

DANIEL BELL AND THE IDEA OF THE SUPPLY CHAIN:

(OR)

WHAT IS A POST INDUSTRIALIST SUPPLY CHAIN?

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Why I'm Here - Education and Standardization

- I've spent over 30 years trying to understand standardization
 - Written books, written papers, given lots and lots of talks
 - I've worked for Sun Microsystems, Netscape, DEC, and Adobe managing standardization portfolios and standardizing
- Like Heraclitus, I've never stepped in the same river twice
- Standardization is a complex, multidisciplinary, ever changing subject
 - Organizations, rules, companies, players, governments, lawyers, business people are always changing
 - New ways of using standardization keep happening
- Educational approach is likened to sex education in the 1950s
 - A quick film in the gym, and lots of out-of-class rumors and innuendos
 - The result, of course, is a lot of sudden marriages

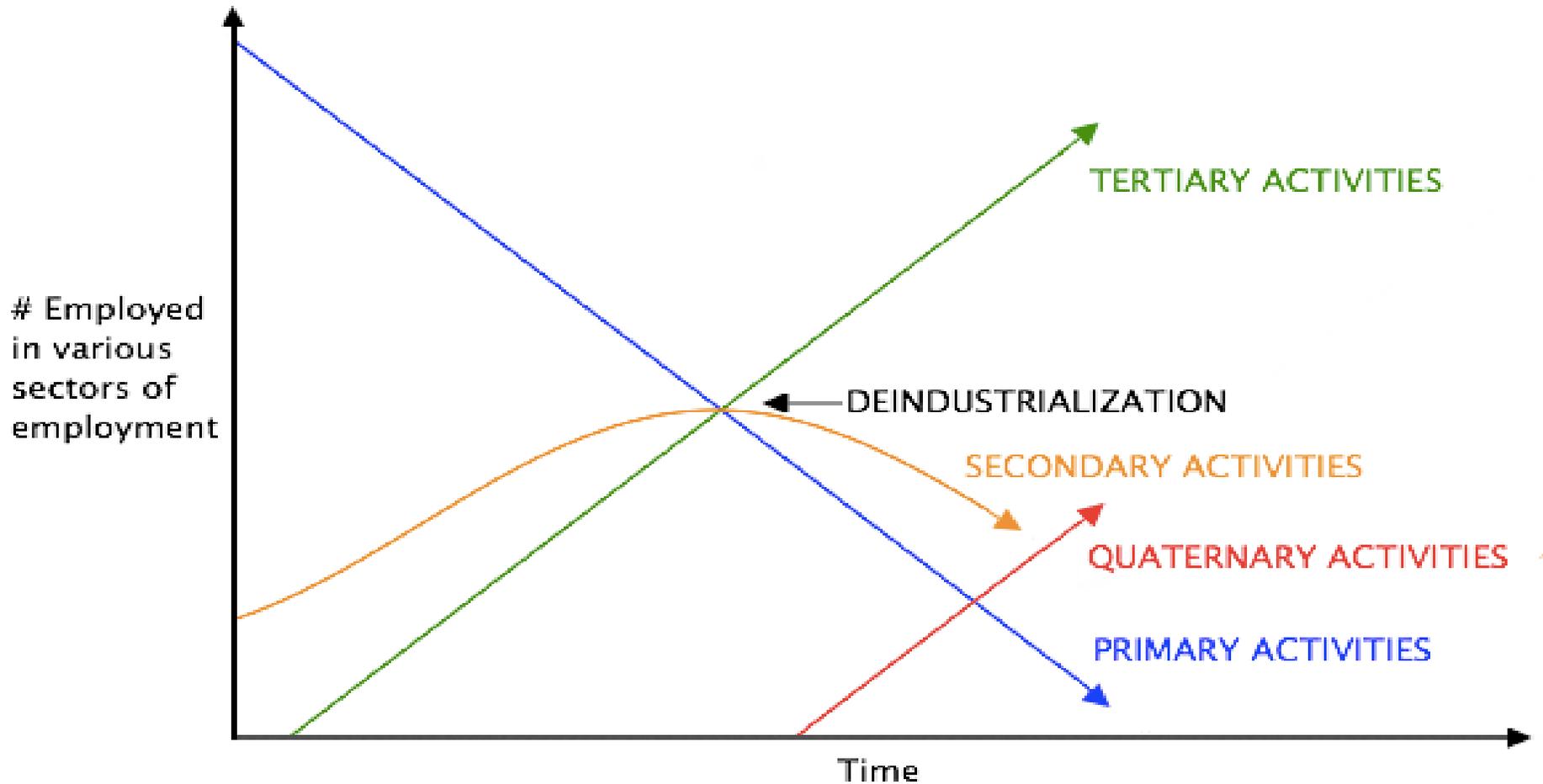
The Rationale for Standardization

- Standardization is not about Standards Organizations and rules and documents called Standards
- Standardization is a “culture changing” activity
 - Proof point – Amazon and Ali Baba, Arab Spring, streaming media
 - Retail; When Amazon/Ali Baba add 100,000 customers, it’s a new server.
 - When Best Buy adds 100,000 customers, its 2 new stores and a warehouse and so on...
 - **Standards are merely one way that standardization manifests**
- Standards act as “informal legislation” that remove control of technical direction from legislative and social oversight and instead confer control on corporate entities. (Rebecca MacKinnon and Larry Lessig)
- This leads to the “...inescapable fact that standards are what the now defunct Office of Technology Assessment (U.S. Congress 1992) called ‘impure public goods.’ That is, although they are public goods, their very existence creates losers and winners.” (Busch, 2015)

Daniel Bell and Post-Industrial Society

- In 1973, Daniel Bell outlined a new kind of society – the post-industrial society – information-led and service-oriented.
- Bell also argued that the post-industrial society would replace the industrial society as the dominant system.
- The three components to a post-industrial society are:
 - a shift from manufacturing to services
 - the centrality of the new science-based industries
 - the rise of new technical elites and the advent of a new principle of stratification
- Bell also described three aspects of the post-industrial society:
 - **Data** (information describing the empirical world)
 - **Information** (the organization of that data into meaningful systems and patterns such as statistical analysis)
 - **Knowledge** (the use of information to make judgments)

Clark's Sector Model for US Economy



A Proposal for an Information Supply Chain

- As the major “product” of society becomes knowledge, then the key supply chain is no longer real-product creation, but the creation of data, information, and then knowledge.
- Knowledge has its own supply chain
 - **Data** comes from users (the new information producers) – anyone who uses Twitter, Facebook, or enables cookies, or enables tracking or uses the Web. This is *Big Data*
 - **Information** comes from agglomeration of the data – and digital analytics (sometimes referred to as Digital Marketing) provides that to buyers/producers
 - **Knowledge** comes from using the information to “create” a buying or other experience – or even a product
- The successful real product supply chain will be responding to scenario – which is “user-pull” versus “provider-push”

Implications for a Supply Chain

- Users are now demanding unique commodity products
 - “Find an event in your area so you can personalize two Coke® mini cans – one to keep and one to share. Follow @ShareaCokeTour for updates.”
 - NikeiD lets you create and buy custom shoes
 - Web pages are serving personalized ads (“Amazon suggests...”)
- This will move through the marketing chain – from consumer goods to industrial products via the “Internet of Things”
- The Data to Information to Knowledge transformation will be driven by interoperable data and information
- Standardization (and maybe even standards) will necessarily drive this interoperation

The Standardization Issues?

- There are over 700 standards setting organizations in ICT
 - The EU found over 20 doing “Cloud Standards” alone
 - There is no “central repository” of who’s doing what. ANSI doesn’t have a clue: “It is **estimated** that in the U.S. today there are hundreds of “traditional” standards developing organizations ... and hundreds more “non-traditional” standards development bodies, such as consortia”. (ANSI web site)
- The IT sector keeps creating new organizations and new forms because the market – and sector needs – demand it
 - High change; high innovation; rapid obsolescence
- Standardization being used as a business/policy/legal tool
- China and Europe use standardization for social/industrial policy

The Problems of Standardization in the US

- Business people know about marketing and product creation
- Legislators know about industrial and social policy
- Lawyers know about Intellectual Property Rights and contracts
- Economists know about bandwagon and path dependence
- Technologists know how to write specifications and build products
- Very few people know how to combine all of these disciplines into Standardization

The Ask Of This Audience

- Learn about standardization – not about “standards”
- Teach that standardization is cross-disciplinary
- Teach that standardization requires an understanding of people, technology, politics, the law, economics, and business
- Above all, remember that standardization is intriguing, difficult, and multilayered
- Create an accepted way to teach these – and pursue that educational path



“Then it doesn't matter which way you go” said the Cat.

“--so long as I get somewhere,” Alice added as an explanation.

“Oh, you're sure to do that,” said the Cat, “if you only walk long enough.”

- It is up to the members of the audience to help decide and set direction for the study of standardization in the United States.
- We need a “way to go” – and it must start with education

Comments? Questions? Suggestions?

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