

# Kursintroduktion

DA344A, DA355A

7.5 HP

**Webbapplikationer för  
mobila enheter**

**Flerplattformssapplikationer  
med webbttekniker**

# Dagens agenda

- Del 0 - Upprop
- Del 1 – Introduktion till kursen
  - Vilka lärare är involverade?
  - Vilka läser denna kurs?
  - Varför läser ni denna kurs?
  - Kursplan
  - Kursens examinationer
  - Planering för kursen



# Upprop



# Lärare i kursen



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# Vilka läser kursen?

- Informationsarkitekt (termin 4)
  - DA355A - Data- och informationsvetenskap: Flerplattformapplikationer med webbt tekniker
- Datavetenskap och applikationsutveckling (termin 4)
  - DA344A - Webbapplikationer för mobila enheter
- Samläsning innebär
  - Olika förkunskaper
  - Olika perspektiv på applikationer
  - Samma mål med kursen
  - Samma examinerande uppgifter

# Förkunskaper?

A close-up photograph of a computer keyboard. The central focus is a light blue key with the text "Knowledge is power!" printed on it in a bold, black, sans-serif font. The key is slightly raised and has a rectangular shape with rounded corners. Surrounding this key are several white keys, including one with a right arrow, one with a left arrow, and one with the word "Shift" and an upward arrow. The lighting is soft, creating subtle shadows and highlights on the keys' surfaces.

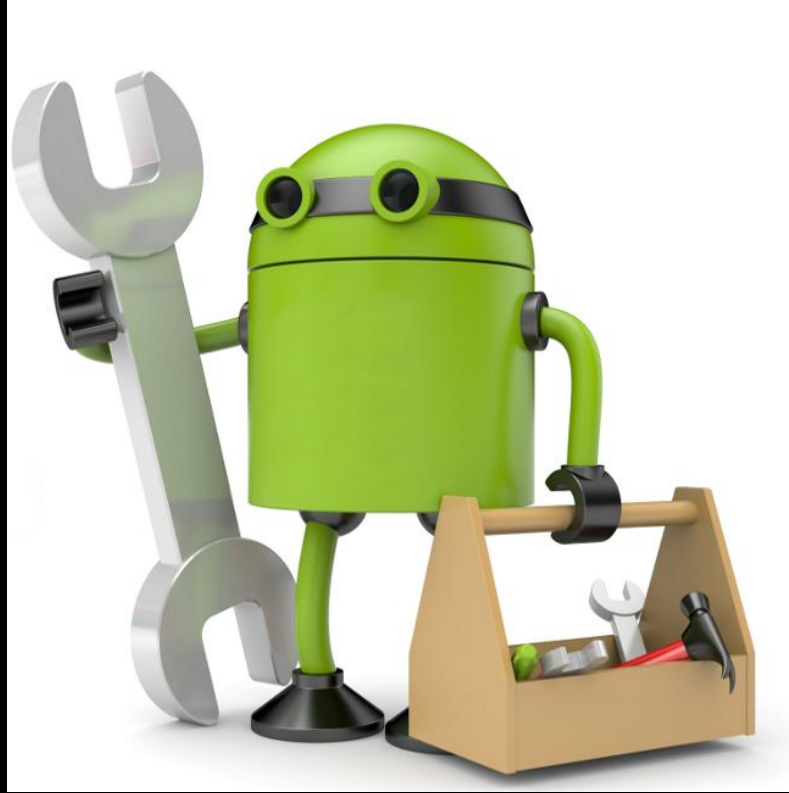
**Knowledge  
is power!**



# Informationssarkitekter?

Hur skulle ni beskriva er kunskap inom området?





# Applikationsutvecklare?

Hur skulle ni beskriva er kunskap inom området?

# Förkunskaper

- HTML?
- CSS?
- JavaScript?
  - jQuery?
  - React?
  - Andra bibliotek?
- JSON?
- XML?
- Övrigt?





# Förväntningar?

Vad vill ni få ut av denna kurs?

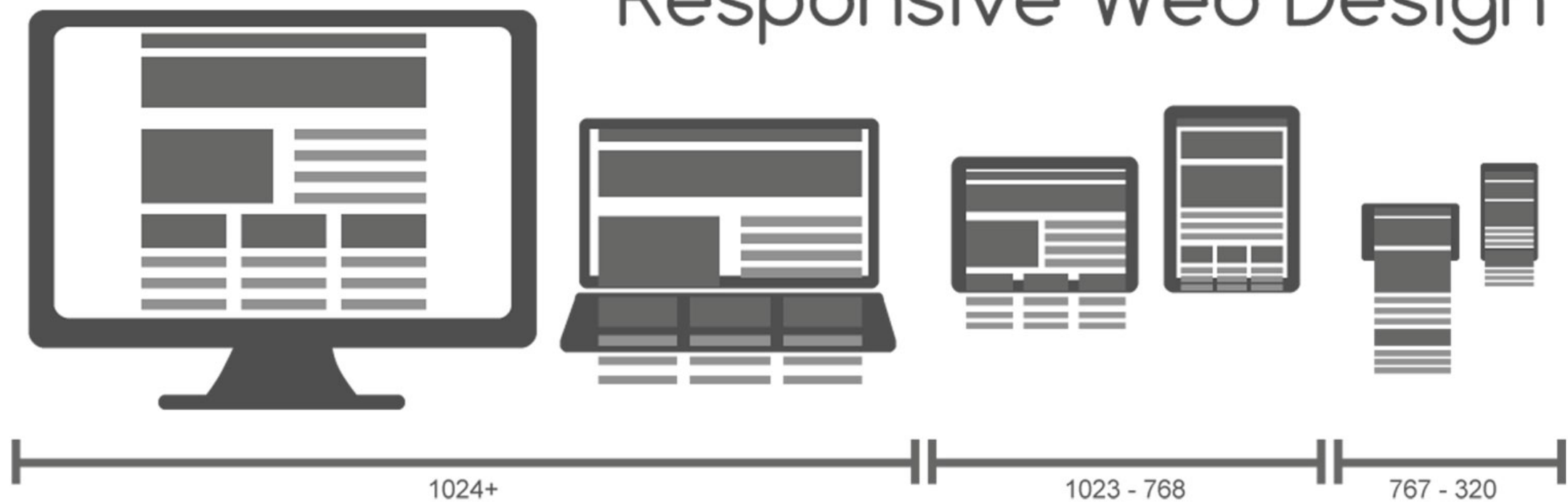


# Funderingar?

Något som vi inte ska missa i kursen?

**Varför är kursen relevant?**

# Responsive Web Design



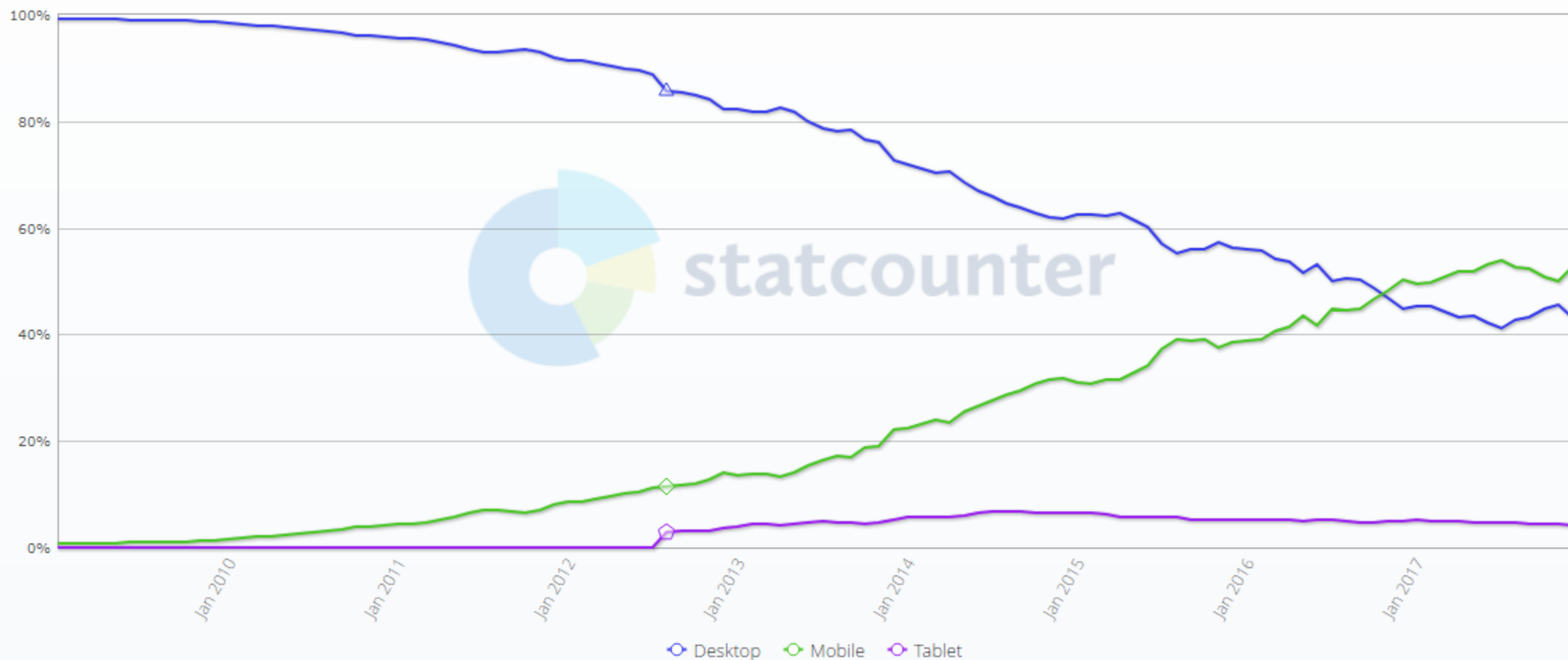
**<http://www.internetlivestats.com/>**

**Internet  $\neq$  WWW**



# Desktop vs Mobile vs Tablet Market Share Worldwide

Jan 2009 - Dec 2017

[Edit Chart Data](#)[Save Chart Image \(.png\)](#)[Download Data \(.csv\)](#)[Embed HTML](#)

```
<div id="desktop+mobile+tablet-comparison-ww-monthly-200901-201712">
```

Year (June)	Websites	Change	Internet Users	Users per Website	Websites launched
2015	863,105,652	-11%	3,185,996,155*	3.7	
2014	968,882,453	44%	2,925,249,355	3.0	
2013	672,985,183	-3%	2,756,198,420	4.1	
2012	697,089,489	101%	2,518,453,530	3.6	
2011	346,004,403	67%	2,282,955,130	6.6	
2010	206,956,723	-13%	2,045,865,660	9.9	<a href="#">Pinterest</a>
2009	238,027,855	38%	1,766,206,240	7.4	
2008	172,338,726	41%	1,571,601,630	9.1	<a href="#">Dropbox</a>
2007	121,892,559	43%	1,373,327,790	11.3	<a href="#">Tumblr</a>
2006	85,507,314	32%	1,160,335,280	13.6	<a href="#">Twtrr</a>
2005	64,780,617	26%	1,027,580,990	16	<a href="#">YouTube</a> , <a href="#">Reddit</a>
2004	51,611,646	26%	910,060,180	18	<a href="#">Thefacebook</a> , <a href="#">Flickr</a>
2003	40,912,332	6%	778,555,680	19	<a href="#">WordPress</a> , <a href="#">LinkedIn</a>
2002	38,760,373	32%	662,663,600	17	
2001	29,254,370	71%	500,609,240	17	<a href="#">Wikipedia</a>
2000	17,087,182	438%	413,425,190	24	Baidu
1999	3,177,453	32%	280,866,670	88	<a href="#">PayPal</a>
1998	2,410,067	116%	188,023,930	78	<a href="#">Google</a>
1997	1,117,255	334%	120,758,310	108	<a href="#">Yandex</a>
1996	257,601	996%	77,433,860	301	
1995	23,500	758%	44,838,900	1,908	<a href="#">Altavista</a> , <a href="#">Amazon</a> ,

2016-12-30

**När började ni använda  
webben?**

# 1991 – World wide web

## World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policies](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

### [What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

### [Help](#)

on the browser you are using

### [Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#) )

### [Technical](#)

Details of protocols, formats, program internals etc

### [Bibliography](#)

Paper documentation on W3 and references.

### [People](#)

A list of some people involved in the project.

### [History](#)

A summary of the history of the project.

### [How can I help ?](#)

If you would like to support the web..

### [Getting code](#)

Getting the code by [anonymous FTP](#) , etc.

# 1994 - Yahoo



[Get Local](#) **YAHOO! CELEBRATE AND WIN. HOLIDAY EXTRAVAGANZA** [CLICK HERE!](#) [Weekly Picks](#)

[Options](#)

[Yellow Pages](#) - [People Search](#) - [City Maps](#) -- [Stock Quotes](#) - [Sports Scores](#)

- [Arts and Humanities](#) - [Architecture](#), [Photography](#), [Literature](#)...
- [Business and Economy \[Xtra!\]](#) - [Companies](#), [Investments](#), [Classifieds](#)...
- [Computers and Internet \[Xtra!\]](#) - [Internet](#), [WWW](#), [Software](#), [Multimedia](#)...
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- [Health \[Xtra!\]](#) - [Medicine](#), [Drugs](#), [Diseases](#), [Fitness](#)...
- [News and Media \[Xtra!\]](#) - [Current Events](#), [Magazines](#), [TV](#), [Newspapers](#)...
- [Recreation and Sports \[Xtra!\]](#) - [Sports](#), [Games](#), [Travel](#), [Autos](#), [Outdoors](#)...
- [Reference](#) - [Libraries](#), [Dictionaries](#), [Phone Numbers](#)...
- [Regional](#) - [Countries](#), [Regions](#), [U.S. States](#)...

# 1995 - Altavista





Search  and Display the Results

Tip: To find an old friend or information about someone, try: Santa Claus or "Santa Claus"  
Using a capital letter ensures that only that capitalization will be found.

## ALTAVISTA

AltaVista gives you access to the largest Web index: 30 million pages found on 275,600 servers, and four million articles from 14,000 Usenet news groups. It is accessed over 20 million times per weekday.

## NEWS FROM ALTAVISTA

AltaVista Search is **your** favorite search service! Over 2.5 billion hits to date, and a top ten rating from [100 Hot Web Sites](#). Mile High Tower rises in Cyberspace. [AltaVista ForumForum](#) is open for business!

POWERED BY [DIGITAL UNIX](#), [DIGITAL ALPHA](#) AND [ALTAVISTA SEARCH](#) SOFTWARE


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[AltaVista Software](#)

\*\*\* Check out our NEW [Australian Mirror Site](#) \*\*\*

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# 1995 - Amazon



## Welcome to Amazon.com Books!

*One million titles,  
consistently low prices.*

(If you explore just one thing, make it our personal notification service. We think it's very cool!)

### SPOTLIGHT! -- AUGUST 16TH

These are the books we love, offered at Amazon.com low prices. The spotlight moves **EVERY** day so please come often.

### ONE MILLION TITLES

Search Amazon.com's [million title catalog](#) by author, subject, title, keyword, and more... Or take a look at the [books we recommend](#) in over 20 categories... Check out our [customer reviews](#) and the [award winners](#) from the Hugo and Nebula to the Pulitzer and Nobel... and [bestsellers](#) are 30% off the publishers list...

### EYES & EDITORS, A PERSONAL NOTIFICATION SERVICE

Like to know when that book you want comes out in paperback or when your favorite author releases a new title? Eyes, our tireless, automated search agent, will send you mail. Meanwhile, our human editors are busy previewing galleys and reading advance reviews. They can let you know when especially wonderful works are published in particular genres or subject areas. Come in, [meet Eyes](#), and have it all explained.

### YOUR ACCOUNT

Check the status of your orders or change the email address and password you have on file with us. Please note that you **do not** need an account to use the store. The first time you place an order, you will be given the opportunity to create an account.

# 1995 - Ebay

**Auction Web**

[Menu] [\[Listings\]](#) [Buyers] [\[Sellers\]](#) [Search] [\[Contact/Help\]](#) [\[Site Map\]](#)

Welcome to today's online marketplace...

...the market that brings buyers and sellers together in an honest and open environment...

Welcome to eBay's AuctionWeb.

**Welcome to our community.** I'm glad you found us. AuctionWeb is dedicated to bringing together buyers and sellers in an honest and open marketplace. Here, thanks to our [auction format](#), merchandise will always fetch its market value. And there are plenty of great deals to be found!

[Take a look at the listings.](#) There are always several hundred auctions underway, so you're bound to find something interesting.

If you don't find what you like, take a look at our **Personal Shopper**. It can help you search all the listings. Or, it can keep an eye on new items as they are posted and let you know when something you want appears. If you want to let everyone know what you want, post something on our [wanted page](#).

If you have something to **sell**, start your auction instantly.

**Join our community.** Become a registered user. Registered users receive [additional benefits](#) such as daily updates and the right to participate in our user feedback forum and the bulletin board.



# 1998 - Google



Search the web using Google!

10 results ▾

Google Search

I'm feeling lucky

*Index contains ~25 million pages (soon to be much bigger)*

[About Google!](#)

[Stanford Search](#) [Linux Search](#)

Get Google! updates monthly!


your e-mail

Subscribe

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# 1999 - Paypal



[HOME](#)  
[ABOUT](#)  
[DEMO](#)  
[CONTACT](#)  
[SIGN UP](#)

LOGIN NAME:  PASSWORD:

New User? Sign up [now!](#)



PayPal™ lets you beam money to anyone with a Palm™ Organizer.

PayPal™ lets you send money to anyone with an email address.

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# 2003 - LinkedIn


**LinkedIn**  
*Your network is bigger than you think*

[Sign In](#)

**Already a member?**  
[Sign In](#)

**Lost Your Invitation?**  
Enter your email address here, and we'll send you a replacement:

**LinkedIn makes your professional network faster and more powerful.**



You're already connected to the people you need to reach your business goals — through the business connections you already have.

Make contact with thousands of professionals, [through trusted connections](#), and help yourself and your colleagues get it done.

**Join Today**

[Privacy Policy](#) | [Copyright Policy](#) | [About LinkedIn](#) | [Customer Service/FAQ](#)

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# 2004 - thefacebook



01 11 10 1000

0010 0 1

110 0 1 1100

010 010 101

001 00 01

0 01 010

1010 1 10 0

[ thefacebook ]

login register about

Email:

Password:

register

login

Welcome to Thefacebook!

[ Welcome to Thefacebook ]

Thefacebook is an online directory that connects people through social networks at colleges.

We have opened up Thefacebook for popular consumption at **Harvard University**.

You can use Thefacebook to:

- Search for people at your school
- Find out who are in your classes
- Look up your friends' friends
- See a visualization of your social network

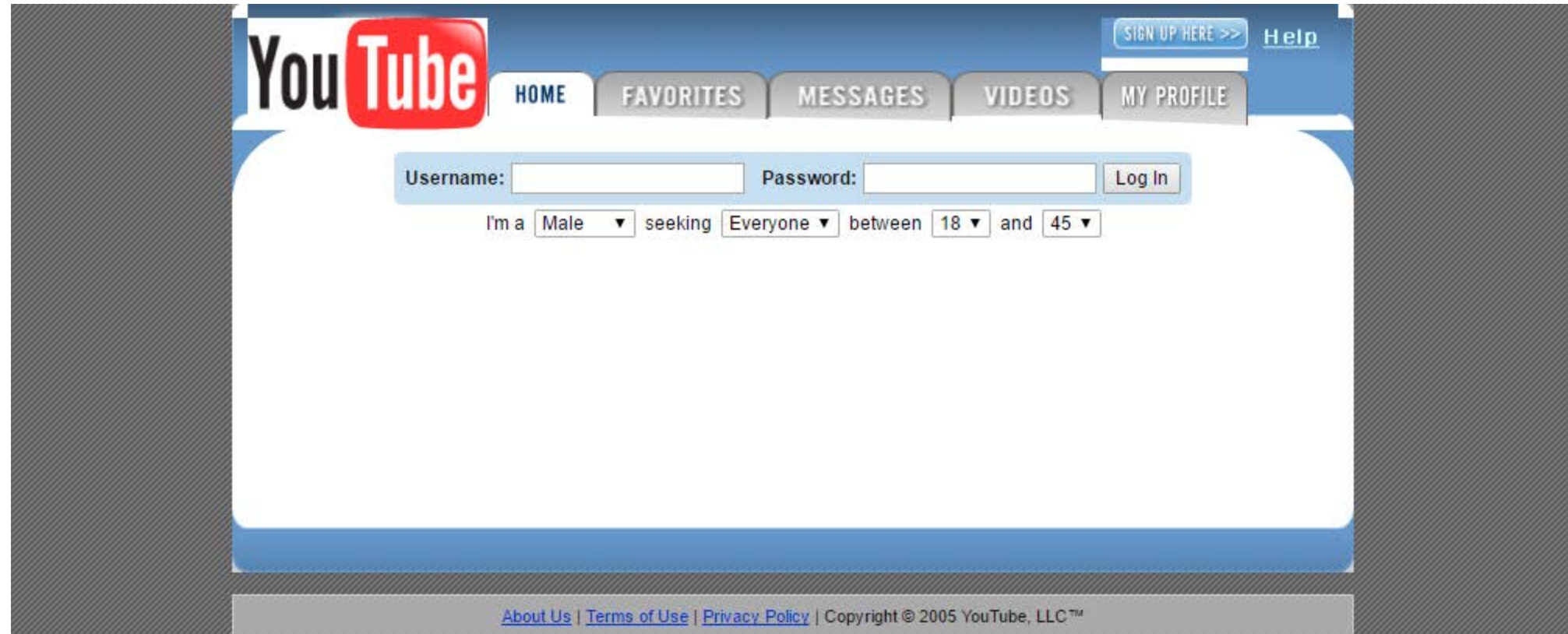
To get started, click below to register. If you have already registered, you can log in.

Register

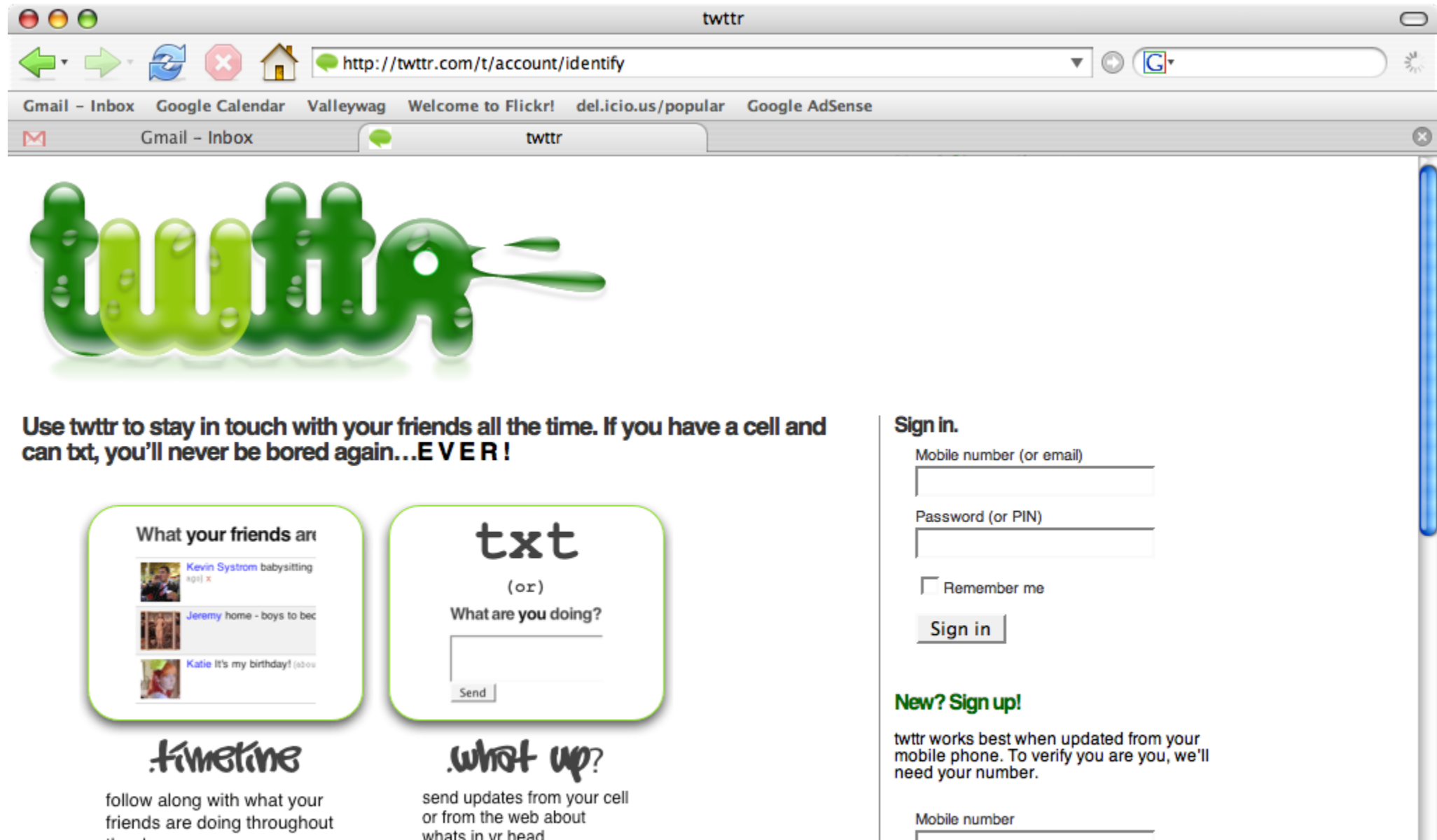
Login

[about](#) [contact](#) [faq](#) [terms](#) [privacy](#)  
a Mark Zuckerberg production  
Thefacebook © 2004

# 2005 - YouTube



# 2006 - Twitter



The screenshot shows a web browser window titled "twtrr" with the address bar displaying "http://twtrr.com/t/account/identify". The browser's address bar includes navigation buttons (back, forward, refresh, stop, home) and a search engine icon (Google). The browser's tab bar shows two tabs: "Gmail - Inbox" and "twtrr". The main content area features the Twitter logo, a promotional message, and two main sections: "What your friends are" and "txt".

Use twtr to stay in touch with your friends all the time. If you have a cell and can txt, you'll never be bored again...EVER!

**What your friends are**

- Kevin Systrom babysitting ago
- Jeremy home - boys to bed
- Katie It's my birthday! (about)

**txt**  
(or)  
What are you doing?  
Send

**Sign in.**  
Mobile number (or email)  
Password (or PIN)  
☐ Remember me  
Sign in

**New? Sign up!**  
twtr works best when updated from your mobile phone. To verify you are you, we'll need your number.  
Mobile number

# 2008 - Dropbox



[Log in](#)

[Beta signup](#)



**På "bara" 20år har det hänt  
en del...**



**<http://www.internetlivestats.com/>**

Dagsaktuellt.

**Hur ansluter ni er till  
omvärlden?**

# Tankeverkstad

- Vad gör ni på internet?
  - Top 5
- Vilka tjänster använder ni?
  - Top 5
- Vilken plattform använder ni till detta?
  - Dator/Tablet/Mobil/Annan( i %)
- Vilka är de största fördelarna med webben?
- Vilka är de största nackdelarna med webben?

# Varför läser vi denna kurs?

- För att få ett perspektiv på mobil webbutveckling
  - Vilka alternativ finns?
  - Vilka fördelar & nackdelar innebär webben för handhållna enheter?
  - Vilka möjligheter och begränsningar erbjuder dagens webbblösningar?
- Ge en inblick i mobil webbutveckling
  - Vad kan HTML5, CSS3 & JavaScript erbjuda?
  - Vilka externa bibliotek/ramverk finns för
    - Utökad funktionalitet
    - Effektivisering/optimering av kod
- Hur vi kan använda webbt tekniker för utveckling med fokus på flera plattformar (iOS, Android, Windows, etc.)

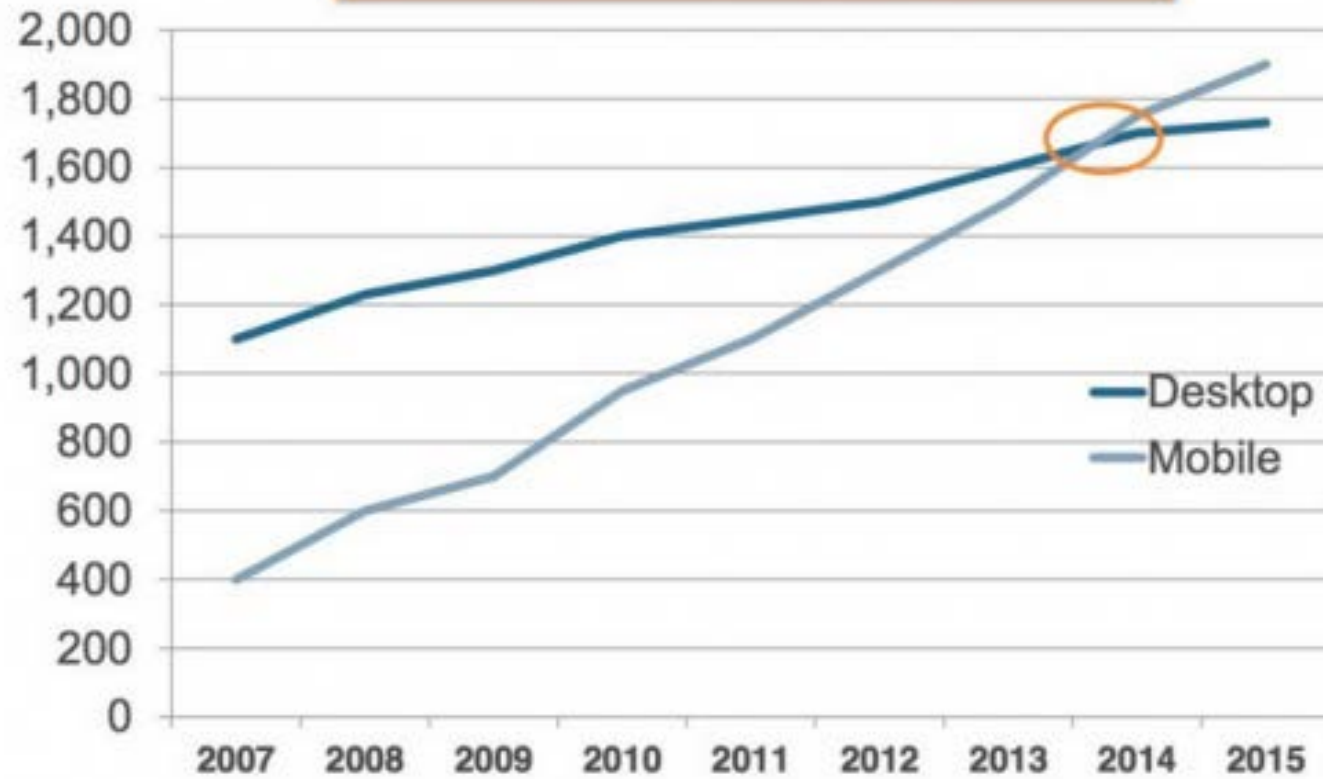
***40% of people will choose a different search result if the first is not mobile friendly.***

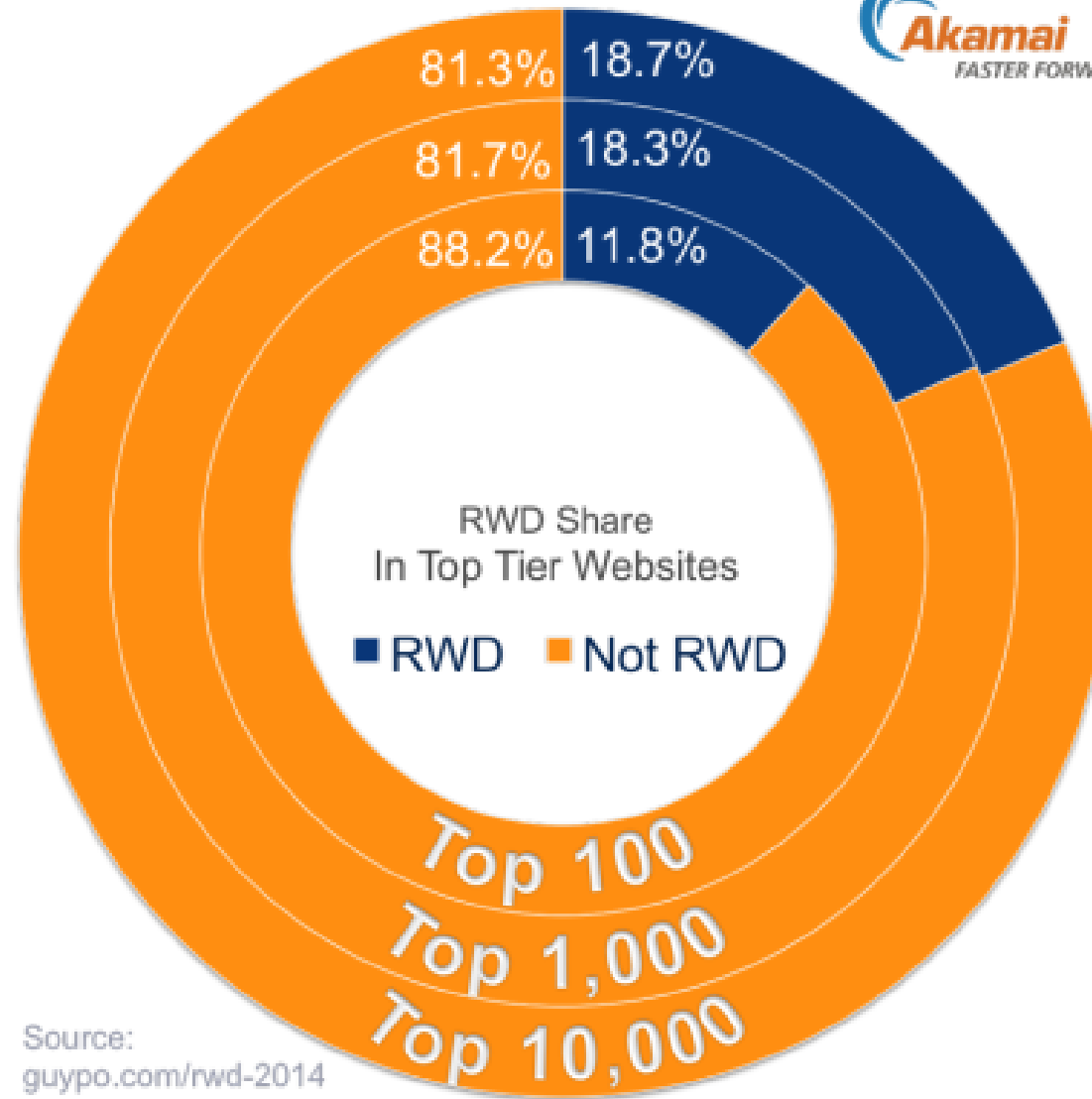
**–Skillcrush**

***40% of people will leave a website if it takes more than 3 seconds to load.***

**— Econsultancy**

Number of Global Users (Millions)







***You have 10 seconds to leave an impression and tell them what they'll get out of your website and company. After this time (and oftentimes before), they'll leave.***

**— NN Group**

***Once your page loads, users form an  
opinion in .05 seconds.***

**— Kinesis Inc.**

# Make sure your site's ready for mobile-friendly Google search results



NEXT: POLICY FAQs FOR MOBILE OPTIMIZED (MULTI-SCREEN) WEBSITES >

Starting April 21, 2015, Google Search will be expanding its use of mobile-friendliness as a ranking signal. This change will affect mobile searches in all languages worldwide and will have a significant impact in Google Search results. Users will find it easier to get relevant, high quality search results optimized for their devices. To help you make sure your website is ready for this search change, we've put together the following frequently asked questions:

## Will this change affect my desktop traffic?

No. This change will affect mobile searches in all languages worldwide.

## How can I check if my site is mobile-friendly?

You can check your site by testing your pages with the [Mobile-Friendly Test tool](#). This tool shows how Google Search sees your pages. To get a list of mobile usability issues across your sites, log in to your [Search Console account](#) and use the [Mobile Usability Report](#).

# Vilka språk kommer vi att använda?



# Kursplanen – Kursens innehåll

- Översikt av aktuella webbt tekniker
  - HTML
  - CSS
  - JavaScript
- Möjligheter och begränsningar med webbapplikationer
- Utvecklingsmiljö och arbetssätt
- Konstruktion av webbapplikationer
- Designprinciper och användargränssnitt
- Användning av enhetens hårdvarufunktionalitet

# Kursplan – Lärandemål

## Kunskap och förståelse

- Grundläggande byggstenar och begrepp vid utveckling av webbapplikationer
- Begränsningar och möjligheter för webbapplikationer
- Designprinciper och utformning av användargränssnitt för webbapplikationer

# Kursplan – Lärandemål

## Färdighet och förmåga

- DA355A (Informationsarkitekt)
  - konstruera webbapplikationer som uppfyller principer för flerplattformsdesign
  - använda enhetens resurser i praktisk tillämpning
  - använda lämpliga utvecklingsmiljöer vid konstruktion av webbapplikationer
  - söka, samla, värdera och kritiskt tolka information relevant för egna utvecklingsprojekt
- DA355A (Datavetenskap och applikationsutveckling)
  - Konstruera webbapplikationer som uppfyller designprinciper
  - Använda enhetens hårdvarufunktionalitet i praktisk tillämpning
  - Använda lämpliga utvecklingsmiljöer vid konstruktion av webbapplikationer

# Kursplan – Bedömningsformer

## Krav för godkänd

- Godkända inlämningsuppgifter (5 hp) och godkänt projekt (2.5 hp).

## Krav för väl godkänd

- Väl godkänd på inlämningsuppgifterna samt godkänt projekt.



# Planering för kursen

Vecka	Tema
3	APP: Intro HTML & CSS                      IA: Repetition JS
4	APP: Intro CSS & JS                      IA: Mer JS
5	Responsiv design
6	Introduktion till jQuery & Ajax
7	HTML 5 & handhållna enheter
8	Externa ramverk
9	Porta till app (Phonegap): App Store, Google Play
10	Projekt
11	Projekt
12	Projekt + projektredovisning

# En typisk vecka

- Måndag, 10-12: Föreläsning
- Tisdag, 13-15: Föreläsning / Labb
- Torsdag, 8-12: Laboration



# Kursens examinerade moment

- Inlämningsuppgift 1
  - Skapa en responsiv webbplats (desktop/surfplatta/mobil)
    - Utan externa ramverk
- Inlämningsuppgift 2
  - Skapa en responsiv webbplats m.h.a. externt bibliotek (bootstrap, material design, etc.)
  - Bygga mot ett externt API
- Projekt
  - Skapa en webbplats med fokus på mobil/tablet för ett givet syfte.

# Resurser

- Internetbaserade resurser
- Weyl, Estelle (2013) Mobile HTML5. Using the latest today, O'Reilly Media

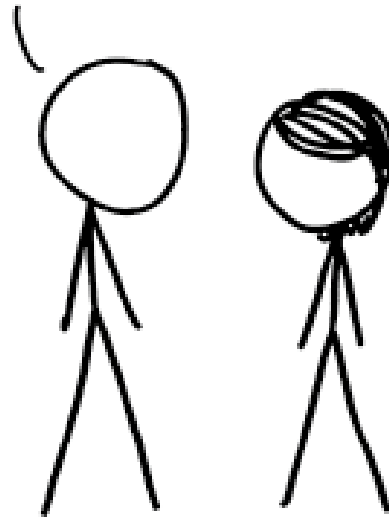


**<http://da355a.ia-mah.se>**

Kursens webbplats

INSTALLING THINGS HAS  
GOTTEN SO FAST AND PAINLESS.

WHY NOT SKIP IT ENTIRELY,  
AND MAKE A PHONE THAT HAS  
EVERY APP "INSTALLED" ALREADY  
AND JUST DOWNLOADS AND RUNS  
THEM ON THE FLY?



I FELT PRETTY CLEVER UNTIL I  
REALIZED I'D INVENTED WEBPAGES.

**Frågor?**