



Master of International Business and Entrepreneurship

Ch1: Information Systems and the Role of Managers

Information Systems for
Managers

Learning Objectives

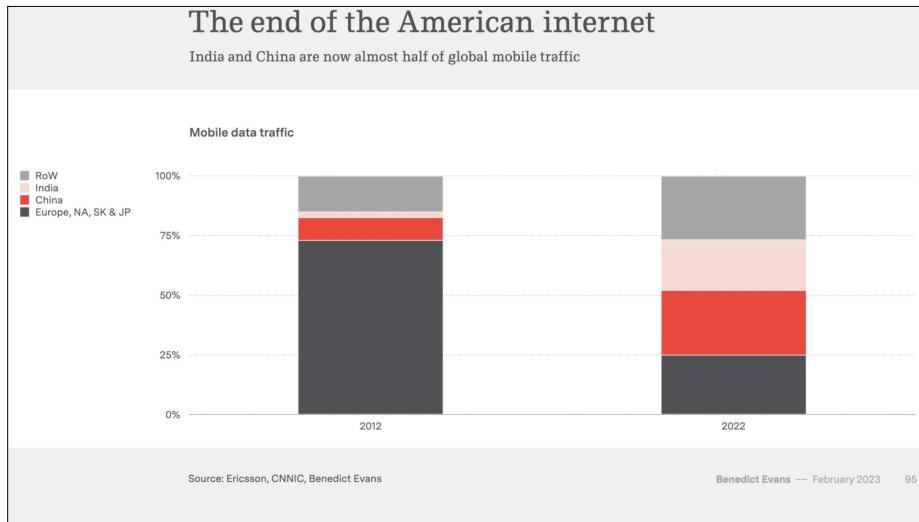
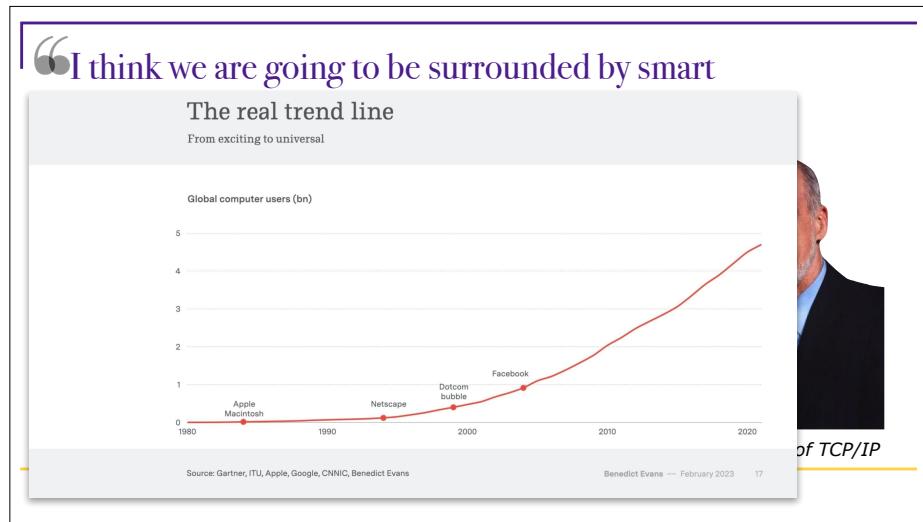
- ❖ To introduce basic Information Systems terminology.
- ❖ To clarify the role of digital technology in Information Systems
- ❖ To define the role of the modern Information Systems professionals and the important jobs they perform in modern organizations.
- ❖ To identify organizational and information technology trends that have led to the current popularity of IT-based information systems.

What is this “Digital” everyone is
talking about?



Digital Vocabulary

- ❖ *Digital*: discrete representation of signals and data in a binary format.
- ❖ *Digitization*: The process of digitizing – or converting signals from analog into the digital form (i.e., encoding into bits).
- ❖ *Digital Technology*: Electronic equipment and components that manipulate digital signals.



But where does that happen?

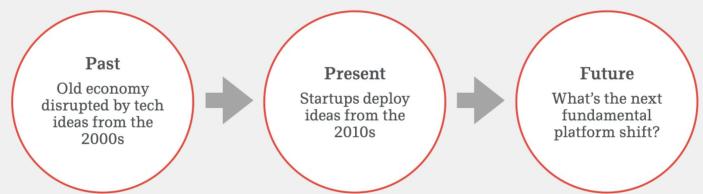
Where does software eat the world, and where does it just get absorbed?



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Three steps to the future

"The future is here, but it's unevenly distributed" - William Gibson



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The great unbundling

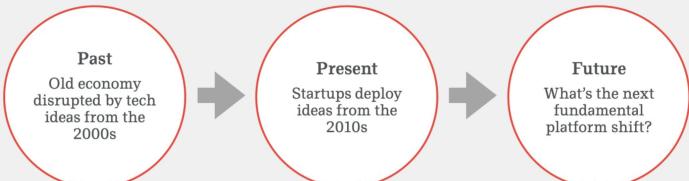
"The internet breaks apart old value chains and creates new ones" - and we could have said that in 1995



Benedict Evans --- December 2021 53

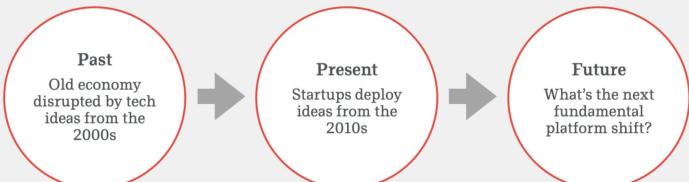
Three steps to the future

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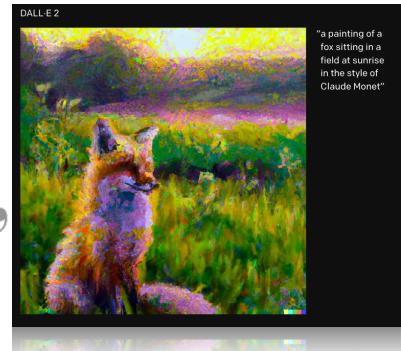


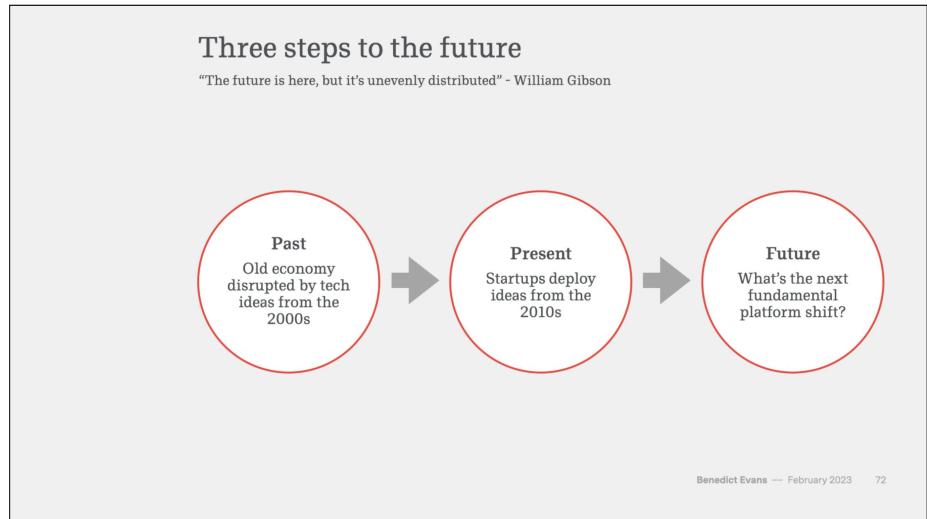
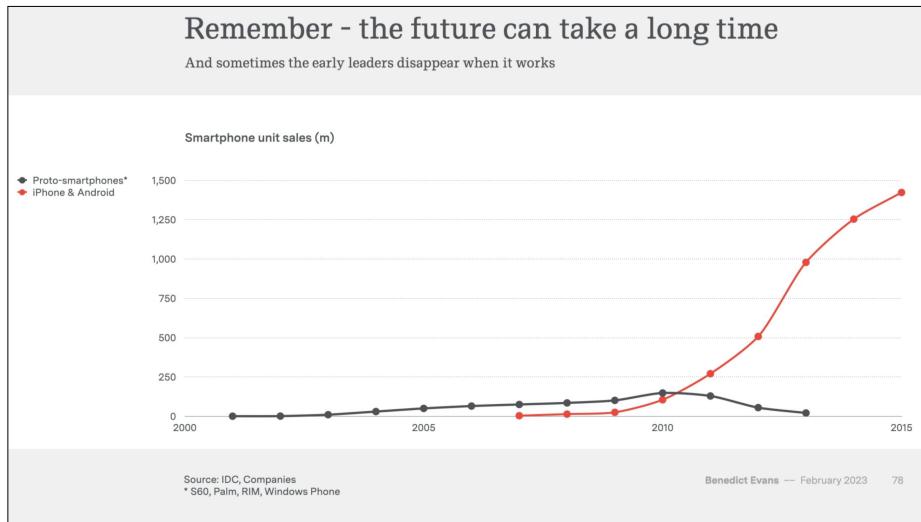
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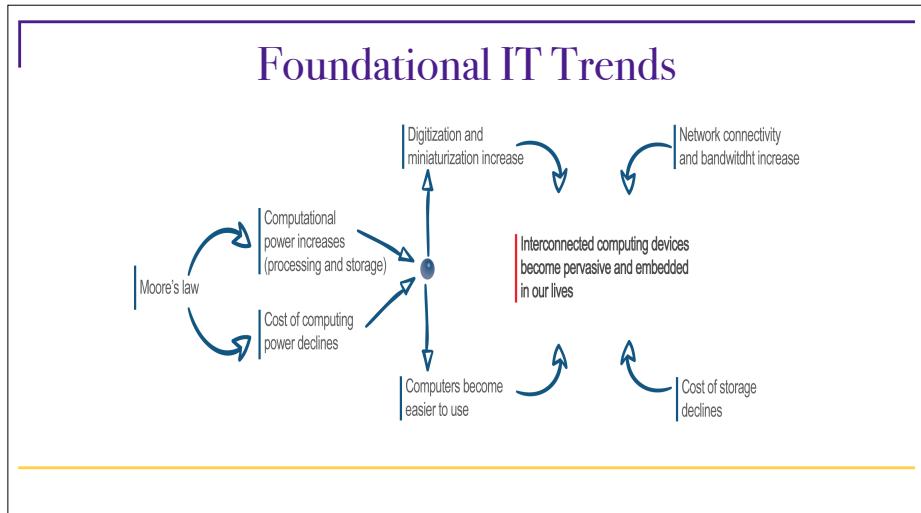
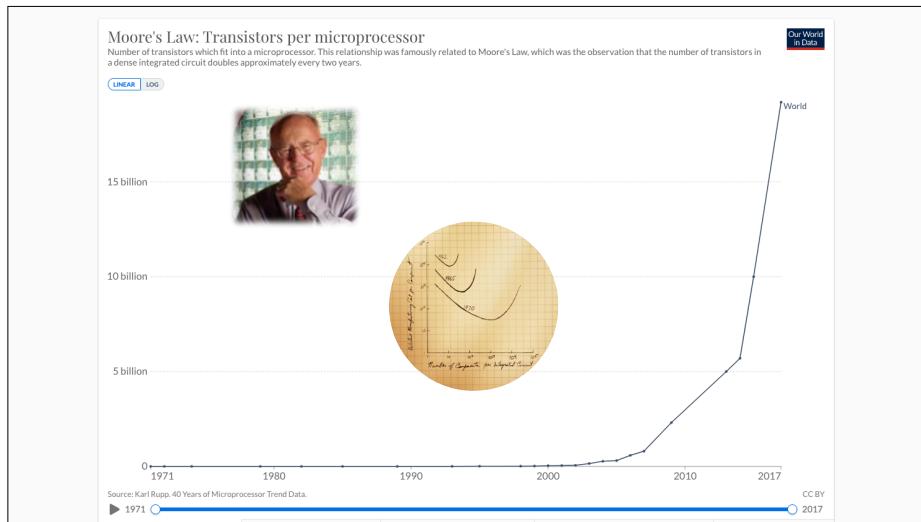
“A really big computer is a time machine - you can do things that aren't economical now but probably will be in a decade.”



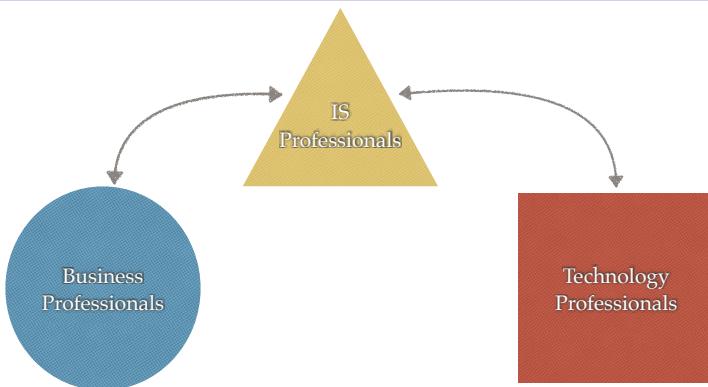
Bill Joy, co-founder, Sun Microsystems







Information Systems Professionals



Chief Information Officer

“ What the **business** **wants you** to be able to do with technology is **think differently** about how you are going to succeed in the market. ”



Scott Heintzman, CIO, Carlson Hospitality

“ The key skills of IS Professionals are project management and translating business requirements into the correct technologies... Our focus is **how do you deliver business value through technology** ”



Tim Harvey, SVP and CIO - Hilton Hotels

More Digital = More Chiefs

- ❖ CIO: The individual in charge of the *information systems* function. Focus on delivering information services that enable the organization to operate effectively.
- ❖ CTO: When present it is the individual in charge of the *technology roadmap* of the enterprise. They focus on technology, architecture, engineering, and product-facing technology capabilities.
- ❖ CDO: The individual in charge of *digital transformation and digital innovation* in established organizations - the “transformer in chief.”
- ❖ CDO: The individual who oversees all aspects of *data* use in an organization, from collection to compliance to value extraction.
- ❖ CISO: The individual in charge of *digital risk management and cybersecurity*.

Information Systems Professionals

Technical Staff

- ❖ *Architect*: individual in charge of developing a framework for the development of a system.
- ❖ *Developer*: individual who builds high-quality, innovative and performing software that complies with coding standards, technical designs and the framework provided by architects.
- ❖ *Administrator*: individual who is charged with the day-to-day maintenance of a system, or collection of systems.



Information Systems Professionals

Analysts and Managerial Staff

- ❖ *Information Systems Manager*: individual in charge of a team within the IT function of an organization.
- ❖ *Project Manager*: individual who is ultimately responsible for the successful completion of a project.
- ❖ *Analyst*: individual who performs analysis in a specific field or topic area (e.g., business analyst, systems analyst).



Information Systems Professionals

Data Science and Analytics

- ❖ *Data scientists*: An individual in charge of analytics efforts who has the full view of the analytics process end-to-end.
- ❖ *Data engineers*: An individual who has distinctive skills in data access and data preparation
- ❖ *Subject matter experts*: A general or functional manager with a deep understanding of the business and functional domain of analysis.
- ❖ *Source system expert*: A source system expert is an individual with a deep understanding of the technology underpinning the business domain of analysis. They understand which business processes created the data and how the data are stored.



What We Learned

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