



An Overview to
Entrepreneurial Ecosystems
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Entrepreneurial Ecosystems

Entrepreneurship is found throughout many parts of the world. In the United States the desire to create new enterprises appears to be part of the culture. However, some areas of the country excel at the quantity and the overall promotional execution by which new enterprises are created. Geographical areas such as Northern California (Silicon Valley), Boston, Massachusetts, Austin-Texas, the southern research triangle and others, create ecosystems by which formal and informal affiliations and structures are created between research schools, government, private equity and businesses. These structures create an “escalator” by which ideas become embryonic businesses; embryonic businesses develop into full-fledged companies. Many of these closely held companies inevitably grow rapidly and sell to other larger entities or become public companies.

The trends of the time (i.e. mini-computers, silicon chips, Internet, software, software-as-a-service and eco-tech) are less important than the mechanisms that evolved to help launch, grow, and create value. This in turn creates final reward and liquidity for investors and shareholders of the companies started in those moments of business history. Hewlett Packard, Apple, Microsoft, Oracle, Netscape, Salesforce.com and Google all were cycled through the Silicon Valley entrepreneurial ecosystem. Other areas of the country are more specific around the particular resource capabilities of a geographical area. Minneapolis has emerged as a geographical area recognized for its focus on medical research. The research triangle of the south is known for its focus on core manufacturing and life sciences strengths.

The “Darwin Effect”

If businesses can be thought of as living organisms then entrepreneurial ecosystems are the “primordial pools” spawning new types of life. In entrepreneurial systems, unique and effective ideas, which are nurtured and cultivated properly, can completely revolutionize business. Note the two key defining terms; **Unique**, which can mean new or innovative business technologies or business models and **Effective**, which means these businesses are able to profitably capture customers and generate self sustaining cash flows. Be cautioned there is a continuum of what would be considered different and effective – a business does not need to have “green hair” in order to stand out. Often just new business processes in an established and mature industry can be the factors that create a “unique” business and therefore innovative success.

In entrepreneurial ecosystems, capital (the life force), not available through traditional means, i.e. banks and grants, may be available to many start-ups through a network of individuals (often times referred to as angels) and organizations that seek out early investment opportunities. The network may help not only with funding but also with management, recruiting and overall business strategy and business development. Often times the business become an integral part of the network of investment companies. As the start ups evolve

and grow they need new levels of capital infusion which typically comes from larger and formalized investment companies. The key in this hierarchy is not just money but knowing how to grow a business into a stage which is acceptable and desired by the next level of investment entities.

The “Feeding Trough” of Investment

There is a well-developed “feeding trough” of capital and experienced business leaders that are networked together. Individual investors (angels), organized angels groups or investment clubs, and early stage venture capital groups sift through mountains of business plans, pitches and intellectual property in the hopes of finding worthwhile opportunities to nurture. In some scenarios their involvement is no more than a financial investment (typical of angel investing). In other scenarios the investments are “smart”, which means the investors are actively involved in the management and direction of the venture. In many of those circumstances, investors often control the start-ups they invest in. If not direct control, then effectively through board composition.

Early stage investments are often focused on developing intellectual property, testing entries into market places, recruiting core human resource talent and finalizing various business models and strategies (product, sales, financial, etc.). Follow-on investments are more often than not, the financial catalyst to sales and new business development, which often ties directly to revenue growth. Follow-on investments are often times larger than the investments that preceded them but many of the risks associated with new business ideas and products are reduced. While multiple rounds of financing may dilute ownership, theoretically, the new capital provides companies the ability to execute against new growth and profitability objectives, hence increasing overall shareholder value.

In these ecosystems, there is relatively few “home runs”. Often start up companies fail along the way for various reasons. Sometimes they are unable to validate market needs or sometimes they are unable to recruit the right management team, which makes even the best of business plans difficult to execute against. Because of the return on successful investments can be so significant, a “home run” can often times more than offset losses from many other investments. Diversification of investment is a typical risk-hedging strategy for those who invest in start ups.

Investing in start ups is a virtuous cycle. Individuals or groups, who are financially rewarded for taking risks on start-ups, many times take some of those returns and reinvest them into other start-ups, thus creating a larger pool of funds enabling the funding of more start ups.

Government and Education

Successful entrepreneurial ecosystems tie formally and informally into higher educational institutions and local and state-wide government. The ability for a region to support start ups hinges on the human resource talent available. Many

areas specialize in industries (i.e. Minneapolis and medical) because that is the mainstay of people and management talent available. It is a self feeding cycle in which the larger corporations in the industry bring in the executives, engineers, scientists and managers who know and understand their particular industries. Local colleges and universities are influenced by the existence of these companies and focus educational degree programs and research around those same companies. This in turn creates more talent within those industries, etc.

Motorola has been a long standing boom to the Chicago area in bringing in engineering and management talent into the Chicago area. In turn those resources leave and start companies that sell products and services to Motorola. Motorola inevitably finances and buys some of those companies which in turn encourages and spawns more start ups. There are a great number of small companies that provide RF (radio frequency) services (engineering and manufacturing) because of Motorola. Also look at the University of Chicago. Motorola when it pays for management to get a local MBA sends them to U of C. In turn, U of C, has tailored much of its program to be quantitatively focused to meet the general management philosophy of Motorola.

Universities also do original research which creates breakthrough opportunities for businesses. However, universities and the academics within them are rarely entrepreneurial or have business interests. The ability to create low friction methods for entrepreneurs to find and create licensing deals with universities helps to “feed” entrepreneurial ecosystems. Universities that are proficient at licensing create “patent houses” which work with the business community to define and facilitate the use of intellectual property and give “appropriate access” to the researchers.

Government is integral to education. All education institutions receive federal and state monies in some way, shape or form. Additionally, government grants can be highly useful in creating “institutes” or industry focus areas that are created and nurtured within higher education institutions. In turn, these institutes help to create the resource pools for industries and therefore feed the ecosystem.

Government is also crucial in supporting new industries both directly and indirectly. Look at green technologies “green tech”. In California, there has been a focus of state government on the generation of power through renewable sources. The technology is expensive so the state has created tax write off incentives that piggy back the federal tax incentives. Locally, the city of San Francisco has created incentives for those same technologies. In Illinois, individuals who put up solar panels can take advantage of up to 30% of the cost by federal government tax credits and up to \$10,000 (capped limit) from the state. This is the equivalent of about a 12% state incentive based on average solar panel costs for an average of 42% in government cost subsidies. A resident of San Francisco can write off up to 70% of the total cost of solar panel

installations through federal, state and city incentives. The net effect, California creates multiple times more renewable energy kilowatts compared to Illinois. This in turn means that California based green techs have a market advantage over Illinois companies in market demand and the number of skilled employees available to their industry.

Pursuit of new industries within a region is a combined effort of all the participants within the “ecosystem” and the efforts must be generally coordinated.

Creating Entrepreneurial Ecosystems, Where to Start

Any area seeking to create and enhance its start up creating capabilities needs to start with an assessment of its areas best resources. What current businesses, industry powerhouses, educational/research assets, business talents and capital resources are in “the back yard”? Tap into those communities to find out what start ups already exist and begin to interview entrepreneurs on the merits and constraints of the area in their efforts. Utilize government and educational research to understand the “state of capital” to fuel start up growth in the area. Ultimately, this will create an educated layout on the merits and mechanisms that can be pulled together in creating an ecosystem – the existing assets. Secondly, there needs to be a realistic assessment of what is lacking as the key catalysts for start ups in your area. Generally, a limited number of start ups in an area centers around a lack of risk focused capital, a lack of management talent, and/or a lack human resources with necessary skills.

Online Resources

Ecosystem Approach to Start and Grow Innovative Technology Companies

(<http://www.slideshare.net/brianhurley/tony-bailetti-may-15-2008>)

Lead to Win

(<http://www.leadtowin.ca/>)

Carnegie Mellon University – Pittsburgh OLYMPUS Program

<http://www.olympus.cs.cmu.edu/>

About the Author – Seth Temko

Seth Temko comes from a long background of creating new technology products in new markets opportunities at several startup companies over the last decade with such titles as Founder, CTO, Vice President of Product Management, Director of Product Strategy and Consultant. His roles have included technology management, marketing strategy, business development, operations management, product management and Ecommerce initiatives for several companies including Monster.com, Covad Communications, Tesla Capital, Hartford Computer Group, NEC-Mitsubish Displays, Vital Link Business Systems, Capton, KindMark, Virtual Relocation.com, Sessions and PEACE of MIND Technologies. He has been part of startup teams that have raised millions in VC funding, sold to a large public company, restarted companies based on "fire sale" of assets and out of court work outs and done "boot strap" startups.

His strategic thinking combined with practical execution strategies has made him highly effective in working with start up and early growth companies. He is able to "fill the gaps" on management teams from business strategy initiation through business inflection growth points. Seth holds a B.S. in News Editorial from the University of Illinois, Champaign-Urbana and a MBA from Aurora University.

Seth was born and raised in Chicago. He has been married to his wife of 14 years Wendy. They met in high school. He has worked and lived in Aurora, IL for four years. They are blessed with two healthy sons and currently live in the Chicago suburb of Prospect Heights, IL.

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