one of many factors that will contribute to business success. In many ways, spending time and attention on the website infrastructure contributes less to the overall bottom line success than spending time on other factors.

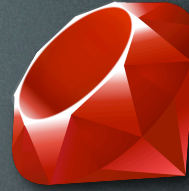
One of the other important factors, from an SEO perspective, is to focus on writing good content for the website. That content will service two important purposes. The first is that, if the pages are search engine optimized well, that content will help bring more traffic to your website. The second is that once visitors have reached your website, the content is your opportunity to motivate visitors to buy your product or service. The finest website structure won't make up for a lack of content, but good content can go a longer way in making up for a weaker website structure. This can be demonstrated by looking at some of this clinic's success stories. There have been several websites that were owned by past attendees in this clinic that had very unimpressive websites, but were doing so well in sales, the owners closed their brick and mortar stores to focus 100% of their business efforts to their online presence.

Dynamic vs Static Websites

- *Dynamic: (Server Scripting Needed)*
 - *HTML Code Generated “On The Fly” As Needed*
 - *Changeable Page Content Stored in a Database*
 - *HTML Code & Data Combined When Page is Requested*
- *Static: (No Server Scripting)*
 - *HTML Code Exists in Simple Text Files on Server*
 - *Content Embedded in HTML Code in Files*
 - *HTML Code & Data Combined Manually by Human*

All web pages can be put into one of two categories; Dynamic or Static. Pages with content embedded in the HTML and saved to disk as a files are referred to as Static web pages. A web page that does not exist in it's completed form as a file on the server, but is created “on the fly” by scripts typically pulling data from a database and integrating that data in HTML code is referred to as a Dynamic web page. Ruby is one possible scripting language that can be used to generate dynamic web pages.

Ruby Is...



- *An Object Oriented Scripting Language*
- *Available on most computer platforms (Windows, Mac...)*
- *Alternative Server Scripting Solutions:*
 - *PHP*
 - *ASP (Javascript, VBScript, etc.) - Active Server Pages*
 - *JSP (Java) - Java Server Pages*
 - *Python*

Ruby is a scripting language. In the context of a web application, ruby is being used as a server-side scripting language. This means that the scripts are executed on the server, not the users' web browsers. Ruby is object oriented, which usually makes the code easier to write, maintain, and debug. Ruby is available on just about any platform, including the most common MS Windows, Macintosh, and Linux. There are other possible scripting languages commonly used for creating web applications, some include: PHP, JavaScript, VBScript, Java, and Python.

Rails Is...



- A Web Application Framework
- For Faster, Simpler, More Efficient Development
- Alternative Framework Solutions:
 - ASP.NET (JavaScript, VBScript, C#, etc.)
 - Zend Framework, CAKE... (PHP)
 - Django (Python)
 - Adobe ColdFusion (CFML)

Rails is a Web Application Framework that is based on the Ruby scripting language. Web application frameworks are designed to make it faster and easier to develop advanced functionality websites. Many of the common tasks that you would have to write code for have been taken care of for you. When you want to make changes to the framework's functionality, Rails makes it very easy to do your own customization.

There are other web application frameworks based on other scripting languages. However, it would be fair to point out that many of these other solutions are becoming fairly Rails-like in their design and implementation.

Critisims

- *Scaling Myth - Select The Best Tool For The Job*
 - *Many Critics Cite Twitter.com As Example*
- *Specialized Requirements*
 - *Most Windows Host Accounts Not Configured for RoR*
 - *Many LAMP Host Accounts Not Configured for RoR*
- *Released to Public 2004 - Expertise Pool*
 - *Many Host Provider Staff Don't Have RoR Expertise*
 - *Fewer Developers Than For ASP or PHP*

Some RoR critics maintain that RoR websites will not scale. Meaning they cannot be setup to accommodate very heavy traffic loads. Those critics frequently use the website Twitter.com as an example. Twitter is in fact based partially on RoR. However, Twitter not only is an extreme heavy traffic website, it is a very I/O and database query intensive website. Most of the web development technologies are going to be challenged by a web application such as Twitter. It is also possible that RoR might not have been the best solution for a web application such as Twitter. For a Real World Usage listing of websites based on Ruby on Rails, visit the following website.

<http://wiki.rubyonrails.com/rails/pages/RealWorldUsagePage1>

With a website based on RoR, you won't be able to host with just any hosting provider. Most Windows based providers will not likely be able to host RoR websites. Microsoft does not include Ruby on Rails as a part of their standard installation on any of their servers, so it would have to be added. Most configurations of LAMP (Linux, Apache, MySQL, and PHP) servers do not come configured with Ruby on Rails. The hosting provider would need to specifically install this option on their servers. With time, this may become less of an issue on Linux server, but I would not expect any changes of this sort from Microsoft.

Since RoR is still fairly new, expertise on the subject is not as common as with some of the older solutions.

RoR Hosting

- *Use Hosting Provider That Emphasizes Their RoR Packages.*
- *Google Search “Ruby on Rails Hosting”*
- *ACTWD.com*
 - *Beth Guide’s Hosting Service (Beth is an IMC Attendee)*

You will likely get the best results in hosting a Ruby on Rails website with a hosting provider that does have expertise on the topic. There are some hosting providers that specialize in Ruby on Rails hosting.

One additional option would be with ACTWD.com hosting. ACTWD is Beth Guide’s hosting service. Beth has been a long time friend of the Internet Marketing Clinic. Frequently she attends sessions, and from time to time is a guest presenter for specific sessions. Beth has a very good customer support and satisfaction ethic with her hosting service.

Resources

- Podcasts & Screencasts
 - RailsCasts (Free)
 - iTunes or <http://railscasts.com/>
 - LearningRails (Free)
 - iTunes or <http://www.buildingwebapps.com/learningrails>
 - Peepcode (\$ 9.00 Each)
 - <http://peepcode.com/>

One very good way to quickly and easily learn more about Ruby on Rails would be to listen to a podcast on the subject, or watch a screencast. This slide lists 3 very good options. NOTE: You do not need to have an iPod to listen to podcasts. You can go directly to the websites listed and download the audio or video files and play them on your computer. Even if you do not have an iPod, you can download iTunes from the Apple website for free, and install it on either your Mac or Windows computer. This would make it very easy to listen to the RailsCasts or the LearningRails screencasts.

LearningRails Podcast Example



This slide contains an example of an episode of the LearningRails screencast. You can get a copy of this podcast for free at:

iTunes or <http://www.buildingwebapps.com/learningrails>

Resources

- Information Websites
 - Official RoR Website
<http://www.rubyonrails.org/>
 - RoR Wiki
<http://wiki.rubyonrails.com/rails>
 - SitePoint - Learn Ruby on Rails
<http://www.sitepoint.com/article/learn-ruby-on-rails>
 - Google Search "Ruby on Rails"

Here are several links for helpful websites if you are interested in learning more about Ruby on Rails.

Resources

- *Beginner RoR Books*
 - “Agile Web Development with Rails, 2nd Edition”
Pragmatic Bookshelf
 - “Ruby on Rails: Up and Running”
O’Reilly Media, Inc.
 - “Ruby on Rails for Dummies”
For Dummies

Here are some good options for books that you might want to consider to get you started in learning more about Ruby on Rails. There are many more options. For a more complete list, go to Amazon.com, and search for “Ruby on Rails”.

Resources

- *Houston.rb Users' Group*
<http://tech.groups.yahoo.com/group/Houston-RoR/>
<http://houston-ror.pbwiki.com/>
- *Local Developers*
- *Expertise Listing Websites Such As:*
 - *Guru.com*
 - *GetAFreeLancer.com*
 - *GeekBidder.com*
 - ...

If you would like to have a Ruby on Rails website, and wish to find an experienced Ruby on Rails programmer, there are some options available that might be helpful in getting connected with a good candidate. One option would be to attend the Houston Ruby Users Groups (aka Houston.rb). A few individuals from that groups have already offered their contact information:

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THE END