

HUMAN CENTRIC MOBILE COMPUTING 2009

Amnon Dekel

HUMAN CENTRIC MOBILE COMPUTING 2009

Introduction to the Course

Expectations of Seriousness and Work

A short History of Mobile Computing

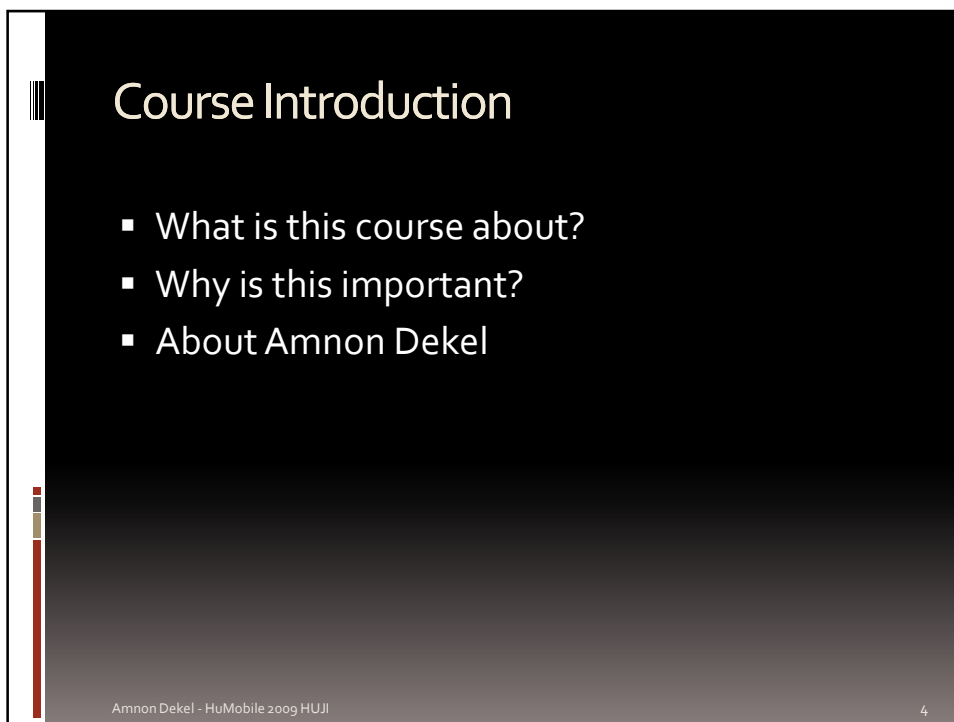
Lecture Signup



COURSE INTRODUCTION

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Course Introduction

- What is this course about?
- Why is this important?
- About Amnon Dekel

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What is this course about?

- 2 things:

1. THINKING
2. DOING

What is this course about?

- **Thinking about**
 - How Mobile Technologies work
 - New Possibilities enabled by the Maturation of Mobile Technologies
 - New Mobile Products and Services
 - New Ways of Interacting with Digital Information in Mobile Settings

What is this course about?

- **Doing**

- Programming a Mobile Device
- Designing and testing of Mobile Applications
- Planning and Developing a working Prototype of a Mobile Product

Why is this important?

- **You tell me ...**

A bit about me

- MA in Cognitive Psychology
- MPS in Interactive Telecommunications
- Working on my PhD in Mobile Interaction with the Real World

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Spinal Tap CD (1995)



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Discovery Channel Site (1994-1996)



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Bosnia Site for NYTimes.com (1996)



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Earthnoise Inc. (1999 – 2001)



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TriPlay Inc (2005-2008)



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HUJI Research (2005 – today)

- Amazon-on-Earth
- Mobile Gesture Musical Instrument
- ML Based Smart Profile Management
- Tangible Interfaces
- Smart Classroom

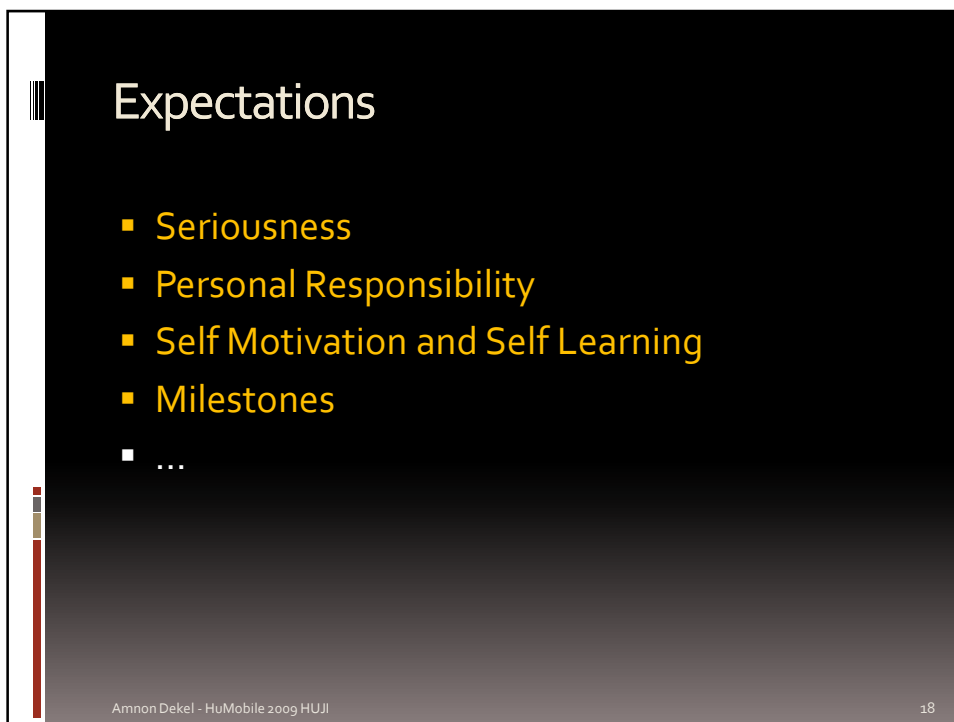






Green: Is a Word Red: Is Not a Word

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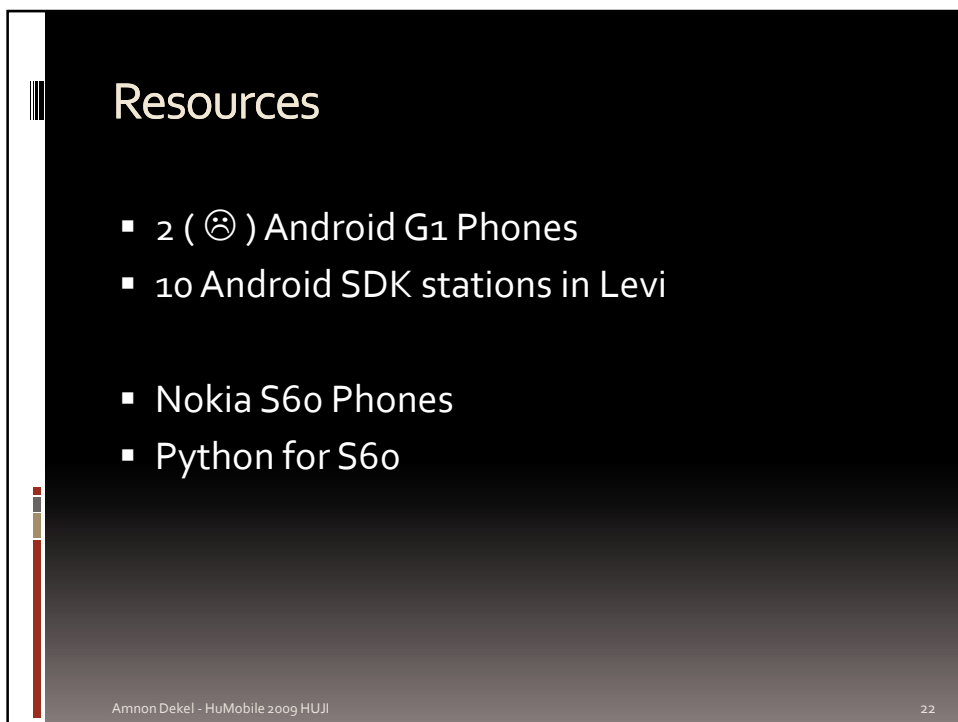


Expectations

- **Seriousness**
- **Personal Responsibility**
- **Self Motivation and Self Learning**
- **Milestones**
- Class Participation – **MUST** (10%)
- Exercise Hand in: **Personal** (25%)
- Class Lecture: **in Groups of 2** (25%)
- Projects: **in Groups of up to 3** (40%)

Schedule

- [view](#)




Now about you

- Take a minute and ask yourself:
 - Am I willing to **commit** to the course expectations?
 - There is a waiting list of people who want to take part in the course ...

A SHORT HISTORY OF MOBILE COMPUTING

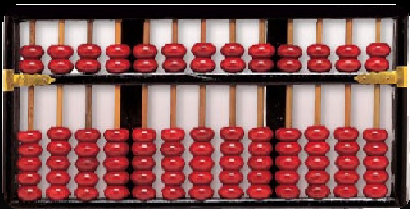
First Mobile Computer?



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First Mobile Computer

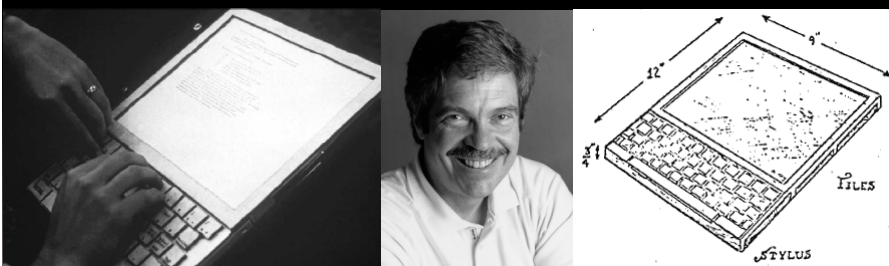


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First Modern Mobile Computer?

- Inspiration: Alan Kay's Dynabook (1968)
 - "A Personal Computer For Children Of All Ages."



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First Modern Mobile Computer?

- The GRiD Compass 1101 came out in 1979 but was hardly a consumer product.

| | |
|--------------------|--|
| Introduced: | 1979 |
| Price: | US \$8-10,000 |
| Weight: | 11 pounds (5 Kilos) |
| CPU: | Intel 8086 |
| RAM: | 256K DRAM |
| Display: | 6 in Plasma, 80x24 text 320 X 200 (CGA) |
| Ports: | parallel / IEEE-488 modem / serial port |
| Storage: | 340 KB bubble memory |
| OS: | Grid-OS |



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First Modern Mobile Computer?

- The Osborne 1 is widely regarded as the first commercial portable computer.

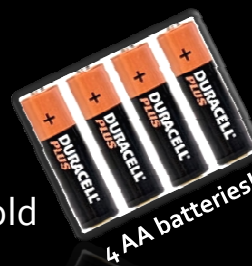
Introduced: April 1981
Price: US \$1,795
Weight: 24.5 pounds (11 Kg)
CPU: Zilog Z80 @ 4.0 MHz
RAM: 64K RAM
Display: built-in 5" monitor
 53 X 24 text
Ports: parallel / IEEE-488
 modem / serial port
Storage: dual 5-1/4 inch, 91K drives
OS: Amnon Dekel CP/M 2009 HUJI



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Breakthrough Product

- 1983: TRS 80 Model 100 – 6M sold



Introduced: 1983
Price: US \$1099 - \$1499
Weight: 3.1 lbs (1.4 Kg)
CPU: Intel 80C85 @ 2.4 MHz
RAM: 8 - 32 KB
Display: 8 x 40 char LCD with
 240 x 64 graphics
Ports: parallel
 modem / serial port
Storage: external
OS: Custom
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First Commercial Clamshell

- TRS 80 Model 200



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Key Early Enabling Technologies



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Key Early Enabling Technologies

What's Missing?

Screens

Power Consumption

Storage

PC Compatibility

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Key Early Enabling Technologies

Networking

Screens

Power Consumption

Storage

PC Compatibility

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Key Enabling Technologies

Why is Networking So Important?

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Key Enabling Technologies

Screens

Power Consumption

Networking

Storage

PC Compatibility

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But there is More ...

- Interface Design
- Usability
- User Experience
- Learnability

But there is More ...

- How to use the Dial Telephone (1927)



But there is More ...

- How to use the Smart Phone (2006)



LECTURE SIGNUP

Lecture Signup

- Send me email to: (Course email)
huji.android@gmail.com
 - Send me your **Name** and **Cell Phone Number**
- You will then receive an Email with a list of Subjects
- You reply to the email with 2 **subjects** that you are interested and a **date** that you are interested in
- *First Come First Serve*

HOMEWORK!

- Go the Android Dev site and check it out
 - <http://developer.android.com/index.html>
- If you need to work in the Lab: send me email telling me so and I'll get you registered for the computers.
- Otherwise, install Android SDK and start getting a feel for it by doing the tutorials

Course Web Site

- www.cs.huji.ac.il/~amnoid/humobile/