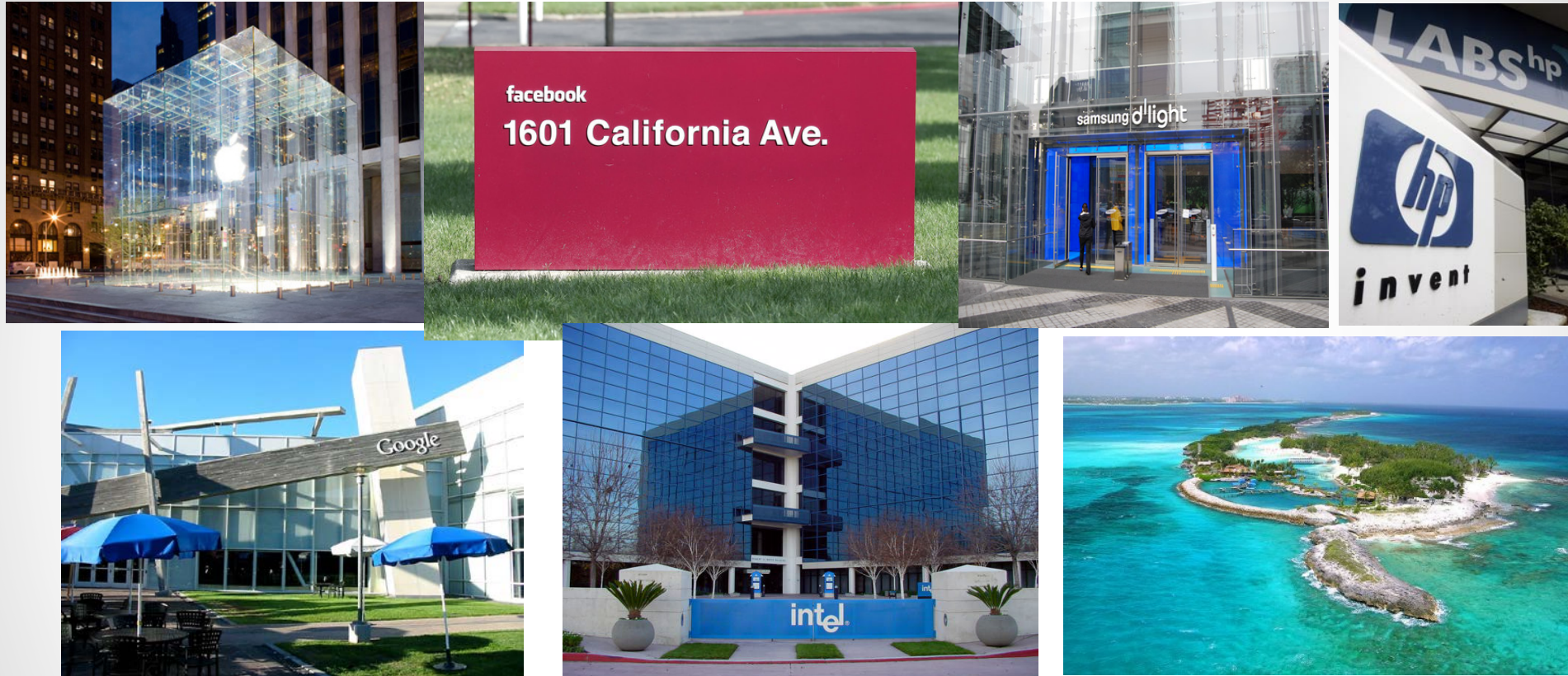


GE1315

HOW DO YOU TURN
SAND ON A BEACH INTO
A TRILLION DOLLARS?

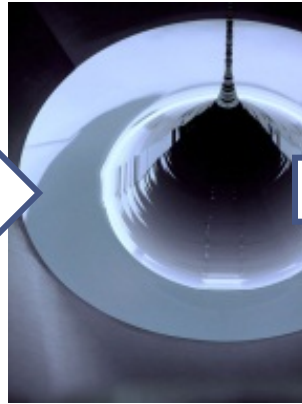
Based on a True Story



Not about planning a beach holiday in the Bahamas;
this is about the **tech revolution** that started with sand

- Learn about the FINANCIAL impact of tech product industries

The magic: Technology



An **Amazing** fact about SAND –
If left untouched: you can make some sand castles
When **processed**: you can make microchips that
could sell for trillions of dollars

- Learn about the SCIENCE behind tech products

The Money: Better yet Cheaper



In 1978, a commercial flight between New York and Paris cost around \$900 and took seven hours. If the principles of Moore's Law had been applied to the airline industry the way they have to the semiconductor industry since 1978, that flight would now cost about a penny and take less than one second.

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Because electricity travels a shorter distance in a smaller transistor, smaller transistors mean faster chips. It would take you about 25,000 years to turn a light switch on and off 1.5 trillion times, but Intel has developed transistors that can switch on and off that many times each second.

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...to such we
als connected to a
or automobiles, a
ipment. The elec
be feasible today
in the pro

The price per transistor on a chip has dropped dramatically since Intel was founded in 1968. Some people estimate that the price of a transistor is now about the same as that of one printed newspaper character.

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While inflation rockets prices upward, tech products go the other way: **faster & better yet cheaper. How?**

- Learn about the ECONOMIC issues with tech products

The Me & You: From slow mail to social networks



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How have tech products changed the way we relate and communicate today?

- Learn about the SOCIAL issues posed by tech products

The evils: abuses within the tech product cycle



Do you know that the electronic trash you dump can end up in a river somewhere in Africa?

Open secret: The modern day labor camps that give us cheap electronic products. **Can anything be done?**



- Learn about the ETHICAL issues associated with tech products

Looking at the tech world from a non-technical perspective

- **Course Aims**

- Explain how we have built our modern society on sand
- Learn how this is even possible (technology and history)
- How this translates to money (economics)
- Identify opportunities this opens up for entrepreneurs (business)
- Reflect on how these affect our relationships (social studies)
- Engage ethical and legal issues (law) involved.

- **Teaching and Learning Activities (TLAs)**

- Course lectures, team brain-storming sessions, team presentations

- **Assessment Tasks (ATs)**

- 100% course work in the form of 3 mini-projects and a short quiz at the end of the course (no end of semester exam)

