Social Network Integration

Chapter 21

Objectives

1 Social Networks

2 Social Network **Integration**

3 **Monetizing** your site with Ads

4 **Marketing** Campaigns

5 **Working** in Web Development

SOCIAL NETWORKS
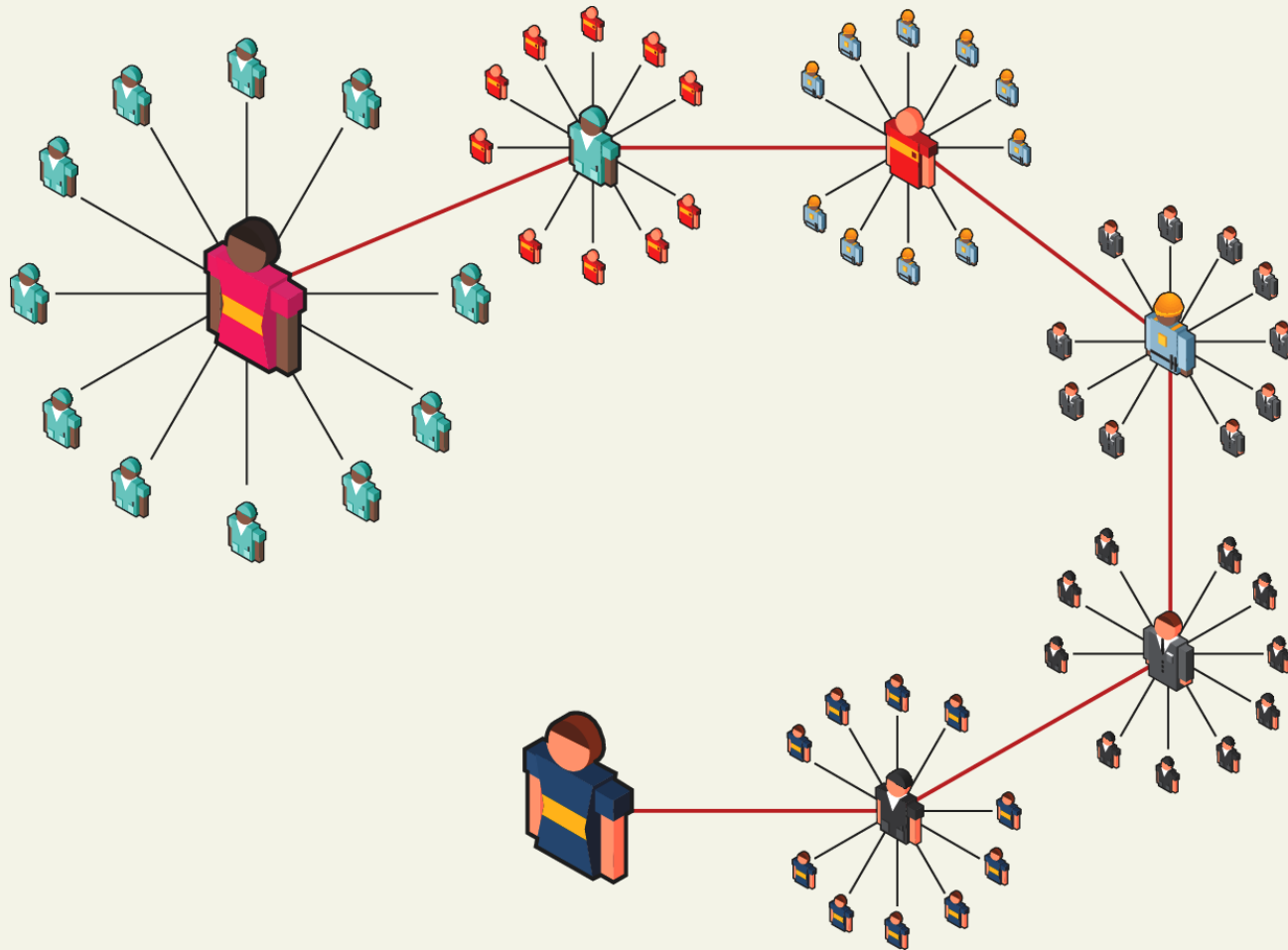
Modern Social Networks

Social networks are web-based systems designed to bring people together by facilitating the exchange of text snippets, photos, links, and other content with other users.

Famous networks include Facebook, Twitter, MySpace, LinkedIn, and Google+, among a sea of others.

Social networks are an area of study that predate digital social networking platforms and even the WWW.

Social Networks

6 degrees of separation

Early Digital Networking

The good ol days

Email, allows for the management of your social network done through conversations. CC fields and mailing lists introduce more social aspects, but your contacts are not visible to people you email.

Early Digital Networking

The good ol days

The first open-spirited means of digital communication were bulletin board systems (BBS)

Unlike email, these systems were wide open and all communication was visible to anyone.

The problem with the networks of email and bulletin board is that neither approximates the real-world networks we naturally maintain

Modern Digital Networking

Common characteristics

All social networks share some common characteristics:

- Free Registration

- User Profile Page

- Manage contacts
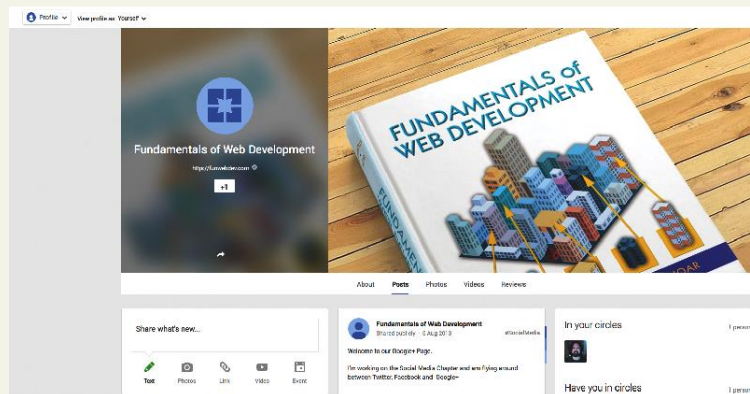
- Beyond the Web Portal APIs

- Monetization

SOCIAL NETWORK INTEGRATION

Basic Social Media Presence

Everyone one has a Home Page

Every person, company, hobby, or group wants or needs a home page somewhere on the web, and a social network presence provides a presence that is easy to set up and manage, even for nontechnical people.

a) Google+ home page


b) Facebook home page

Facebook's Social Plugins

Facebook's social plugins include a wide range of things you've probably seen before including the Like button, an activity feed, and comments.

Facebook supports numerous methodologies including:

- HTML5,

- the Facebook Markup Language (XFBML), or

- an <iframe> implementation

Facebook's Social Plugins

What is a like anyhow?

Facebook "Like" integrated into a web page

Facebook story in user's newsfeed
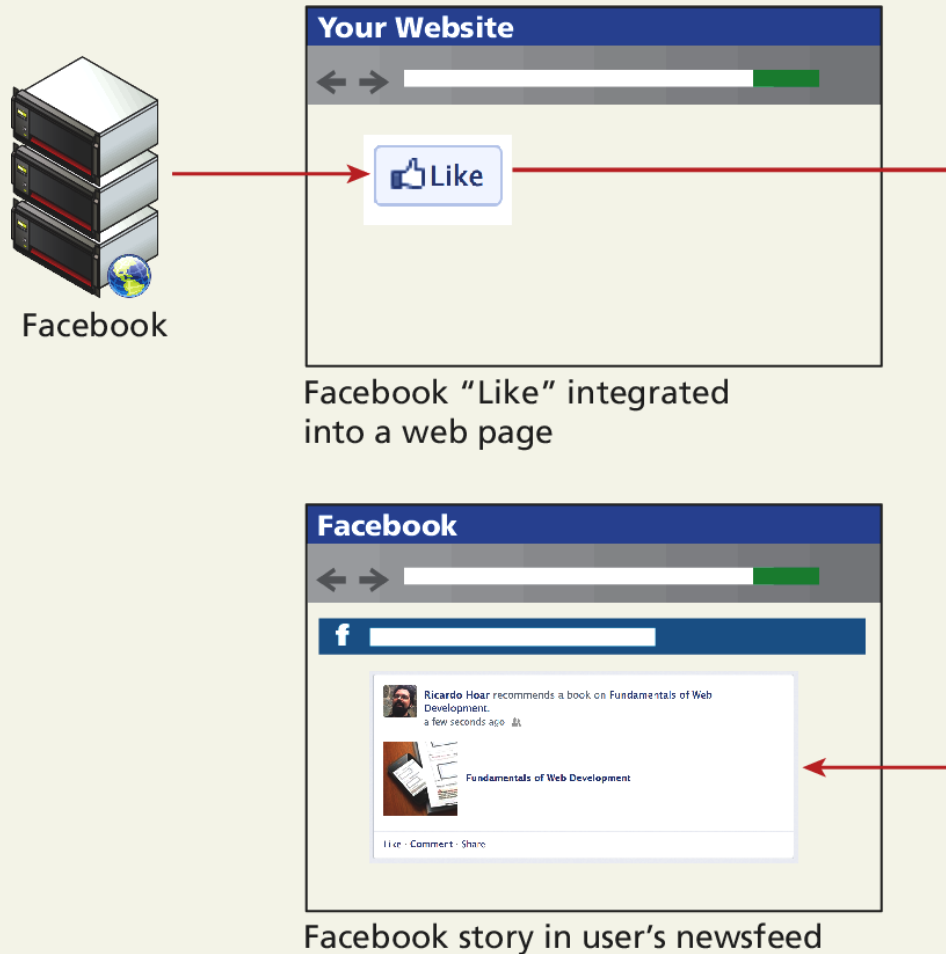
Facebook's Social Plugins

First Steps

To use the Facebook libraries in your website in the long term, you will have to first register as a developer and get an application ID. Using your APP_ID, you can include Facebook's JavaScript libraries in your site.

```javascript
$(document).ready(function() {
    $.ajaxSetup({ cache: true });
    $.getScript('//connect.facebook.net/en_UK/all.js', function(){
        FB.init({appId: APP_ID,
                channelUrl: $channelURL,
                status:true,                    //status: check fb login
                xfbml:true                      //parse for FB plugins
        });
        $('#loginbutton,#feedbutton').removeAttr('disabled');
        FB.getLoginStatus(updateStatusCallback);
    });
});
```
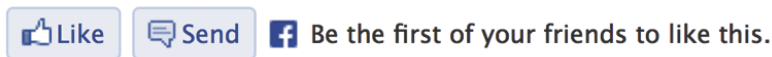
LISTING 21.1 Including Facebook JS API and creating a FB object to enable plugins with jQuery

Facebook's Social Plugins

The like Button

The Facebook JavaScript classes parse your HTML page for certain tags, and replace them with common plugins.

The Like button, can be included simply by defining a <div> element with the class fb-like
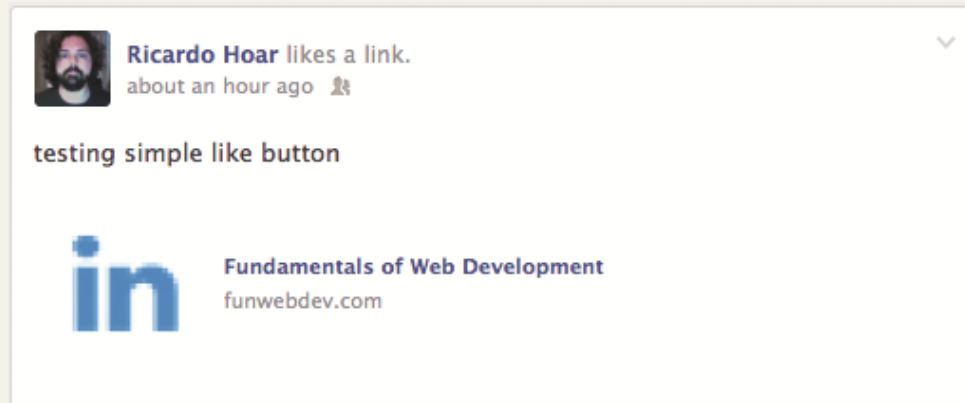
```html
<div class="fb-like"
    data-href="http://funwebdev.com"
    data-width="450"
    data-show-faces="true"
    data-send="true">
</div>
```

LISTING 21.2   HTML5 markup to insert a Like button on your page

Facebook's Social Plugins

The like Button

How the like appears on the liker's wall depends on the scraping that was done by Facebook

To control what Facebook uses when displaying items in your newsfeed, you must use Open Graph semantic tags to create **Open Graph Objects** in your HTML pages

Facebook's Social Plugins

The Follow Me button allows a Facebook user to follow a Facebook page

```
<fb:follow
      href="https://www.facebook.com/fundamentalsOfWebDevelopment"
      width="450"
      show_faces="true">
</fb:follow>
```

LISTING 21.4 Facebook Follow Me button social plugin

```
<fb:comments
      href="http://funwebdev.com" width="470">
</fb:comments>
```
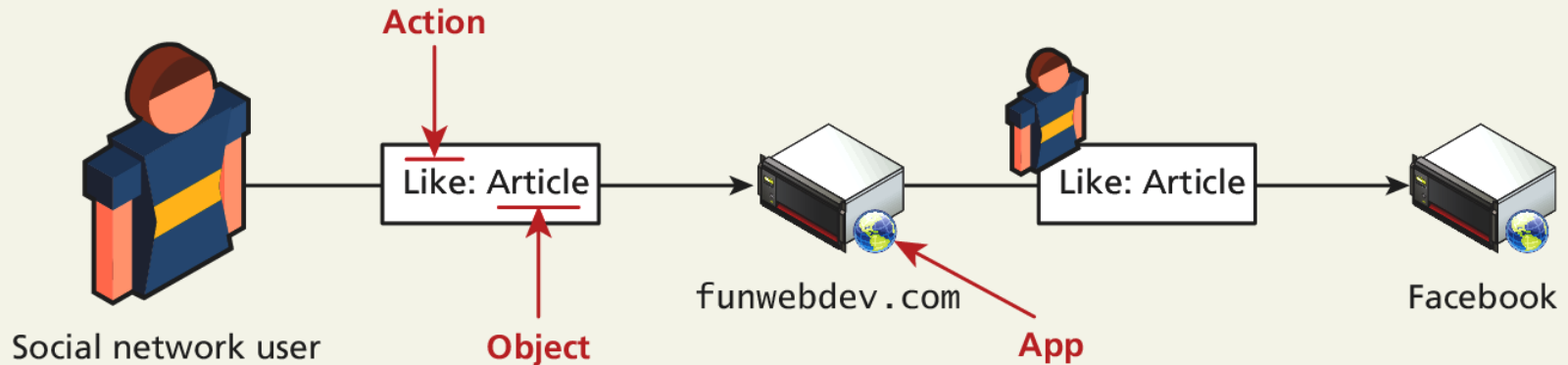
LISTING 21.5 Comment social widget

Open Graph

Semantic stuff

Open Graph (OG) is an API originally developed by Facebook, which is designed to add semantic information about content as well as provide a way for plugin developers to post into Facebook as registered users.

Open Graph

Semantic stuff

Open Graph makes use of actors, apps, actions, and objects

- The **actor** is the user logged in to Facebook, perhaps clicking on your Like button.

- The **app** is preregistered by the developer with Facebook.

- The **actions** in Open Graph are the things users can do, for example, post a message, like a page, or comment on an article.

- **Objects** are web pages, but they have additional semantic markup to give insight into what the web page is about.

```
1   <!doctype html>
2   <html lang="en-US">
3   <head>
4     <meta charset="UTF-8" />
5
6     <link href='http://fonts.googleapis.com/css?family=Roboto+Slab:700,400,300' rel='stylesheet' />
7     <link rel="stylesheet" href="http://growthhackingpro.com/wp-content/themes/growthhackingpro/style.css" />
8     <link rel="shortcut icon" href="http://growthhackingpro.com/wp-content/themes/growthhackingpro/images/favicon.ico" />
9
10  <title>21 Acquisition Growth Hacks You Need To Know</title>
11  <meta name="robots" content="noodp,noydir"/>
12  <meta name="description" content="Gaining users requires time and a lot of effort. Find this list of ready-to-use growth hacks for su
13  <link rel="canonical" href="http://growthhackingpro.com/21-acquisition-growth-hacks/" />
14  <link rel="author" href="https://plus.google.com/107094837501279501048/"/>
15  <link rel="publisher" href="https://plus.google.com/107094837501279501048/"/>
16
17  <meta property="og:locale" content="en_US" />
18  <meta property="og:type" content="article" />
19  <meta property="og:title" content="21 Acquisition Growth Hacks You Need To Know" />
20  <meta property="og:description" content="Gaining users requires time and a lot of effort. Find this list of ready-to-use growth hacks
21  <meta property="og:url" content="http://growthhackingpro.com/21-acquisition-growth-hacks/" />
22  <meta property="article:section" content="Growth Hacking" />
23  <meta property="article:published_time" content="2014-02-06T10:46:20+00:00" />
24  <meta property="article:modified_time" content="2014-02-26T12:04:23+00:00" />
25  <meta property="og:image" content="http://growthhackingpro.com/wp-content/uploads/2014/02/fishing-22.png" />
26
27  <meta name="twitter:card" content="summary"/>
28  <meta name="twitter:title" content="21 Acquisition Growth Hacks You Need To Know"/>
29  <meta name="twitter:description" content="Gaining users requires time and a lot of effort. Find this list of ready-to-use growth hack
30  <meta name="twitter:image" content="http://growthhackingpro.com/wp-content/uploads/2014/02/fishing-22.png" />
31  <meta name="twitter:url" content="http://growthhackingpro.com/21-acquisition-growth-hacks/" />
32
33  <!-- Google Analytics script -->
34
35  </head>
36  <body>
37
38    <header class="main-header">
39      <div class="container">
40        <a href="http://growthhackingpro.com" class="logo" title="Growth Hacking Pro">
41          <span>Growth Hacking</span><span>Pro</span>
42        </a>
43      </div>
44    </header>
```

Open Graph

the Facebook Open Graph Object debugger

https://developers.facebook.com/tools/debug/og/object?q=YOURURL

Open Graph

Meta Tags

```html
<head prefix="og: http://ogp.me/ns#">
<meta property="og:locale" content="en_US">
<meta property="og:url" content="http://funwebdev.com/">
<meta property="og:title" content="Fundamentals of Web Development">
<meta property="og:site_name" content="Fun Web Dev">
<meta property="og:description" content="Randy Connolly and Ricardo
                Hoar are working on a book">
<meta property="og:image" content="http://funwebdev.com/wp-
                content/uploads/2013/01/logo.png">
<meta property="og:image:type" content="image/png">
<meta property="og:image:width" content="424">
<meta property="og:image:height" content="130">
<meta property="og:type" content="book">
</head>
```
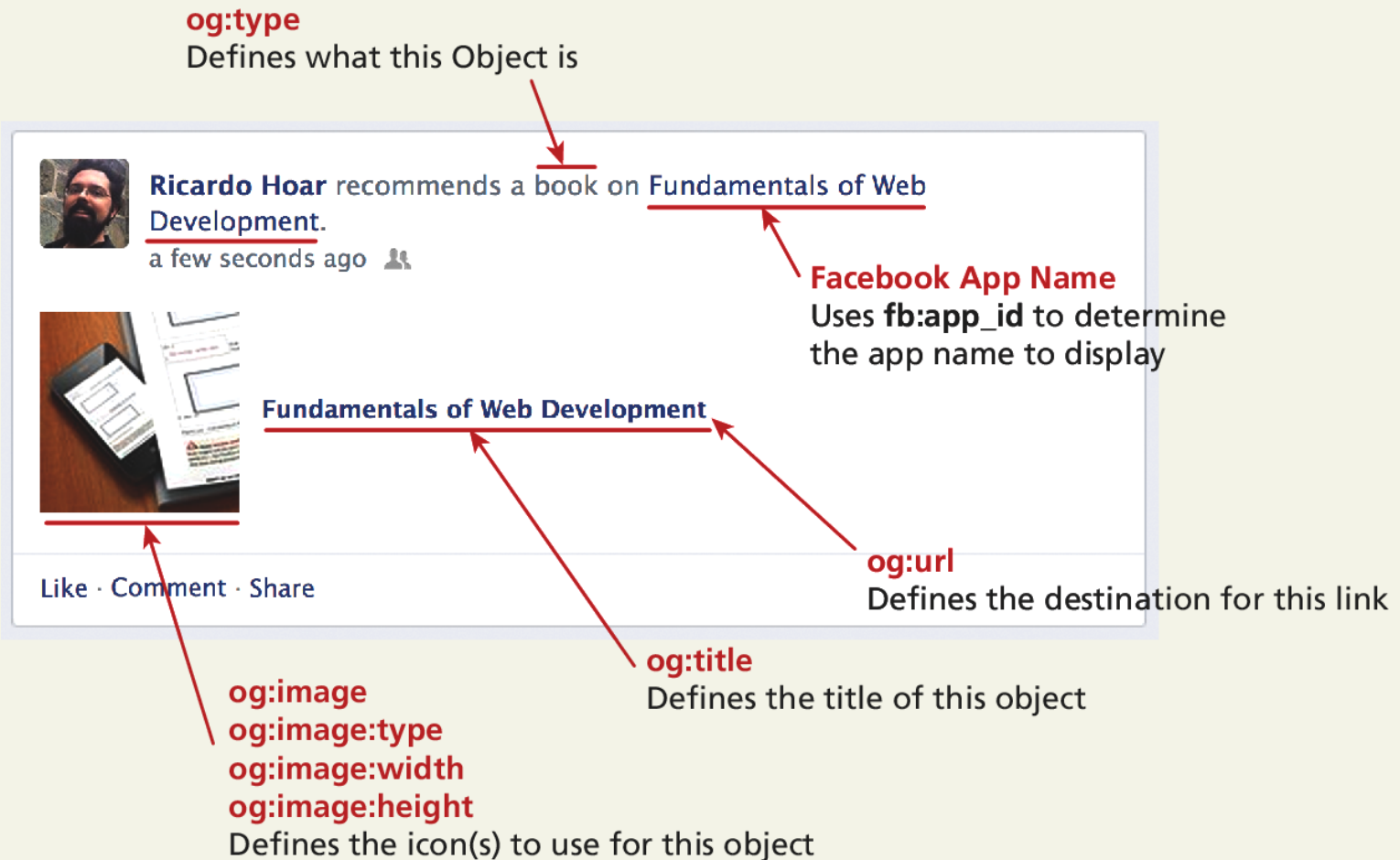
LISTING 21.6 Open Graph Markup to add semantic information to your page

Open Graph

The resulting control in Facebook's newsfeed

og:type
Defines what this Object is

Ricardo Hoar recommends a book on Fundamentals of Web Development.
a few seconds ago

Facebook App Name
Uses **fb:app_id** to determine the app name to display

Fundamentals of Web Development

Like · Comment · Share

og:url
Defines the destination for this link

og:title
Defines the title of this object

og:image
og:image:type
og:image:width
og:image:height
Defines the icon(s) to use for this object

Google's Social Plugins

+1

Google's +1 button is similar to Facebook's Like button
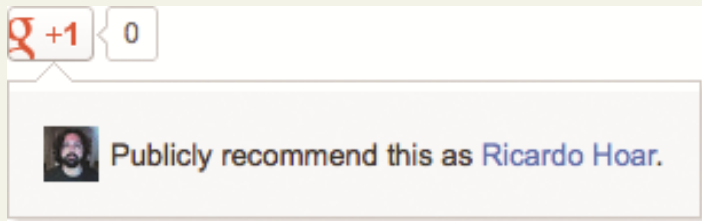
The code to add this button is below and can optionally use attributes that control the size and shape.

```
<script type="text/javascript"
    src="https://apis.google.com/js/plusone.js">
</script>
<g:plusone href='http://funwebdev.com'></g:plusone>
```
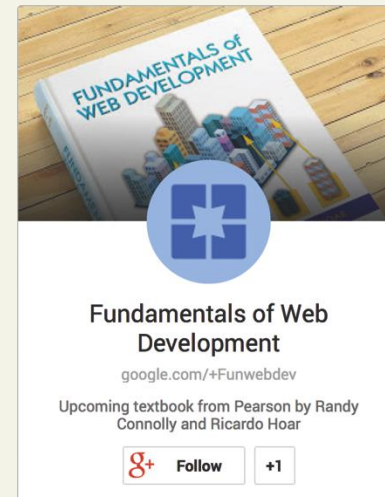
LISTING 21.7 Code to load the Google JavaScript library and add the +1 button

Google's Social Plugins

Google Badge

Google's badges can be created for pages, communities, or your own personal profile.

Google's badges are configured in the dashboard so the code to add them is relatively easy

```
<g:page
      href="https://plus.google.com/+FunWebDev">
</g:page>
```

LISTING 21.8 Markup to add a Google+ badge

Fundamentals of Web Development

google.com/+Funwebdev

Upcoming textbook from Pearson by Randy Connolly and Ricardo Hoar

g+ **Follow**   +1

Twitter's Widgets

Tweet Button

You can include JavaScript libraries to make usei of the *Tweet This* Button. It can be placed anywhere in the page using code below. When clicked the user will tweet about the story at this URL.
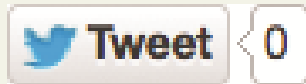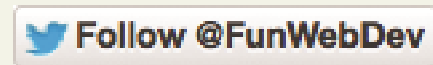


```
<a href="https://twitter.com/share"
    class="twitter-share-button"
    data-hashtags="web">
Tweet</a>
```

LISTING 21.10 Tweet This button markup to create a tweet with hashtag web

Twitter's Widgets

Follow Me Button

The twitter follow button is equally simple and lets users follow your account on twitter.

Follow @FunWebDev

```
<a href="https://twitter.com/FunWebDev"
   class="twitter-follow-button"
   data-show-count="false">Follow @FunWebDev
</a>
```

LISTING 21.11 Markup to define a Follow button for Twitter

Twitter's Timeline Widget

A feed of recent tweets

```html
<a class="twitter-timeline"
    href="https://twitter.com/FunWebDev"
    data-widget-id="3653381105127002112">
Tweets by @FunWebDev</a>
```

LISTING 21.12 Markup to embed a Twitter Timeline in your site

The code uses not only the user's Twitter URL, but an additional field that cannot simply be guessed:

the **data-widget-id field**.

Twitter generates this field only when requested by a user through the web interface

Twitter's Timeline Widget

Interface to generate the timeline widget

Advanced Social Network Integrations

To integrate more completely , you will have to make use of server-side APIs, which allow your server to act as an agent on behalf of users logged in through your site.
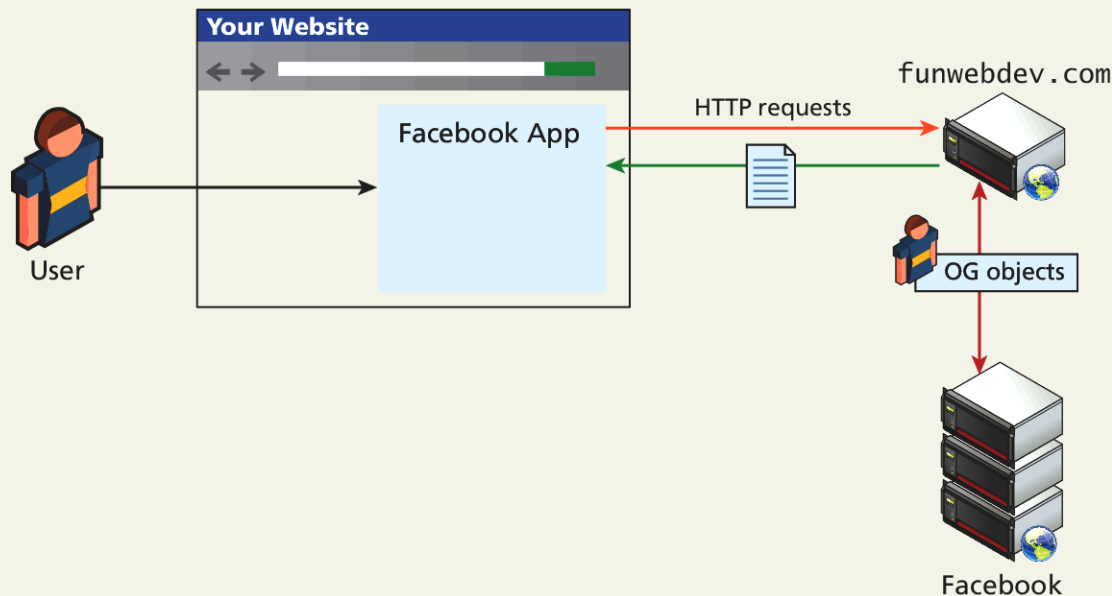
MONETIZE YOUR SITE WITH ADS

Web Advertising

If your site ever gets big enough, or is sufficiently local, you can create and manage your own client accounts through your own home brew–advertising network.

The vast majority of monetization is done using the easy to use Ad Networks.

In the ad network, there are three classes of participant:

- Advertisers (looking to pay money to have ads seen)

- Website owners (looking to make money by showing ads)

- The ad network (company connects advertisers to websites)

Web Advertising
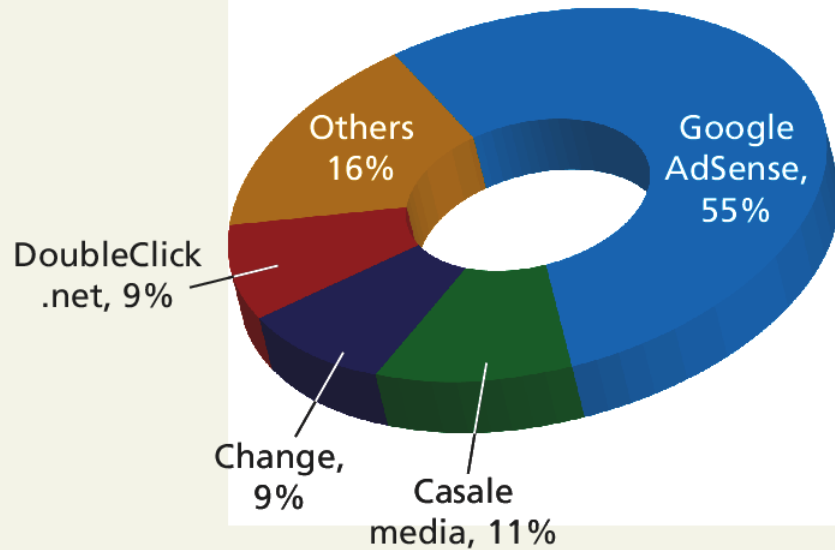
Ad Networks

Web Advertising

Ad Networks

Advertising network

Ad

Ad

Placed Ad

Space for Ad

Content

Space for Ad

Site owners

Ad

Ad

Ad

Advertisers

Ad
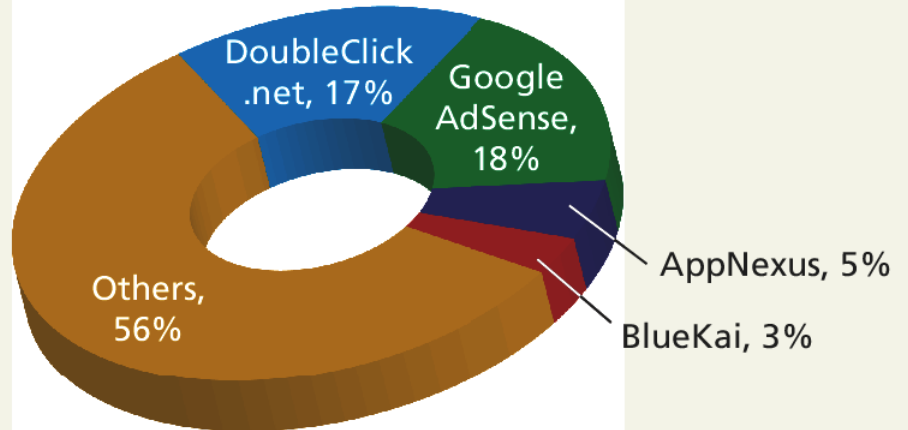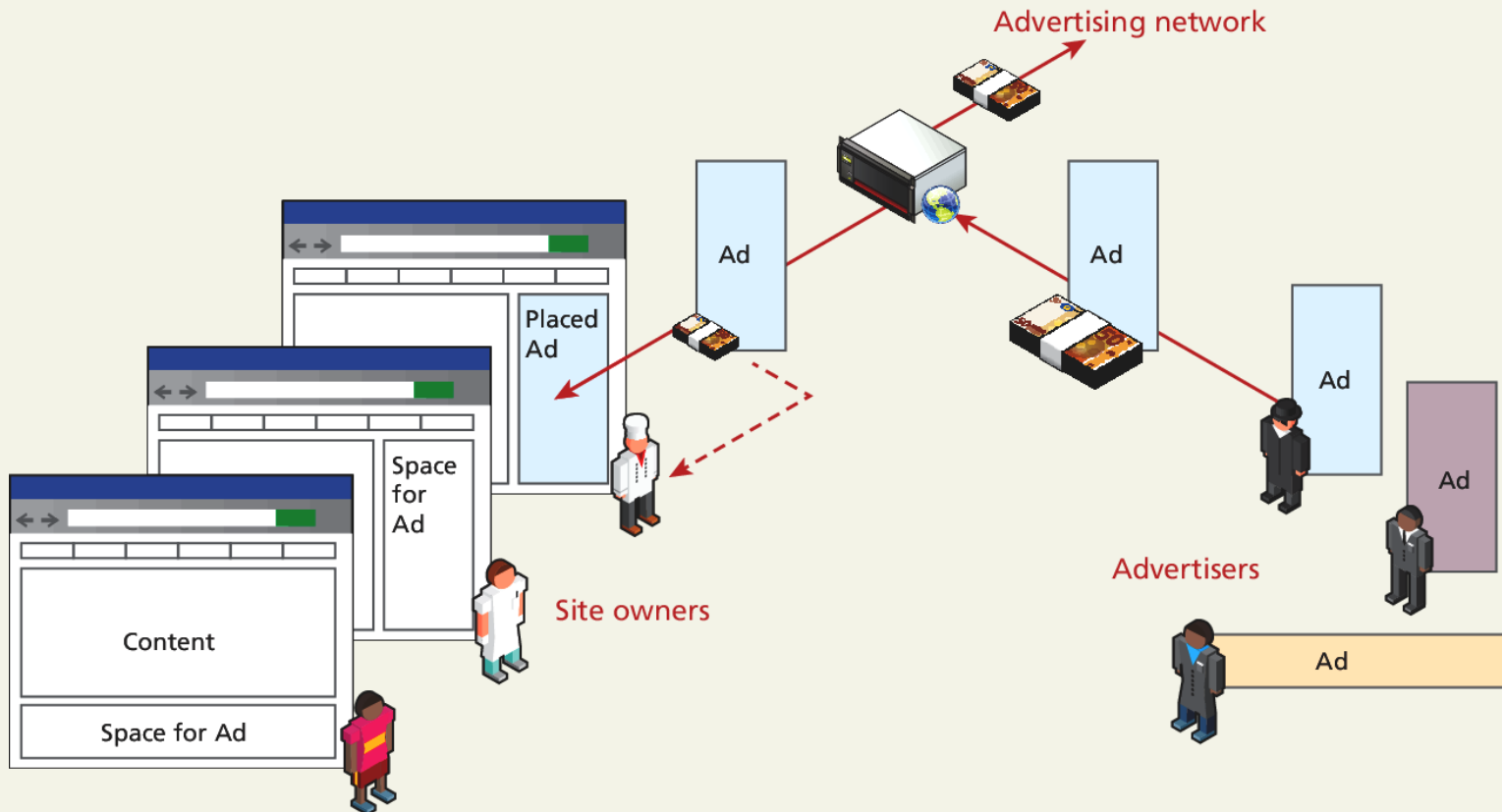
Types of Ad

- **Graphic ads** are the ones that serve a static image to the web browser. The image might contain text and graphics, enticing the user to click the ad, which will direct them to a URL.

- **Text ads** are low bandwidth, since they are entirely text-based. Like graphic ads, they too encourage the user to click and be directed to a destination URL.

- **Dynamic ads** are graphic ads with additional moving parts. This can range from a simple animated GIF graphic ad all the way up to complex Flash widgets or JavaScript

Putting ads on your page

Getting your own particular code with your credentials and selections is normally done through the web portal that controls your account. Each particular advertising network is different, they usually have similar code snippets

```
<script async
src="//pagead2.googlesyndication.com/pagead/js/adsbygoogle.js">
    </script>
<!-- Ad -->
<ins class="adsbygoogle"
      style="display:inline-block;width:728px;height:90px"
      data-ad-client="YOUR_ID_HERE"
      data-ad-slot="3393285358"></ins>
<script>
(adsbygoogle = window.adsbygoogle || []).push({});
</script>
```

LISTING 21.13 Google AdSense advertising JavaScript

you can clearly see some identifiers are required to link the ad with your account

Web Advertising Economy

No guarantee you get ads,

The website owner has three commodities at his or her disposal: Ad Views, Ad Clicks, and Ad Actions.

- An **Ad View** (or *impression*) is a single viewing of an advertisement by a surfer. It is based on one loading of the page and although there may be multiple ads in the page, an impression is counted for each one.

- An **Ad Click** is an actual action by a surfer to go and check out the URL associated with an ad.

- An **Ad Action** is when the click on the ad results in a desired action on the advertiser's page. Advertisers may pay out based on a successful account registration, survey completion, or product purchase, to name but a few.

Web Advertising Economy

No guarantee you get ads,

With these commodities in mind, advertisers can pay for their ads using a combination of **Cost per Click**, **Cost per Mille (1000 visitors),** and **Cost per Action** settings.

Auctions match up ad spaces and bidders

Client browser

Content

Space for Ad

Advertising network auction

2 Advertisers make bids

1 Request for ad

Bid: $0.01 / impression

Bid: $0.02 / impression

Bid: $0.05 / impression

3 Winning advertiser's ad is served

Ad

Advertisers

Ad

Ad

Ad
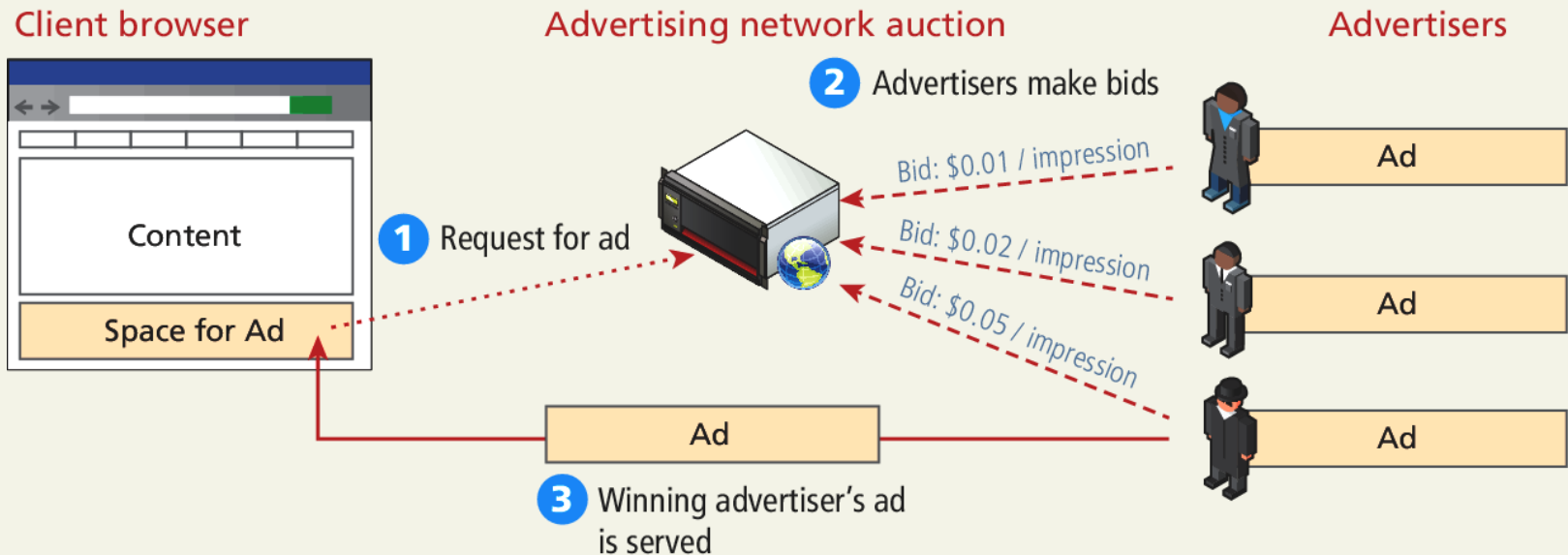
Web Advertising Economy

It's fair enough

As a publisher of ads on your site, you have almost no control over what ads appear.

You cannot simply demand 100 dollars per click on your website about hamsters.

Conversely an advertiser should not be able to get one-penny ads on your successful site.

You can exercise tight control over how your AdWords budget is spent using tactics like ad scheduling, geotargeting, and device targeting. The average cost per click in Google AdWords is **between $1 and $2** on the search network. The average CPC on the Display Network is under **$1**.May 21, 2015

Web Advertising Economy

Some common strategies for bidders

- The **Cost per Click (CPC)** strategy is to decide how much money a click is worth, regardless of how many times it must be displayed.

- **Cost per Mille (CPM)** means cost per thousand impressions/views of the ad. Obviously this rate is lower than a CPC rate, since not every impression results in a click

- The **Click-through Rate (CTR)** is the percentage of views that translate into clicks. A click-through rate of 1 in 1000 (0.1) is fairly normal in search engine networks

- **Cost per Action (CPA)** relates the cost of advertisement to some in-house action like buying a product, or filling out a registration form.

MARKETING CAMPAIGNS

Email Marketing

Some things are not allowed

Done poorly, email can be marked as spam, which can have negative consequences. Unsolicited emails sent in bulk are illegal in many jurisdictions!

- In general, you can only target customers who have *opted in* to receiving such messages.

- Every email campaign should contain a one-click mechanism to allow recipients of your messages to opt out of future emails.

Email Marketing

Automated Scripts

The features of a good email are

- well-formatted headers,

- alternate versions including HTML,

- opt-out links, and

- tracking images to help measure performance.
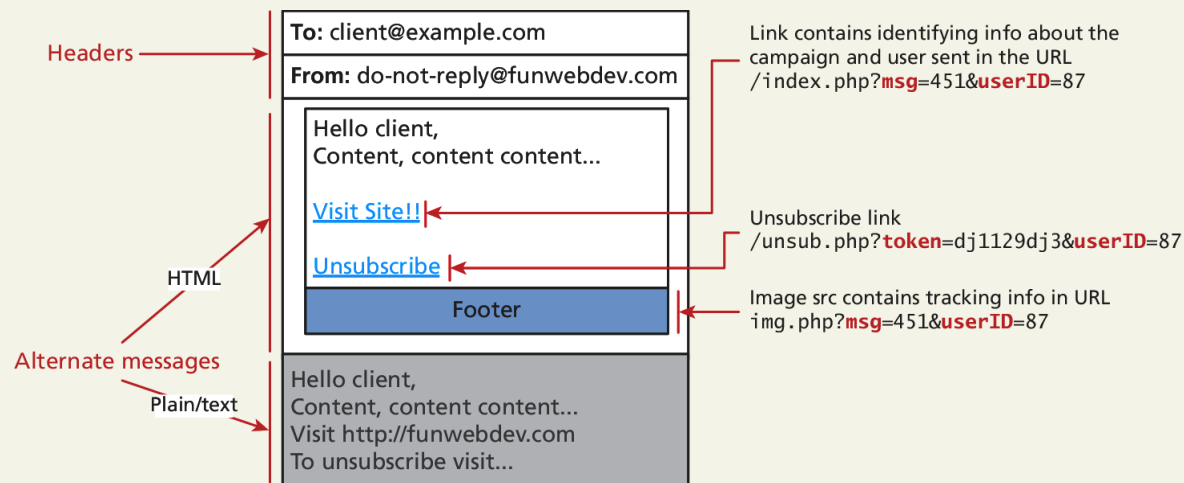
Email Marketing

Integrating email into a custom web application allows you full control

```php
// Override SMTP headers
$headers='From: System Administrator <donotreply@funwebdev. com>'
          $headers .= .$rn;
$headers .= "MIME-Version: 1.0\r\n";   //specify MIME ver. 1.0
//tell email client this email contains alternate versions
$headers.= "Content-Type: multipart/alternative;"
$headers.= "boundary = $bound".$rn.$rn;
$headers.= "This is a MIME encoded message.".$rn.$rn;

$message = ...//Message TAKEN FROM DB based on messageID
//declare this is the plain text version
$headers .= "--$bound" . $rn . "Content-Type: text/plain;"
$headers .= "charset=ISO-8859-1".$rn;
$headers .= "Content-Transfer-Encoding: base64".$rn.$rn;
//actually output the plaintext version (base64 encoded)
$headers .= chunk_split(base64_encode($message.$plainfooter));

$HTMLMessage =//Get HTML message from DB based on messageID
//declare we're about to add the HTML version
$headers .= "--$bound\r\n" . "Content-Type: text/html";
$headers .= "charset=ISO-8859-1".$rn;
$headers .= "Content-Transfer-Encoding: base64" $rn.$rn;
//actually output the plaintext version (base64 encoded)
$headers .= chunk_split(base64_encode($HTMLMessage.$htmlfooter));

mail($mailto,$subj, "" ,$headers);    //the PHP mail function
```

Tracking Email

Did they read my important email?

Just because an email is sent does not mean it was read.

A good technique for tracking reads is to embed graphics

img.php?msg=$messageID&userID=$accountID

Now when the message is read that image is requested from the other site and we use that to know which campaign it was from and who it was to.

Scheduled Mail Campaigns

I swear this is not a robot

One technique to try and engage existing customers is to set up a series of emails ahead of time that get sent to each user after a specified period or action.

- **Timed emails** are set up in advance for example, to send email one day after signing up, another after a week, and a third after 30 days

- **Action emails** can be associated with user actions (or inactions) so that an email is sent, for example, a few hours after a purchase.

Physical World Marketing

QR Codes

URLs cannot be *clicked* in the physical realm, which severely limits how large of URLs you can print, and expect people to remember.

QR codes allow people with camera phones to snap a picture of the code in order to be directed to a URL.

These physical world hyperlinks store redundant information in the pixels of the image, so that even if partially damaged, they may be able to be deciphered.

Physical World Marketing

Example of an obscured code

(a)   (b)

Tracking Physical Campaign

Using varied QR Codes/URLs

Visit **funwebdev.com**

Two posters with different design have unique URLs encoded in their QR codes.

whichColor?vote=**green**

whichColor?vote=**black**

By using the logged traffic you can determine which version of the poster was more successful.

Visit **funwebdev.com**

Views

Black   Green
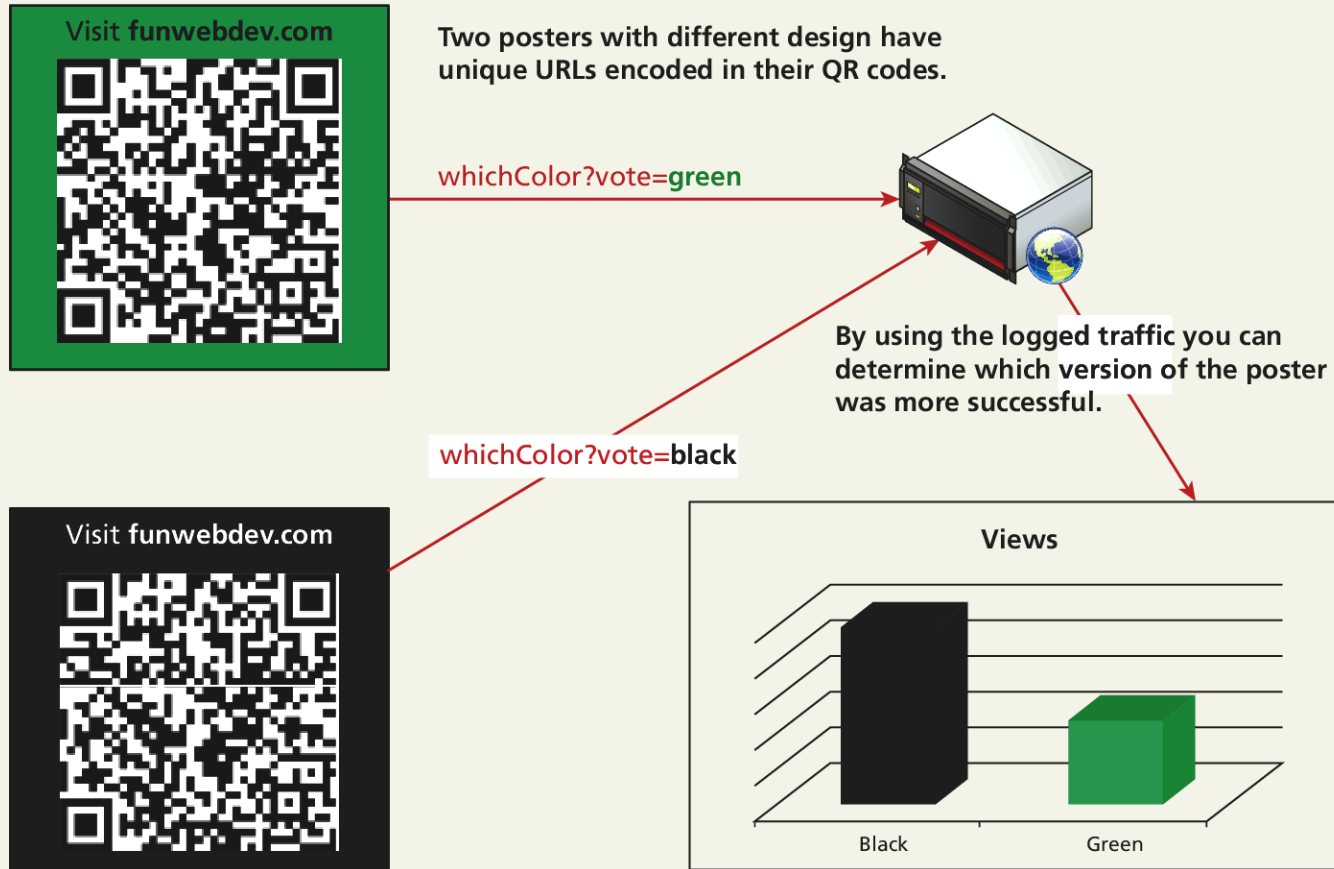
WORKING IN WEB DEVELOPMENT

Types of Web Development Companies

- **Hosting Companies** or data centers offer many employment opportunities, especially related to hardware, networking, and system administration roles.

- **Design companies** are at the opposite end of the spectrum, with almost no technical positions available. These firms will provide professional artistic and design services that might go beyond the web and include logos and branding in general.

Working in Web

So many choices

There are also several different types of companies that do web development, so it's worth being aware of what types of choices you'll have.

Working in the world of web development requires a team of people with various complementary skill sets and some areas of overlap and cooperation. You will learn a little about those other roles to help see situate your contribution.

Types of Web Development Companies

- **Website Solution Companies** focus on the programming and deployment of websites for their clients. There are technical positions to help manage the existing sites as well as development jobs to build the latest custom site.

- **Vertically integrated companies** combine hosting, design, and solutions into one company. This allows these companies to achieve economies of scale and appeal to the nontechnical clients who can go there for all their web-related needs, large or small.

Types of Web Development Companies

- **Start-up ventures** in web development have been some of the biggest success stories in the business world. The smaller companies will require real generalists who can take on any role from system administrator through to lead developer.

- **Internal Development**. Many companies have lots of internal data they would not share with outsiders and thus prefer in-house expertise for the development of web interfaces and systems to manage and display that confidential data.

Roles and Skills

It takes a village

- **Hardware/Network Architect**

- **System Administrator**

- **Database Administrator**

- **Developer/Programmer**

- **Tester**

- **Security Consultant/Expert**

- **Software Engineer**

- **Nontechnical Roles**

What You've Learned

1 Social Networks

2 Social Network Integration

3 Monetizing your site with Ads

4 Marketing Campaigns

5 Working in Web Development