Laptops, Networks and Classes

An Investigation on Information Technology and Practice

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Outline: a work in progress

- Overview
- Bourdieu and the theory of practice
- Methodological notes
- Overview of study findings
- Implications for IS/IT research
Two outcomes of our study

What we have learned about the mandatory laptop phenomenon

What the implications are for research on IS/IT in general
Tendencies in IS/IT research

• Technology is treated as separate
  – Reactions to technology rarely questioned deeply
• Use considered rather than practice
• Power and politics rarely considered
• Symbolism of technology rarely considered
Bourdieu: a theory of practice

• The shaping of social space
  – Universe, field
  – Social positions, position-taking; we/they
  – The habitus and dispositions
  – Production, reproduction of social structure

• Symbolic capital
  – Economic, cultural, informational capital; hexis
  – How, what people are able to recognize
Bourdieu: a theory of practice

• Restricted and widespread fields
  – Sites of production of symbolic goods
  – Collective misrecognition
  – ‘Colonization’ of the restricted field

• The struggle over capital
  – Doxa: the ‘natural’, the self-evident
  – Symbolic violence and its efficiency
  – Language: the medium of power
Bourdieu: a theory of practice

- Agency and the subject
  - The habitus constrains the subject
  - The habitus informs the agent

- Bourdieun reflexivity
  - The conditions of possibility for what we, as researchers, say
  - Strong role of reflexivity in this study
    - Faculty researching students at own school
The laptop program

The Ivey School of Business at The University of Western Ontario made ownership of a laptop computer a requirement for all incoming students in September 1998, despite the fact that the school hadn't the slightest intention of using the machines in the classroom. In fact, they're actually banned from some classes says Ed Cloutier, Chief Information Officer at Ivey. "We didn't introduce laptops to revitalize our teaching because it didn't need to be revitalized. Our case-study method is time-tested; we've been doing this for 76 years, and we're very, very happy with it."

Then why the laptops?

Those, says Cloutier, are for the 95% of a student's time that is spent outside the classroom. "Time in class is precious. Our classes follow a business meeting model - you come prepared to work out ideas, not to take notes. There's no time to find a Web page or bring up a spreadsheet in the middle of a meeting; you'd better have looked at it and understood it before the meeting."

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– Ed Cloutier, Chief Information Officer, Richard Ivey School of Business, The University of Western Ontario

theNode.org, The Laptop College, 1999
In a classroom at American University in Washington on a recent afternoon, the benefits and drawbacks of the new wireless world were on display. From the back row of an amphitheater classroom, more than a dozen laptop screens were visible. As Prof. Jay Mallek lectured graduate students on the finer points of creating and reading an office budget, many students went online to Blackboard.com, a Web site that totes course materials, and grabbed the day’s handouts from the ether.

But just as many students were off surfing. A young man looked at sports photos while a woman checked out baby photos that just arrived in her e-mailbox.

The screens provide a silent commentary on the teacher’s attention-grabbing skills. The moment he loses the thread, or fumbles with his own laptop to use its calculator, screens flip from classroom business to leisure. Students dash off e-mail notes and send instant messages. A young man who is chewing gum shows an amusing e-mail message to the woman next to him, and then switches over to read the online edition of The Wall Street Journal.

J Schwartz, *Professors Vie with Web for Class’s Attention*, NYT, Jan 2003
The laptop program

By 1999-2000, laptops and the wireless LAN were being used for communication, distribution of assignments and for exams (only the laptops were used for exams). However, during the year, faculty had become increasingly concerned about how the network was being used in class. In addition to searching for up-to-date information on companies that were being discussed, or locating class assignments on the intranet, students were using their laptops in class for checking e-mail, chatting with other students, playing solitaire, and day-trading.

*Those *@!* Network Cards, Ivey case 9B00E020, 2000
The laptop study

• … grew out of a tension
  – Disquiet felt by faculty at student distractedness in the MBA classroom
  – Objective was to evaluate whether laptop program had helped or hindered
    • Others wanted to know too
    • The five-years-on perspective
    • An IT implementation issue

• Successfully applied for federal grant
Research approach

• Project calls for multiple approaches
  – Text, interview, observation, questionnaire
• Also calls for variety of respondents
  – Students, faculty, management, IT staff, admin staff, alumni, employers, vendors
• To date: focus on students
  – 90 student interviews over two years
  – Classroom observation
Research approach

• Semi-structured interviews
  – Concern with context of laptop use in addition to impressions on laptops
  – Conducted by a doctoral student
  – 23 MBA students interviewed three times, all others once

• Classroom observation
  – Conducted by same doctoral student and one other
Some recent history

- In previous years, wireless network had been restricted only for exams
  - Areas of the school were shut off
- 2002: wireless access control policy
  - Three access levels devised
    - Full, email and intranet only, intranet only
  - Faculty selected intranet only
  - Policy put into effect September 2002
Some recent history

- MBA2 students protested the policy
  - Little reaction from MBA1 students
- Simultaneously, major failures occurred on the wireless network
- MBA director apologized to students
  - Policy temporarily withdrawn for repairs
- First round of interviews conducted
Some recent history

• Restriction policy was abandoned
  – Initial suggestion was to apply to MBA1
  – Later, this idea was shelved
• By January, MBA1 students had a good sense of what they had ‘won’
• Second round of interviews was conducted at this time
Impact of laptops

• ‘Impact of laptops’ may be wrong frame
  – Is not top of the mind for respondents
  – Has to be understood in the context of the entire informational ensemble

• The dispositions of students: habitus
  – Many come in with IT as part of lived experience
  – Technology as a background ‘necessity’
Impact of laptops

- Why the system was installed
  - IT as doxa
    - Not a specific purpose IS
    - Students understand it as a given
      - “…we have to be exposed to that sort of thing…”
      - “…you have to remain on par with what business is doing if not in advance of what business is doing…”
  - Was classroom use the purpose?
    - Separation of outside and inside classroom
Impact of laptops

• Laptops and the flow of practice
  – The constant companion
  – Facilitating learning in teams
  – Communication arenas: wide and narrow
    • The IM and email cultures
    – “…everything at your fingertips…”
  – Seamless with other technologies
  – The file sharing phenomenon
Impact of laptops

• This is what we are, our habitus
  – The distinguishing mode of practice

• The technology as symbolic capital
  – As objectified cultural capital; possessions
  – As backdrop to the institutionalized cultural capital of the degree
  – As facilitating social capital in connections
  – The strong attempt to accumulate capital
The classroom issue

• Most interviewees noted use of network-related programs in class
  – Some saw it as disruptive
  – Others did not: “We’re adults”
  – Some felt a lack of control over own action

• Interesting difference between local and international students in MBA1
  – More commonality among MBA2 students
The classroom issue

• Evolving practice, rules, in classroom
  – ‘Adversarial’ nature of faculty-student relationship played into practice

• Separating class use from non-class use may not be advisable
  – Strong continuity of dispositions, relations

• Invocation of language of economic field
  – Juxtaposed against language of educational field
Some observations

• Solution vs Resolution
  – “The IS solution”
  – The underlying need for resolution

• The colonization of the restricted field
  – Yet, it is an incomplete colonization
    • How the logic and language of both worlds are brought into play
    • The contradictory effects that result
Implications for IS/IT research

• The issue of unintended consequences
• Technology and power plays
  – Those with greater symbolic capital can control how the technology is used
  – But those with less capital also find ways to exercise their power
  – Thus, first use of power is influenced by second
• The symbolic side of IT cannot be ignored
  – IT used as symbolic capital
Implications for IS/IT research

• Need to be sensitive to how technology is woven into practice
  – Alters the habitus of users (or not)
  – Therefore restricts future control attempts
• Sometimes new IT might be easier to sell than we think
  – Once again, it is a question of habitus
  – Closely related to identity of users
Implications for IS/IT research

• Cannot separate technology from the flow of experience
  – Our tendency, often, is to try to study technology separately
• Can question IT decisions as doxa
  – May discover more ‘wrong reasons’
• Reactions to IT may mask deeper issues
  – Need to look at the very structure of relationships
  – Technology as hermeneutic rupture