Review of literature on the nature of knowledge spillovers

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Notes on individual articles

Table 1: Notes on individual articles

Article	**Main Idea**
Almeida & Kogut (1999)	The localization of knowledge spillovers is not uniform. Regional variation in knowledge spillovers due to institutions and labor networks.
Arora, Belenzon, & Lee (2017)	Localization of patent citation may not be due to localization of knowledge flow. Local knowledge flows may exist but may not be captured by patent citations.

Article	Main Idea
Audretsch & Feldman (1996)	Prior: Innovation and technological change depend on new economic knowledge. Literature has explored the role spillovers play in generating increasing returns and eventually economic growth. The argument here is that if the ability to receive knowledge spillovers is influenced by distance from knowledge source, then you should find spatial concentration in areas where knowledge spillovers are likely to play an important role. Purpose of Audretsch & Feldman (1996) is two fold. First, to understand to what extent does industrial activity cluster spatially?, and Second, to link the geographical concentration to the existence of knowledge externalities. Audretsch & Feldman (1996) control for spatial concentration of location of production, and suggest that while information may be transmitted better due to better communication infrastructure, the same may not be true of knowledge which may have a tacit element.
?	Using European patents from 1977 to 1995, show that spillovers are localized and exist to within 300 kms.
Jaffe (1989)	Spatially mediated knowledge spillovers.
Glaeser & Kerr (2009)	Confirm the observation by Chinitz (1961) that new entrants are drawn to regions with small suppliers

Article	Main Idea
Awate, Larsen, & Mudambi (2015)	Diffusion of innovative capabilities goes from advanced country firms to emerging country firms. Since both AMNEs and EMNEs are internationalized, the EMNE headquarters develop innovation capabilities slower than AMNE subsidiaries
Bahlmann (2014)	Local and distant search implies that geographical network diversity affects innovation in an inverted-U manner
Bell (2005)	Disentangle the geographic effect from the effect of networks (managerial ties, and institutional ties)
Baptista & Swann (1998)	Maybe diversification within clusters is not particularly useful
Cantwell & Mudambi (2005)	Not just location but group level and subsidiary level mandates matter for R&D.
Dunlap-Hinkler, Kotabe, & Mudambi (2010)	Generic innovation capabilities hinders breakthrough performance. Decentralization is helpful.
Eisingerich, Bell, & Tracey (2010)	Cluster performance is determined by network effects (Network strength and openness), and is moderated by environmental uncertainty.
Eriksson (2011)	On mobility, but not clear
Fitjar & Huber (2015)	International personal and formal networks are correlated with innovation in firms. Local networks not as much.
Fitjar, Huber, & Rodríguez-Pose (2016)	Goldilocks distance - innovation works well when geographic distance is neither too near nor too far.

Article	Main Idea
Fu, Diez, & Schiller (2012)	Path dependent evolution of regional innovation systems. First mover advantage and institutional first mover advantage.
Fu, Diez, & Schiller (2013)	Learning by interacting - informal Guanxi network.
Giuliani (2007)	Firm level social network characteristics as affecting diffusion as against geographical proximity and embeddednesss in local networks (prior). Economists view that public goods are subject to spillover effects. Economic geographists view that embeddedness in firms in localized networks.
Giuliani & Bell (2005) or Giuliani, Pietrobelli, & Rabellotti (2005)	Reversing the direction. Absorptive capacity of firms leads to agglomeration. Knowledge is not diffused evenly in the air, but flows within a core group of firms with advanced absorptive capacities.
Grillitsch & Nilsson (2017)	Negative spillovers - those with weak internal knowledge grow faster in knowledge intensive regions
Henderson, Jaffe, & Trajtenberg (2005)	Are three digit patent classes too broad. Underlying forces run both ways. Knowledge spillovers provide incentives to collocate. Colocation (to begin with) may encourage cross pollination. Knowledge spillovers are highly elusive.
Huber (2012)	To what extent does local spillovers help?
Alnuaimi, Singh, & George (2012b)	International R&D helps inventors but not subsidiary level capabilities. Collaboration is more international and not local.

Article	Main Idea
Alnuaimi, Opsahl, & George (2012a)	
Jaffe, Trajtenberg, & Henderson (1993)	
Krugman (1991)	Core - periphery model of economic differentiation.
Lissoni (2001)	Codified and firm specific knowledge in SME clusters.
Lorenzen & Mudambi (2013)	Personal relationships (prior: Organization based pipelines and MNE subsidiaries). Global linkages with decentralized network structures.
Mudambi & Swift (2012)	Role of MNE clusters - a review of literature
Mudambi & Navarra (2004)	Intra MNC firm flows leads to bargaining power.
Murata, Nakajima, Okamoto, & Tamura (2014)	Localization of flows

1 Limitations in using patents

Griliches (1990) Scherer (1984)

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