



Introducing the Ecosystem Metaphor



DAVID MCCONVILLE ON
USING METAPHORS TO SHAPE
THE WAY WE THINK

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The Ewing Marion Kauffman Foundation asked over a dozen ecosystem builders to watch, recap, and share their thinking on the Firestarter talks from the past three ESHIP Summits. This article is part of a series that supports the Kauffman Foundation's ongoing efforts to grow entrepreneurship and explore new models of economic development by elevating the work of ecosystem builders.

These talks were intended to inspire conversation and drive engagement in key themes in the field of entrepreneurial ecosystem building.

Summary

David McConville is a researcher, creator, and educator. He is the cofounder of Spherical, a research and design strategy studio, and former senior researcher at the Center for the Study of the Force Majeure at the University of California at Santa Cruz. In his Firestarter talk at the 2017 ESHIP Summit, McConville explored themes of how metaphors, changing paradigms, and the tendency for systems to form hierarchies have profoundly influenced the way we organize in society and as such, have influenced how we do ecosystem building.

During his talk, David McConville sought to explore the implications of the term 'ecosystem,' introduced in the 1930s, as an interconnected, interdependent experience of relationships.

McConville noted this is something that we're all trying to explore: "We're trying to find the language and the scaffolding to think about how we are supporting each other through this work." He discussed that for thousands of years, generations have actively participated in regenerative cycles and flow of life, as we're discussing now with ecosystem building. This frames the Western paradigm that's shaping every way that we think about business.



[View the full Firestarter](#)

How Paradigms and Hierarchies Shape Society Over Time

In ancient times, metaphors were a guide to understanding the universe. Plato and Aristotle imagined metaphors of a controlling architect outside of the world. Later, these ideas were used to explain the physics of the world by imagining spheres of stars surrounding our planet, a corruptible mother earth, being rotated by the hand of an unmoved mover.

In the 16th century, Nicholas Copernicus disrupted the prevailing paradigm in his 1543 book on the revolutions of the heavenly spheres, where he proposed that the sun was the center of the universe and that we are rotating around it, rather than the earth as being the center of the universe. This paradigm shift catalyzed the Scientific Revolution transforming the way that we see the world, and profoundly challenged Aristotle's physics.

Hierarchies

We see hierarchies in business all the time as a great chain of existence. The idea was that there is this intense hierarchy within the cosmos, with the king at the top of the hierarchy.

McConville noted that the audience was probably wondering, "what does this radical shift in the way that people once understood the universe have to do with entrepreneurial ecosystems?" Copernicus' paradigm shift, known as the Copernican principle, has shaped the way we understand our own knowledge, not only of chemistry and physics, but of human behavior.

The Clockwork Universe

The notion of the clockwork universe – that the universe is like a machine that could be understood with the human intellect – is a metaphor that began to be applied to everything, to all living systems. It was assumed that the best way to understand the world was by reducing it to its component parts.

This dualistic philosophy really increased the sense of separation between subject and object, mind and body, and ultimately, most importantly for our work here, between humanity and nature.

Hierarchies where humans, or at least some humans, were thought to be at the top, accelerated by the processes of industrialization. In many ways, this made life much better for many people. It also became the driving forces of globalization, and the consequence we're seeing is a global economic system that developed based on GDP and perpetual growth – regardless of its impact on ecosystem health.

Emerging by the late 19th and early 20th century was the realization that the speed and predictability of these industrial machines outstripped the predictability of the people operating them.

People are Not Machines

For many years, societies sought to have people operate as machines, resulting in more efficiencies and more attempts to control labor and manufacturing processes. Fortunately, there was a real backlash against this view in the 20th century.

For Entrepreneurs

"Many of you see this all the time – many of the ways in which you operate in your own work requires you to actually deal and address all of these other aspects of human needs," McConville said.

It's critical for entrepreneurs to understand this because, since 1950 the work that we've been doing on the global economy has been radically expanding. Exponential 'hockey-stick' growth curves found across a wide variety of socio-economic and earth systems, demonstrate the extraordinary power of human innovation from steam engines to thermonuclear power.



[View the full Firestarter](#)

Introducing the Ecosystem Metaphor

DAVID MCCONVILLE ON USING METAPHORS TO SHAPE THE WAY WE THINK

The profound paradigm shift conundrum for all of us is how can we redirect the significant power of human innovation, entrepreneurship, and ingenuity in the 21st century knowing we are part of this larger system and that we can't afford to take life for granted.

"We've got these incredible webs of communication satellites and observation satellites that are allowing us to see ourselves as an interdependent system like never before," McConville said. "The stakes couldn't be higher."

The Power of a Biological Metaphor to Shape Support for Entrepreneurs

McConville ended by proposing one quick ecosystems metaphor: "When looking at forests, my favorite example is what's happening underneath – the invisible stuff, the type of stuff that you guys are going to be building." He is referring to the invisible networks of fungi that are underneath the forest floor.

Insects provide exchanges of nutrients and energy, creating conditions for life in the soils to produce healthy ecosystems. These 'weeds' aren't necessarily being cultivated; they're actually growing and exploring all the different ways in which they can find a niche within their ecosystems. By accelerating metabolic flows, the fungus facilitates decomposition of matter into the regeneration of ecosystems. These incredible networks are hidden from plain sight. Oftentimes we only see through their fruits, such as mushrooms. Diving down into the soil, we see all of these hyphae are not only extensive, they're also very old; some of the largest organisms on earth, which may be thousands of years old.

Support Structures for Entrepreneurs

McConville hopes that the metaphor is obvious to all of us. Facilitation occurs by "connecting to the roots of all these trees, the exchange of all of these nutrients and energy, not unlike the ecosystems that many of us here are building."

Collaboration through consistent engagement fosters diversity, developing new capacities within an ecosystem, and creates healthy, supportive ecosystems.

Like what lies beneath the rainforest floor, the support structures that ecosystem developers create are invisible, but they're critical to support the health and the integrity and the success not only of entrepreneurs but also of the many interdependent communities across the entire planet.

If we co-design them well, these entrepreneurial ecosystems, like the mycelial networks, will be self-organizing, decentralized, resilient, diverse, open source, and ultimately regenerative," McConville said. "So, I look forward to building some ecosystems with high integrity with all of you."

David McConville asks, how can we redirect the power of human innovation, entrepreneurship, and ingenuity knowing we are part of a larger system? To answer, economists, social scientists, and others researching complex adaptive systems are realizing that we need to better understand these complex systems. All of McConville's themes may then not only be explained but also applied in building practical and effective support for entrepreneurs. This is our present challenge!



Bio: Alistair Brett works with national and regional governments, universities, research institutes, and corporations, building new technology-based businesses in some 15 countries. This experience has led Alistair to develop the science and practice of innovation ecosystems described in his book "Admired Disorder: A Guide to Building Innovation Ecosystems." He has a PhD in physics. <https://infyrno.com/>.



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