

ICS 691: Internet Entrepreneurship Theory and Practice

Overview of the class

(1)

Outline

Introduction to me

Presentations (the "theory" side)

- **Weekly routine**
- **Overview of topics**

Introduction to you

VCommerce (the "practical" side)

(2)

My background

Early industry experiences (late 70's, mid 80's)

- COBOL programming, compiler validation

Research and development (early '90s-present)

- CSCW, Software Engineering
- Technology development, empirical studies

Industry consulting (mid '90s-present)

- Software quality assurance, project management

Software entrepreneurialism (last two years)

- academic/industry collaborations, VC, startups

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The "virtual" TA

Mette Moffett

- Senior Honors student in ICS
- Professional VCommerce systems designer
- Currently in Denmark for her mother's bday
- mette@hawaii.edu

Mette will provide expertise in:

- ASP programming
- deployment of your web sites
- server maintenance
- user organization etc.

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Proposed presentation topics

evaluating bus plans	<u>venture capital concepts</u>
online market research	VC in Hawaii
<u>networks & the internet</u>	<u>online currency models</u>
<u>internet multimedia</u>	<u>electronic pay. technology</u>
<u>internet databases</u>	HTTA
<u>internet security</u>	<u>commerce bots</u>
<u>online business models</u>	<u>open source software</u>
<u>search engines</u>	<u>intellectual property</u>

This list of topics can and should evolve depending upon your interests!

You will present the underlined presentations!

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Presentation approach

You "bid" on topics that you want to present

- Bids are due by Wed, Jan. 19

2-3 presenters per topic selected

I provide "bootstrap materials"

Presenters prepare:

- 30 minute PowerPoint presentation
 - includes software demos when possible
- Advance online readings (2 hours)
- Pre-class homework (30 min-1 hour)

Presentation readings/homework made available one week prior to class, and submitted to me at least 24 hours in advance.

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Topic: Online market research

(Guest Speaker: Valerie Koenig)

How to determine size of market, competitors, patent/intellectual property issues, growth potential, etc. using online sources.

Case study using "Pizza Portal", the ICS example business.

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Topic: Networks/Internet

Basic network concepts of: bandwidth, ethernet, topologies, IP and other low-level protocols

Basic internet issues, including backbone structures, ISPs, population, addressing schemes, domains, HTTP and higher level protocols

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Internet Multimedia

Pixels, RGB, bit depth, dithering, palettes, compression, encoding schemes, Lossless vs. lossy compression, GIF, JPEG, motion, video, audio, streaming.

Examples of multimedia software, macromedia director, flash, etc.

(9)

Internet databases

Relational model, SQL, normalization, object-oriented databases, client-server, three tier and N-tier databases, distributed databases, XML, transaction processing, deadlock, blocking.

Software examples: access, mySQL, postgres, etc.

(10)

Internet Security

Risks, types of attacks, authentication, passwords, sniffing, firewalls, proxy servers, intrusion detection, viruses, macro viruses, encryption, digital certificates, digital watermarking.

Software examples of anti-viral programs, certificates, SATAN, etc.

(11)

Online business models

Online presence goals, including: general company information, content giveaway, sell products, giveaway product and sell ads, sell memberships, articles, or service.

Transactional, promotional, informational, and relational sites.

Retail e-commerce, business-to-business ecommerce, aggregators, auctions, exchanges.

Example sites/businesses with each model.

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Venture capital concepts

VC versus other forms of funding.

Forms of financing: seed, startup, first stage, expansion, mezzanine.

Value added of VC involvement.

What makes a business attractive to VC?

VC in Silicon Valley, Hawaii, and elsewhere.

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Search Engines

Indexing, crawlers, query specification, ranking, meta-search engines, robots, spamdexing, page counting.

Internet vs. intranet search engines.

Software examples: google.com, lycos.com, etc.

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Venture Capital in Hawaii

(Guest speaker: John Chock, Hawaii Strategic Development Corporation, and others.)

Venture capital in Hawaii, current trends and future directions. How to grow your business and stay in Hawaii at the same time.

(15)

Electronic currency models

Definition of money, desirable properties of money, credit card transactions, SSL, SET, digital cash, micropayments, anonymous cash.

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Electronic currency technology

**Examples of software and systems, including:
Ecash, digicash, NetCash, NetCheque,
CyberCash, smart cards, etc.**

(17)

Hawaii Technology Trade Association

(Guest speaker: TBA)

**Overview of this recently formed association
to promote a healthy, growing high tech
industry and to provide infrastructure support
and information to new high tech businesses.**

(18)

Commerce Bots

Definition of intelligent agents, shopping agents, filtering agents, travel agents, negotiation agents, rule-based agents, goal-directed agents, auctionbots, agent toolkits.

Examples of software systems.

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Open source software

Open source vs. closed source software, advantages and disadvantages, the Free Software Foundation and GNU, Linux, open source business models.

Examples of open source software.

(20)

IP and Patents

(Guest speaker: TBA)

Why IP and patents are good for software. Forms of IP protection. How to assess whether your software contains patentable ideas. Patent searching.

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Local High Tech Panel

(Guests: TBA)

Leaders from the local high tech community will share their insights on growing businesses here. Problems and opportunities.

(22)

Personal Information Sheet

Please take 5 minutes to print the following on a piece of paper. (Remote sites: fax to 956-3548)

Name:

Email* (hawaii.edu preferred):

Major? Undergrad/Grad?:

Enrolled? or Wait List?:

Skills/experiences you bring to course:

Skills/experiences you want from course:

Additional topics you want covered:

* PRINT IN ALL CAPITAL LETTERS: ABCDEFGHIJKLMNOPQRSTUVWXYZ
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VCommerce

VCommerce is intended to provide you with an educational and exciting "simulation" of early stage Internet venture startup.

VCommerce keeps "one foot in the real world" and "one foot in the virtual world".

VCommerce rewards those who can:

- innovate
- identify new market niches
- exploit Net info
- design viable bus. models
- react to market data
- form partnerships with complementary skills

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VCommerce business cycles

VCommerce consists of multiple business cycles, each containing:

- Team formation
 - partnerships of two, maybe three
- Business planning
 - design business, create VCommerce busplan
- Website Development
 - implement website in VCommerce site.
- User Test
 - 100-200 consumers, 100-200 investors
- Postmortem
 - companies IPO, (virtual) wealth created.

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VCommerce RW activities

Development of initial business idea
Design of viable business model
Online (secondary) market research
Primary market research
Development of business plan*
Web site development*
Analysis and reaction to market data*

* Semi-real world

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VCommerce simulated activities

Financial planning section of business plan
Buying/selling of goods and services
IPO of company

Development of business plan*
Web site development*
Analysis and reaction to market data*

* Semi-real world

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VCommerce demo

The next screens provide selected shots from the current prototype.

They illustrate aspects of the "user test" phase where 100-200 people will visit the companies you develop.

Both the VCommerce environment, and the Pizza Portal example business will evolve before the first use in February.

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VCcommerce - Microsoft Internet Explorer

File Edit View Go Favorites Help

Philip Johnson
(continue)

Account Balance \$1,808.30
Money Spent \$8.30

1) Enter the Order Number
2) Shipping Period
3) Stock Status Selection
4) Call Order Number

Logout Home Help

PIZZA PORTAL

PIZZA PORTAL

Hungry for pizza ???

Pizza Portal is your connection to pizza at the right price.

Check out the directory to find a pizza restaurant in your area. Then, get yourself some of our pizza certificates at a great price.



Thursday 10 Jan 2000
17:58

Welcome Philip Johnson

Pizza Directory

Boston's
Corno's Pizza
Maggio's Pizza
Papa John's
Pizzeria
Round Table Pizza
St. Onofre's restaurant

Pizza Certificates

Boston's Pizza \$15 value
Corno's Pizza \$12 value
Maggio's Pizza \$14 value
Papa John's \$18 value
Pizzeria \$17 value

Internet.com

VCcommerce - Microsoft Internet Explorer

File Edit View Go Favorites Help

Philip Johnson
(continue)

Account Balance \$1,808.30
Money Spent \$8.30

1) Enter the Order Number
2) Shipping Period
3) Stock Status Selection
4) Call Order Number

Logout Home Help

PIZZA PORTAL

PIZZA PORTAL

Papa John's

1646 Kapolei Blvd. Honolulu
Phone: 592-7272
Hours (today): 10:00 - 22:00 OPEN

Thursday 10 Jan 2000
17:59

Welcome Philip Johnson

Pizza Directory

Boston's
Corno's Pizza
Maggio's Pizza
Pizzeria
Round Table Pizza
St. Onofre's restaurant

Pizza Certificates

Boston's Pizza \$15 value
Corno's Pizza \$12 value
Maggio's Pizza \$14 value
Papa John's \$18 value
Pizzeria \$17 value

Internet.com

VCommerce - Microsoft Internet Explorer

File Edit View Go Favorites Help

Philip Johnson
(continue)

Account Balance \$1,000.00
Money Spent \$0.00

1) Enter my Order online
2) Shopping Period
3) Stock Order Selection
4) Exit Order online

Logout Home Help

PIZZA PORTAL

PIZZA PORTAL

Papa John's \$10 value

Pizza Portal Certificate



Your Price | \$0.00

Quantity:

Thursday 10 Jan 2000
10:00

Welcome Philip Johnson

Pizza Directory

- Boston's
- Domino's Pizza
- Maggio's Pizza
- Papa John's
- Pizza Hut
- Round Table Pizza
- St. Charles restaurant

Pizza Certificates

- Boston's Pizza \$15 value
- Domino's Pizza \$12 value
- Maggio's Pizza \$14 value
- Papa John's \$10 value
- Pizza Hut \$17 value

Internet zone

VCommerce - Microsoft Internet Explorer

File Edit View Go Favorites Help

Philip Johnson
(continue)

Account Balance \$0.00
Money Spent \$0.00

1) Enter my Order online
2) Shopping Period
3) Stock Order Selection
4) Exit Order online

Logout Home Help

PIZZA PORTAL

PIZZA PORTAL

Thank you for shopping at Pizza Portal

Home

Thursday 10 Jan 2000
10:01

Welcome Philip Johnson

Pizza Directory

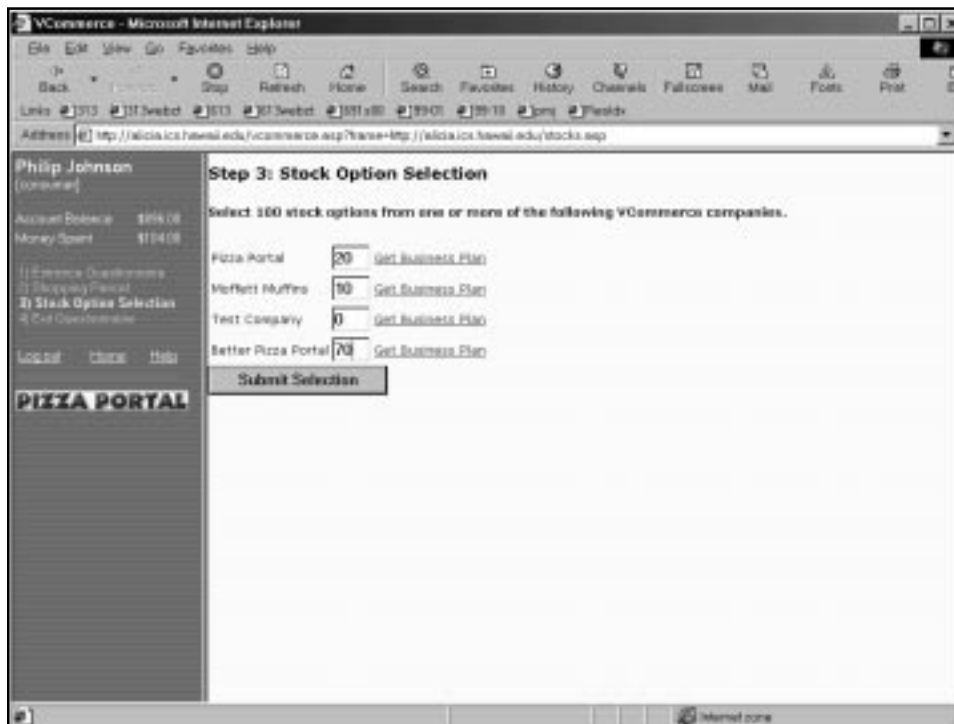
- Boston's
- Domino's Pizza
- Maggio's Pizza
- Papa John's
- Pizza Hut
- Round Table Pizza
- St. Charles restaurant

Pizza Certificates

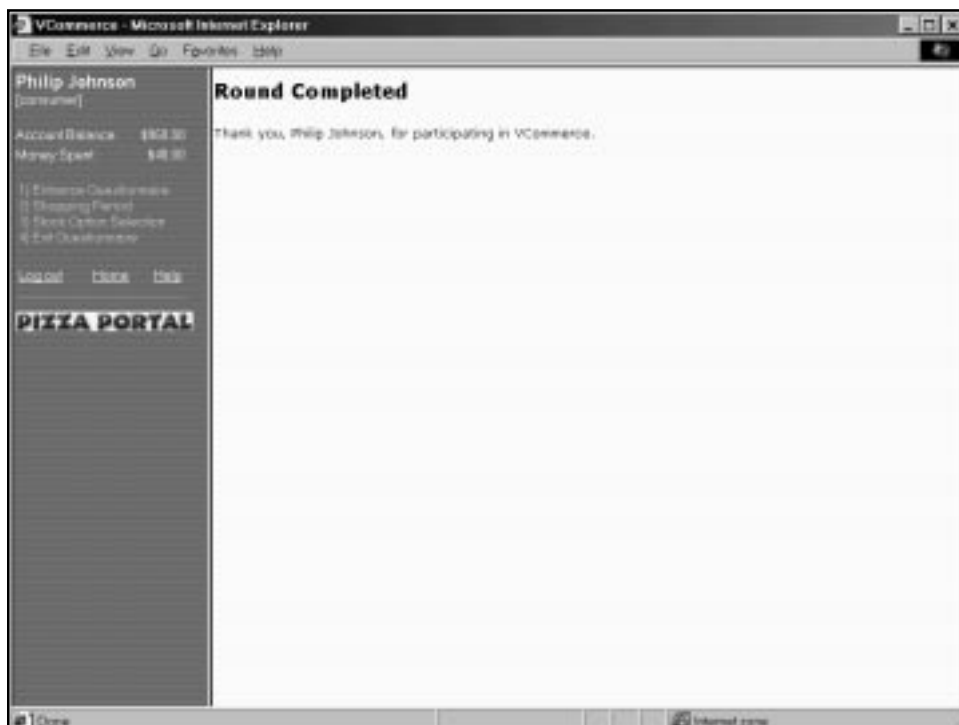
- Boston's Pizza \$15 value
- Domino's Pizza \$12 value
- Maggio's Pizza \$14 value
- Papa John's \$10 value
- Pizza Hut \$17 value

Home

Internet zone



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Current VCommerce Schedule

Business Cycle 1:

- 2/4: Business Plans due
- 2/11: Web sites due/user test begins
- 2/18: IPO/market data available

Business Cycle 2:

- 3/3: Business Plans due
- 3/10: Web sites due/user test begins
- 3/17: IPO/market data available

Business Cycle 3:

- 4/7: Bus Plans/Web sites due/user test
- 4/14: IPO/market data available

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VCommerce documentation

VCommerce Simulation, Volume 1:

- Entrepreneur User Guide
 - Overview of VCommerce
 - Overview of VCommerce Business Plans

VCommerce Simulation, Volume 2:

- Example Business Plan
 - Pizza-Portal.com

Source code for Pizza Portal web site

(Volume 1 and 2 now available online.)

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Homework

Print and read both volumes of VCommerce documentation (40 pages total).

Develop online resume (see Resume Index at www.ics.hawaii.edu for examples), post, and send me URL in email.

I will form companies for round 1 myself.
After that, you're on your own. :-)

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Texts

No assigned texts for "theory", although lots of online readings.

Recommended web development texts:

- Beginning Active Server Pages 2.0, or
- Professional Active Server Pages 2.0
- Professional Active Server Pages 3.0
- Dynamic HTML: The Definitive Reference

You probably want to order one or more from Amazon (or elsewhere) this week.

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Grades

Your grade will be based upon:

- class attendance and participation**
- homework completion**
- quality of presentations**
- quality of VCommerce work**

There is no midterm or final in this class.

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