

From “Me-TV” to “We-TV”

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- P2P file-sharing is often viewed as disrupting markets.
- But P2P is also an enabler of commercial markets.

• P2P is part of a larger family of economically valuable activities which emerged from “grassroots.”

Grassroots Examples

- 1910’s: Radio amateurs
- 1970’s: Citizen Band
- 1970’s: Micro computer builders
- 1980’s: Building of light airplanes
- 1980’s: Internet
- 1990’s: Open Software movement
- 2000’s: MP3 music file sharing

Amateur Radio



Commercialization of Radio



Citizen Band Radio



PC Builder



Homebuilt Airplanes



Early Internet Community



THE ARPANET
DEC 1969
Y NIPSS

Source: www.cbrp.org/ftp/atlavarnet2.pdf, www.pha.org/ghb/tech2.0.1/tech_ghbnav/index.html#the

Linux Community



Linus Torvald



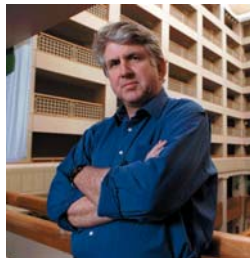
MP3 File Sharing

- These grassroots activities are often efficient when they are provided by private firms.
- Then why do these activities exist?

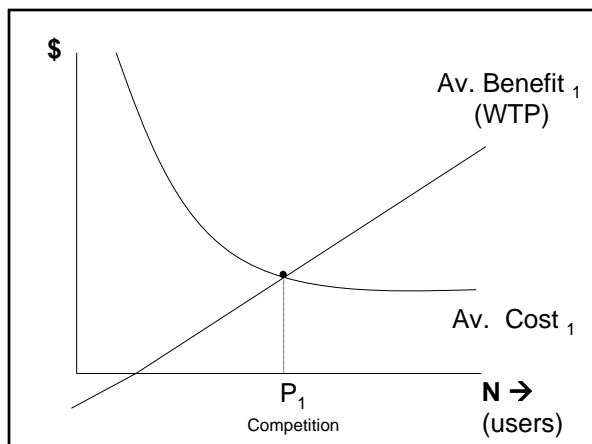
A Basic Model of Model of Critical Mass

Benefits

- Total benefits grow with the number of users—the network effect.
- Metcalfe's Law defines total benefits as $TB = b(n^2 - n)$.



- Average benefits: $(b/n)(n^2 - n) = bn - b$
- Average benefits define maximum willingness to pay.



Cost

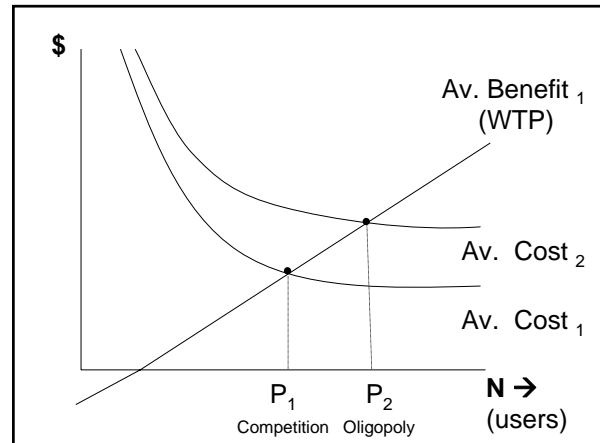
- High fixed cost, low marginal cost
 - assume constant marginal cost
- $TC = F + nM$
- Average cost: $F/n + M$.

- P_1 is the take-off point
- How does one get to the take-off point?

Options to Reach Critical Mass

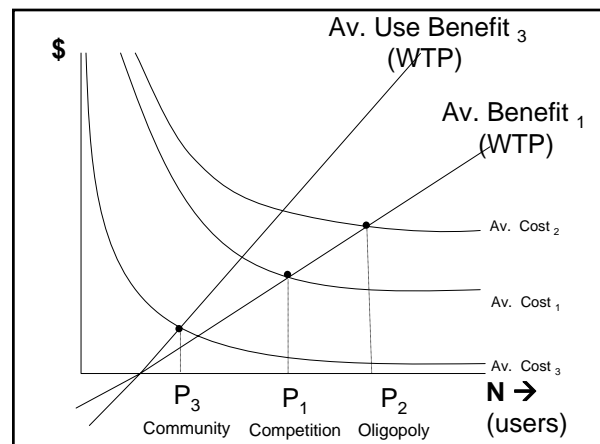
1. Government subsidies
2. Regulation to force a price below cost to raise demand
3. A business firm underwrites the deficit
 - Unlikely where competitive entry likely

- When a new technology of distribution destabilizes established ways, it will be an added cost.
- The take-off point for an oligopolistic and vertically integrated industry will be P_2 .



4th Alternative to Reach Critical Mass: The Community Approach.

- The benefit side is increased by an intense spirit of community.
 - Romanticization and vilification
- On the cost side, the community tries to lower costs by
 - Voluntarism
 - Piracy

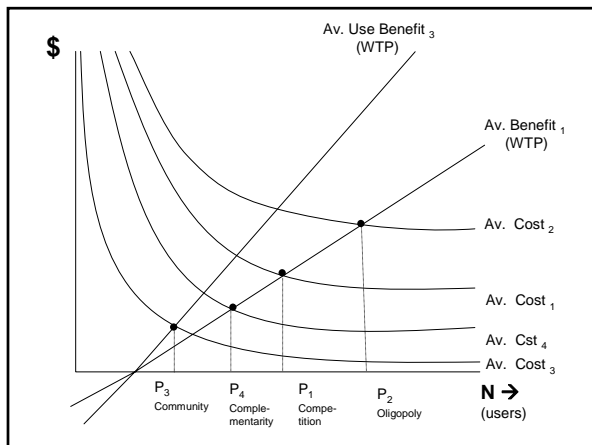


Community Activity

- Pushes the critical mass point to the left, P_3
 - an earlier take-off

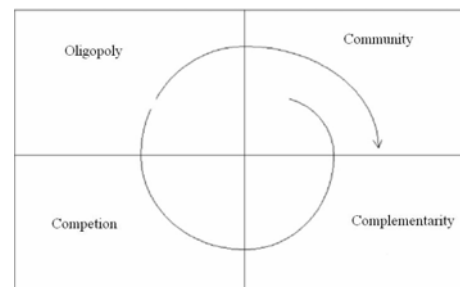
Subsequent Commercial Entry

- First, from firms with complementary interest
 - RCA with radios
 - Apple with MP3 devices
- P_4 is the “complementarity take-off point.”



- When the commercial entry takes place, it pushes aside the community that made it all possible.
- The community-based system is transitional, not permanent

- Within the commercial alternatives, the center of gravity moves from
 - P_4 , (the take-off point of complementarity)
 - to P_1 (the take-off point of competition),
 - to P_2 , (the take-off point in an oligopoly).



- Joseph Schumpeter's "creative destruction of capitalism" focused the undermining of oligopoly by competitive innovators, P_1 or maybe P_4 challenging P_2 .
- Not included was the challenge from community, P_3 .



- We tend to lionize the business-based disrupters as creative entrepreneurs.
- But we ignore or vilify the community-based disrupters.
- There is a legitimate and useful role for community as an entrepreneurial element in the process of innovation

Policy and Business Implications

- Suppressing sharing arrangements because they facilitate piracy is short-term thinking.
- Once the user base is large enough, it will provide the foundation for a market-based transaction mechanism.

- If established media business firms take the long view, they would value the community efforts that create the user base for their own subsequent expansion.



Middelhoff (Bertelsmann CEO) & Sean Fanning of Napster

Macro Impacts

- Broadband is a historic transition
- US is not a leader
- Killer-app for broadband is entertainment.
- There are enormous secondary benefits to the economy and to innovation by broadband, just as the internet did a few years ago.

The next frontier for the community?

- The point for future P2P video will not be to share movies one can get cheaply in many other ways.
- It will be to create new forms and genres of communications
- Base on P2P's own core strengths
 - Community
 - Creativity
 - Energy
 - Interactivity
 - Peership.

The Transition of TV

- From the “they TV” of the 3-network system
- to the “me TV” of multichannel TV
- To the “we-TV” of the next-generation P2P interactive video.

Another cycle Begins

