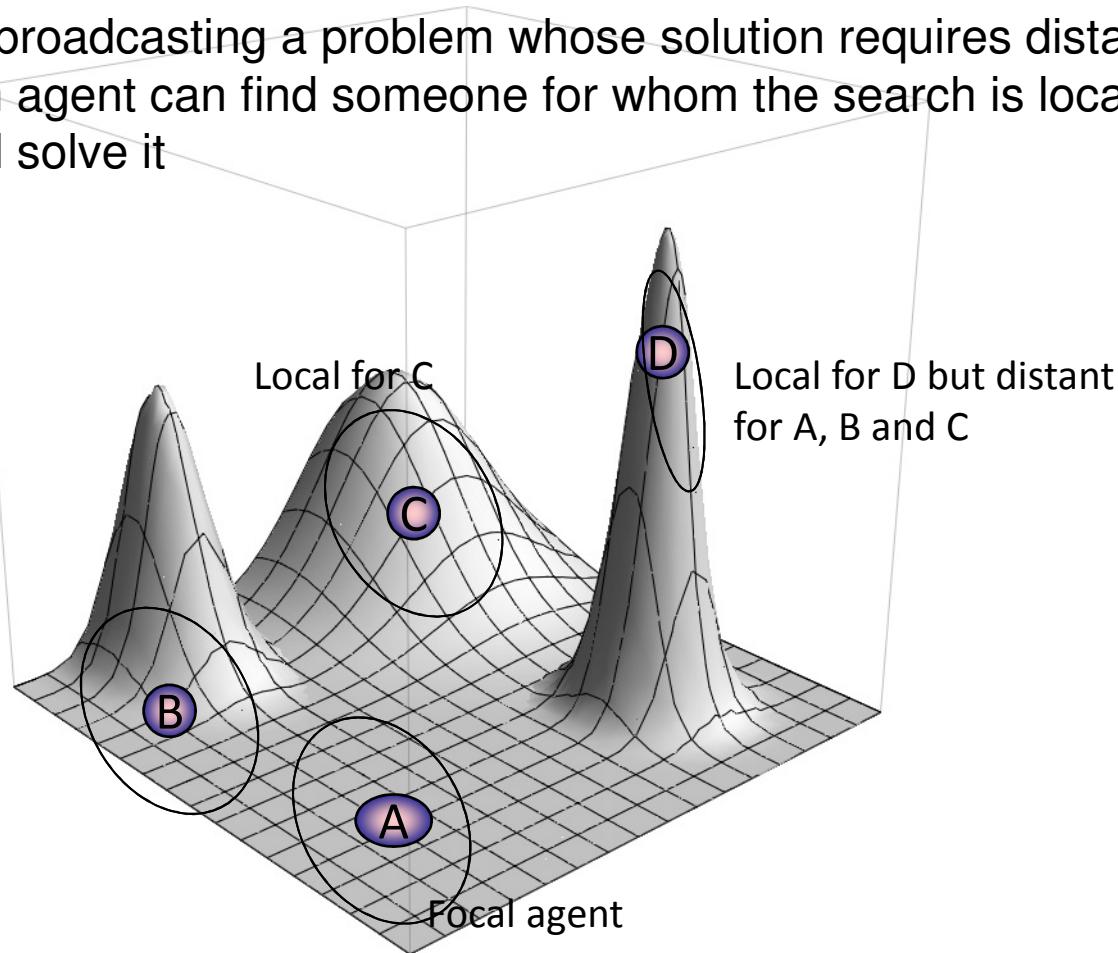


The time dimension of distant search: Can going back to the future deliver winning ideas for alleviating poverty?

Allan Afuah

Crowdsourcing as solution to distant search

- Search that is distant to one agent may be local to another
- Therefore, by broadcasting a problem whose solution requires distant knowledge, an agent can find someone for whom the search is local to self-select and solve it



Distance is multidimensional

- Dimensions of distance include (e.g., Miller, Fern & Cardinal, 2007):
 - Organizational (e.g., Thompson, 1967)
 - Industry
 - Geographic
 - Technological (e.g., Dosi, 1981; Henderson & Clark, 1990; Tushman & Anderson, 1986)
 - Community
 - Language
 - Institutional (e.g., Field, 1992)
 - Field of expertise
 - Time (Katila, 2002).

Time dimension

- Solving a problem can involve going back in time
- Possible drawbacks:
 - Search that goes back in time can hurt or help contingent on whether knowledge is intra- or extra-industry (Katila, 2002)
 - If past knowledge is tacit, it may be difficult to replicate the conditions necessary to transfer the knowledge through “learning by doing” (Dierickx & Cool, 1989)
- Hurdles can be overcome using crowdsourcing

Opportunity

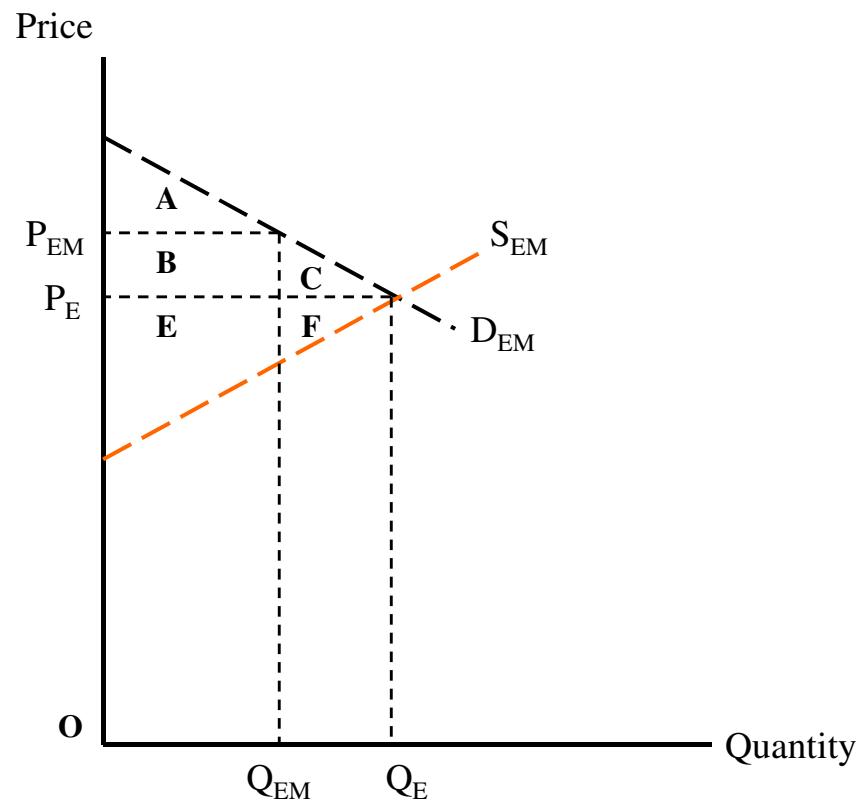
- Products needed in developing countries are often simpler, more basic forms of those in developed countries
- And the complex products of developed countries were once very simple and basic
- Therefore some of the old technologies that once underpinned products to developed countries can be used today to supply developing countries
- For example: Use late-1980s/early 1990s motorcycle engine technology to build simple motorcycles for African transportation

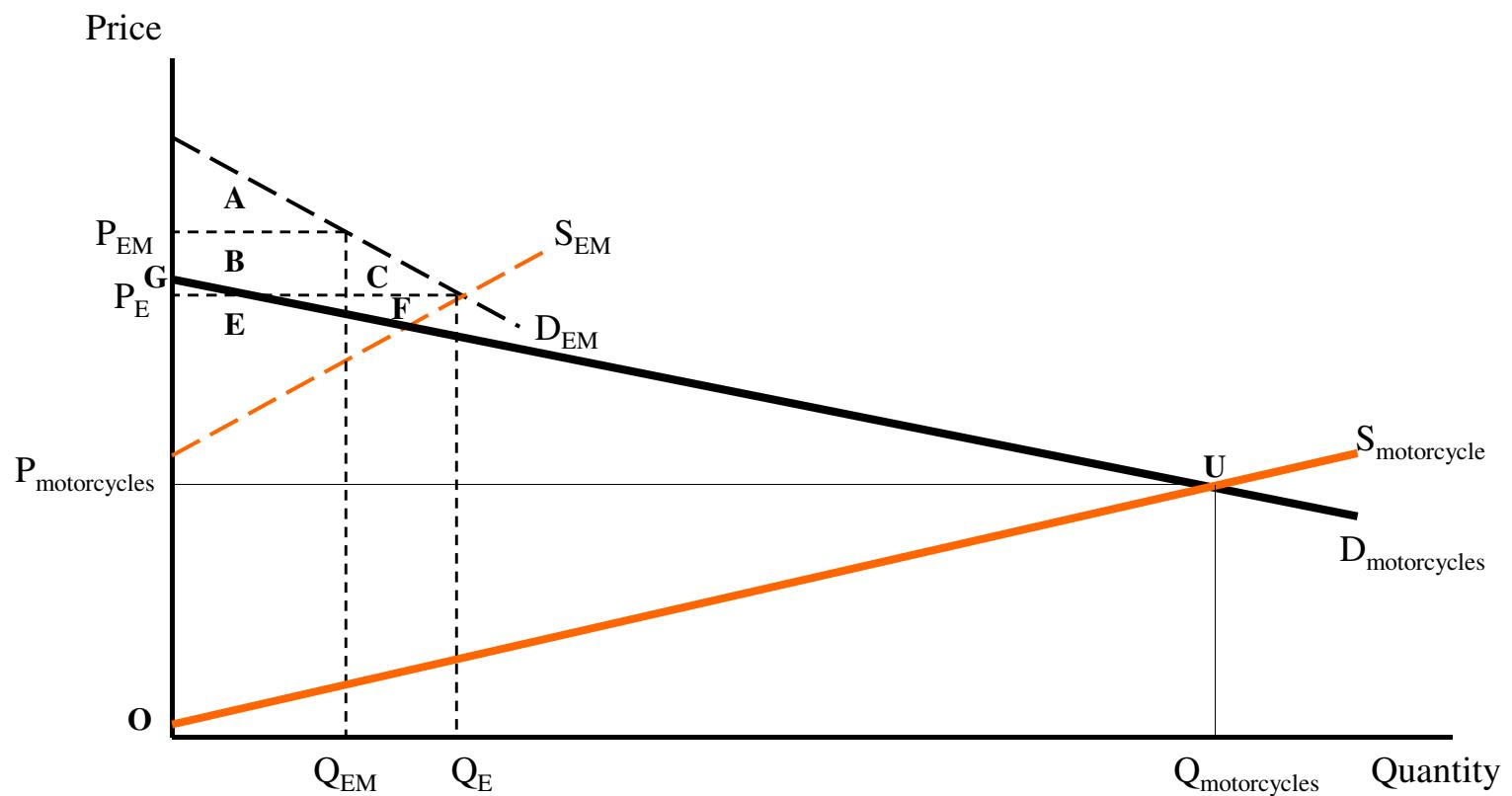
Taking advantage of the opportunity

- Using an old technology to solve developing country problems involves distant search in time and other dimensions
- Such search also has hurdles
- Can use crowdsourcing as a solution to such distant searches
- The result can be a product that is lower cost, simpler, more reliable, and more suitable for developing countries
- That can increase overall wealth creation—producer, supplier, consumer surplus, and multiplier effect

Motorcycles in Africa

- Chinese motorcycles that used 1990s components introduced in Africa
- Used as transportation
- Can reach villages that could never be reached by vehicles
- Farmers can take their produce to markets on time
- Many sick people can be taken to health centers
- Goods can also be distributed to villages
- Large impact on social welfare





Conclusion

- Using older technologies can help alleviate poverty but entails distant search in time
- The hurdles associated with distant search can be overcome using crowdsourcing
- Effectively, crowdsourcing can help us go back to the future and alleviate poverty