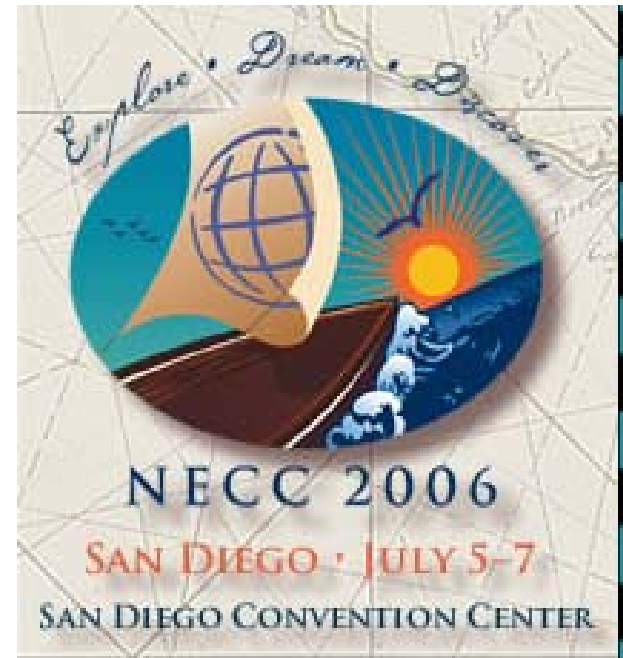
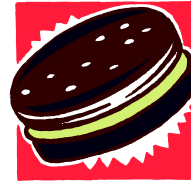
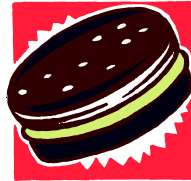
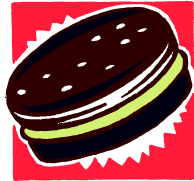


# COOKIES

***What Educator  
and Students  
Should  
Understand  
about Internet  
Cookies!***

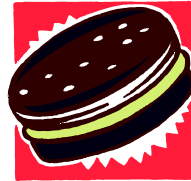
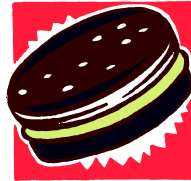
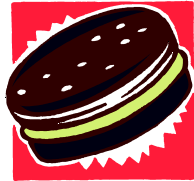


# COOKIES



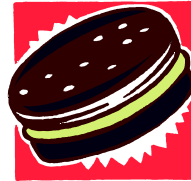
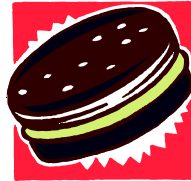
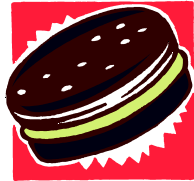
**Cookies can be a very useful  
tool for individuals,  
companies, and educational  
institutions.**

# COOKIES



**Cookies can provide an  
enumerable amount of  
information.**

# COOKIES



**Cookies can increase the bottom line, whether it is sales, recruitment, research, or quicker access on the Internet.**

**So, what's  
the big deal?**

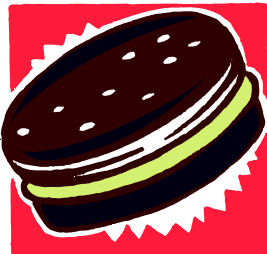
**The Rest of  
the Cookie  
Story!**

# Cookies



## *What is a Cookie?*

A cookie is a text-only string that gets entered into the memory of your browser.



# Cookies

## Three type of cookies

*From the glossary of  
**ZoneAlarm Pro***

- **Session Cookie**
- **Persistent Cookie**
- **3<sup>rd</sup> Party Cookie**





# Cookies

## Session Cookie



*From the glossary of*  
***ZoneAlarm Pro***

**“A cookie stored in your browser's memory cache that disappears as soon as you close your browser window. These are the safest cookies because of their short life-span.”**

# Cookies

## Persistent Cookie



*From the glossary of*  
***ZoneAlarm Pro***

**“A cookie put on your hard drive by a Web site you visit. These cookies can be retrieved by the Web site the next time you visit. While useful, they create a vulnerability by storing information about you, your computer, or your Internet use in a text file.”**

# Cookies

## 3<sup>rd</sup> Party Cookie



*From the glossary of*  
***ZoneAlarm Pro***

**“A persistent cookie that is placed on your computer, not by the Web site you are visiting, but by an advertiser or other ‘third party.’ These cookies are commonly used to deliver information about your Internet activity to that third party. Also known as tracking cookies.”**

# Cookies



## *How does it happen?*

- You visit a website.
- The website sets a value of a variable in your browser.

# Cookies



*... and then????*

- If the lifetime of this value is set to be longer than the time you spend at that site, then this string is saved to file for future reference.

# Cookies



***What information do  
Cookies contain?***



**We'll look at two examples!**

# goto.com

The cookie file for goto.com contains the following information:

```
UserID      A9A3BECE0563982D      www.goto.com/
```

**Goto.com** has stored on my machine a single name-value pair. The name of the pair is **UserID**, and the value is **A9A3BECE0563982D**. The first time I visited goto.com, the site assigned me a unique ID value and stored it on my machine.

# Amazon.com

```
session-id-time 954242000 amazon.com/  
session-id 002-4135256-7625846 amazon.com/  
x-main eKQIfwnxuF7qtmX52x6VWAXh@Ih6Uo5H amazon.com/  
ubid-main 077-9263437-9645324 amazon.com/
```

It appears that Amazon stores a main user ID, an ID for each session, and the time the session started on my machine (as well as an x-main value, which could be anything).



# Cookies



***What are the implications?***

- **Increase speed & access to sites previously visited.**
- **Track viewing & purchasing habits.**

# Cookies

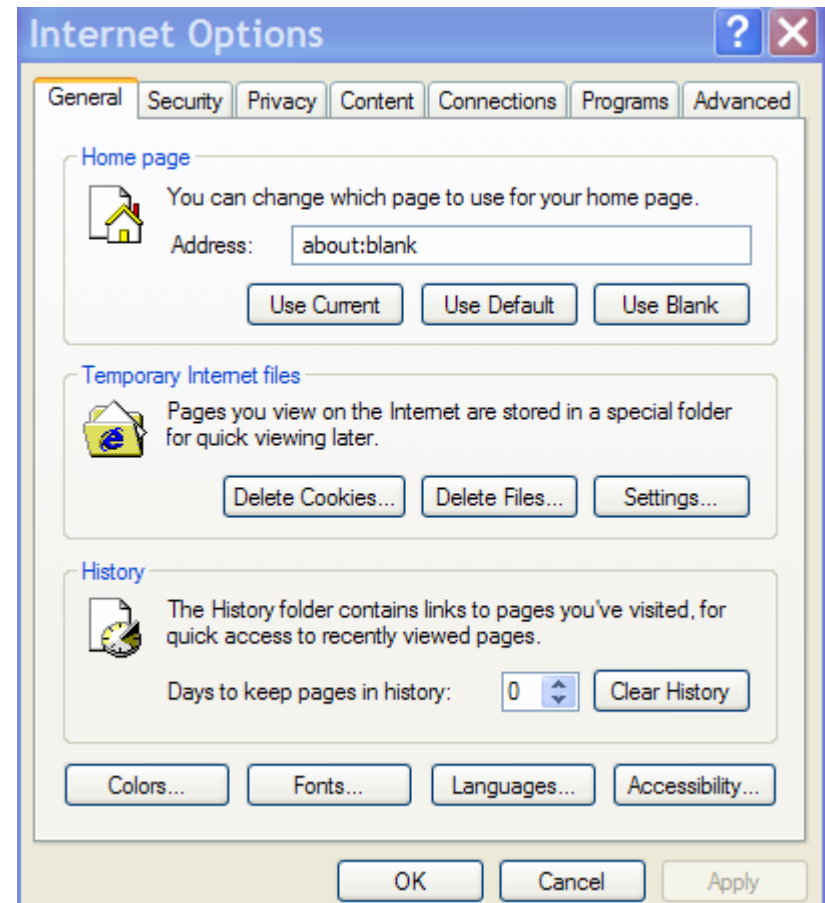


- **Store information on your hard drive.**
- **Invade your privacy.**
- **Collect only voluntary data.**
- **Collect personal data.**

# Cookies

## *Deleting from Internet Explorer®*

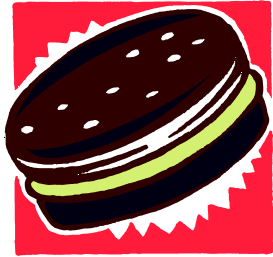
1. Select Tools.
2. Select Internet options ....
3. Select Delete Cookies....



# Cookies

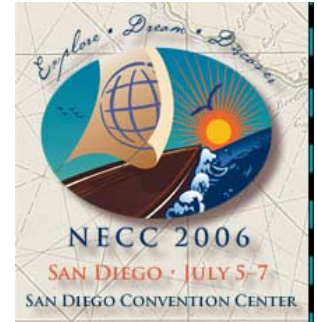
## *Deleting from Netscape®*

1. Open the Tools menu and choose Cookie Manager.
2. Choose Manage Stored Cookies from the submenu. The Cookie Manager window opens with a list of all the cookies stored on your computer.
3. Select one or more cookies and click Remove Cookie, or click Remove All Cookies.



# Cookies

## *Resources*



<http://www.howstuffworks.com/cookie.htm>

<http://www.cookiecentral.com>

<http://www.webstreetstudios.com/school/cookies.htm>

<http://www.epic.org/privacy/internet/cookies>

<http://www.ciac.org/ciac/bulletins/i-034.shtml>

<http://www.microsoft.com/info/cookies.htm>

<http://www.allaboutcookies.org>

<http://www.crime-research.org/news/12.30.2005/1728>