



India's Response to the Information Age

Marina Sirota, William Lu,
Jim DeLaHunt

CS 201, Spring 2003-2004



In Their Own Words

Courtesy of a major Silicon Valley firm

A video was presented to class,
but is not included in this edition
at request of the maker.



Agenda

- About India
- Gender and class issues
 - Simputer: Computer device for 3rd World
- Outsourcing from the Indian side
- Intellectual property rights (IPR)
 - “Copying culture”, Copyright and patents
- Community and Indian diaspora
- In Their Own Words

About India





About India

- One of the oldest civilizations
- People and Language
 - Hindu 81%, Muslim 12%, Other 7%
 - English: political, commercial use
- Economy
 - Agriculture, handicraft and industry
 - Overpopulation, poverty, ethnic strife
 - Exports software services, workers

Class Issues





Class Issues

- Class and Caste
 - Ranked, named, endogamous groups
 - Impossible to move up
 - Traditionally associated with occupation
- Discrimination illegal, but still happens
- Economic correlation exists
- Information Technology
 - Unfair advantages to English speakers
 - Economic opportunities to succeed

Gender Issues





Gender Issues

- Impacts of religion and caste system
- Labor and education (IT)
 - 51% of women are literate (Men - 75%)
 - Sixth Plan (1980s), Eighth Plan (1990s)
- Women are:
 - 1% of engineering students
 - 23% of internet users, 37% of IT staff
- Policy Framework (IT)
 - Ministry of Education

Gender Issues



Simputer: Computer for 3rd World



Introducing the Amida Simputer

Images courtesy of Amida Simputer and PicoPeta

- Crop prices, village accounting, health surveys, ...
- Low cost
 - Data card, share CPU
- Untrained users
 - Text to speech
 - Simple, tapping UI
- Digidivide or niche?
 - Lose to cell phones?

0		1	ಬತ್ತ
2	ಕವಳಿ	3	ಕಬ್ಬು
4	ಗೋಧಿ	5	ಬೆಡಲ
6	ರಾಗಿ	7	ಜೋಳ
8	ಎಳ್ಳು	9	ಶೆಂಗಾ
10	ಪೂಕಾಣಿ	11	ಹತ್ತಿ
12	ಮಸಾಲೆ	13	ರೇಷ್ಮೆ
14	ಸಜ್ಜೆ	15	ತೊಗರಿ
16	ಕುಸುಬಿ	17	ಕಡಲೆ
18	ಸೂರ್ಯಪಾ	19	ಬಾಳೆ

ಹಿಂದೆ

ಬೆಳೆ ಆಯ್ಕೆಗೆ ಸಹಾಯ



Outsourcing from the Indian side

- A poor country rich in people resources
 - 1bn people; many educated, good English
- “Back office to the world”
 - Business process outsourcing, call centres, software, remote radiology, ...
- +: wealth, new station in society
- -: night shifts, low status, “phoniness”
- Globalisation cuts both ways
 - A window, then Philippines, Russia,...

Copying Culture



Photos courtesy of Coca-Cola (L and R), and Tobbe at www.abc.se/~m8582/



History of Indian IP Rights

- Nehruvian Socialism
 - Self-sufficiency - promote dom. industries
 - High barriers against foreign imports
 - Large public spending
- Copying Culture
 - Patent Act of 1970
 - Easy to make domestic substitutes
 - Created most of India's companies



Liberalization and Global IPR

- Public spending led to near bankruptcy
 - Borrowing money from World Bank, IMF
- Radical liberalization
 - Opening industries
 - Reduce trade deficit
 - IPR as a way to lure foreign companies
- World Trade Organization (WTO)
 - IPR required of member nations; TRIPS



Digital Diaspora

- Diaspora of Indians around the world
 - Originally created due to high-tech boom
- Online communities unite Indians
 - A way to communicate with fellow Indians
 - Recruit others to form a community
- Reversing the trend
 - Communities bringing change to India
 - Indians moving back to India

In Their Own Words





In Their Own Words

From interview with Indian tech exec

[Indian attitude is] "If you don't know the person, then doing something wrong [to them] is OK."



In Their Own Words

From interview with Indian tech exec

“India is a very close-knit culture. It’s very common for people at the workplace to know everyone’s salaries. So there’s no strong concern about data privacy.”



In Their Own Words

From interview with Indian tech exec

“[In North America,] working with a software firm is a regular job. In India, it’s a means to escape from one level of society to another.”



Thank You!

Marina Sirota

William Lu

Jim DeLaHunt

<http://www.stanford.edu/~msirota/cs201/>