

Social programming



BBC NEWS | Technology | Cash reward for Facebook programs

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Cash reward for Facebook programs

Software developers will be offered up to \$250,000 (£125,000) to develop applications for popular social network Facebook, the site's founder has said.

Mark Zuckerberg announced incentives to firms and individuals who create "innovative and disruptive programs".

There are already around 4,000 of the small programs available on the website.

They include music and digital gifts, games of scrabble and fortune cookies.

The fbFund grants, announced at the TechCrunch40 conference in San Francisco, will come out of a \$10m pot gathered by Facebook's primary backers Accel Capital and The Founders Fund.

"With just a little bit of capital, a company can grow to hundreds of thousands of users," Mr Zuckerberg said.

Growth spurt

Applications - small programs

Founder wants more innovative programs for Facebook

VIDEO AND AUDIO NEWS
Mark Zuckerberg talks about Facebook applications
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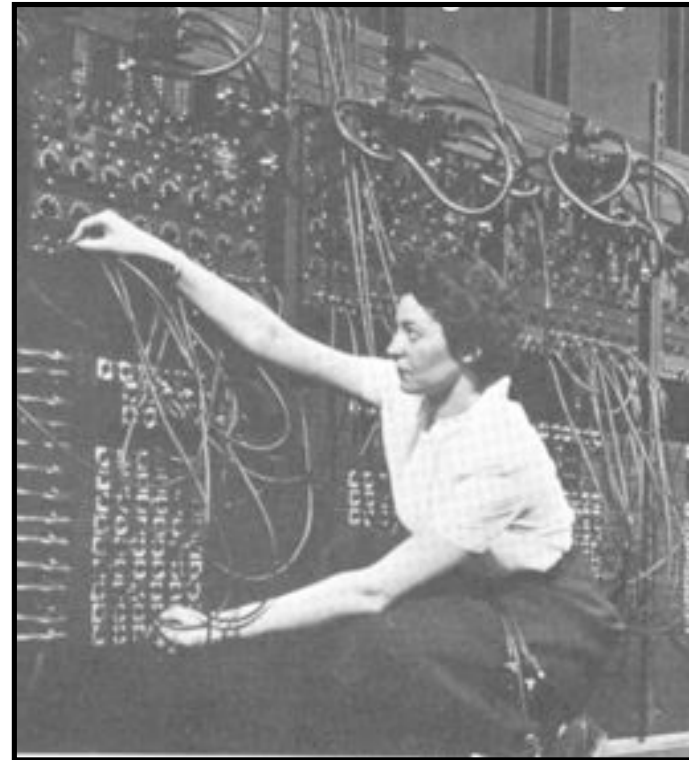
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Overview

- History of programming
- What are social network systems?
- Basic concepts of Social programming

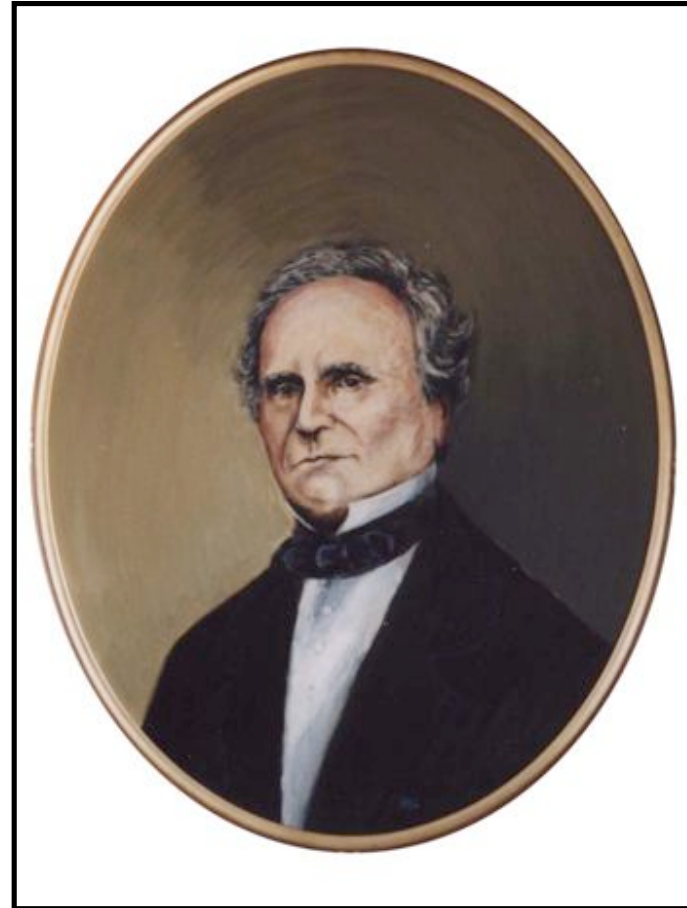
Brief History of programming

- A programmer's perspective!

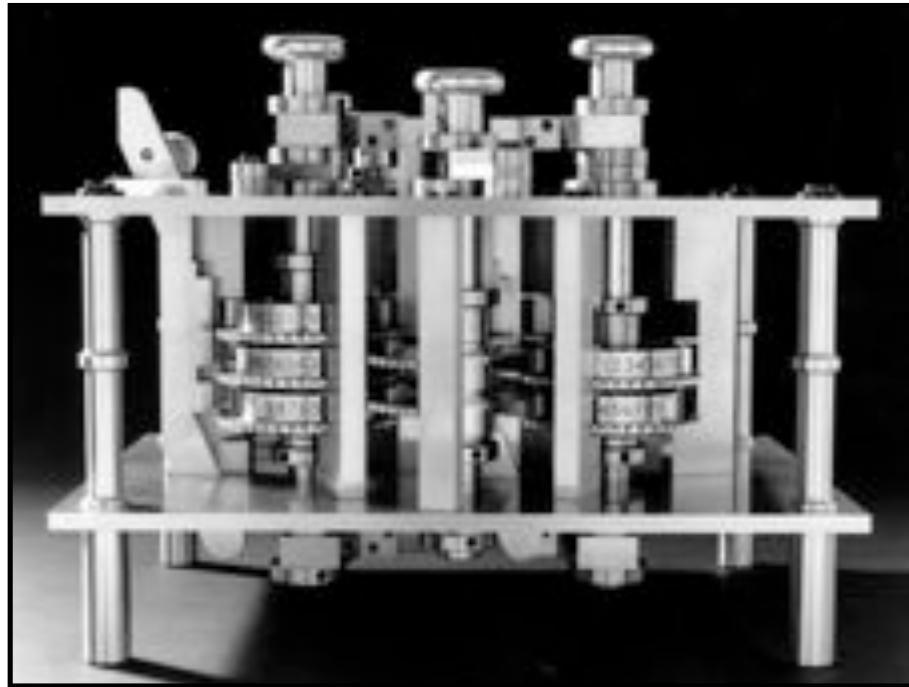


Charles Baggage

- England, 1791 - 1871



Difference Engine

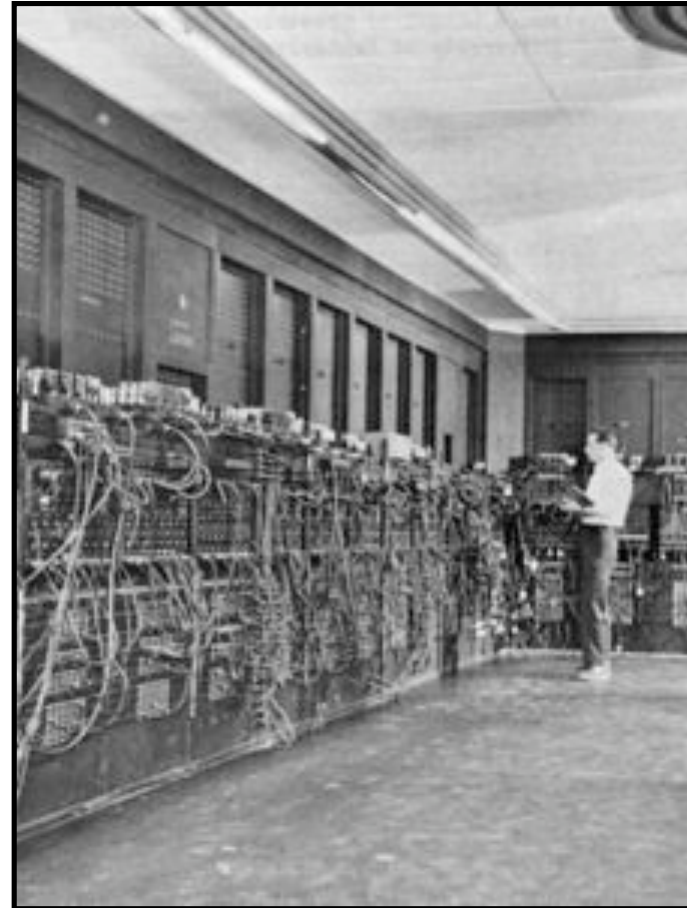


Difference engine

- Mode: physical
- Instructions: change gears
- Task: perform calculations

ENIAC

- USA, 1942



ENIAC

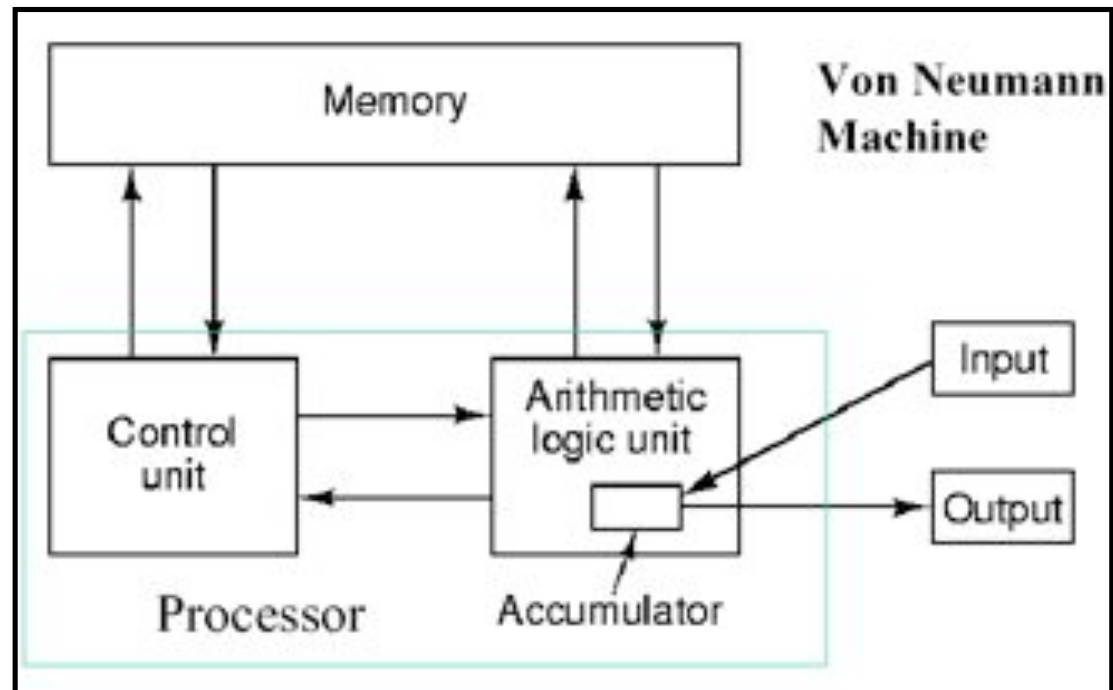
- Mode: electrical
- Instructions: change cables and switches
- Task: perform calculations

John von Neuman

- Hungary / USA 1903 - 1957



Shared program technique

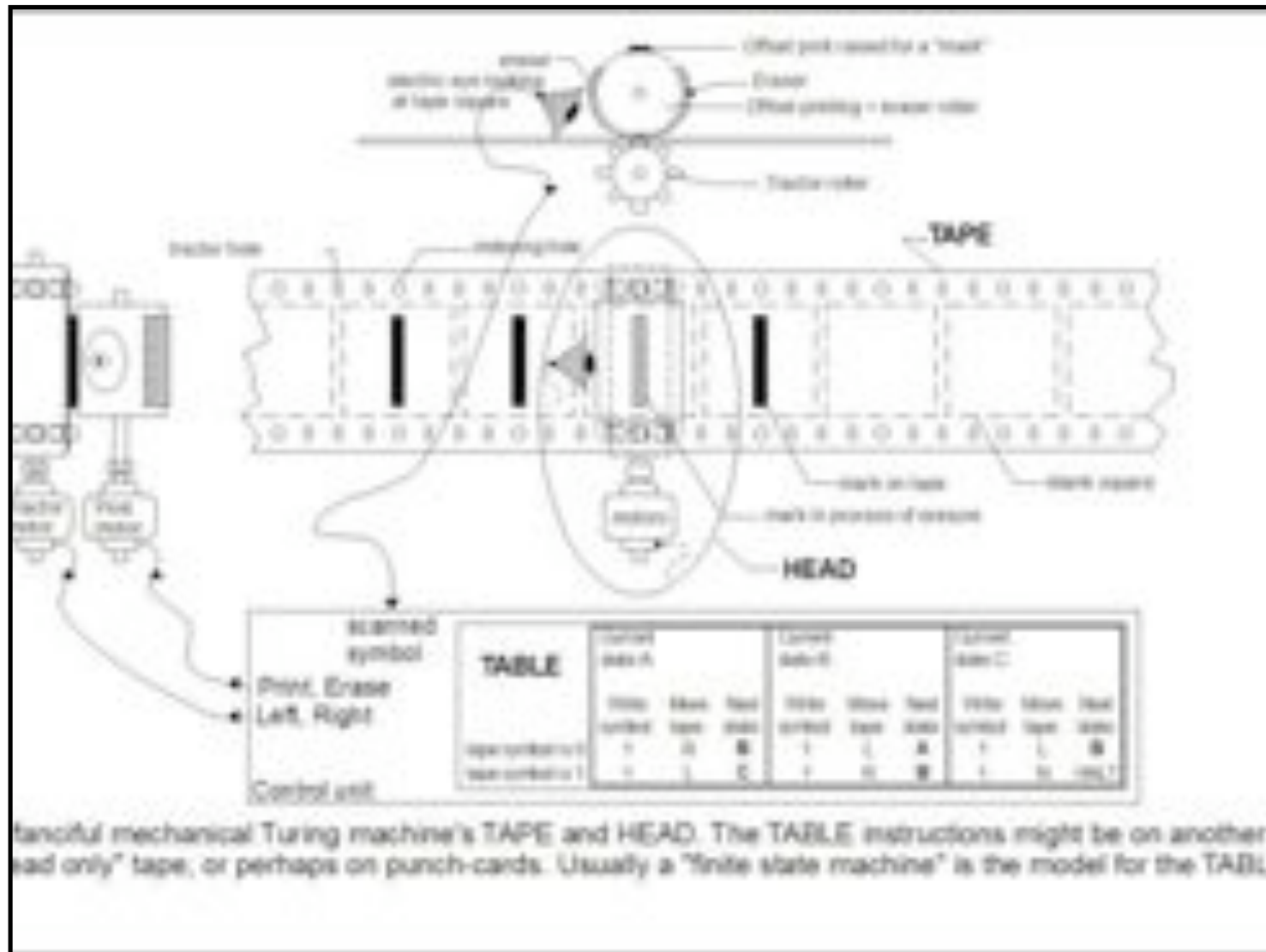


Alan Turing

- England, 1912-1954



Turing Machine



Turing machine

- Mode: logic
- Instructions: “Move left”, “move right”
- Task: change state

Short code (1949)

```
a = (b+c)/b*c
```

was converted to Short Code by a sequence of substitutions and a final regrouping:

```
X3 = (X1+Y1)/X1*Y1
```

substitute variables

```
X3 03 09 X1 07 Y1 02 04 X1 Y1
```

substitute operators and parentheses.

```
07Y10204X1Y1
```

group into 12-byte words.


```
0000X30309X1
```

Grace Hopper

- 1943-1966, USA

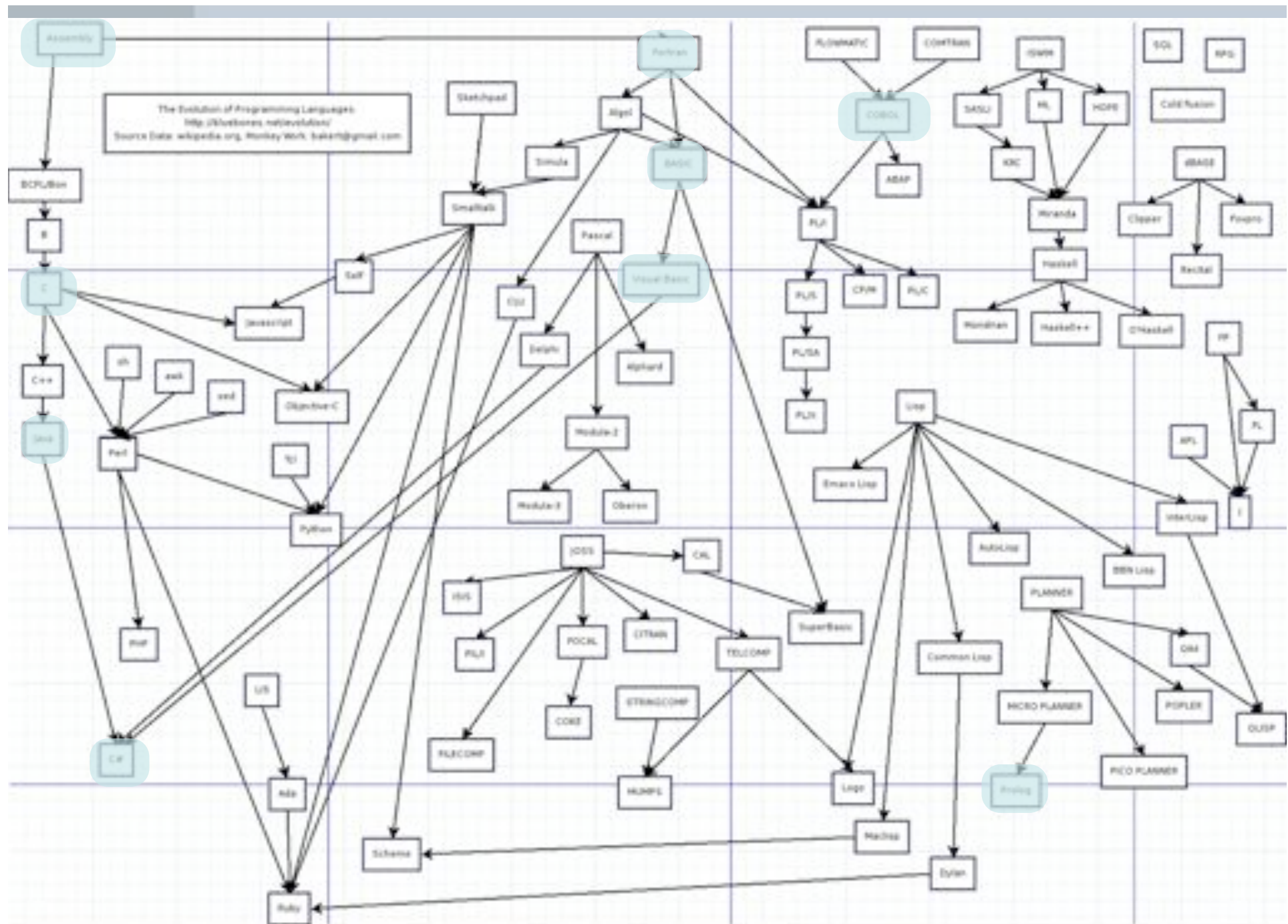


First bug

0800 Antan started
 1000 stopped - antan ✓
 1342 034 MP-AC 2.130476415
 038 PRO 2 2.130476415
 correct 2.130676415
 Relays 6-2 in 032 failed special speed test
 in relay 11.00 test.
 Relays changed
 1100 Started Cosine Tape (Sine check)
 1525 Started Multi-Adder Test.
 1545  Relay #70 Panel F
 (moth) in relay.
 First actual case of bug being found.
 1645 Antan started.
 1700 closed down.

A0 compiler (1951)





Assembly language

- Mode: “juggling”
- Instructions: “Move to register”, “add”
- Task: calculations

High-level languages

- Mode: procedural / functional
- Instructions: “Open file”, “read text”
- Task: file operations, menus

Object Oriented languages

- Mode: Object oriented
- Instructions: “Create button”, “delete account”
- Task: desktop applications

HTML

- Mode: multimedia & network oriented
- Instructions: “Link to document”, “show picture”
- Task: hierarchical browsing, information retrieval

Social programming

- Programs running on social platforms
 - Facebook, MySpace, FriendSter, Hi5, Multiply, Zorpia
- Platform provides API and resources
- Application uses API, creates (G)UI
- User interacts with Applications

Facebook

- “Online social networking”
- Each user has a profile
- Each user has “friends”
- Users generate content (messages, pictures, discussions)
- Information is “filtered” through one’s social network

Facebook applications

- To generate content, users use applications
- Everything in facebook is an application
 - Message composer
 - Photo Albums
 - Poking

Facebook | Home

[http://bathac.facebook.com/home.php?](#)

Q+ Google

[Tutorial](#)
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facebook

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Q

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edit

Cityware

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News Feed

Preferences

IQ

Katerina Mpouglatiweh added the IQ Test application.

Nicolas Papaconstantinou changed his profile picture.



Nicolas

Mark Wood is attending Matt Giles 'Undone' gig.

Scott Dawson added the Art of War Quotes application.

Kostis Papageorgiou joined the group GIMNASIO & LIKIO MORAITI - TD 4 & 3 ANTISTOXAI.

Katerina Mpouglatiweh added the Cities I've Visited application.

Polychronis Ypodimitopoulos is concluding: There is only one way to program: the right way!

Max Green and Grace Prince are now friends.

Sotiris Makrygiannis is attending Elena Farewell and pre-farewell for Tina and Drago.

Scott Dawson added the Our Links application.

Scott Dawson joined the group Petraeus for President.

Rachel Lockwood is attending Comp Sci Girlie outing!.

Giles Medd joined the group DOMINOS does it best.

Sotiris Makrygiannis and Quim Gil are now friends.

Jeffrey Cuenco is preparing for the madness to come the next few weeks...

Marios Perdiou posted a video.



Play Video

Starbucks Commercial

<http://www.youtube.com/watch?v...>

"Dontcha want starbucks Right Now?"

Share +

Requests

1 event invitation

1 group invitation

Status Updates

see all

Update your status...

Kerstin Sailer is back to London soon!

3m ago

Sotiris Makrygiannis is at conference call with Silicon Valley...asking if they can send some good beef down here.

14m ago

Carl Joe-Njoku is wasting time chasing cars around his head.

2h ago

hide friend updates

Birthdays

see all

No upcoming birthdays.

Invite Your Friends

Invite your friends to join Facebook.

New Stuff

show

Show this to view Marketplace listings and the gift of the day.

The Next Step

see all

Check out what's new on Facebook.

Facebook applications

- Mode: social
- Instructions: “Add friend”, “Tag photograph”, “retrieve human relationships”
- Task: social networking

Facebook applications

- Facebook is the Operating System
- Facebook applications utilise various “services” offered by the OS
 - Information about users
 - Friends
 - Events
- Users interact with the applications

How to think about Facebook

- Facebook customised based on who your friends are
- Dynamic content based on who your friends are
- Information filtered based on who your friends are
- Discussion:
 - Is this a good way of dealing with information overload?
 - (Vanevar Bush)

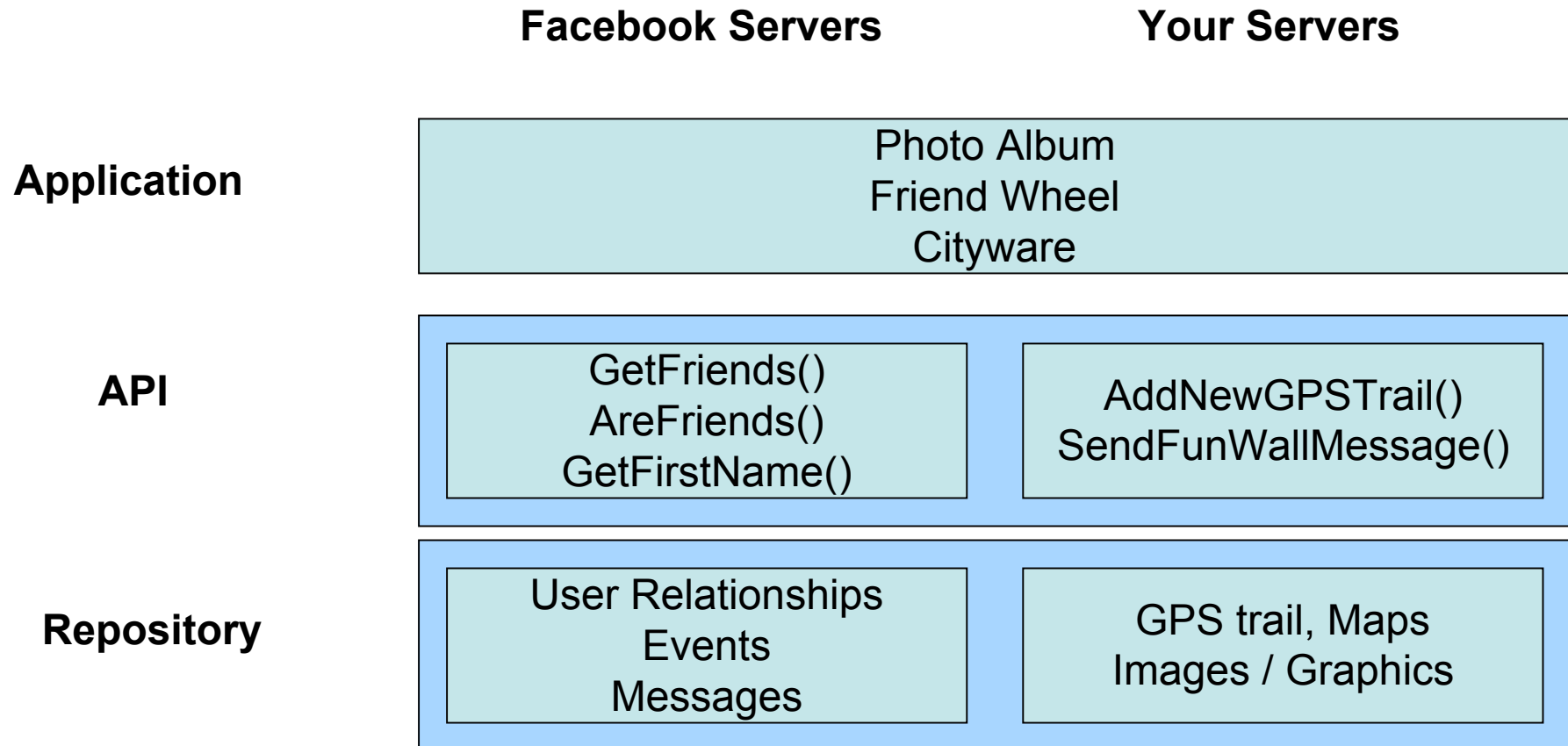
Take a break

- 2 minutes break

Overview of social web architecture

- Abstract layers
- Primitive API
- Facebook Query Language (FQL)
- Facebook Markup Language (FBML)
- Application Components

Facebook platform



Facebook API

- `getFriends()`
- `eventGetParticipants()`
- Etc, etc

Facebook Query Language

- Provides SQL-like access to repository data
- Query table for results
- Example:
- **SELECT name, pic FROM user WHERE uid=211031 OR uid=4801660**

Facebook Markup Language

- Your program's text output is parsed and rendered
- HTML - variant
- Makes things easier
- Example
- `<fb:profile-pic uid="12345" linked="true" />`

Application Components

- See <http://developers.facebook.com/anatomy.php>
- Main application page
- Application Box (profile text)
- Invitations
- Notifications

Cityware

- Merging online network with physical networks
- Facebook: collection of online friends
- Bluetooth: collection of urban / physical friends
- Second life: collection of virtual world friends
- ...
- Can we put all these together?

Facebook | Cityware

http://apps.facebook.com/cityware/index.php

Google

torrents (2) Hosting Bank Translate Portuguese to English home GreekIPTV Lit review LSI

North Cape, Norway - facebook query languag... Fbprofile-pic - Facebo... Facebook | Cityware

facebook Profile edit Friends + Networks + Inbox + home account privacy logout

Search +

Applications edit

- Contamination
- Cityware
- Photos
- Groups
- Events
- more

Advertise on Facebook

My Cityware | My Settings | Getting Started | About Cityware







Cityware

Vassilis Kostakos's Cityware Profile - Displaying device: vk

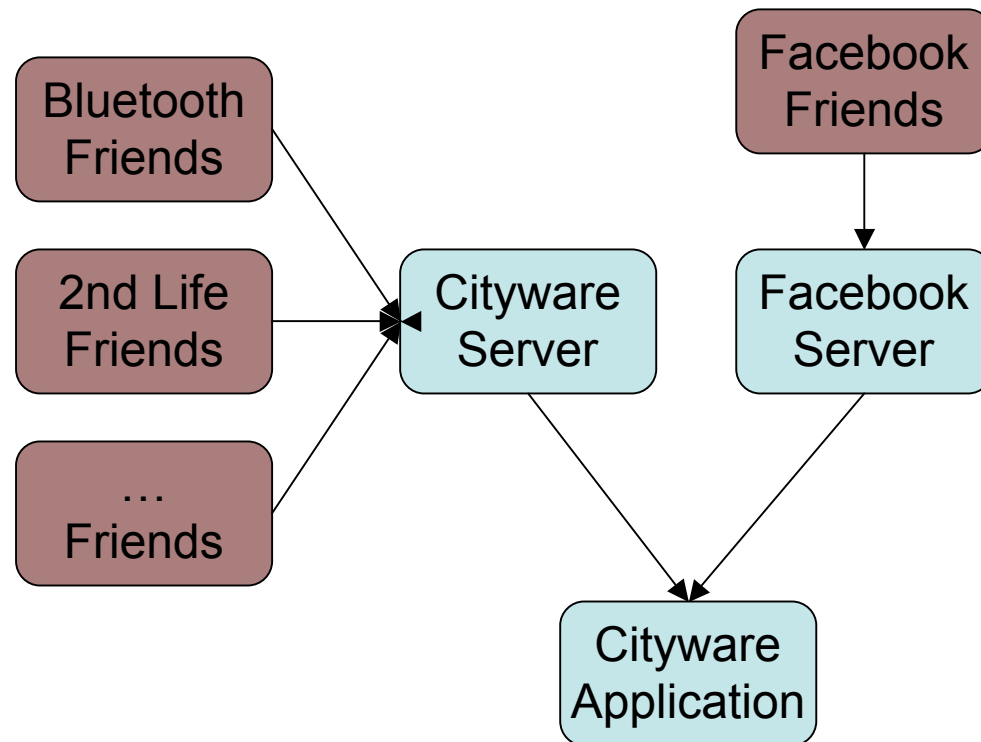
Last Seen With... Spends Most Time With... Meets Most Often...

Show More Devices | Hide Untagged Devices

Displaying top 10 encounters with All devices

 <p>Vassilis Kostakos (You) ID: XXXXXXXXXXFC1 Device Name: v Met 3 months ago</p> <p>This device belongs to you</p> <p>Vassilis's Cityware Profile</p>	 <p>MSRC-1591109 ID: XXXXXXXXXX44A Met 3 months ago</p> <p>Tag this</p>
 <p>Kari E61 ID: XXXXXXXXXX91D Met 3 months ago</p> <p>Tag this</p>	 <p>Stavros Garzonis ID: XXXXXXXXXX812 Device Name: Stav's mobile Met 3 months ago</p> <p>Stavros's Cityware Profile</p>
 <p>Marga ID: XXXXXXXXXX6A5 Met 3 months ago</p>	 <p>Neil Carrigan's Computer ID: XXXXXXXXXX7A4 Met 3 months ago</p>

Overview



P4

- Create a Facebook application
- Due: Wednesday, April 2 at 9:00AM
- Work in pairs (cannot work with the same person as in P3 or P5).