

Week 1: Course Introduction

CB2500 Information Management

Smart Banking (BI)
Smart e-Services (ISSN)

Smart IS Auditing (ISA)
Smart Global Business (GBSM)

Focus of the course

- This course is about new ways in doing successful business nowadays
- Focusing on
 - how to manage information to make your company more competitive
 - systems (particularly procedures and professions) related to information management

Focus of the course

- We want to see how well you apply the concepts you learned in the course
 - So, exam will be focusing on applying concepts
- How to do revision?
 - Participate in tutorial and group project
 - Participate in lecture discussion

In this course, you'll
learn something
related to...

How do banks operate in a smart way?

The image shows a large, three-dimensional HSBC logo mounted on a red wall. The letters 'HSBC' are in a white, serif font, and the hexagonal logo symbol is also white. The wall is part of a modern building's exterior. In the background, a person is standing near a glass entrance, and an escalator is visible. The overall scene is at night or in low light, with some interior lights visible through the glass.

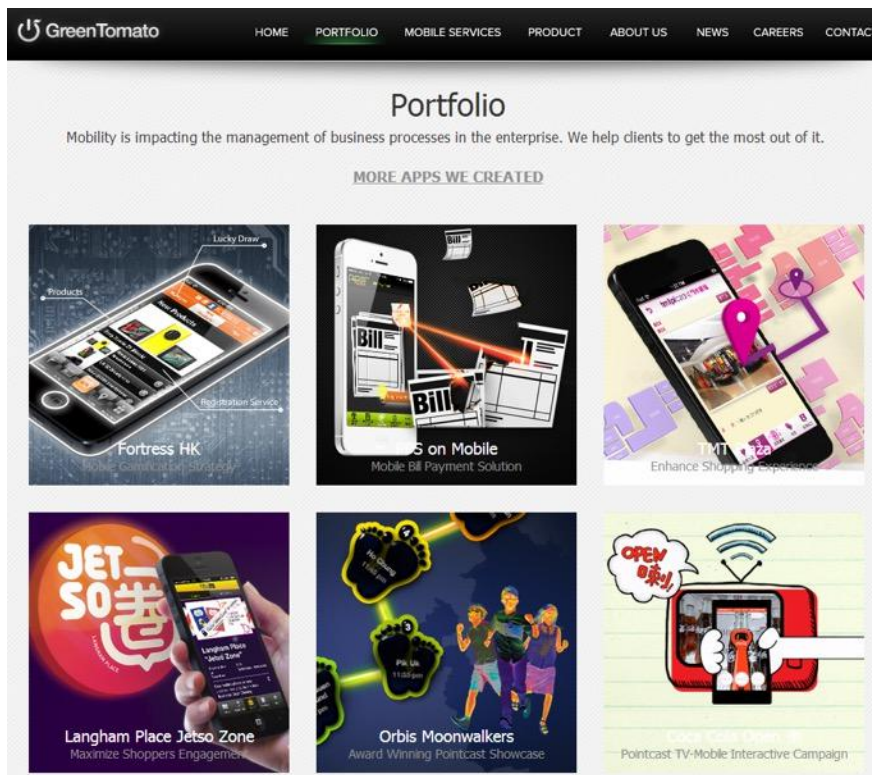
ong and Shanghai Banking Corporation Limited



What are IS Auditing and Risk Management related to IS?



Deloitte.
德勤



What are the impacts of e-services towards online commerce and advertising?

DDB[®]





Globalization and IS. What should you pay attention to if you want to join an MNC to manage global IS projects?



How do you capture the golden opportunities of Internet+?

Think Like a Business Consultant & Innovate Through Business Intelligence

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Agenda

- Teaching Team
- Course Intended Learning Outcomes (CILOs)
- Class Policy
- Textbook
- Course Website
- Course Topics
- Assessment
- Code of Conduct
- PALS

Teaching Team

Dr. Alvin Leung (C01, L04, L06)
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Mr. Xiaobo (Bob) Ke (L08)
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How to Reach the Teaching Team?

- (Preferred) Emails to the instructors as listed in the previous slides;
 - Please include your course number and session number.
- Virtual office hours via Zoom by appointment;
- Typing in the chat room during class is NOT recommended;
 - You could still do it, but it is not guaranteed that you can replies;

Feedback to the Course

- Feedback can be given to us through:
 - Email/office hours;
 - UReply in each lecture;

Course Intended Learning Outcomes (CILOs)

- Upon completion of this course, students are able to:
 - Describe the basic concepts of information systems used by businesses.
 - Explain how IT-enabled business processes improve businesses' efficiency and effectiveness in an international environment.
 - Demonstrate the attitude and ability to design creative information management solutions to support business processes at various organizational levels.

Course Intended Learning Outcomes (CILOs)

- Upon completion of this course, students are able to:
 - Apply decision-making models to solve international business problems.
 - Demonstrate good communication and interpersonal skills in proposing and presenting creative information management solutions.

Class Policy

- In both lectures and tutorials, we recommend that you open your camera (but mute yourself) to best mimic the classroom experience;
- When answering questions during lecture and tutorial, you are required to open your camera;
- For all email communications, please specify “CB2500” in subject. We may not reply your email if the subject is unclear/empty.
 - Please be polite and considerate in composing your emails.

Textbook

- Experiencing MIS (e-book), 8/E (Global Edition)
 - ISBN-13: 978-1292163611
 - Purchase of the textbook is recommended
 - Instruction on how to purchase the book from the campus bookstore:
 - <https://canvas.cityu.edu.hk/courses/42771/files?preview=7997759>
- Other supplementary readings will also be made available electronically via Canvas (<http://canvas.cityu.edu.hk>)



Course Website: Canvas

- <http://canvas.cityu.edu.hk>
 - Logon id : your EID
 - Password : your password
- For going to Zoom classes
- For downloading lecture notes, tutorial materials, and other reference materials
- For lesson preparation
- For assignments and project submission
- For doing online quizzes and UReply questions

In-Class Discussion: UReply

- <https://cityu.ed2.mobi/>
- Logon id: your EID
 - Password: your password
- For in-class discussion (lecture participation)
- For pop-up quizzes (lecture participation)
- A session ID will be given in each lecture and you need the session ID to join the in-class discussion



Course Topics

Week	Lecture Topic	Reference Chapter
1	Course Introduction; The Importance of IM	1
2	Business Processes, Information Systems, and Information; Project Briefing	2
3	Organizational Strategy, Information Systems, and Competitive Advantage	3
4	Hardware and Software; Database Processing; Database Design	4, 5, CE5
5	Smart Banking (BI & PM); Business Intelligence Systems; Information Systems Development	9, 12
6	Smart Banking (BI & PM); Business Intelligence Systems; Information Systems Development	9, 12
7	Social Media Information Systems; Digital Marketing, Commerce and Analytics	8, CE11
8	Social Media Information Systems; Digital Marketing, Commerce and Analytics	8, CE11
9	Information Security Management; Smart Accounting; Business Continuity Planning in Smart Accounting;	10 Reference book (Business Driven Technology, 5th edition) Chapter B7 Online cases CISA Review Manual 2013
10	Organizations and Information Systems	7, CE10 Reference book: Business Driven Technology, 5th Education, Chapter 4 Reference book: Business Driven Information Systems, 3rd Edition, Chapter 8
11	Disruptive Technologies and Collaboration; International MIS; Information Systems Management	11, CE16 Reference book: Business Driven Technology, 5th Edition, Chapters 13 and 15
12	Data Communication and the Cloud; Freeconomics	6, CE8 Reference book: Information Systems Today, 5th Edition, Chapter 2
13	Internet of Things (IoT); Blockchain; Course Summary; Exam Information	Online cases

* May adjust according to the learning pace

Course Topics (2)

- Tutorials:
 - Case discussion, hands-on exercises
 - 3 interim group reports (Sun weeks 4, 7, 9)
 - No tutorial in week 10 (mid-term test on Sat)
- Announcements will be made for important events / updates of the course schedule / assessment items, etc.

Make-up Class Arrangement

- No Class on 22nd September 2021 (Wed) due to Day following Mid-Autumn Festival
 - 2 sessions (L09, L02) affected
 - 25th Sep 2021 (Sat) 2-2:50pm (Make-up Class L09)
 - 25th Sep 2021 (Sat) 3-3:50pm (Make-up Class L02)
- No Class on 1st October 2021 (Fri) due to National Day
 - 3 sessions (C02, L07, L05) affected
 - 2nd October 2021 (Sat) 11am-12:50pm (Make-up Class C02, Zoom Only)
 - 2nd October 2021 (Sat) 2-2:50pm (Make-up Class L07)
 - 2nd October 2021 (Sat) 3-3:50pm (Make-up Class L05)
- Make-up Class Venue: LAU 7-211

Make-up Class Arrangement

- No Class on 14th October 2021 (Thu) due to Chung Yeung Festival
 - 1 session (L10) affected
 - 16th October 2021 (Sat) 2-3pm (L10 Make-up Class)
- Make-up Class Venue: LAU 7-211

Assessment

- Examination:
50%
- Coursework:
50%
 - Group Project
15%
 - Mid-term Test
20%
 - Lecture & Tutorial Participation

*****Students MUST pass both Coursework AND Examination to pass CB2500*****

5%

- 5 Bi-weekly Online MC quizzes

Mid-term Test

- Date: **Saturday of Week 10, 6th November 2021**
- Time: **2:00pm – 3:00pm**
- Venue: Canvas Quiz
- More information will be released to you by Week 8;
- Format: MC; open-book
- Scope: everything covered up to and including week 9
- There will not be any make-up test available.
- If you fail to take the mid-term test (with valid reasons and approved by the assessment panel), the 20% will be counted by your exam (from 50% to 70%).
 - Final exam format: long questions; open-book
 - Mitigation Request:
<http://www6.cityu.edu.hk/arro/content.asp?cid=171>

Participation

- Total 10%
 - Lecture Participation (2.5% max)
 - Tutorial Participation (7.5% max)
 - Attendance vs. Participation

Participation

- Lecture Participation (2.5% max):
 - Participating in lecture through Q&A and UReply @[0%, 0.5%];
 - In-class survey (Due by Week 3) @[0%, 0.5%]
 - In-class Pop-up Quiz: Weeks 2-9, 11-12 (10 quizzes) @[0%, 0.5%]
 - Questions on UReply
 - Count 5 weeks' UReply participation randomly;

Participation

- Tutorial Participation (up to 7.5%)
 - Main channel: through Q&A
 - Flipped Classroom: Students are required to read 2-3 articles before tutorials for in-depth discussion
 - There will be a related tutorial quiz (1 question on Canvas) from Weeks 2-9 @[0%, 0.5%]
 - Tutorial readings will be tested in final exam!
 - Peer-assisted Learning (<http://peer-assist.com/>)
 - Virtual points will be converted to a scale of [0%, 5%]
 - Bonus to tutorial participation

Voluntary Bi-Weekly MC Quizzes

- The aim is to help you clear concepts by doing small quizzes. They are related to textbook concepts.
- Available on Canvas in the following weeks:
 - 3, 5, 7, 9, 11
 - Voluntary (0%) but highly IMPORTANT!
 - Deadline: 11:59pm of the quiz week's Sunday
- Each online MC quiz is basically about the previous 2 weeks' lecture concepts, e.g. week 3's online MC quiz is about week 1 and week 2 lecture concepts.

Code of Conduct

- Code of Student Conduct:
 - <http://www6.cityu.edu.hk/arro/content.asp?cid=74>
- Avoid plagiarism
 - <http://www.cityu.edu.hk/edge/LASSI/student05.htm>
 - All assignments will be checked by TurnItIn
 - Assignments with plagiarism scores > 30 will not be graded

PALSI

- Peer-Assisted Learning scheme
 - You are required to attend ONE of PALSI Orientation Talk sessions if you want to join PALSI.
 - <https://www.cityu.edu.hk/edge/palsi/>
- Managed by your senior classmates who got A range in this course.
- Try your best to join and ask questions early.

Software for Projects

- FacePager: <https://github.com/strohne/Facepager>
- SAS On Demand
 - SAS Enterprise Miner (Text Mining Tool)
 - <https://odamid.oda.sas.com/SASODAControlCenter/enroll.html?enroll=03a8b6ec-8918-4ae4-8c47-1d0e0257f916> (for non-commercial use)
 - Available in Tutorial Labs in LAU (e.g., 7-209, 7-211, and 7-218)
 - Or you could use VPN+VDS to get access. See instructions from CSC or [materials from Canvas](#) for reference.

Platforms for Flipped Classroom & Revision

- Registration is required for following platforms:
 - HKMOOC (flipped classroom) (compulsory)
 - My MIS Lab (optional) (for revision purpose; available for those who have purchased e-textbooks from University Bookshop) (registration detail available on Canvas)

Flipped Classroom: Social Analytics and Business Intelligence

- Course materials available on HKMOOC
- Learning Modules
 - Modules 1-3 Compulsory
 - SAS OnDemand, SAS Enterprise Miner
 - Text Topic Analysis
 - Modules 4-5 Optional
 - Association Detection
 - Cluster Analysis
- Teaching & Learning Project Sponsored by
EDGE

HKMOOC Platform

- Self-paced Learning & Assessment
- https://learn.hkmooc.hk/courses/course-v1:CITYU+CB2500+2021_Q3_R1/about
- Performance on HKMOOC won't affect your grade!
- But skills in Modules 1-3 are required for your group project

Peer-Assisted Learning Platform

- <http://peer-assist.com/>
- A platform for you to ask questions and provide assistance to your peers
- You can create MC questions to test your peers' understanding of class topics
 - Some questions may appear in your mid-term test
- Virtual points will be rewarded to students with the best answers and best MC questions
- Completely student-driven and technologically backed by blockchain

Week 1 In-Class Learning Survey

- 0.5 point in Lecture Participation on top of what you earned in the 5 randomly sampled weeks;
- Important: Some questions test whether you answer randomly; If you fail to answer them correctly, you'll not get any bonus.
- Due by Week 3 Sunday.

Week 1: The Importance of IM

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UReply Q1:

Is IM/IS

important to you?

Why?



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Smart Global Business (GBSM)

This Could Happen To You: “And We’ve Got a Lot of Process and Systems Work to Do.”

- Falcon Security: a 5-yr old, privately owned company specialized in aerial drone surveillance and inspection services



- Try to fire an employee after 6 months of employment...
 - Work hard/ put lots of hours
 - Afraid of wasting resources/time
 - Do whatever the boss asks her to do...

“But Today, They’re Not Enough.”

Jennifer lacks skills her company needs

1. Abstract reasoning skills
2. Systems thinking skills
3. Collaboration skills
4. Experimentation skills

Be flexible
and able to
adapt to
changes

The problem is:
business world is changed, competition is
changed
→ you can't compete using old set of skills
(only)



Study Questions

- Q1-1: Why is Introduction to MIS the most important class in the business school?
- Q1-3: Why are MIS-related jobs in high demand?
- Q1-2: How will MIS affect me?
- Q1-4: What is MIS?
- QX: What are the typical examples of information systems?

Q1-1: Why Is Introduction to MIS the Most Important Class in the Business School?

- How technology fundamentally changes businesses
- Why executives try to find ways to use new technology to create a sustainable competitive advantage
- Learn to assess, evaluate, apply emerging information technology to business
- This course will help you attain knowledge needed by future business professionals

The Evolution of Digital Devices



The Evolution of Digital Devices




The Evolution of Digital Devices: How about now?

Product/Service Main Page > Computer > Hardware > Harddisk

Brand Price Size Capacity
RPM Buffer Memory Display

[Clear Filter](#)

1 2 3 4 5 Total 525 items Sort New and Popular




Western Digital WD40EJRX 4TB
(Purple SATA3 6Gb/s / 64MB HDD 監控硬盤)

Capacity: 4TB Buffer: 64MBMB
Size: 3.5inch Memory:
RPM: 5400rpm Display: SATA 6Gb/s

☐ Add to Compare

HK\$ 593 - 765 行

比較報價



TOSHIBA Enterprise 8TB MG05ACA800E
(8TB, SATA3, 128,7200)

Capacity: 8TB Buffer: 128MB
Size: 3.5inch Memory:
RPM: 7200rpm Display: SATA3

☐ Add to Compare

HK\$ 1,193 - 1,420 行

比較報價

Understanding the Forces Pushing the Evolution of New Digital Devices

(1)

QUT

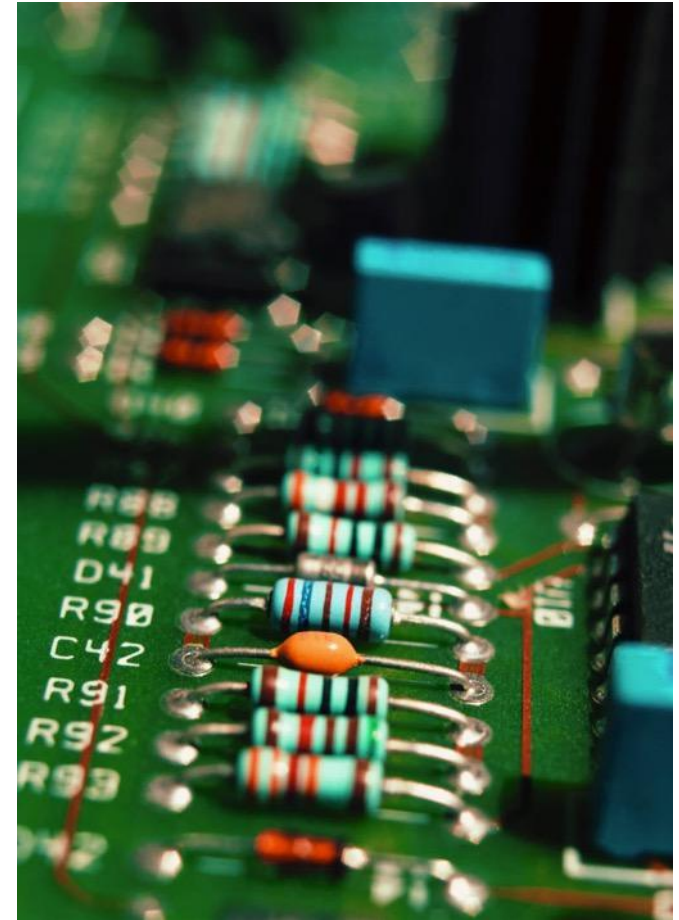
MOORE'S LAW

with
A/Prof. Alexander Dreiling

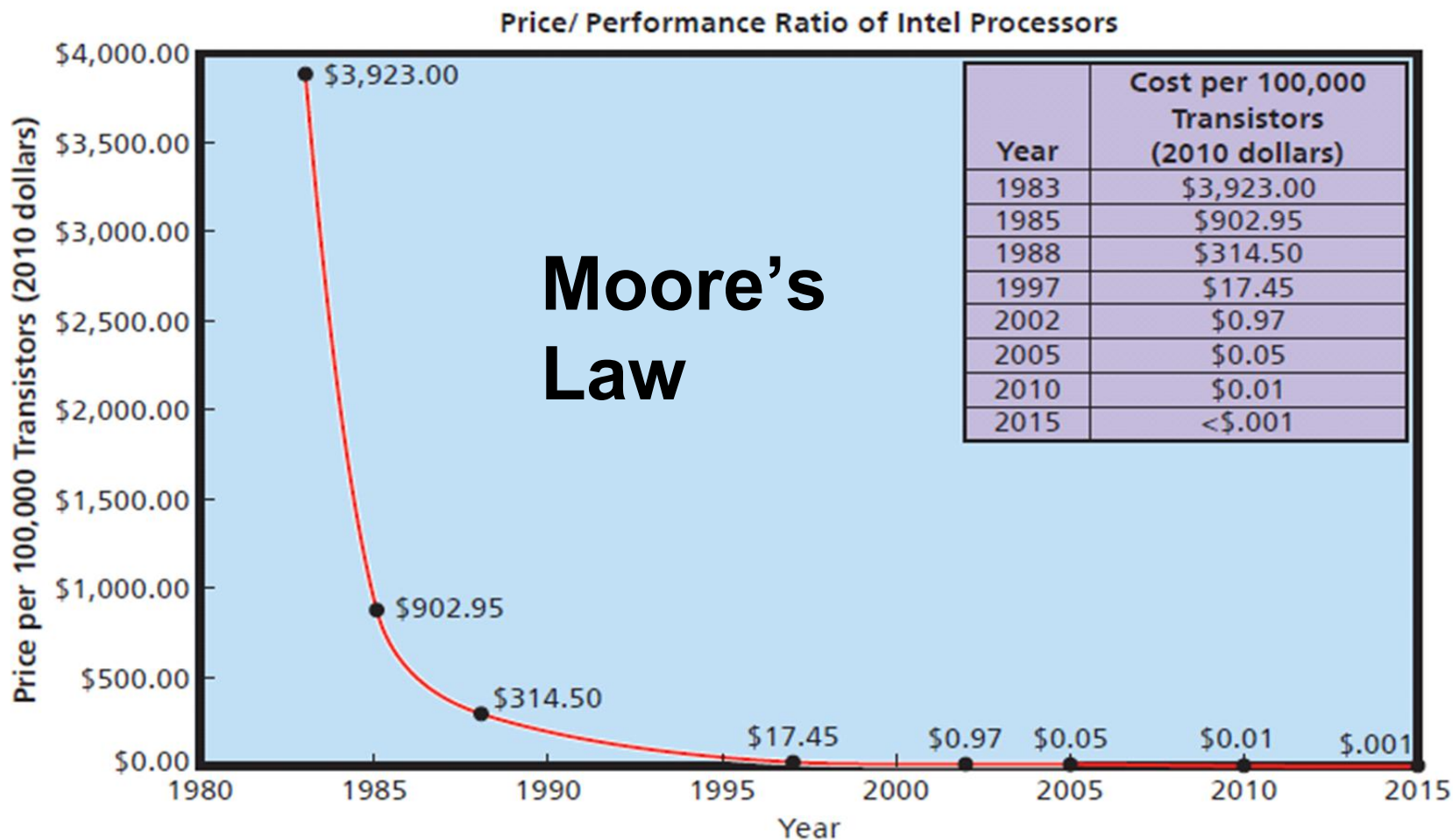


Understanding the Forces Pushing the Evolution of New Digital Devices (1)

- Moore's Law: So what is it?



Computer Price/Performance Ratio Historical Trend



Understanding the Forces Pushing the Evolution of New Digital Devices (2)

- Bell's Law (or Bell's Law of Computer Classes)

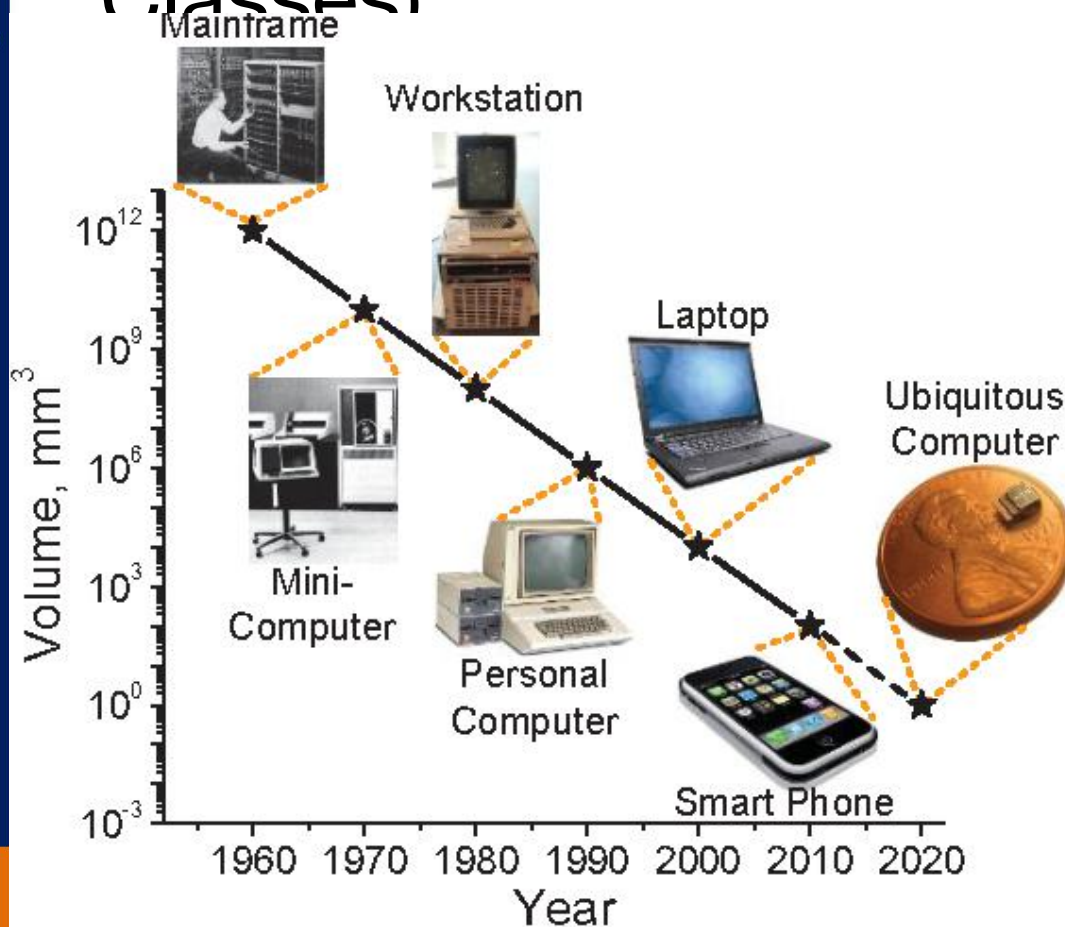
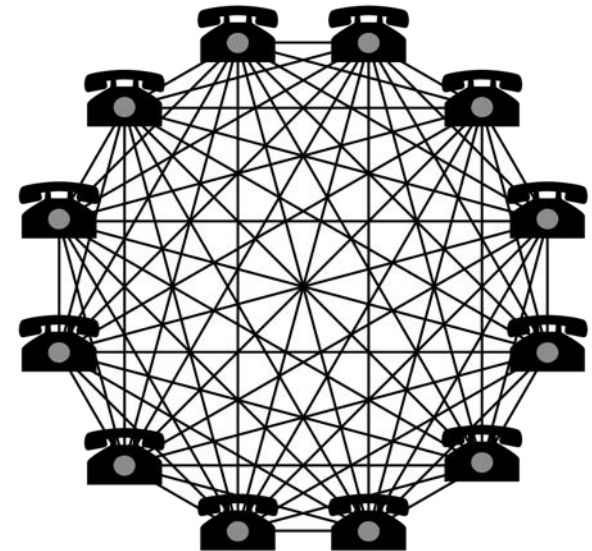
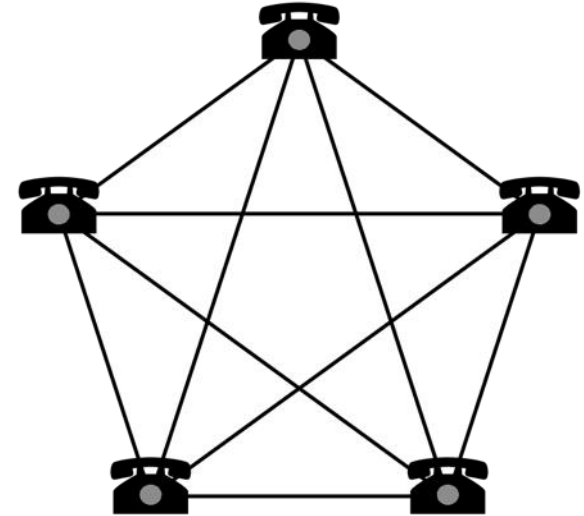
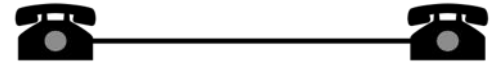


Image source:
<https://www.semanticscholar.org/topic/Bell%27s-law-of-computer-classes/1459853>

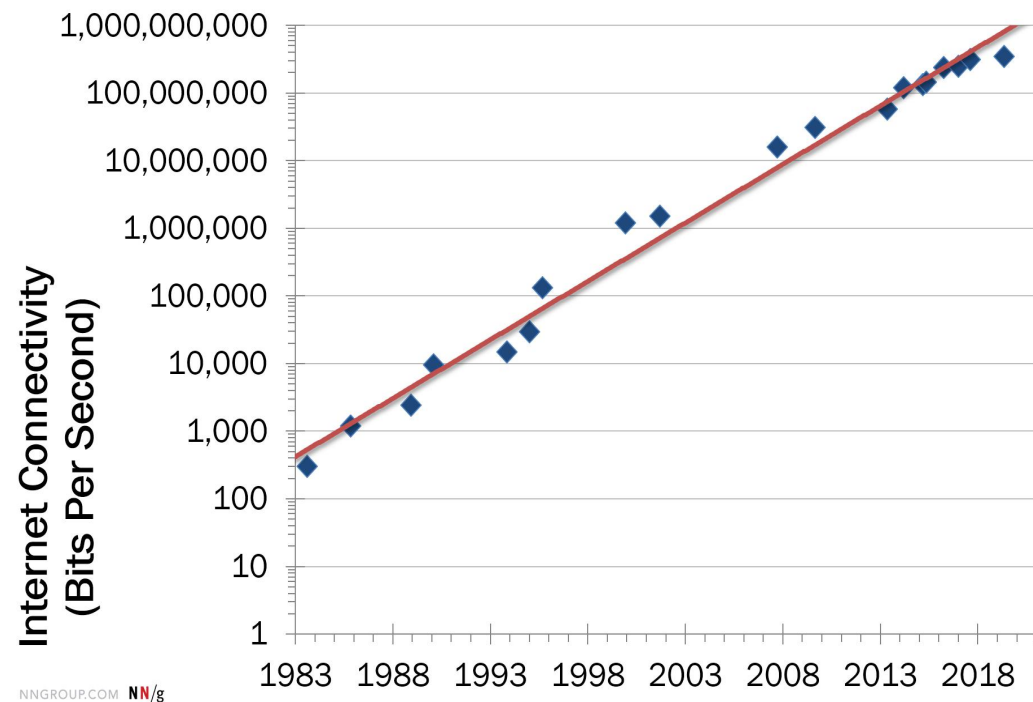
Some More Laws...

- Metcalfe's Law:



Some More Laws...

- Nielsen's Law
 - <https://www.nngroup.com/articles/law-of-bandwidth/>



Some More Laws...

- Kryder's Law





Apple MacBook Air (13-inch, 8GB RAM, 128GB Storage, 1.6GHz Intel Core i5) - Space Gray (Previous Model)

[Visit the Apple Store](#)

★★★★★ 1,801 ratings | 347 answered questions

Price: **\$1,082.23** & **FREE Shipping**. [Details](#)

Get \$50 off instantly: Pay \$1,032.23 upon approval for the Amazon Rewards Visa Card.

Capacity: **128GB**

Color: **Space Gray**

Type of product	Laptop
Voice command	Touch Pad
Operating System	MacOS
Brand	Apple
Model Name	MacBook Air

Roll over image to zoom in

- About this item**
- Stunning 13.3-Inch Retina Display with True Tone
 - Touch ID
 - Dual-core 8th-Generation Intel Core i5 Processor
 - Intel UHD Graphics 617
 - Fast SSD Storage
 - 8GB memory
 - Stereo speakers with wider Stereo sound
 - Two Thunderbolt 3 (USB-C) ports

Understanding the Forces Pushing the Evolution of New Digital Devices

(3)

Law	Meaning	Implications
Moore's Law	The number of transistors per square inch on an integrated chip doubles every 18 months.	Computers are getting exponentially faster. The cost of data processing is approaching zero.
Metcalfe's Law	The value of a network is equal to the square of the number of users connected to it.	More digital devices are connected together. The value of digital and social networks is increasing exponentially.
Nielsen's Law	Network connection speeds for high-end users will increase by 50 percent per year.	Network speed is increasing. Higher speeds enable new products, platforms, and companies.
Kryder's Law	The storage density on magnetic disks is increasing at an exponential rate.	Storage capacity is increasing exponentially. The cost of storing data is approaching zero.

Q1-3: Why are MIS-related Jobs in High Demand?

- Better success for students with courses related to information systems
- Tradable job

Most Didn't Exist In 2002



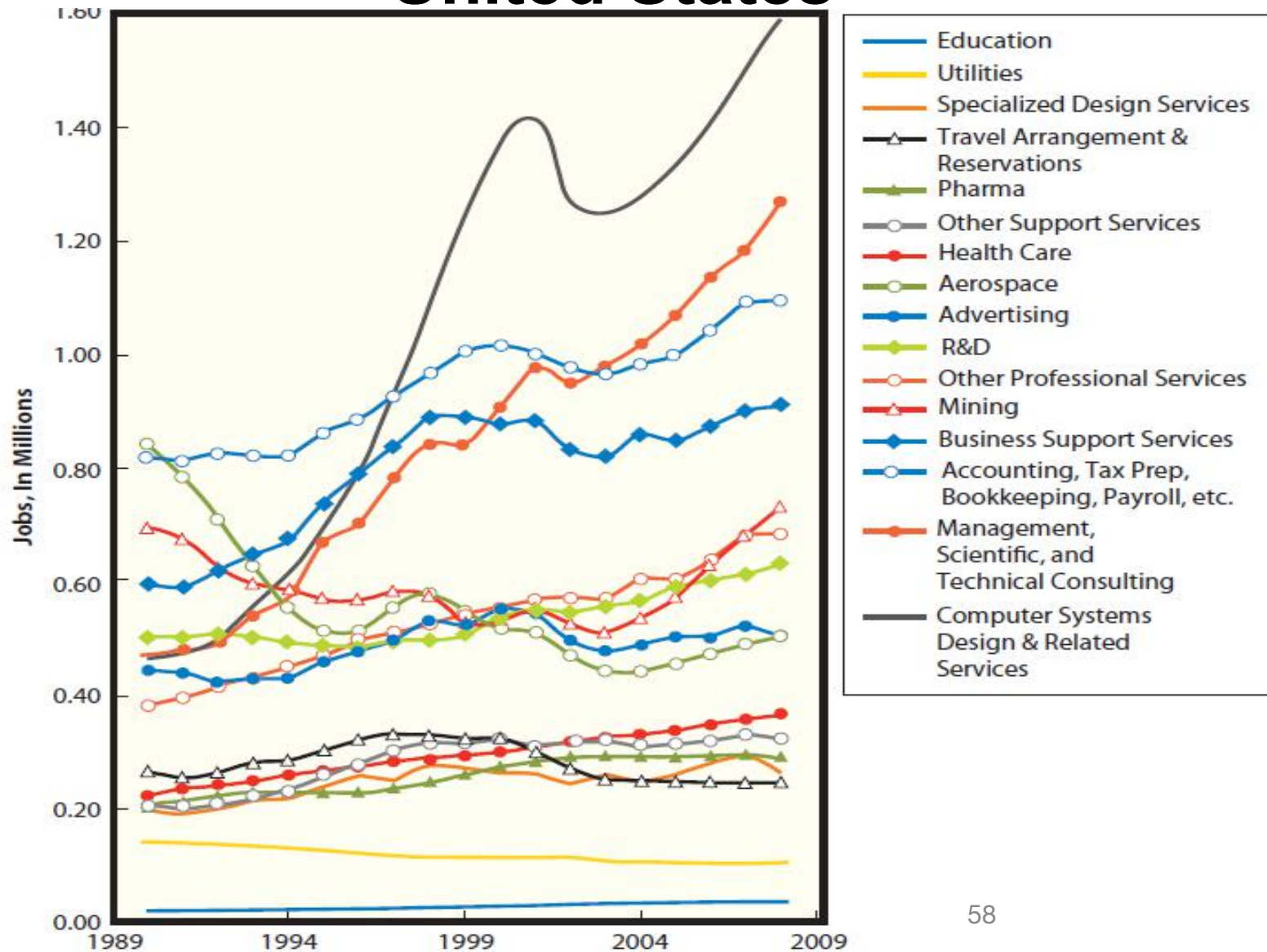
Product/service innovation is made possible / easier

e.g. YouTube (video sharing), Facebook (social interaction), etc

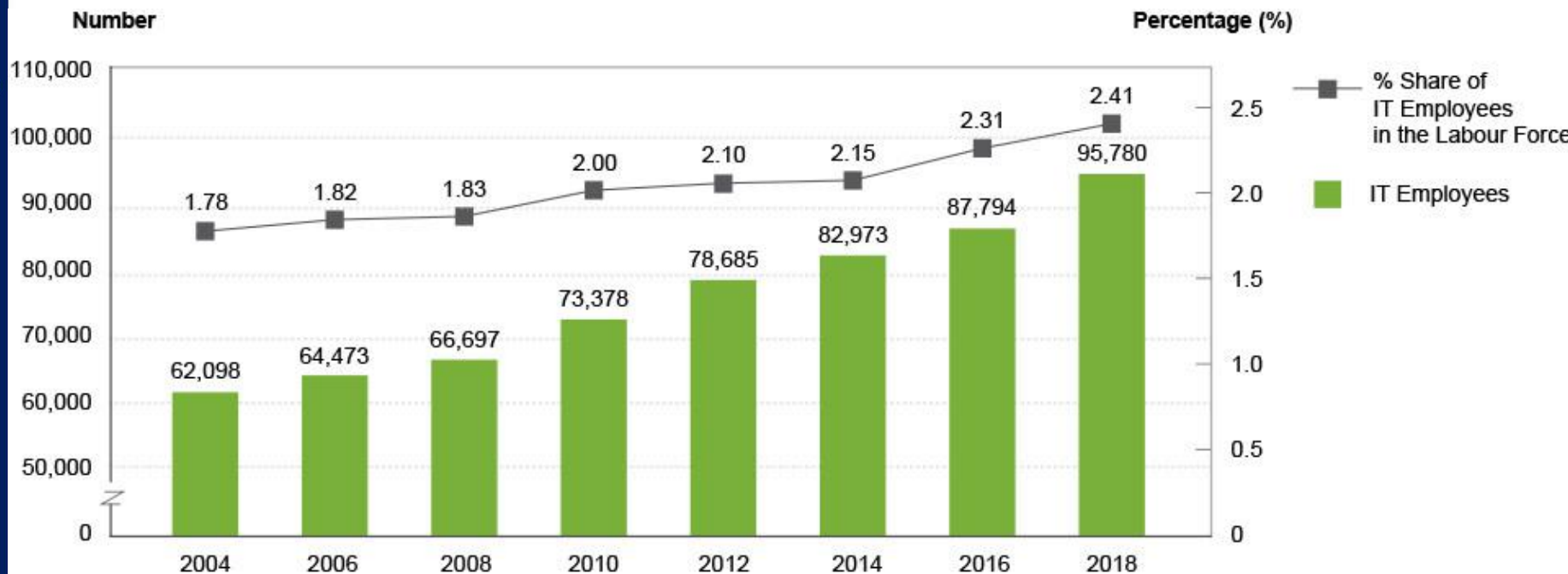
(before YouTube / Facebook, there were many similar services, but failed)

What should a business student note?

Job Growth over the Past Twenty Years: United States



Job Growth over the Past Twenty Years: Hong Kong IT Manpower



Job Growth by Sector by Year

	2012 Median Pay	Job Growth (%) 2012–22	Job Growth (N) 2012–22
Business Managers			
Marketing Managers	\$115,750	12%	25,400
Information Systems Managers	\$120,950	15%	50,900
Financial Managers	\$109,740	9%	47,100
Human Resources Managers	\$ 99,720	13%	13,600
Sales Managers	\$105,260	8%	29,800
Computer and Information Technology			
Computer Network Architects	\$ 91,000	15%	20,900
Computer Systems Analysts	\$ 79,680	25%	127,700
Database Administrators	\$118,700	15%	17,900
Information Security Analysts	\$ 87,170	37%	27,400
Network and Systems Admin.	\$ 72,560	12%	42,900
Software Developers	\$ 93,350	22%	222,600
Web Developers	\$ 62,500	20%	28,500
Business Occupations			
Accountants and Auditors	\$ 63,550	13%	166,700
Financial Analysts	\$ 76,950	16%	39,300
Management Analysts	\$ 78,600	19%	133,800
Market Research Analysts	\$ 60,300	32%	131,500
Logisticians	\$ 72,780	22%	27,600
Human Resources Specialists	\$ 55,640	7%	32,500

Q1-2: How will MIS Affect Me?

- Technological change accelerating
- For example: Bell's Law affect
 - Highly successful business could be bankrupt quickly because technology changes and it didn't
 - Example: Blockbuster

How Can I Attain Job Security?

- Moore's Law, Metcalfe's Law, Kryder's Law
 - Driving data processing, storage, communications costs to essentially zero
- Any routine skill can, and will, be outsourced to lowest bidder

What is a Marketable Skill?

Skill	Example	Jennifer's Problem at Falcon Security
Abstract Reasoning	Construct a model or representation.	Hesitancy and uncertainty when conceptualizing a method for identifying 3D-printable drone parts.
Systems Thinking	Model system components and show how components' inputs and outputs relate to one another.	Inability to model Falcon Security's operational needs.
Collaboration	Develop ideas and plans with others. Provide and receive critical feedback.	Unwilling to work with others on work-in-progress.
Ability to Experiment	Create and test promising new alternatives, consistent with available resources.	Fear of failure prohibited discussion of new ideas.

UReply Q2: Example of information systems



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Q1-4: What Is MIS?



**Achieving
Strategies**

Manage

Use

QX: What are the Typical Examples of Information Systems?

- Use IS
 - Transaction Processing Systems (TPS)
 - Collect, modify, and retrieve transaction data
- Manage IS
 - Management Information Systems (MIS)
 - Convert TPS data into information for monitoring performance
 - Decision Support Systems (DSS)
 - Support decision making business activities

QX: What are the Typical Examples of Information Systems?

- Manage IS
 - Expert Systems
 - Use database of expert knowledge to offer advice or make decision
 - Artificial Intelligence Systems (AI)
 - Learn from past experience and perform human-like tasks
- Achieving Strategies
 - Executive Information Systems (EIS)
 - Provide easy access to internal and external information relevant to organizational goals so as to support senior executives in decision-making processes

Components of an Information System

Five-Component Framework



Components interact to produce information.

Why Is the Difference Between IT and IS Important to You?

- **Avoid a common mistake: Can buy an IS?**
- **Avoid a common mistake: IT staff = IS staff?**

Why Is the Difference Between IT and IS Important to You?

- Different IS professions

- Project Managers



- IS Auditors



- Business Analysts



- Digital Marketers



Why is this lecture valuable to you?

- IS is the backbone of all businesses
- IM (or MIS) is a practice to manage IS
- You need IM skills to succeed in the future

Week 1 Recap

- Q1-1: Why is Introduction to MIS the most important class in the business school?
- Q1-3: Why are MIS-related jobs in high demand?
- Q1-2: How will MIS affect me?
- Q1-4: What is MIS?
- QX: What are the typical examples of information systems?

References and Disclaimer

- Ch. 1
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