Digital State: The Story of Minnesota’s Computing Industry

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8 Nov. 2013 Mager & Quinn books
Topics tonight

1. Mn was Silicon Valley
2. “Silver mine” (impacts)
3. “Gold mine” (consequences)
4. What to ‘see’ today?
California’s ‘Silicon Valley’
California’s ‘Silicon Valley’

<table>
<thead>
<tr>
<th>Company</th>
<th>Year</th>
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<tbody>
<tr>
<td>Adobe</td>
<td>1982</td>
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<tr>
<td>Apple</td>
<td>1976</td>
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<tr>
<td>Cisco</td>
<td>1984</td>
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<tr>
<td>eBay</td>
<td>1995</td>
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<tr>
<td>Facebook</td>
<td>2004</td>
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<td>Google</td>
<td>1998</td>
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<tr>
<td>HP</td>
<td>1939</td>
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<tr>
<td>Intel</td>
<td>1968</td>
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<tr>
<td>Oracle</td>
<td>1977</td>
</tr>
<tr>
<td>Yahoo</td>
<td>1994</td>
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MN was Silicon Valley (1950s–1970s)

- ‘stored program’ computer [1950]
- magnetic data storage
- computer industry
- ‘supercomputer’
- early WWW
Silver mine: MN’s computer industry

2. Engineering Research Associates [1946]
5. Honeywell (computing = 1958-91)
6. IBM-Rochester [1956--]
Silver mine: MN computer workforce

MN by mid-1970s . . .
• ... 1.8% of US population
• ... 3.3% of US manufacturing jobs
• ... 12% of US $6B computer sales
• ... 17% of US computer mfg jobs
Why ‘not’ Silicon Valley MN?

✓ Technology & innovation
✓ Computer-center ‘industrial district’
✓ Venture capital #2 [1958-63]
✓ Sales to military + labs + ATC + security

✦ Less visibility in commercial markets
✦ No journalist’s “Silicon Valley” [1971]
✦ Secret work ⇔ public awareness?
Gold mine: longer consequences

- ERA magnetic media ➔ 3M + Imation
- Twin Cities ➔ ‘younger, female’ + 62% state’s population
- MECC ➔ Apple Computer
- computing ➔ medical devices [ch.7]
- lessons for high-tech innovation?
CBI from CA to MN 1980

- Computer history research and archiving
- 250 archival collections
- 400 oral histories
- 150,000 photos
- “1 mile” of paper records
- 4 staff + students

Charles Babbage (1791-1871)
What to see today?
tinyurl.com/sia-misa
Control Data Northside plant (1967)
Honeywell S Minneapolis (here: 1940s)
Control Data 7800 Computer Ave. (1980s)
Control Data now Health Partners (1980s)