

TIM 105/205, LECTURE # 15 (11/14/13)

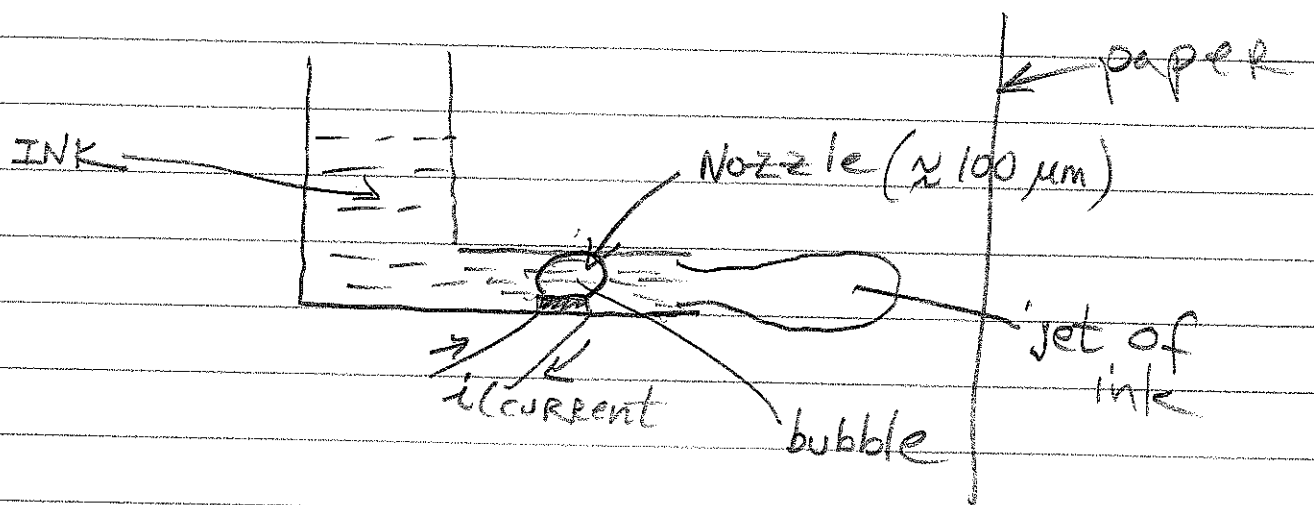
Agenda:

- Product platform → product architecture
- Product (platform) strategy
- HW # 7 (Project Management & Product Management for Software products)
- TIM 125 and CMPE 150
- 2 Internships available in UCSC IT Dept.
 - Resume
 - unofficial
- Project, Phase 2.5

Product platform

HP's most successful product was/is the THERMAL INK JET (THINK) jet printer.

What is the core technology element(s) of this product. \Rightarrow the THINK JET



What are the supporting technology elements

- Print head (to hold a row of nozzles)
- Interconnect cable (to connect the print-head) to the motor/drive electronics
- Drive electronics (to control printing)

⋮

How do you create a product platform:

1. Start by determining or creating* the core or defining technology elements, unique to the product.

2. Determine the supporting technology elements, necessary to obtain a functional (working) product

— See THINK JET example on the previous page.

Note: A product platform is not a product, and is used to create product lines (or the product family) to serve different market segments.

Prescription:

For each target market segment,

Use the product platform to create the appropriate product line to serve that segment.

Example : THINK JET

Product Line
for the Consumer

- cheap
- low performance
(slow, print quality)

Product Line
for the Enterprise

- Rugged
- High performance
(fast, high quality, ...)

all these products use the
same product platform

Exercise : Project :

for
Design
Review
on Tuesday,
next week

- completed conceptual design
- Prototyping Space / Strategy
- Product platform & product lines
- + backlog from Phase 1
- (Project planning for
your actual week-to-week
project work (Activities matrix,
GANTT, ...))

→ for the 10 wks of Fall 2013

Example Personal computer product platforms (\approx mid 80s to early 90s)

IBM Product platform

- MS DOS OS
- INTEL 8086/88 chip

Core or defining technology elements



"open-source" or
Horizontal platform



Very successful in obtaining large market share (because of the "network effect")

but is easy to "CLONE":)

DELL
COMPAQ

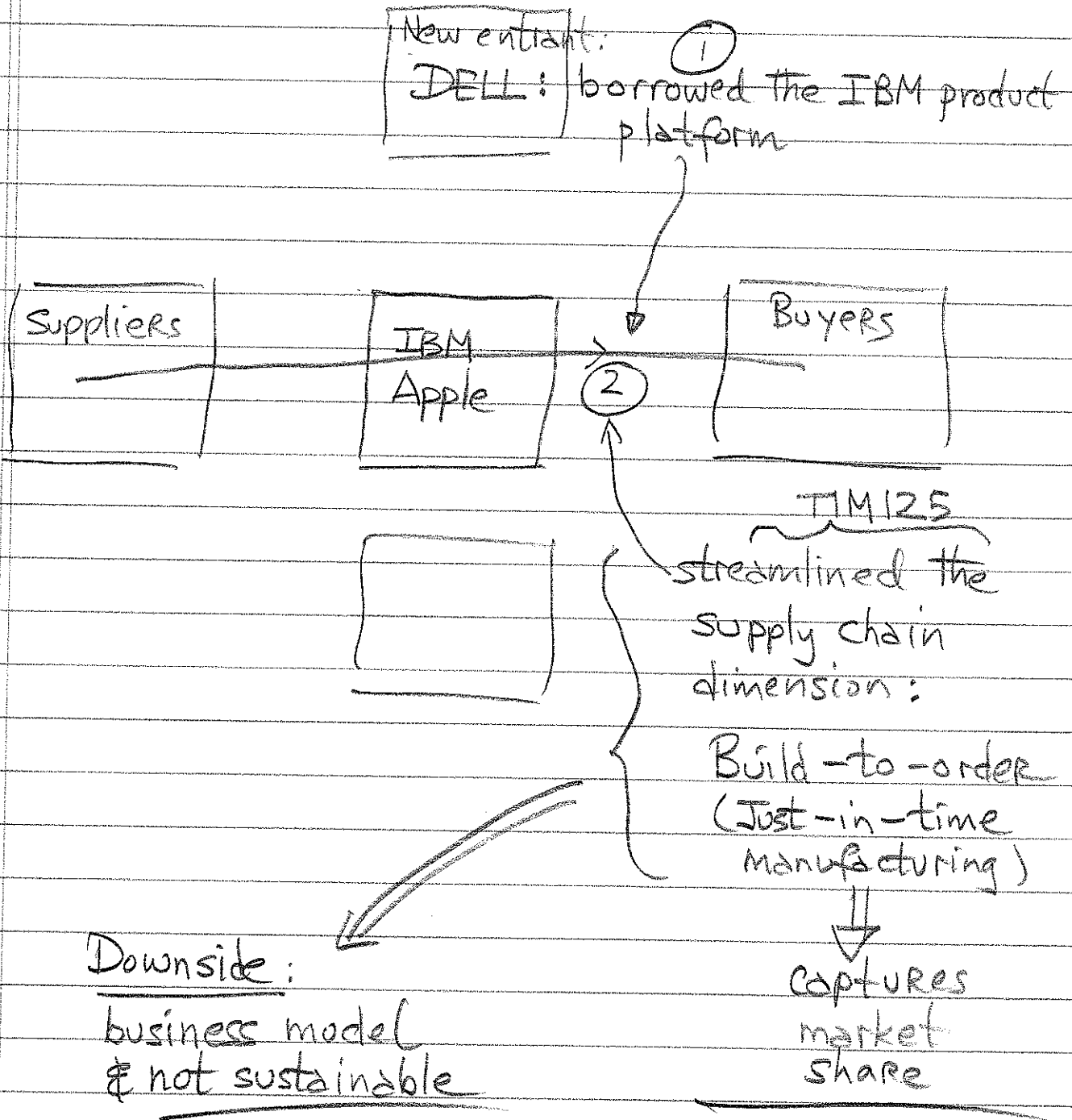
Apple Product platform

- Proprietary Graphic User Interface OS
- Motorola 68000 chip

"Proprietary" or "Vertical" platform

fairly successful, sustainable, but does not succeed in growing in the long-term

How DELL captured the Personal Computer Market in the 90s and 00's



Summary:

What is a product platform?

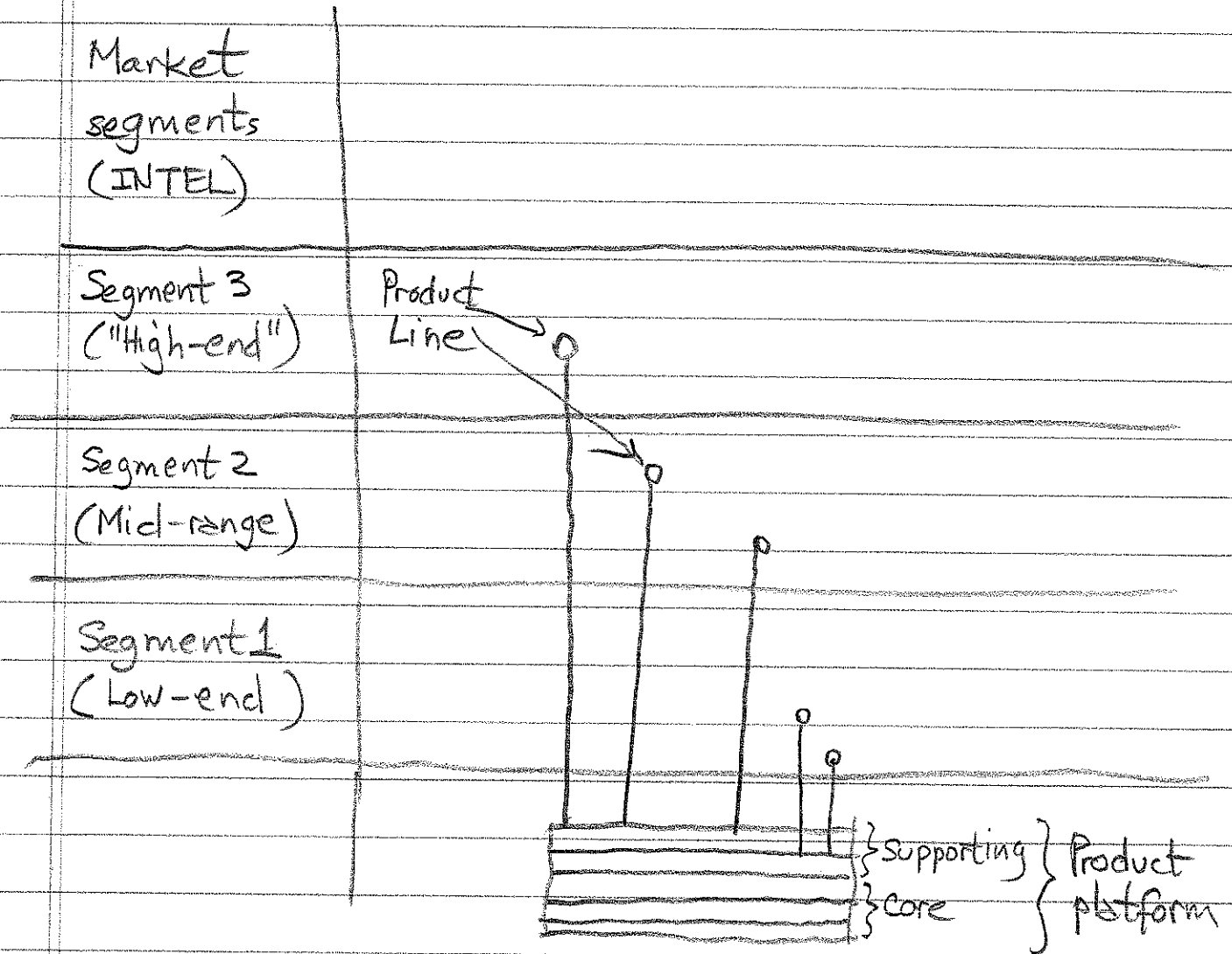
- A product platform is not a product
- A product platform is a structured collection of two types of technology elements — defining (core) and supporting — are common across a range or family of product lines.
- A product platform is the "highest common factor" of relevant technology elements across all products using that platform.

Exercise: Determine the product platform

- Defining (Core) tech. elements
- Supporting tech. elements

for your own Cell-phone

Conceptual sketch showing product platform & the product lines



⇒ Also read the chapter on "Product Architecture" in the text, U&E, PD&D.