CHAPTER 1: MAXIMIZING THE INTERNET: GETTING IT RITE©

Selecting & Evaluating Web Sites – The Good, the Bad and the Dangerous

What You Will Learn

Introduction

One of the most powerful items in your own financial tool box is information. We all know the Web is an amazing source of information -- it's easy to access and has the potential to provide us with a wealth of data for personal finance (and other) decisions. What we don't always know, however, is how to tell the *good* information from the bad. Effectively using the Web to help answer important personal finance questions requires care and a good dose of skepticism. Most financial web sites are commercial -- they are trying to sell you something! The standard warning applies: "Buyer beware!" You should view most commercial web sites like you view Infomercials on TV – there can be some good information as long as you understand any underlying bias. This chapter will help you maximize the internet as a financial tool. We will provide you with a simple system for evaluating the quality of web sites, especially as they relate to personal finance, and will alert you to safe practices on the internet.

This Chapter is presented in five parts. In Part I: Web Basics for the Less Experienced, we begin by explaining how to read a web address and how to effectively use search engines and their advanced features effectively. Most of you will only need to

skim this beginning material. In Part II: Selecting & Evaluating Web Sites, we then develop our RITE© set of criteria to assess the quality of web sites. In Part III: Doing it RITE© -- A Step-by-Step Guide, we walk you through how to do a RITE© evaluation and illustrate how the system can be used by evaluating a popular site on credit card deals. Part IV: Citing Web Sites & Using Web Directories outlines how to cite web sites and provides a discussion of a high-quality directory site that can provide you with a quick-and-easy method for finding sites that have passed a solid preliminary screening by a non-commercial entity. Finally, Part V: Protecting Yourself & Your Computer concludes with a summary of how you can protect yourself from the potential dangers of the Web.

PART I: WEB Basics for the Less-Experienced

How to Read a Web Address

Do you know what each section of the follow web addresses is telling you?

http://www.federalreserve.gov/pubs/shop/default.htm

https://flagship.vanguard.com/VGApp/hnw/HomepageOverview

If so, you can skip this section and go to Part II: Selecting and Evaluating Web Sites Using the RITE© System. If not, then you need to read this section.

The table below identifies the anatomy of a web address. The unique address of every Web document is called a **URL** (Universal Resource Locator). The first portion of a URL (the part that appears before the ://) tells you what protocol is being used to transfer information to your computer. The page below, and most pages you will view, uses the familiar ***http*** protocol (Hyper Text Transfer Protocol) to transfer files from web servers into your web browser (e.g., Internet Explorer). The http protocol is not secure and you should never give sensitive personal information or financial information on web sites using this protocol. When making purchases or carrying out other financial transactions always be sure that the site you are using is using the *https://* protocol. Sites using the https protocol use a **Secure Socket Layer (SSL)** protocol to transfer data. To make the transfer secure, the SSL protocol uses a cryptographic system with two keys to encrypt data − a public key known to everyone and a private or secret key known only to the recipient of the message.

The **domain name** of a site, which occurs right after the protocol indicator (e.g., after http://), provides you with important information allowing you to quickly assess the nature of a site before you actually open it. The part of the domain that appears before the period in the domain name gives the name of the computer that is placing the material on the web (called a server in Internet parlance). In the example below, the server is the library (lib) of the University of California at Berkeley (berkeley). The top level domain,

which occurs after the period in the domain name, tells you the purpose, type of organization or geographic location of a web site. In the example above, the top level domain is .edu. Only educational organizations have .edu domains so you know that an educational institution is placing the material on the web even if you weren't able to identify the server.

In the US, common domain names, in addition to .edu, are .gov (indicating that a government agency is placing the material on the web), .com or .net (indicating that a business is placing the material on the web), and .org (indicating that a nonprofit institution, a research organization or an individual is placing the material on the web). Outside the US, domains indicate country: ca (Canada), uk (United Kingdom), au (Australia), jp (Japan), fr (France), etc.[1]

Protocol (could say ftp:// or https:// (secure web site)	Domain Name (Computer the File is on and its location on the Internet)		Path or directory on the computer to this file	Name of file, and its file extension (often ending in .html or .htm)
	Server	Top Level Domain		
http://	www.lib.berkeley	.edu/	TeachingLib/Guides/Internet/	FindInfo.html

Source: **http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Glossary.html#URL**


How to Find Web Sites Using Search Engines

There are two basic ways to identify high-quality web sites that can help you answer personal finance (or other) questions: (1) using a **search engine such as Google or Yahoo** and carefully evaluating the quality of the sites that appear in the search results, or (2) using a high-quality, independent, non-commercial directory of web sites. Most people begin their inquiry with a search engine, and we will start there as well.

First identify a couple of unique words related to the personal finance question that you have. For example, if we were interested in finding the best credit card deal, we could use the words credit cards or credit card rates. Type these words into a high-quality Search Engine[2] such as Google (http://www.google.com/), Yahoo! Search (search.yahoo.com) or Ask (http://www.ask.com/).

To get the best results from a search engine, find one you like using, use that one consistently, and take advantage of its advanced search features. All good search engines should have an advanced search feature. The advanced search allows you to limit your results to a particular domain (.edu, .org, .gov, etc), find sites that have been recently updated, or combine your search words in a different way. Searching for credit cards or credit card rates as a phrase instead of individual words will yield fewer, but perhaps

better, results.   Let's try searching Google[3] for credit card rates as words and as a phrase. We can either go to the Google advanced search page or put our words in quotes. When we did this on August 30, 2007, our internet browser looked as follows:
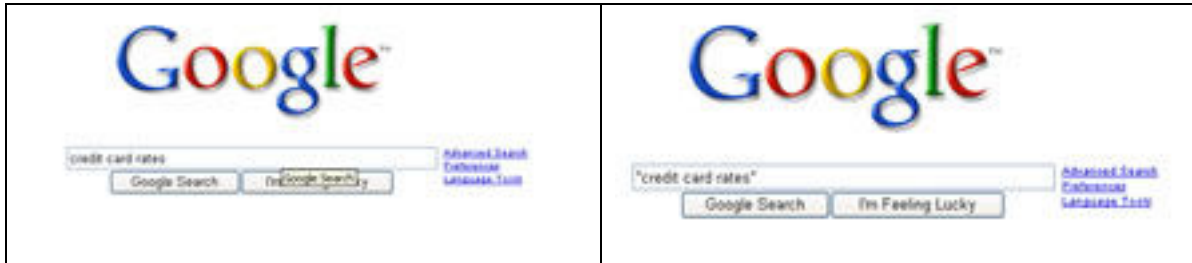
When we hit enter after typing credit card rates as words and in quotes as a phrase (on August 30, 2007), we obtained the following pages:
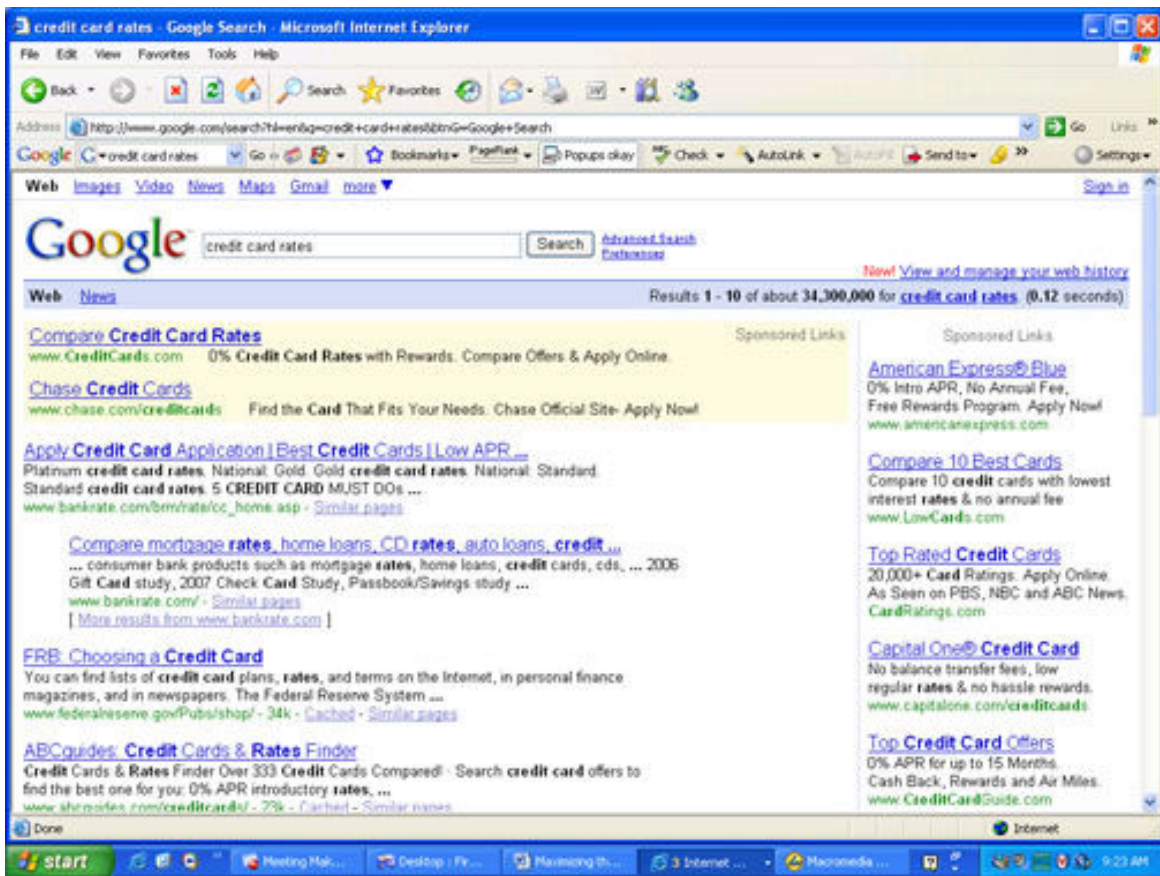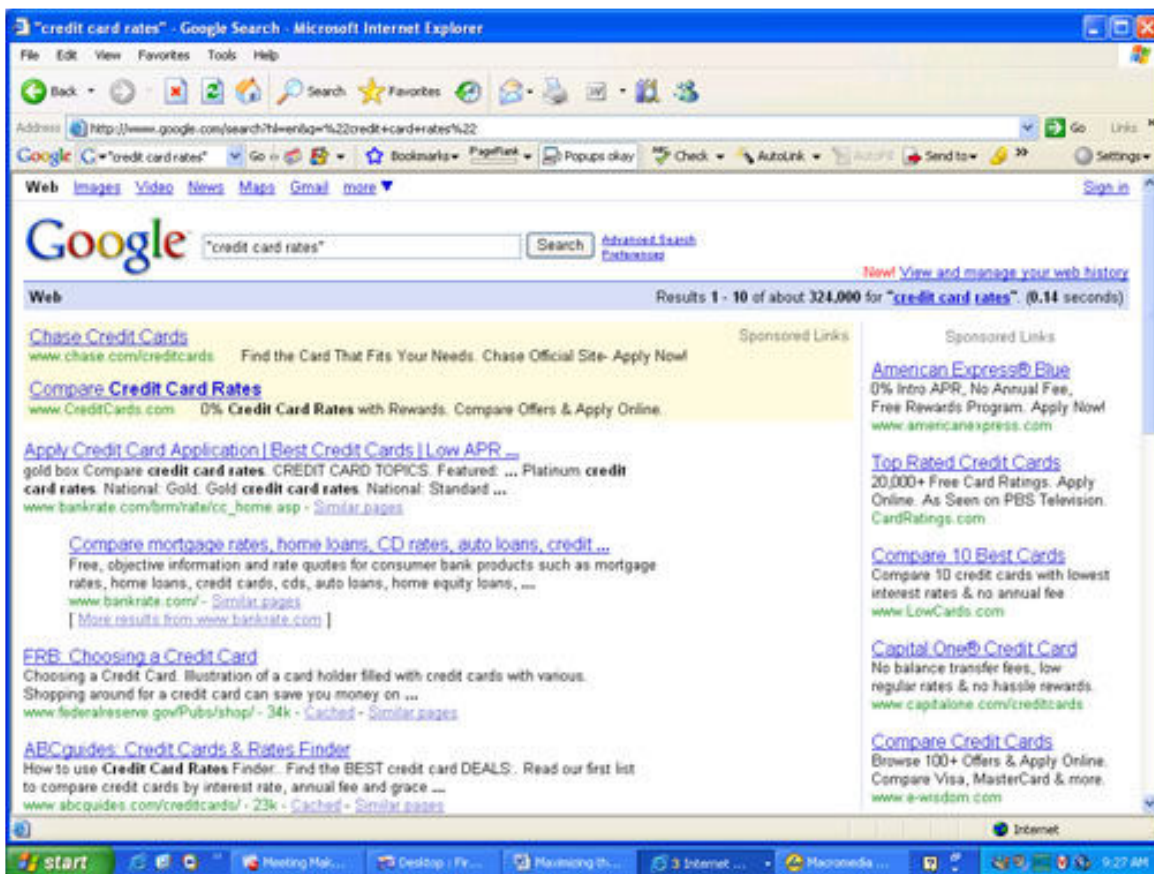
Note that although the first page of search results appears identical for each search, the number of results has dropped dramatically from over 34 million to 324, 000. Searching for a different topic may yield different initial results. Note also that the sites in the box at the top of each page, as well as sites in the column on the right are **Sponsored Links.** Such links are paid for and are primarily interested in selling you something. They can contain good information, but their primary goal is to sell you something, not to provide you with unbiased information. The items appearing below the sponsored links at the top are the actual search results. These sites are your best bets for obtaining unbiased and useful information from the search.[4] However, these sites have not been evaluated for quality; so you will have to do your own independent evaluation of each site, which you will learn to do next in Part II.

Quickly browse the domains of the sites that appear in the unsponsored search results – most have a .com domain, indicating that such sites are commercial. However, one site on the first page of both Google searches has a .gov domain, indicating that the site is a government site, in this case the Federal Reserve (the US central bank). If you can find a .edu or .gov domain in your search results, it is probably a good idea to begin there. Such sites are not perfect, but their primary goal generally is to provide information, not to try to sell you something. The .edu and .gov sites will provide good comparisons and credibility checks for the commercial sites. In fact, .com sites that disclose their sources of information and provide links to .edu and .gov domains are often

more credible than sites that do not identify their data sources or that have only advertising links.

A trick that we often use, when we want information that does not have a commercial focus is to limit the search to .edu or .gov sites. This is easily done by adding site:edu or site:gov after your search or by using the advanced search feature of your search engine. On Aug 30, 2007 when we did this, we obtained the following listings from Google:
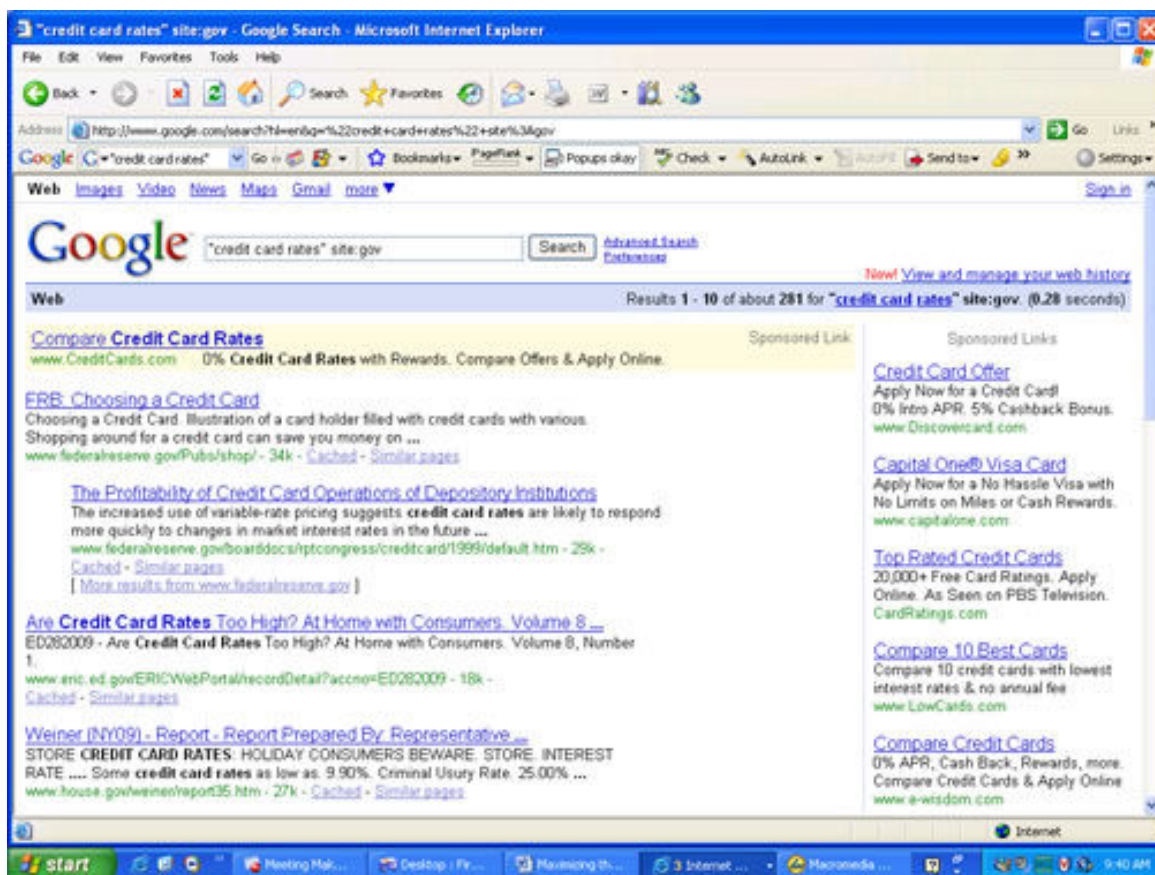
Clicking on the Federal Reserve link highlighted in the .gov search results above, we obtained the following page:

This looks like an excellent place to start the search for a good credit card deal. If you are pressed for time, you can start here. However, whenever possible you should assess the quality of all sites before you use them. This is particularly true of .com sites.

If your searches do not uncover a relevant .edu or .gov site, you may want to start your search with a .org site. Sites with a .org domain are quite diverse. Many .org sites are run by noncommercial organizations, including nonprofit and nongovernmental organizations (such as credit unions), philanthropies, charities, religious organizations, educational and cultural institutions, arts organizations and sports clubs. However, anyone can buy an unused .org domain name. To verify the owner of the domain, you should go to one of the **Domain Research Service Sites** such as http://www.internic.net/ (an affiliate of the U.S. Department of Commerce) or http://www.whois.net/ . These sites provide domain name registration information across all of the top level domains, including .org. Information about entities with .org domains is drawn from the **Public Interest Registry (PIR)**, the not-for-profit organization that manages the .org domain and maintains the database of all .org Internet addresses. (In checking out .org sites, you could also go directly to the PIR site, http://www.pir.org/ and use its Whois search.)

For example, http://www.bellco.org/ was on the first results page of both our Google searches. If we go to http://www.bellco.org we learn that this is the Web site for the Bellco Credit Union. Go to http://www.internic.net, click on Whois and type "bellco.org" into the search box. After clicking on the Submit button, we learn that the bellco.org domain name is owned by Open Technology Solutions in Colorado. The physical address, phone number and emails for the credit union also are listed. This site

might be worth pursuing, but might also list services only available to members of the Bellco Credit Union. If smith.org had shown up in the search results, PIR would indicate that smith.org is owned by an individual who lives in Atlanta, GA – obviously a site not worth pursuing!

PART II: Introducing The RITE[©] Evaluation System

The RITE[©] *Evaluation System*

Knowing the importance of the internet when making personal finance decisions, we have employed several different sources[5] to develop the following **RITE**[©] **criteria:** **Relevance, Identity, Trustworthy, External Links.** We recommend you use the RITE system for evaluating web sites that you are considering using to make important personal finance decisions.

Relevance

Does the site readily provide information that can help you answer the question you are asking? Is the site easy to use? You should be able to answer this on the Home Page. If the answer isn't immediately available and/or the site isn't easy to use, move to the potentially next-best site listed in the search results.

Identity

Can you easily identify the entity that placed the material on the web? (Who owns the site, what is the organization's physical address, phone number, email address, etc.)? You should verify the owner of the domain in a Whois Domain Research Service Site such as http://www.internic.net (an affiliate of the U.S. Department of Commerce) or http://www.networksolutions.com. If you can't identify who put up the web site, or find a legitimate identity (e.g., the domain owner seems unrelated to the Web Page content or appears to be a one-person shop located in a basement somewhere), this is probably not a site you want to use!

What is the organization's purpose or mission? If the site is commercial (i.e., has a .com or .net domain), how does the owner of the site make money? Look for an About us, Contact Us or Site Center link on the site's home page.

As elaborated later under Part V: Protecting Yourself, verifying site identity is especially important if (1) you plan to submit personal data through the website, or (2) you are considering opening a site that has been sent to you (e.g., an external link sent via email) from an unknown or unreliable source. To protect yourself from potential fraud/identity theft, and to protect your computer from hacker's viruses (often sent through email links), you should verify both the site's identity and security (see "Trustworthy" next).

Trustworthy

Can you trust the information on the site, and can you trust the site's security with your personal information?

Security. If the site is asking for information about you, does it have a credible **Privacy Policy** and is the site secure? Look for the https transfer protocol, a key or closed padlock at the bottom of the web browser screen and/or the VeriSign Secure Site medallion (see below). If these are not readily visible, you should click on the site's Privacy Policy where you should find that the site uses the SSL protocol to transfer data. Recall that SSL transfer protocol is, essentially, an "eavesdropping" protection mechanism that prohibits anyone else from accessing your data as it is transmitted over the internet to the web site's organization. Once your personal data reaches the organization, that organization is responsible for protecting it from hackers, which is why it's important to read their Privacy Policy and understand what they do with your data.

As discussed further under Part V: Protecting Yourself, the internet is full of fraudulent people seeking to steal your money, typically by trying to obtain key personal information from you such as account numbers, passwords, social security number, birthdates, etc. (called "**phishers**"[6]). In addition to scam emails, they create spoofed websites which appear to have padlocks and/or VeriSign medallions -- it is important for you to verify the site's security & identity and protect yourself from potential fraud! To double check, click on the padlock icon on the status bar or on the VeriSign medallions to see the security certificate for the site. The security certificate should have the name matching the site you think you're on. If the name differs, you need to check out the organization that handles security for the site. If the VeriSign medallion or padlock icon isn't displayed on the home page, you can also right-click on the site's tool bar and then click on "Properties" or "View Page Info" (depending on which internet browser you use), and you'll be able to then click on "Security" to see if the site is protected.

Many home pages, however, use the *http* protocol and do not switch to the *https* protocol until you actually are asked to submit personal information (e.g., giving credit card information when processing

an order on Amazon.com, for example). Always check for a security certificate before submitting personal data. Never give any personal data over a website without a security certificate – you are probably on a spoofed website. Leave immediately!

Accurate/Credible Information? Does the site present current, accurate information related to the question you are asking? You should be able to easily determine the date on which site data and material was last updated. You can right click at the top of the page and view "properties" (in Internet Explorer) or "page info" (in Firefox) to see the last date the site was updated. Credible sites should clearly date material when failing to do so could mislead the user. Does the material provided appear objective and unbiased? Is the entity that published the material competent to provide the information you need? What credentials or experience do the principal employees of the entity have?

While you can obtain a good deal of the information needed to verify the credibility of a web site by browsing the web site, you should not rely entirely on information on the web site because it is often not objective. If you can, you should ask your favorite librarian about the site. Librarians are information specialists and most know a great deal about web sites. If you can't contact a librarian (remember that many librarians can be contacted by email), you can paste the URL for the site into http://www.lii.org/ (Librarians' Internet Index). The Librarians' Internet Index ("lii") screens sites using a rigorous set of criteria.[7] Expect the sites listed at lii to be like the books in your local library—the real trash has been screened out. However, there may still be a lot of things not worth "reading." If your site shows up on the lii site, it has been judged to have useful material by librarians. Be aware, though, that the lii does not judge a site's security — you should do that yourself! In addition to the Librarian's Index to the Internet, check your local library to see if there are other tools the library has that can be used to evaluate web sites.

External Links

Are the links on the site relevant and up to date?

In some internet browsers (e.g., FireFox), you can just right-click on a site's tool bar at the top, select "View Page Info" and then click on "Links" to see a list of all the links on that page. For .com & .org sites, you would like to see links to high quality sites (often .gov and .edu sites). Sometimes .gov and .edu sites only have

internal links (links to other pages of their own web siet). While this is not as helpful as it might be, it is not as worrying as .com and .org sites without links to web sites other than their own. Government agencies and educational institutions often are sources for objective information rather than sites trying to sell you something or convince you that a particular position is the right one.

Who links to the site?

 To learn what other sites link to the site you are evaluating, you can type link: followed by the site's URL (e.g., link: www.google.com) in Google to find out who links to the site. (Note: you must have a space between link: and the URL for this to work.)   Are there any independent sources of information linked to the website (e.g., government or non-profit organizations)?

Identifying comparable web sites

In many instances, the external links can provide you with names of "comparable" web sites --- sites that also could provide you with information relating to the question you are asking.   This is especially true of .gov and .org sites. In addition to being alternate sources of information, comparable sites are a good litmus test for checking the validity and credibility of the web site you select to use. Many commercial sites, for obvious competitive reasons, may have few or no links to purely comparable sites. If you are interested in further identifying comparable sites for such .com sites, you can go back to the original search results.

PART III: Doing it RITE[©] -- A Step-by-Step Guide

The RITE[©] Steps

Because the web is dynamic and sites change over time, all RITE[©] evaluations should include the date on which the evaluation was completed. Furthermore, it is a good idea to reevaluate your most frequently used web sites at least once a year. They may have changed substantially because there is a new owner, a new business plan or the original site that you were using has either gone out of business or sold the URL.

To help you navigate through your own site evaluations, we have developed nine steps outlined below as a guideline. As you complete each of the steps, you should summarize your findings in a concise format that is easy for you to both use and reference at later times. We recommend using a table format, which is how we present our RITE[©] evaluations; our standard table appears at the end of the nine steps.

(1) See if the page seems to have the type of information you need (***Relevance***). If not, go on to another site.

(2) If the site seems to have the information you need, go to its Home Page. (Note: if there is no link to the Home Page, you can get to the home page by removing all material in the url except the protocol indicator (e.g., http://) and the domain name (e.g., bankrate.com).

(3) Look for a link or tab entitled "About us" or "What We Do." Click on the link. Does the goal of the site seem to be related to your needs? Who supports the site? Is this type of support likely to lead to Trustworthy information on your topic? Does the mission statement say the organization is nonprofit, unbiased, nonpartisan, or similar terms? (***Relevance, Trustworthy***)

(4) Look for a link or tab entitled "Contact us." Is there complete information (e.g., street address, phone, email)? Is the ***Identity*** of the site clear?

(5) Right click on the top of the Home Page & select "Properties" (in Internet Explorer or "Page Info" (in Firefox). When was the page last updated? Does the site appear current? Recall from step #3 and the site's "About Us" – does the organization (or people) behind the site appear to be credible? (***Trustworthy***)

(6) Find out what web sites the Home Page links to (outgoing links) and what web sites link to the web site you are considering using (incoming links). (***External Links***)

Outgoing Links

Links on the Home Page -- Are there links to other sites (e.g., .edu, .gov & .org sites) that you trust? You can find out by clicking on the links on the Home Page. However, if you are using Firefox or another browser that support this feature, you can do this more quickly by right clicking on the top of the Home Page & selecting "Page Info". Click on the links tab on the "Page Info" and you will see the URLs for all links on the Home Page. Look at the URLs for these links. Are there links to pages outside the site? Are the outgoing links to sites that you trust?

Incoming Links

What web sites link to the site that you are considering? In the search box of your internet browser, type: 'link:" followed by the URL for the site's Home Page (e.g., link: www.sec.gov. Note there must be a space between "link:" and "www"). How many sites link to this site? What type of sites are they? Are they trustworthy?

(7) If the site asks you for any information or if it has lots of advertisements, check the site's privacy policy and check to see that the **https://** appears on the page where you are asked to provide information. (***Trustworthy***)

(8) Type the name of the organization in the Librarians' Internet Index (http://www.lii.org/). How many listings are there? Are the listing under the headings related to your topic? Read a few of the listings – do they seem to be related to your topic? (***Trustworthy***)

(9) Finally, if you plan to use the site a great deal, ask a librarian for her/his opinion of the site. (***Trustworthy***)

We recommend you summarize your RITE© evaluation findings in a table similar to the following:

Evaluation of <Name of Site> Web Site (<Date of Evaluation>)			
Relevance:	Identity:	Trustworthy:	External Links:
<Your comments>	<Your comments>	<Your comments>	<Your comments>

Examples of Using The RITE© Evaluation System

To illustrate how the evaluation system and nine steps work, we evaluated the first non-sponsored site provided in the original Google searches in Part I above: bankrate.com. The first thing to notice is that the site is commercial (note the .com domain in the URL). The second thing to note is that our evaluation was carried out on May 2, 2007.

Step (1): See if the page seems to have the type of information you need (Relevance). If not, go on to another site.

We typed bankrate.com in the address box of our web browser (e.g., Internet Explorer, Firefox, etc.). The home page of the site appeared, and is shown below:

If you look at the second row of tabs at the top of the home page, you will see that one tab is named credit cards -- click on that. As you can see below, the page that appears seems to have just the information we need. **We rate the site "A" in terms of Relevance** – it appears to have information on credit card rates. If a site does not receive a grade of "A" or "B" in terms of relevance, it is probably not worth evaluating the site further – just go on to the next site in the search results.

Step (2): Since the site seems to have the information we need, we return to the Home Page.

Step (3): Look for a link or tab entitled "About us" or "What We Do." Click on the link. Does the goal of the site seem to be related to your needs? Who supports the site? Is this type of support likely to lead to Trustworthy information on your topic? Does the mission statement say the organization is nonprofit, unbiased, nonpartisan, or similar terms? (Relevance, Trustworthy)

On the Home Page of bankrate.com we see there is a lot of material. We scrolled down to the very bottom of the Home Page and found an "About Bankrate" hyperlink and a "Contact Us" hyperlink link (in very small lettering). See below:

We clicked on "About Bankrate." The page that appears describes bankrate.com as "the Web's leading aggregator of financial rate information." At the bottom of the page, we found a physical address (in North Palm Beach, FL), a phone number and a fax number. In the far left column, we clicked on "Who We Are." A page with information on the officers of the company appears. If you click on "Investor Relations" (also in the far left column on the "About Bankrate" page), you learn that the company is listed on the NASDAQ stock exchange and that it makes money by selling advertising on its web site.

Step (4): Look for a link or tab entitled "Contact us." Is there complete information (e.g., street address, phone, email)? Is the Identity of the site clear?

Although we already saw the company's address and phone information on the "About Bankrate" page in Step #3, we also clicked on "Contact Us" (in the far left column on the "About Bankrate" page). The page that appears gives an email form for you to contact the company, as well as directions and a map to Bankrate's North Palm Beach headquarters.

Based on Steps 3 & 4, **we give bankrate.com a grade of "B" on the Identity** criterion. All of the information needed to identify bankrate.com and its employees was available but it was somewhat buried in the site. If a site is not an A or a B in terms of Identity, it is probably not worth pursuing further.

Step (5): When was the page last updated? Does the site appear current? Recall from step #3 and the site's "About Us" – does the organization (or people) behind the site appear to be credible? (Trustworthy)

Returning to bankrate.com's Home Page, we right click on the top and select "Page Info" since we are using Firefox. We learn that the site was last updated the date of our evaluation (May 7, 2007). The news articles on the Home Page were up-to-date, including articles on financial events that have occurred during the day. We returned to the "About Bankrate -Who We Are" page to look at the credentials of the officers of Bankrate.com. The President/CEO has taken a number of internet companies public and has a background in publishing. The Senior Vice President of Finance is the former Chief Financial Officer, and is a Certified Public Accountant who has worked for a number of Southeast Florida companies. There is no Chief Operating Officer. These credentials are not very impressive for a financial site.

We already know the site is trying to sell us something (they make their money by selling advertising), so we recognize that it can't be completely objective. But is it accurate? We decide we need to further evaluate the site's accuracy, so we first look at the mortgage rates advertised at the top of Bankrate's Home Page (on May 7, 2007). The mortgage rates advertised by Bankrate.com were 5.77% for the previous two weeks.

We decided to check the accuracy of the 30-year fixed mortgage rate given. This required that we identify the source for objective information on mortgage rates. To do this, we typed "30-year mortgage" into Google. We found a May 3, 2007 msnbc article that indicated that Freddie Mac (a government sponsored housing lender) data showed that the average 30-year, fixed-rate mortgage rate was 6.16% for the past two weeks. For further verification, we checked the Freddie Mac site (http://www.freddiemac.com/) and confirmed the 6.16% rate cited in the msnbc article. Bankrate.com receives negative points for accuracy, and raises potential suspicion – one has to ask if bankrate.com is trying to draw you in with mortgage rates that are below the actual rates currently available in the marketplace.

Somewhat suspicious now, we return to Bankrate.com's Home Page and click on the "Credit Cards" tab. On the right-hand side of the page (under the advertisements) we found a box of the weekly averages for National credit card rates; we clicked on Platinum and the following appears (accessed May 7, 2007):

We ignore the advertisement box on the right, and clicked on "Next" under the Advanced Credit Card Search (in the left-hand box). Over 30 different Platinum credit cards were listed, the top four of which appear below (accessed May 7, 2007):

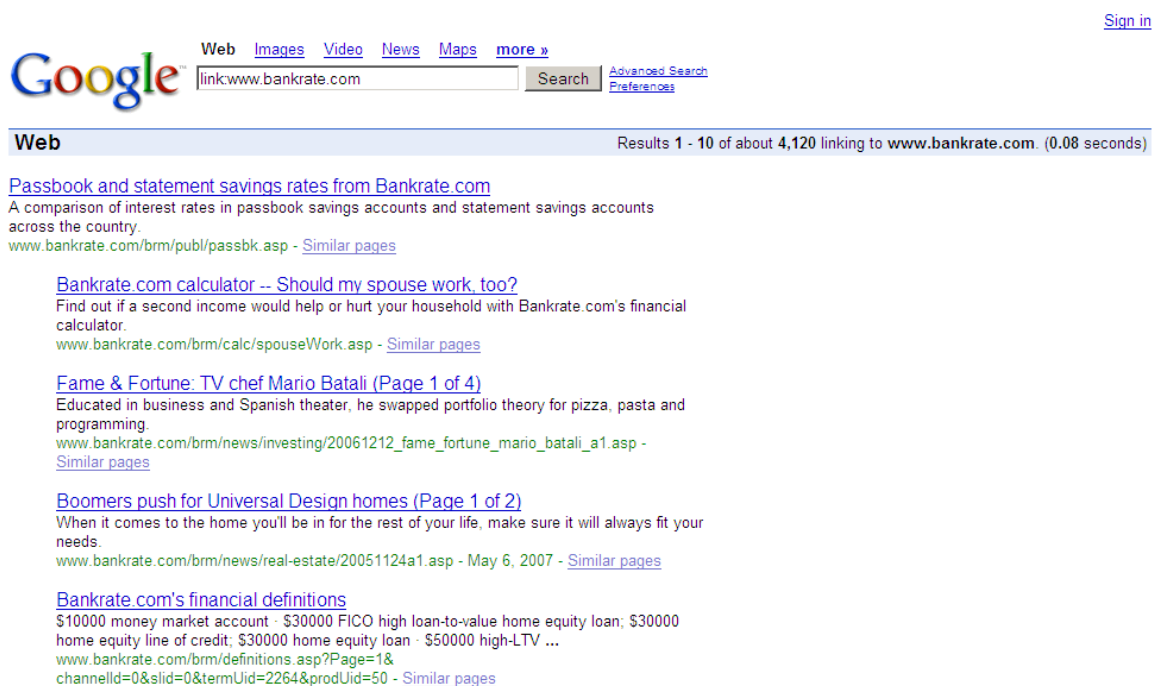### Credit Card Rates for US : Platinum : Personal : Best deal - pay off monthly

INSTITUTION	CREDIT CARD TYPE	CREDIT CARD CLASS	PURCHASE APR*	ANNUAL FEE	PURCHASE LATE/ OVERLIMIT FEE	PURCHASE GRACE DAYS	CASH ADVANCE APR	CASH ADVANCE FEE	FEES & CONDITION
Simmons First Natl Bank	Visa	Personal Platinum	7.25% F	$0	$29 $29	25 days from billing	11.25% F	3%/$4-$50	More Information
Capital One® Platinum: Prestige	MasterCard	Personal Platinum	7.88% V	$0	$35 $29	25 days from billing	19.78% V	3%/$5 min	More Information
Farmers & Mechanics Bank	MasterCard	Personal Platinum	9.90% F	$0	$39 $39	20 days from billing	19.99% F	3%/$10 min	More Information
SunTrust Bank	Visa	Personal Platinum	9.99% V	$0	$39 $39	20 days from billing	23.24% V	3%/$10 min	More Information

We were able to verify all the Purchase APR rates (i.e., the interest rate charged if you don't pay for your purchases by the card's payment date) and fee information for the Simmons First, Capital One and SunTrust Bank Platinum cards from their respective websites. The Farmers & Mechanics verification required a phone call and the bank

representative would not disclose rates unless we were filing an application. We conclude that Bankrate.com's credit card rates appear to be more accurate than its advertised mortgage rates. We then proceed to evaluate Bankrate.com's external links before we complete our "Trustworthy" evaluation with steps #8 and #9.

Step (6): *Outgoing Links:* Look at the Links on the Home Page -- Are there links to other sites (e.g., .edu, .gov & .org sites) that you trust? To do this in Firefox and other browsers that support such, right click on the top of the Home Page & select "Page Info". Click on the links tab on the "Page Info" & look at the URLs for the links that appear. *Incoming Links:* In the search box of your internet browser, type: 'link:" followed by the URL for the site's Home Page (e.g., link: www.sec.gov) Note there must be a space between "link:" and "www"). How many sites link to this site? What type of sites are they? Are they trustworthy? (*External Links*)

Under "Page Info", the only outgoing links on Bankrate.com's Home Page were to advertisers' sites. There were no links to independent sources of information (e.g., the Federal Reserve Bank, Freddie Mac). To look further at the incoming sites linked to Bankrate.com, we went to Google and typed link: www.bankrate.com, and the following screen appeared:

Google reports that there were about 4,120 sites linking to Bankrate.com. Similar to the first page above, most links in the first 5 pages of external links to Bankrate.com are to Bankrate's own sites, and all but 3 links (in the first five pages) are commercial sites. Finally appearing on the fifth page is a link to the Los Angeles Federal Reserve Board (.gov) site. Bankrate.com obviously has many sites linked to it. However, many links are from within its own site, and almost all other links are commercial.

We give the site a "B" for External Links.

Step (7): If the site asks you for any information or if it has lots of advertisements, check the site's privacy policy and check to see that the https:// appears on the page where you provide information. (Trustworthy)

At a glance, there is no VeriSign Secure Site medallion, key or closed padlock on the Home Page – not unusual given it has a *http:* protocol. Clicking on Bankrate's "Privacy Policy" at the bottom of the Home Page yields a lengthy policy of how Bankrate uses/sells your personal information. If you continue to scroll down 7-8 times, you'll reach their "Security" paragraph informing you that "in certain areas Bankrate uses industry-standard SSL-encryption to protect data transmissions." Before you actually submit any data to Bankrate, however, you should make sure that the actual page you are on is, indeed, using the SSL protocol (look for the *https*).

Step (8): Type the name of the organization in the Librarians' Internet Index (http://www.lii.org/). How many listings are there? Are the listing under the headings related to your topic? Read a few of the listings – do they seem to be related to your topic? Wellesley has access to Choice Reviews (http://www.cro2.org/) another librarian rating guide. Type the name of the organization into Choice Reviews to see if it was reviewed there. (Trustworthy)

At the Librarians' Internet Index site on May 7, 2007, three entries appeared for Bankrate.com indicating that bankrate.com had passed the Librarians' tests. However, this is a much smaller number of entries than you would find for highly reliable sites. Such sites generally have 10 or more entries.

There was no review for Bankrate when it was searched in Choice Reviews on Sept. 4, 2008.

Step (9): Finally, if you plan to use the site a great deal, ask a librarian for her/his opinion of the site. (Trustworthy)

To conclude our evaluation of Bankrate.com's Trustworthiness, we sent an email to our favorite librarian asking her about the site. She emailed back that the site had a lot of useful information, but that we should use the information with care since the site is a "pay to play" site (banks and other firms pay Bankrate to have their information listed), and information was not always comprehensive or up-to-date. Based on what we have learned in these steps, we conclude that Bankrate.com seems to be trustworthy in some areas and not as credible in others. **We give the site a C for Trustworthy overall**.

Overall, we conclude that Bankrate.com can be a useful site for obtaining preliminary information on credit card rates. However, the site is not always accurate, and it appears at times to employ a "bait-and-switch" tactic – advertising rates (mortgage rates in our example) that are not truly available but are designed to lure you in and get your business. Our summary evaluation report of Bankrate.com's site using the RITE[©] criteria appears below.

Evaluation of bankrate.com Web Site (May 7, 2007)			
Relevance: A	Identity: B	Trustworthy: C	External Links: B
Easily identifiable, quick sources on credit card and other financial rates; last update May 7, 2007	Self-described as "web's leading aggregator of financial rate info", but details of site, employees & company mission hard to find	Some data is more accurate than others; appears to be updated regularly. Loaded with advertising (questionable objectivity). "Bait & switch" mortgage rates; 3 entries in lii.org; librarian indicates that site can be useful, but should be used with caution!	About 4,120 sites linked to bankrate, many from within bankrate and almost all commercial. Few independent, .edu or .gov sites link to bankrate.

We also used the RITE© criteria to evaluate the Federal Reserve site; our summary appears below. We would recommend that you begin your research on credit card deals at the Federal Reserve site, and then use the commercial sites (like Bankrate.com) only after you have learned everything you can from this high quality source.

Evaluation of federalreserve.gov Web Site (May 7, 2007)			
Relevance: A	Identity: A	Trustworthy: A	External Links: A
Easily identifiable, source of credit card and other financial rates; last modified May 6, 2007	Easily identified as the site for The Federal Reserve, the central bank of the United States, with address & contact info.	As the U.S. central bank, economic and interest rate data probably highly accurate! Credit card survey updated only every 6 months; no advertisements; there are 30 entries for Federal Reserve in lii.org	About 4,890 sites linked to federalreserve, mostly .gov, .edu and .org sites. Commercial sites generally news agencies or financial related.

We strongly encourage you to use the RITE© System to evaluate web sites you are thinking of using to help you make personal finance decisions, especially the commercial sites. With a little practice, the RITE© evaluation becomes second nature, and you will find yourself using the web far more effectively for your personal finances. Whenever we introduce a major, new personal finance web site, we will provide a summary of the RITE Evaluation for the site.

PART IV: Citing Web Sites and Using Web Directories

Citing Web Sites

There are times when it is important to reference the source of information that you derived from a web site – in personal matters, business and certainly in the context of coursework such as in connection with this Personal Finance course. Just as printed sources should be referenced, internet ("electronic") sources also should be properly referenced. In either instance, the MLA citation style is the most commonly used and accepted citation style. The MLA style refers to the rules and convention established by the Modern language Association for acknowledging sources used in a research paper.

KnightCite, found at http://www.calvin.edu/library/knightcite/ , is an easy-to-use reference tool. KnightCite is a project of the Hekman Library at Calvin College and was developed in 2004 by then-Calvin sophomore Justin Searls. To demonstrate how to cite an article accessed online using KnightCite, we decided to reference the MSNBC.com article on mortgage rates which we accessed in connection with our RITE© evaluation of Bankrate.com above under Part II.

First, we entered KnightCite's url http://www.calvin.edu/library/knightcite/ into our browser and hit enter. In the right-hand column, we see the selection of criteria we need to make in order to complete our citation. Under "Citation Styles", we clicked on "MLA", then under "Source Type" we clicked on "Electronic". Next, under "Resource" we scrolled down past "Book", "Anthology", "Periodical" "Multimedia" and "Communication" and clicked on "Website", which was our MSNBC source. We then filled in the boxes with the information we know about the mortgage rate article from MSNBC.com that we accessed on May 7, 2007. The completed screen looks as follows:

We then hit "submit" and the proper citation in MLA style appears:

"Mortgage Rates Hold Steady." MSNBC.com. 3 May 2007. Today Show. 7 May 2007 <http://www.msnbc.msn.com/id/7148582/>.

How to Use Web Directories

While evaluating web sites with the RITE© criteria is ideal, the reality is there are times when you're in a hurry and just don't have the time to fully screen sites. As explained above under Part I: How to Find Web Sites Using Search Engines, one thing you can do in this situation is to scan the search results for .edu, or .gov domains and use such domains first. A second approach is to use a high-quality directory of web sites. Such directories carefully screen sites before they add them to their directory. Directories are not comprehensive and will probably not have the most recent sites (it takes time to screen sites), but they can help you avoid wasting your time and money on purely commercial or fraudulent sites.

For personal finance questions, we recommend the following directories: (1) Librarians' Index to the Internet (http://lii.org/) and (2) Infomine (http://infomine.ucr.edu/). Looking at the URLs for these directories, you will note that the first directory has .org domain. Typing lii.org in the Whois box at http://www.networksolutions.com/whois/, we learn that an organization called the

Librarians' Internet Index in San Mateo, CA owns the domain name. This sounds like a good site and our evaluation of the site confirmed our preliminary impression. The Librarians' Internet Index is publicly funded (by the states of California and Washington), and is dedicated to finding the "best of the web." The second directory has an .edu domain, and it is owned by an educational institution, in this case the Regents of the University of California. Both directories are publicly-supported and non-commercial, and thus more inclined to provide a more balanced and professional assessment of web sites than do commercial directories or search engines.

Back to our search for the best credit card deal – for a quick search, you could go to either of the above directories and type in credit card or credit card rates. We typed in credit card rates at http://lii.org/ on May 7, 2007 and got the following page.

Next we typed in credit card rates at http://infomine.ucr.edu/ and obtained the page below.

Note that the results obtained for the two sites are quite different. The first site listed by each directory is a commercial site (.com domain). You expect these sites to try to sell you something, but you can also expect these sites to provide you with information that can help you make an informed decision since they have passed librarian evaluations. You should know that these two Web Directories only list .com sites that provide free information. Even so, you are probably best served to start your credit card research with the first .edu, or .gov domain listed in the directory. The Federal Reserve is the second site listed in INFOMINE and is a good place to begin your search for a good credit card deal.

After you have explored the non-commercial sites listed in the directories, you may want to examine some of the commercial sites. Look for .com sites that appear in both sets of directory results. For example, bankrate.com appears in the results of both directories. Based solely on the directory results, we would conclude that bankrate.com was the best commercial site. However, we know from our own independent RITE© evaluation of bankrate.com that it isn't a paragon of virtue. This emphasizes the importance of carefully evaluating all commercial sites, directory listed or not, before you use them to answer important personal finance questions.

PART V: Protecting Yourself & Your Computer

The internet represents a wealth of information that used wisely, can help you make personal finance decisions ranging from selecting a credit card to making purchases to investing your savings. The unfortunate reality is, however, that like most aspects of life, there are "bad guys" out there who would rather try to steal from you than earn their own living. There also are "hackers", who for some reason get their jollies out of spreading viruses and infecting computers. Just as you should never walk into a dark alley alone in the city at night, you shouldn't "blindly" use your computer. Remember who you could be dealing with -- approach the internet with some common sense and take proper precautions. While the following is not a fully comprehensive list of every potential mechanism to protect yourself online, we believe it is a minimum set of armor you should have to guard against con artists and hackers.

Protect Your Computer

Install **antivirus/anti-spyware software** (e.g. Norton, McAfee, Kaspersky, etc) on your computer, and keep it updated! Your antivirus software is only as good as its last update – remember, there's no shortage of hackers and new viruses appear daily.

Regularly check and update your computer software (operating systems and Web browsers). Older systems are harder to protect as attackers can take advantage of vulnerabilities in the out-dated software packages. Contact the software vendor directly to access any available updates.

Consider installing software for spam filtering and spam blocking. Some antivirus/anti-spyware software packages include these features. Your **ISP (Internet Service Provider)** also could offer this service as many now do.

Protect your home wireless network! If you have a wireless network at home, be sure to follow the manufacturer's guidelines to secure your network.

Guard Your Email

Be suspicious of emails that come from a source you don't recognize; if in doubt – delete it! Email is the most common vehicle for hackers to send viruses. (For a quick ID check in Microsoft Outlook, for example, right click on an email before opening it, then select "Options" and look at the "from" and "return path". If the address doesn't match what you see in your inbox or you don't know the address, delete the message!)

Be highly suspicious of any email or popup messages that say your account is in jeopardy or asks for personal information. These are always scammers/phishers using scare tactics to get you to react immediately and give them your personal information

(login, password, account number, etc) so they can then go steal your money. An easy, safe check of whether or not your account really has been jeopardized is to (1) call your account's institution using the phone number you know to be correct (i.e., from your recent statement or their official web site that you have verified), and/or (2) logon to the institution's official web site that you have verified.

Don't respond to "spammed" emails! Don't click the link asking to be taken off the sender's list; a response only confirms the accuracy of your email address and will result in even more spam messages filling up your inbox. Delete the email!

Be Cautious with Your Internet Use

- ✓ As reviewed in this chapter, at a minimum, verify the Identity of any web site you are considering using, and ideally, evaluate the site using the RITE$^{©}$ criteria.
- ✓ Never submit your credit card details or other personal information over non-secure web sites. Remember the "Trustworthy" checks under the RITE$^{©}$ criteria, and make sure website has the proper SSL encryption (look for the *https* protocol).
- ✓ Do not post your email address in chat rooms, IM (instant message) services or internet bulletin boards and newsgroups.
- ✓ Some Web sites require you to register before they will give you the information you want. Make sure they have a privacy policy and you read it first before you give them personal information. Make sure you understand how they will use the information you give them. You may want to consider having a separate email account just for this purpose.

Use Public Computers Wisely

- ✓ Be cautious when using public computers (e.g., at libraries, Internet cafes and schools), especially when traveling abroad. You do not know what is installed on these computers. Moreover, public computers traditionally are on open networks and can be susceptible to monitoring without your knowledge.
- ✓ Do not check your personal accounts on public computers, or over a public wireless Internet connection!

Be Smart with Online Purchases

Make sure you are on a secure site before you give personal information or credit card numbers.

Some credit card companies allow you to create a virtual credit card number. This is a temporary number with a short expiration date and allows you to make your purchase without revealing your real credit card number. To take advantage of this, you must log in to the credit card company's Web site with a username and password. As always, make sure you are on a secure site before you do this.

Know and Guard Your Own Credit History

- ✓ While not obviously linked to computer and internet use, knowing your own credit history, and guarding it, is one of your best defenses against fraud – internet-based or otherwise. Regularly checking your credit history can alert you to any inappropriate or fraudulent transactions.
- ✓ You are entitled to one free credit report every twelve months from each of the three nationwide consumer credit reporting companies: Equifax, Experian and TransUnion. You can request this online at: https://www.annualcreditreport.com or by phone at 877-322-8228. You can also request your free annual report by mail by going to the annualcreditreport.com website and downloading the request form and mailing it to their designated address in Atlanta, GA.
- ✓ You also can contact any of the three credit reporting companies directly: Equifax (http://www.equifax.com or 800-685-1111), Experian (http://www.experian.com or 888-397-3742), or TransUnion (http://www.transunion.com or 877-916-8800) and request a copy of your credit report.

END OF CHAPTER EXERCISES – TYING IT ALL TOGETHER

(1)   What can you now immediately deduct from the following URLs?

http://www.marketwatch.com/pf/default.asp?siteid=mktw&dist=lpftab

http://www.federalreserve.gov/consumers.htm

https://www.fidelity.com

http://www.opensecrets.org/pfds/

http://www.moneynet.co.uk/

http://www.consumerworld.org/

http://www.calvin.edu/library/knightcite/

(2)   Using the RITE© Criteria, evaluate the web sites above using the format set forth in the table below:

Evaluation of _____ Web Site (Date)			
Relevance:	Identity:	Trustworthy:	External Links:

(3) Using the KnightCite system on http://www.calvin.edu/library/knightcite/, create a citation in the MLA style for each of the web sites listed above under #1.

FOOTNOTES:

[1] There are many additional domains which you will see less often. If you encounter a domain not listed below go to www.iana.org/domain-names.htm to see what type of entities use the domain.

[2] See http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Google.html for a discussion of search engines.

[3] See http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Handouts.html for Power Point presentations that explain how to use Google and other search engines effectively.

[4] Each search engine uses a secret and usually changing methodology to determine which sites appear earliest in the search results. There is a whole industry dedicated to getting listed earlier in search results. As a result of these countervailing forces, sites that appear earliest in the search results are some combination of popularity, relevance and advertising.

[5] The criteria of the major high-quality directories of web sites; criteria developed by the library systems of the University of California at Berkeley http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html) and Cornell University (http://www.library.cornell.edu/olinuris/ref/research/webcrit.html) and criteria developed by Consumer Reports (http://www.consumerwebwatch.org/consumer-reports-webwatch-guidelines.cfm).

[6] **"Phishing"** involves the use of fraudulent emails and copy-cat websites (**"Pharming"**) to trick you into revealing valuable personal information — such as account numbers for banking, securities, mortgage, or credit accounts, your social security numbers, and the login IDs and passwords you use when accessing online financial services providers. The fraudsters who collect this information then use it to steal your money or your identity or both.

[7] See http://lii.org/search/file/pubcriteria for a list of the criteria used.

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