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The Rainforest

The Rainforest is written by Victor H. Hwang and Greg Horowitz, two “extreme” venture capitalists as they call themselves. The book was inspired by the flourishing community that is Silicon Valley and how it has grown and nurtured young businesses. They begin the book by saying that innovation is an ecosystem in that it relies upon a number of factors. Similar to organic life, a community can have all of the right things to make it work, but it still may not. A jumble of carbon, oxygen, hydrogen, and various other elements will not spontaneously order themselves into life. Similarly, just because talent, capital, and ideas are all in the same place it does not mean that a thriving start up community will form. This can be a controversial idea to the laissez faire idea that the components of success will order themselves without any input. Public institutions and entities play a role in structuring these business “elements.” The concept of the rainforest comes from the idea that a startup community needs to be diverse. Rainforests harbor millions of organisms and they function in such a way that each species can get what they need to survive. Traditional businesses are like farms. Farms are incredibly efficient, and utilize their resources to create as much of one type of crop as possible. Though this is not inherently bad, other plants that begin to grow on a farm are plucked out of the ground. Innovation is not allowed to happen. Many concepts of the rainforests seem counterintuitive at first, but they work in practice.

The authors continue with the story of Profusion, a pre-Google search engine. The technology behind Profusion was the best of the time, but the company still failed. The creators were successful scientists, but lacked the resources to grow a startup. This goes back to the point that talent, ideas, capital, and startups do not necessarily correlate. The authors claim that people on their own will make dumb, fatal decisions that will kill their chances. Social barriers end transactions before they even have the chance to begin, but startups need global connections to thrive. In a rainforest, technology is used to overcome barriers built by physical distance and cultural differences. People need trust and a community that is supportive and accepting of entrepreneurial behaviors to succeed. The invisible hand model does not apply here. People have to actively seek to overcome these barriers and more often than not they need help to overcome barriers. Entrepreneurs on their own in the world will probably fail. It is clear that entrepreneurs need assistance and a place to start. Perhaps the most integral person to their success is the keystone. In an actual rainforest or other ecosystem, the keystone species is one whose actions contribute heavily to the survival of many others. They circulate resources and help the ecosystem remain healthy. In business, a keystone is an individual or entity that actively makes life possible for entrepreneurs. The book outlines three basic principles of a keystone: they are integrative, impactful, and influential. keystones reach across social boundaries to bring disparate groups together. They convince people to do things that they would never normally do. People have enough respect for them to take their advice to heart. keystones are not just hype, they have the ability to make real economic transactions happen and cause systemic change. keystones are crucial and larger than life. They connect ideas, talent, capital, and opportunities to increase collaboration and propagate innovative cultural behaviors.

It would be too easy if all the formulation of a good rainforest took was a keystone. It requires all of the things mentioned hitherto as well as some others. It should be obvious that a good startup community needs entrepreneurs. Good entrepreneurs have some unique abilities to contribute to a rainforest. They inherently analyze risk; they take in lots of information and apply it in novel, non-traditional ways. They also learn from interaction and anecdote. There are also other, less recognized, rainforest denizens. They may not be as glorified, but they still play an important role. Something that is stressed is that these “others” in the rainforest seek returns on their investment other than strictly money. Startups are not always profitable, but these individuals find value in involvement regardless.

Innovative behaviors can be inherently, historically, and instinctually counterintuitive. People must collaborate extensively in a rainforest, but the brain says otherwise. People are naturally inclined to avoid discomfort, risks, and others who are different than them. Even though it can be hard, exchange drives cultural evolution. Currency bridges physical trade gaps, but it is hard to put a price tag on ideas, people, and some resources. Companies can be seen as events, or moments of human organization. People give up some freedoms for mutual ease and lower transaction costs. Companies often have a culture that makes it easier for employees to see eye to eye. More diversity, though, leads to greater potential for valuable exchanges. It is a paradox because more diversity has more potential for value, but humans instinctually avoid diversity. They find it easier to exchange with those who are similar. This applies to culture, social class, and occupation or skill. The book states that people value the ideas of people who are different less. This can be seen in the seemingly astronomical distance between the scientific community, the business community, the government, and others. Perhaps part of this is because people identify themselves by what they do. They do not tell you whose son they are or how much money they have, they tell you that they are a nurse, or a carpenter, or a manager.

There are policies governing how transactions are done. These are followed for fear of punishment. In a rainforest though, there are also informal, or unspoken, laws that govern the way people do business. The result of these unspoken laws is the betterment of each party. They lower transaction costs. It is not because one party is extremely invested in the welfare of the other, it is not altruism, it is for mutual benefit. Both parties behave accordingly to better their own situations. These values emulate frontier culture, meaning that it is the furthest from established tradition. There is also a paradox of people being individualistic, yet knowing the need for dependence on others. The unspoken rules of the rainforest are: break rules and dream, open doors and listen, trust and be trusted, experiment and iterate together, seek fairness not advantage, err, fail, and persist, and pay it forward. The authors use the analogy of hardware and software to describe the components of a rainforest. An iPhone without an operating system is essentially useless. It has the potential to function like a regular iPhone, but it does not. The hardware of the rainforest is the people, professional, physical, and policy elements. The software that turns this hardware into a rainforest is the diversity, extra-rational motivations, social trust, the previously mentioned rules of the rainforest, and the interpretation of the rules. Rainforests are created by a change in behavior, not a change in reality. Ways that behavior can be changed are by six tools of cognitive behavioral therapy. They are: learn by doing, enhance diversity, celebrate role models and peer interaction, build tribes of trust, social feedback loops, and make social contracts explicit. These behavioral tools can help reorder a community into the innovative entity that is the rainforest.

The authors spend a great deal of time talking about venture capital, likely because it is their profession. Venture capital is the source of funding for innovation. They say that good VCs think of venture before capital. The investment is an opportunity to give wings to a great idea more than it is strictly a way to make money. Unfortunately, early stage investing is very high risk and does not yield the expected return. They propose government funding to help startups at their very first stage to get them to a point that is easier for venture capitalists to invest. They talk about zero sum and plus sum deals. Plus sum is the ideal where both parties get maximum return. To do this venture capitalists cannot take so much of the startup that it deincestivizes entrepreneurs to continue working. They may lose their sense of ownership and pride. VCs have to know how to interact with people and provide support. This mutualism benefits everyone.

As has been shown, traditional business models do not explain the rainforest completely. This leaves the challenge of defining one. The authors use the analogy of fungi. One can see only the head of a fungus, but it is just the tip of the iceberg. Fungi have root like systems called mycelium, which are composed of individual hyphae. These hyphae, when they encounter one another, fuse together. It creates a network that allows nutrients to flow to and from any part of the system. The whole system benefits. A rainforest should look like this in that the people are all connected and any portion can access any other if need be. Also, the more open the channels of communication are, the easier information, ideas, and resources can flow.