

Kursintroduktion

DA344A, DA355A

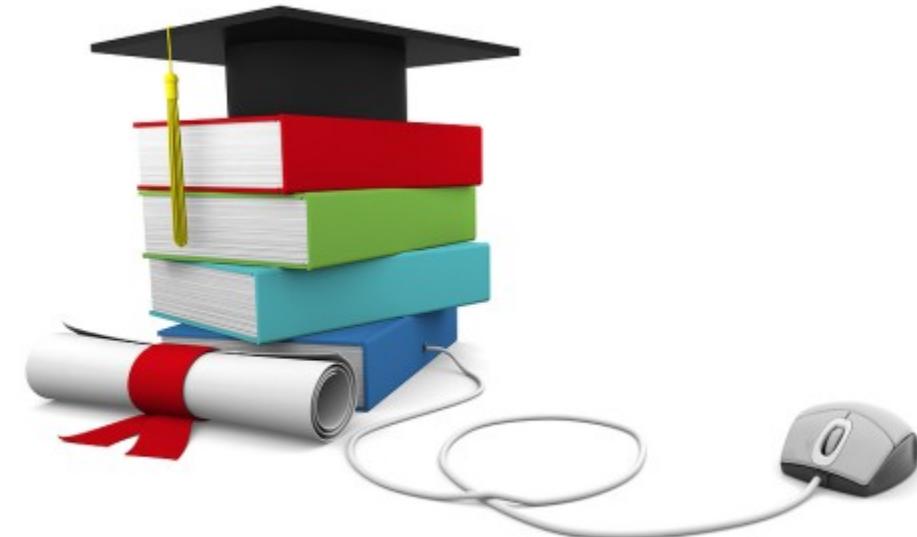
7.5 HP

**Webbapplikationer för mobila
enheter**

**Flerplattformsapplikationer med
webbtekniker**

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



Lärare i kursen



- Anton Tibblin (kursansvarig)
 - anton.tibblin@mau.se
 - 040-66 57672
- Johan Holmberg
 - Johan.holmberg@mau.se
 - 040-6657376

Upprop



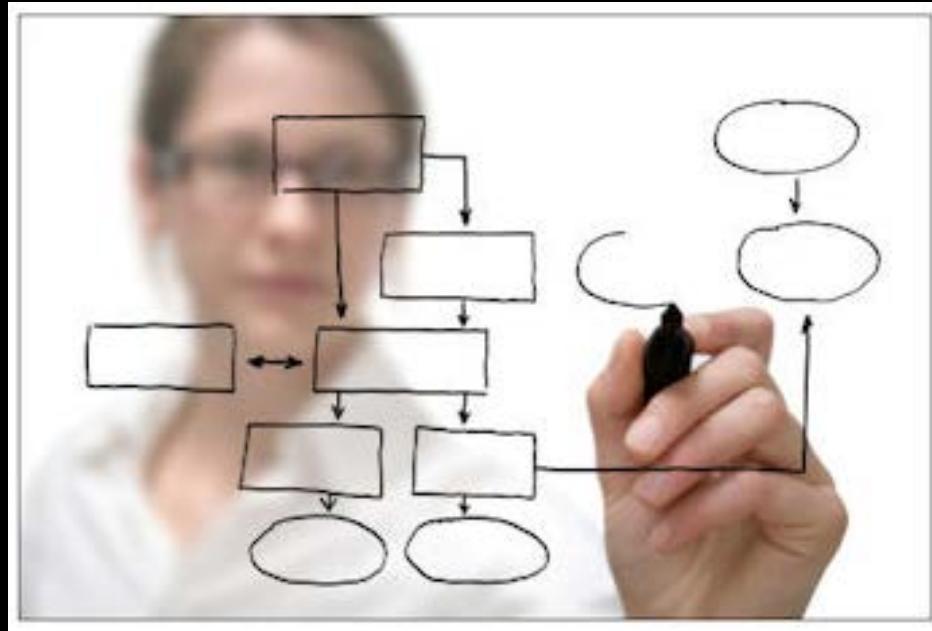
Vilka läser kursen?

- Informationsarkitekt (termin 4)
 - DA355A - Data- och informationsvetenskap:
Flerplattformsapplikationer med webbtekniker
- 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?

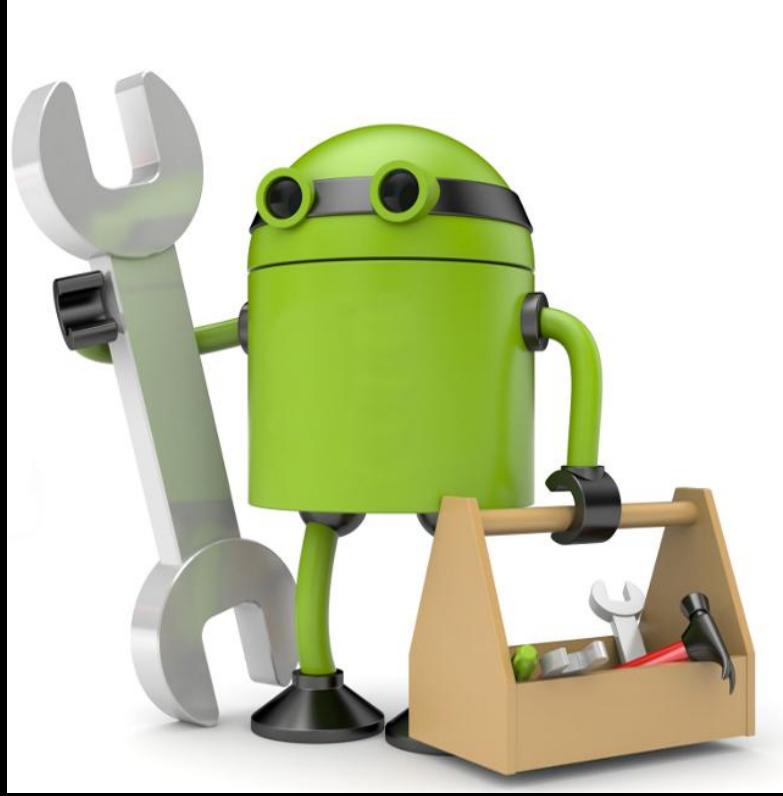


Knowledge
is power!



Informationsarkitekter?

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?

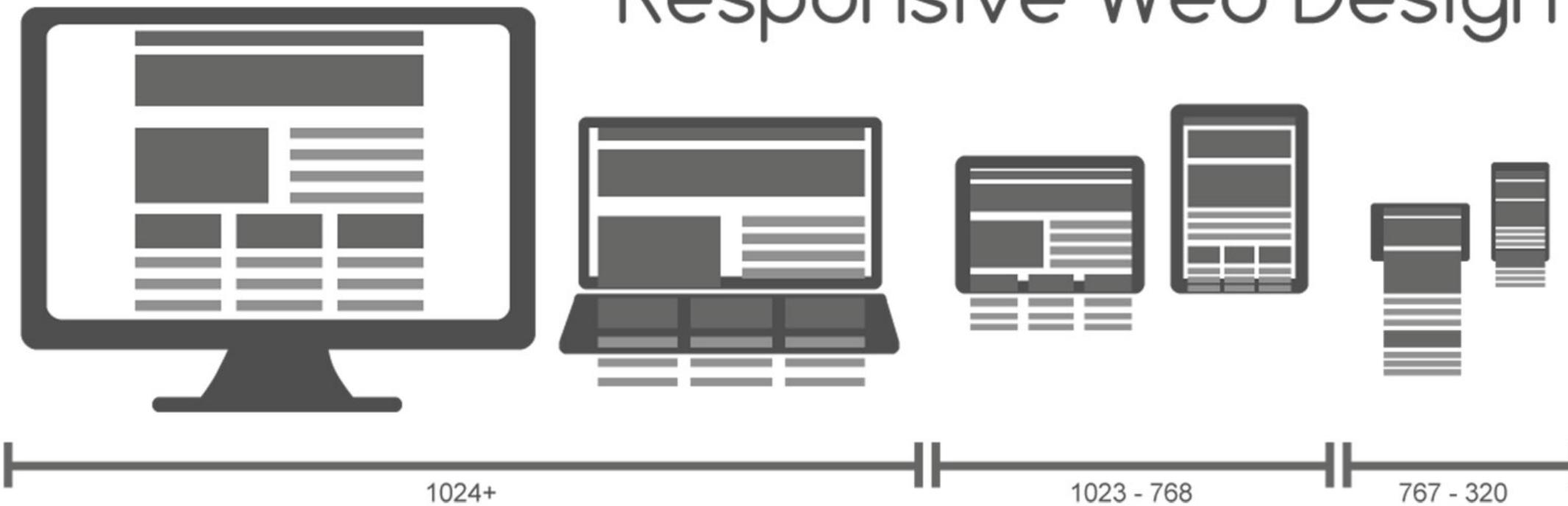
SO, WHAT IS IT YOU WOULD SAY

YOU DO HERE?

quickmeme.com

Varför är kursen relevant?

Responsive Web Design





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

Internet != WWW







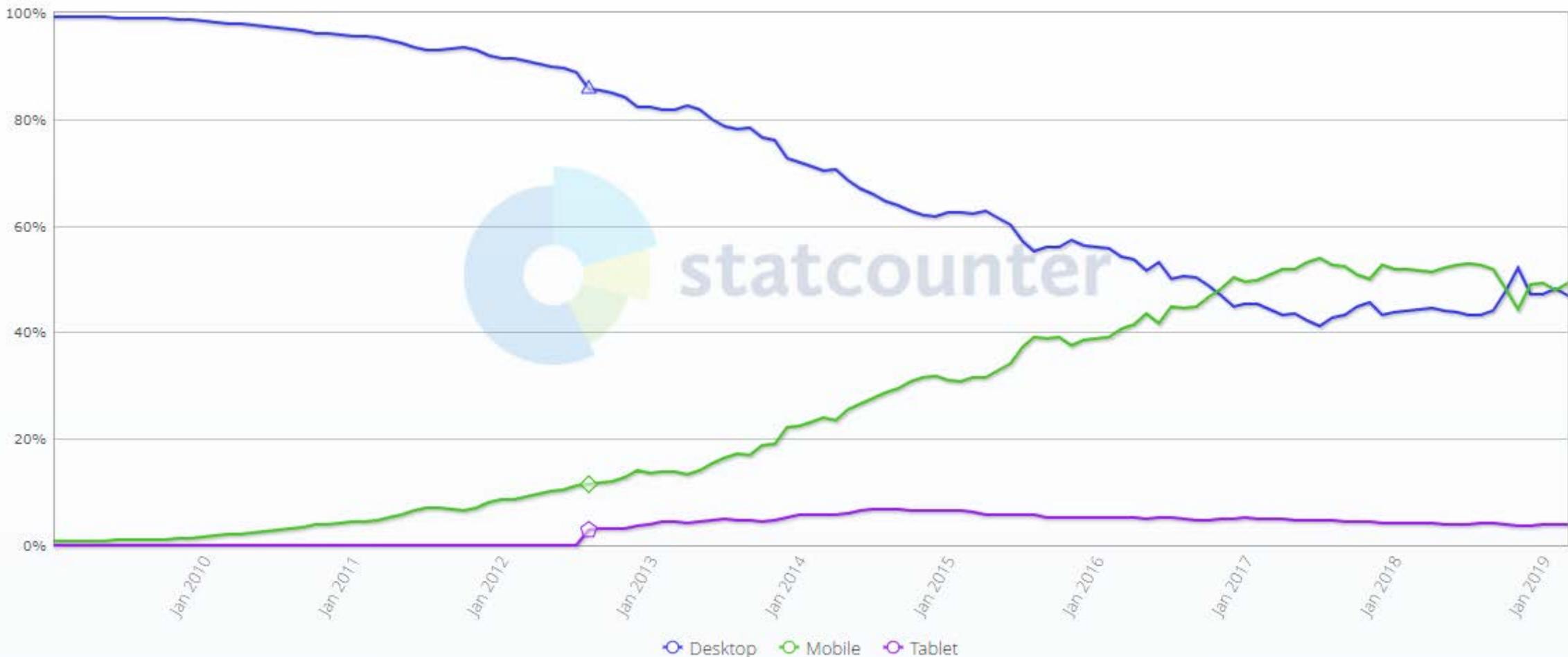


<http://www.viva>

Desktop vs Mobile vs Tablet Market Share Worldwide

[Edit Chart Data](#)

Jan 2009 - Mar 2019

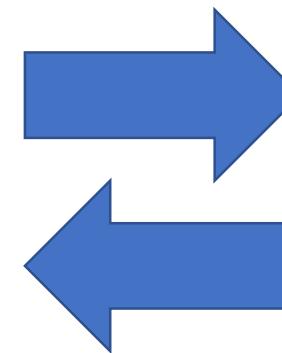
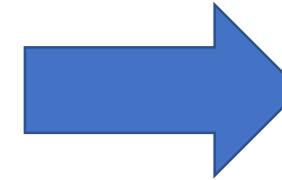
[Save Chart Image \(.png\)](#)[Download Data \(.csv\)](#)[Embed HTML](#)

<div id="desktop+mobile+tablet-comparison-ww-monthly-200901-201903">

Year (June)	Websites	Change	Internet Users	Users per Website	Websites launched
2018	1,630,322,579	-8%			
2017	1,766,926,408	69%			
2016	1,045,534,808	21%			
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	Pinterest , Instagram
2009	238,027,855	38%	1,766,206,240	7.4	
2008	172,338,726	41%	1,571,601,630	9.1	Dropbox
2007	121,892,559	43%	1,373,327,790	11.3	Tumblr
2006	85,507,314	32%	1,160,335,280	13.6	Twtr
2005	64,780,617	26%	1,027,580,990	16	YouTube , Reddit
2004	51,611,646	26%	910,060,180	18	Thefacebook , Flickr
2003	40,912,332	6%	778,555,680	19	WordPress , LinkedIn
2002	38,760,373	32%	662,663,600	17	
2001	29,254,370	71%	500,609,240	17	Wikipedia
2000	17,087,182	438%	413,425,190	24	Baidu
1999	3,177,453	32%	280,866,670	88	PayPal
1998	2,410,067	116%	188,023,930	78	Google
1997	1,117,255	334%	120,758,310	108	Yandex , Netflix
1996	257,601	996%	77,433,860	301	
1995	23,500	758%	44,838,900	1,908	Altavista , Amazon , AuctionWeb
1994	2,738	2006%	25,454,590	9,297	Yahoo
1993	130	1200%	14,161,570	108,935	
1992	10	900%			
Aug.	1				World Wide Web

Tjänster som blommat ut genom internet

- 1994 Yahoo!
- 1995 Match.com
- 1997 Netflix
- 1998 Google
- 2003 Wordpress
- 2004 Facebook
- 2005 Youtube
- 2006 Twitter
- 2010 Pinterest



2018 This Is What Happens In An Internet Minute





2018 This Is What Happens In An Internet Minute





Digitalisering och beteende

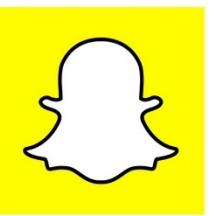
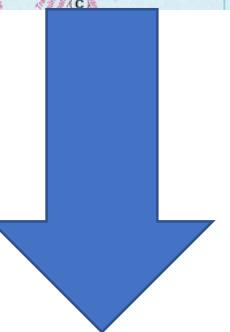
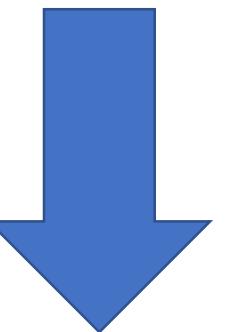
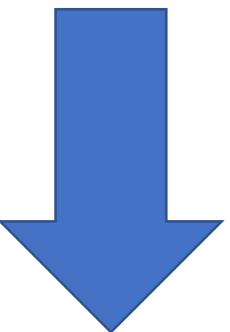
Hur kommuniceras vi idag?



Vi är uppkopplade nästan hela tiden







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](#), [Policy](#), 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



- [Arts and Humanities](#) - Architecture, Photography, Literature...
- [Business and Economy \[Xtra!\]](#) - Companies, Investments, Classifieds...
- [Computers and Internet \[Xtra!\]](#) - Internet, WWW, Software, Multimedia...
- [Education](#) - Universities, K-12, College Entrance...
- [Entertainment \[Xtra!\]](#) - Cool Links, Movies, Music, Humor...
- [Government](#) - 96 Elections, Politics [Xtra!], Agencies, Law, Military...
- [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



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](#)

[Surprise](#) · [Legal](#) · [FAQ](#) · [Add URL](#) · [Feedback](#) · [Text-Only](#)

[AltaVista Software](#)

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

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!

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

[About Google!](#)

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

Get Google! updates monthly!

[Archive](#)

Copyright ©1997-8 Stanford University

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:

[Send 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](#)
All content Copyright © 2003, LinkedIn, Ltd. All rights reserved.

2004 - thefacebook

The screenshot shows the homepage of thefacebook.com. At the top right, there's a blue header bar with the text "[thefacebook]" in white. Below it are three links: "login", "register", and "about". On the left side, there's a sidebar containing a small profile picture of a person with short hair, followed by input fields for "Email:" and "Password:", and two buttons: "register" and "login". The main content area has a blue header with the text "[Welcome to Thefacebook]" in white. Below it, a large paragraph reads: "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." At the bottom of the main content area, there are two blue buttons: "Register" and "Login". At the very bottom of the page, there's a footer with links: "about", "contact", "faq", "terms", and "privacy", followed by the text "a Mark Zuckerberg production Thefacebook © 2004".

2005 - YouTube



[About Us](#) | [Terms of Use](#) | [Privacy Policy](#) | Copyright © 2005 YouTube, LLC™

2006 - Twitter

The screenshot shows a web browser window titled "twtr" with the URL "http://twtr.com/t/account/identify". The page features a large green "Twitter" logo at the top. Below it is a promotional message: "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...E V E R !". To the left, there are two rounded boxes: "What your friends are" showing updates from Kevin Systrom, Jeremy, and Katie, and "txt (or) What are you doing?" with a text input field and a "Send" button. At the bottom, there are links for "Timeline" and "what up?". On the right, there's a "Sign in" form with fields for mobile number or email and password, a "Remember me" checkbox, and a "Sign in" button. Below the sign-in form is a "New? Sign up!" link and a note about verifying the user's number.

twtr

Gmail – Inbox Google Calendar Valleywag Welcome to Flickr! del.icio.us/popular Google AdSense

Gmail – Inbox twtr

twtr

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...E V E R !

What your friends are

Kevin Systrom babysitting
Jeremy home - boys to be
Katie It's my birthday!

txt (or)
What are you doing?

Send

Timeline

what up?

follow along with what your friends are doing throughout the day

send updates from your cell or from the web about what's in yr head

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



**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?

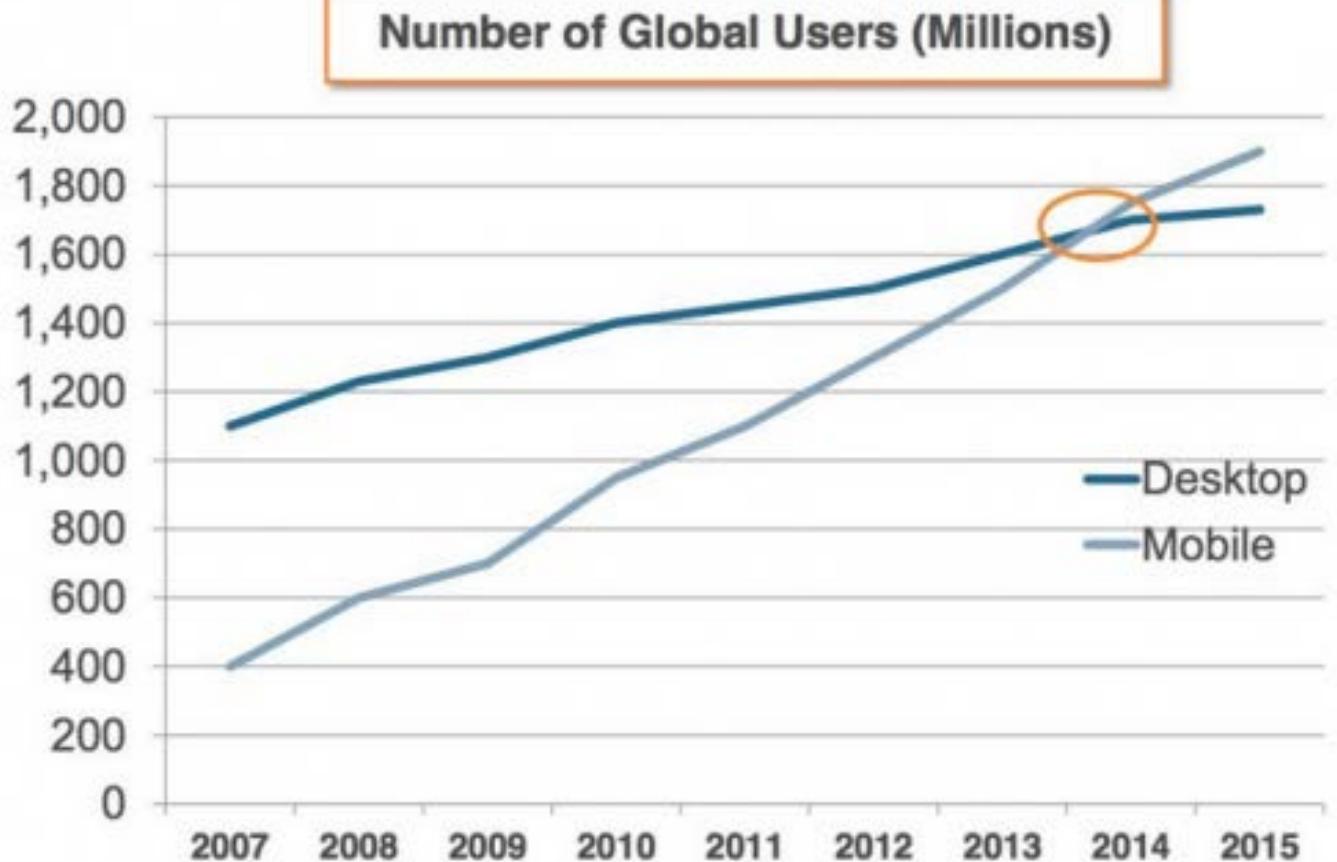
- För att få ett perspektiv på mobil webbutveckling
 - Vilka alternativ finns?
 - Vilka fördelar & nackdelar innebär webben för handhållna enheter?
 - Vilka möjligheter och begränsningar erbjuder dagens webblösningar?
- Ge en inblick i mobil webbutveckling
 - Vad kan HTML5, CSS3 & JavaScript erbjuda?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

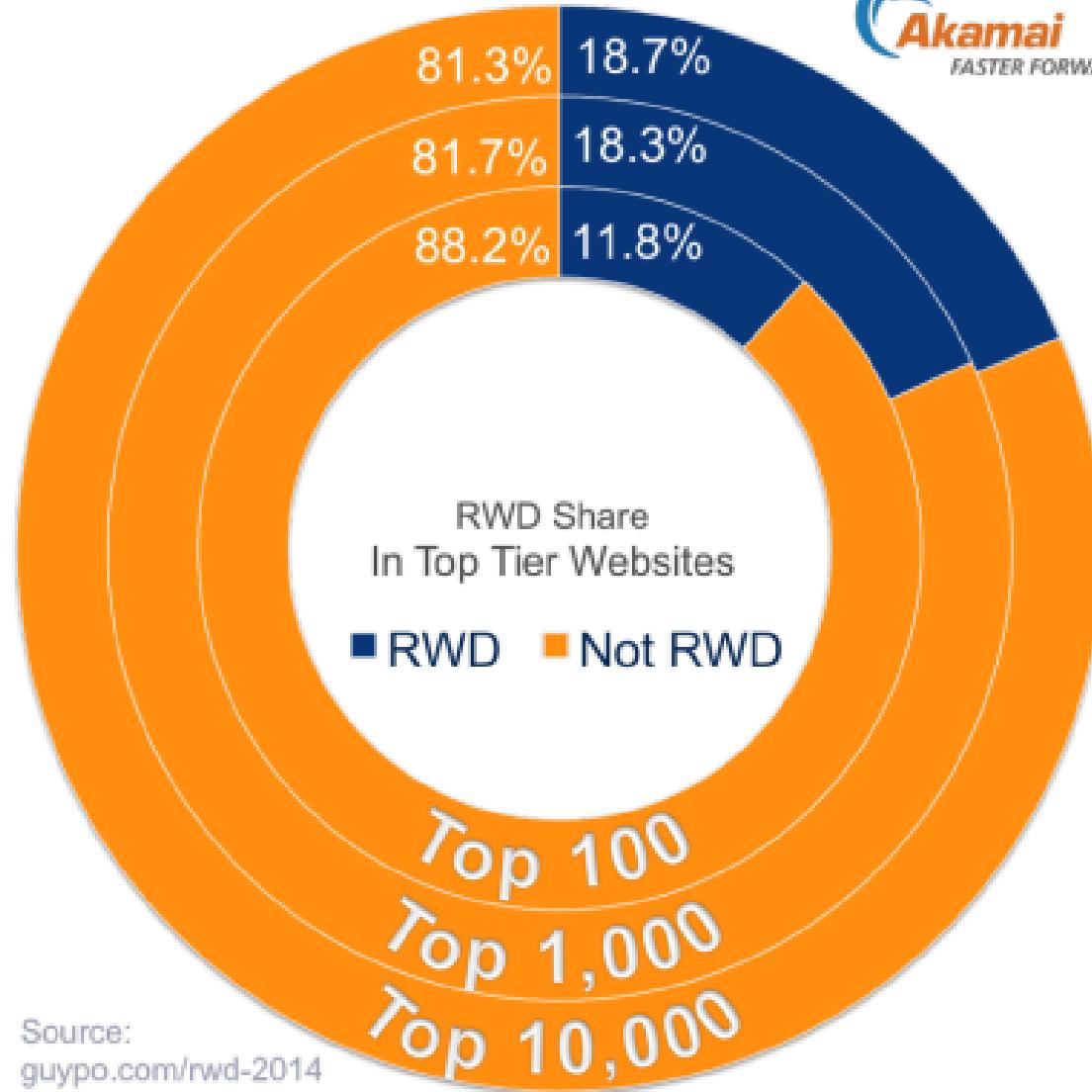
40% of people will choose a different search result if the first is not mobile friendly.

—Skillcrush

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

— Econsultancy





Intressant läsning: <https://www.sweor.com/responsivewebdesign>

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 webbtekniker
 - 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 VG-grundande inlämningsuppgift samt godkänt på inlämningsuppgifter & projekt.

Planering för kursen

<http://mah-dv.github.io/courses/da344a-da355a/plan.html>

Vecka 14

Måndag	10:15 - 12:00	Kursintroduktion	NI:A0506	AT & JH
Tisdag	13:15 - 15:00	IA - Introduktion till JS	NI:C0315	JH
Tisdag	13:15 - 15:00	APP - Introduktion till HTML & CSS	NI:A0513	AT
Torsdag	08:15 - 17:00	IA - Bootcamp: JS	FM: G8:405, EM: NI:C0315	JH, CN/EI
Torsdag	08:15 - 17:00	APP - Bootcamp: HTML & CSS	FM: G8:407, EM: NI:A0418	AT, CN/EI

Vecka 15

Måndag	08:15 - 10:00	IA - Mer om JS & DOM	OR:D328	JH
Tisdag	13:15 - 15:00	APP - Introduktion till JS & DOM	OR:B423	JH
Torsdag	08:15 - 12:00	IA - Labb: Intro DOM	G8:405	JH, CN/EI
Torsdag	08:15 - 12:00	APP - Labb: Intro JS, Intro DOM	G8:407	JH, CN/EI

Vecka 16

Måndag	10:15 - 12:00	Responsiv webb	NI:A0506	AT
Tisdag	13:15 - 15:00	Responsiva ramverk	NI:A0506	AT
Torsdag	13:15 - 17:00	Labb: Responsiv webb & Responsiva ramverk	OR:D326, OR:E323	AT, CN, EI

Vecka 17

Tisdag	15:15 - 17:00	JS: Fokus på webb	NI:A0306	AT
Onsdag	10:15 - 12:00	Gästföreläsning: Front-end i praktiken	OR:C231	Cygni
Torsdag	08:15 - 12:00	Labb: Intro jQuery & Intro Ajax	OR:E323, OR:E340	AT, CN, EI

Vecka 18

Måndag	10:15 - 12:00	Geolocation / LocalStorage / Cookies	NI:A0506	AT
Torsdag	08:15 - 12:00	Labb: Intro LocalStorage & Intro Geolocation	OR:D326, OR:E323	AT, CN, EI

Vecka 19

Måndag	09:15 - 12:00	Vue.js / React / Angular	NI:A0606	AT
Tisdag	13:15 - 15:00	Utvecklingsmetodik, pakethanterare	NI:A0307	JH
Torsdag	08:15 - 12:00	Labb: Utvecklingsmetodik	G8:405, G8:407	JH, CN, EI

Söndag

Deadline: **Inlämningsuppgift 1**

Vecka 20

Måndag	10:15 - 12:00	Föreläsning: Extra	NI:A0407	AT
Tisdag	13:15 - 17:00	Labb: Vue.js / React / Angular	OR:E222, OR:E223	AT, CN, EI
Torsdag	08:15 - 12:00	Labb: Extra	G8:405, G8:424	AT

Vecka 21

Måndag	10:15 - 12:00	Projekthandledning	NI:A0407	AT
Tisdag	13:15 - 15:00	Projekthandledning	NI:A0606	AT
Torsdag	08:15 - 12:00	Labb: Extra	G8:405	AT

Vecka 22

Måndag	08:15 - 12:00	Projekthandledning	NI:A0606	AT
Måndag	13:15 - 17:00	Labb: Extra	NI:A0606	AT
Vecka 23				
Måndag	08:15 - 12:00	Presentation av projekt	NI:B0E07	AT, JH
Tisdag	13:15 - 17:00	Presentation av projekt	NI:B0E07	AT, JH

En typisk vecka i kursen

- Måndag FM: Föreläsning
- Tisdag EM: Föreläsning / Labb
- Torsdag FM: Laboration



Kursens examinerade moment

- Inlämningsuppgift 1
 - Skapa en responsiv webbplats (desktop/surfplatta/mobil)
 - Utan externa ramverk
 - Med lite JavaScript-funktioner
- Avklarade laborationer *eller* Inlämningsuppgift 2
 - **Rekommenderat:** Redovisa lösningar på kursens alla laborationer
 - **Alternativ:** Göra inlämningsuppgift 2
- Projekt
 - Skapa en webbapplikation m.h.a. ett JS-ramverk, samt CSS-ramverk
- För VG – Gör den separata VG-uppgiften (publiceras senare)

Resurser

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

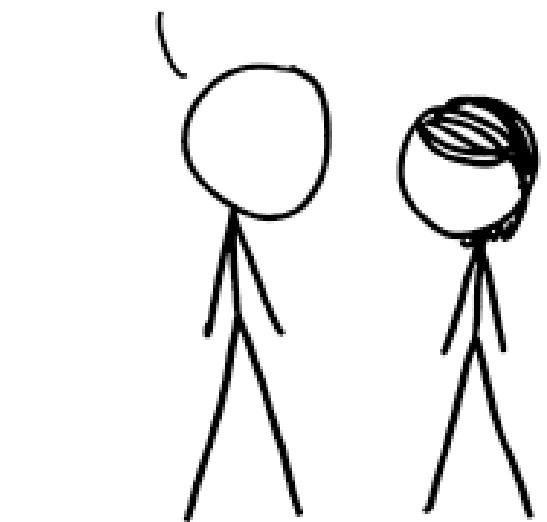


<http://da355a.ia-mah.se>

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?