Pivot.City: A Last Mile Solution

A White Paper by Dr. Carlton Robinson
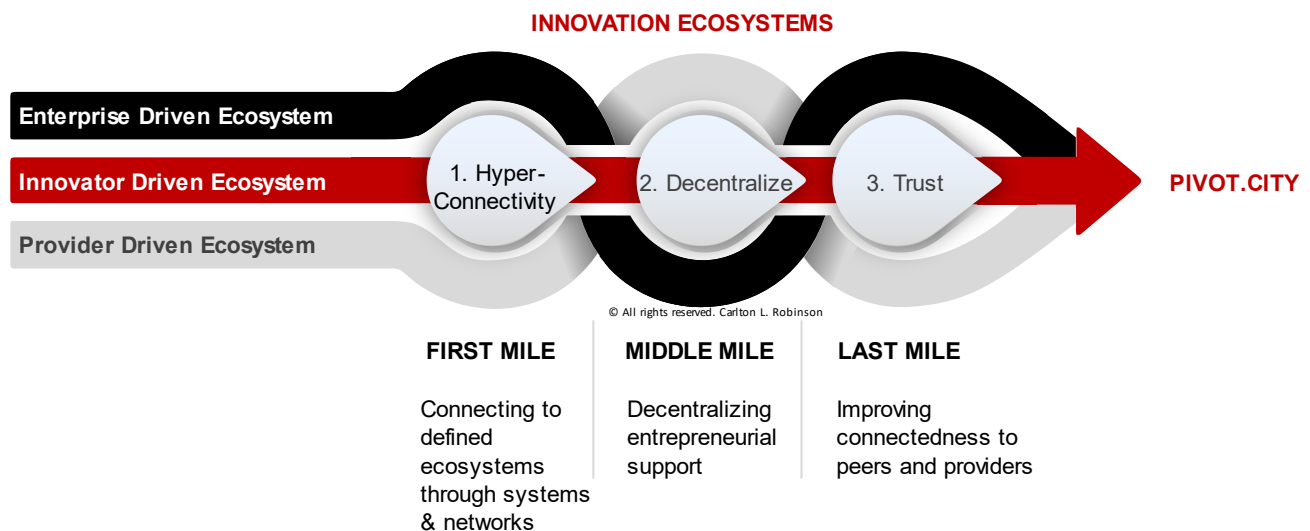
Introduction

The service design for supporting entrepreneurial ecosystems has been outdated for some time with little effort to change. Meanwhile, the evolution of economic development, to include entrepreneurship, has become more and more prevalent. The principles that support the ecosystems where entrepreneurial activity takes place vary across the globe. The discussion ranges from development of the individual entrepreneur to the development of social infrastructures. The crux of building and sustaining these archetypes in a community appears to be tied to strategic planning processes that depend on an underpinning of relationships with innovators and credible economic frameworks. This foundation is difficult to build for many communities. As a result, there is a constant search for effective service designs that will assist communities in ecosystem building. The state of Florida, and specifically Jacksonville (FL), became ground zero for Pivot.City to solve some of the problems associated with ecosystem building.

| Existing Ecosystem Challenges	Pivot.City Treatment/Solution
Centralization of resources	Two-sided marketplace for entrepreneurial support
Innovation accounting	Blockchain distributed record keeping
Innovators forced to use multiple systems	One platform with easy onboarding
Lack of a common language	Innovator's Journey Unified Modeling Language
Lack of consensus among providers	Knowledge interoperability via blockchain
Limited rules/order in ecosystem	Peer-To-Peer/Provider Infrastructure
Secure messaging	Blockchain enabled messaging
Share records with multiple providers	Knowledge interoperability via blockchain
Trusted relationships	Automated trusts via smart contracts

The Three Miles of Innovation Ecosystems

Understanding the deficiencies of entrepreneurial mentoring & support and the impact on ecosystems can lead to innovative solutions to serve entrepreneurs. The best framework to illuminate these issues is that of the First Mile (FM)/Last Mile (LM) Problem. Normally applied to fields of technology or logistics FM/LM represent the first leg and final leg issues related to customer delivery. For this application, I included a middle mile (MM) to capture the innovator's journey in local innovation ecosystems; collectively this approach will establish "The three miles of entrepreneurial support." This document will frame the problem in a manner that allows others to evaluate how their innovation ecosystems are driven while promoting the Innovator's Journey methodology as a solution. The focus of the document is to emphasize the Last Mile Solution and briefly describe FM, MM, and LM problems of entrepreneurial mentoring and support.

INNOVATION ECOSYSTEMS

Enterprise Driven Ecosystem

Innovator Driven Ecosystem

Provider Driven Ecosystem

1. Hyper-Connectivity

2. Decentralize

3. Trust

PIVOT.CITY

FIRST MILE	**MIDDLE MILE**	**LAST MILE**
Connecting to defined ecosystems through systems & networks	Decentralizing entrepreneurial support	Improving connectedness to peers and providers

The First Mile Problem for innovators is a lack of hyper-connectivity to defined innovation ecosystems (enterprise-driven, innovator-driven, and/or provider-driven). In the Web 3.0 environment a single network or simple network connection is insufficient. Currently, most ecosystems lack routine asset mapping updates and accessible asset disclosures. The result is that many innovators struggle to connect to the appropriate resources in their ecosystem. Further, many of the resources are centralized by geographical boundaries and institutions. When the ecosystem is centralized, undefined, and/or lacks disclosures & updates, it becomes a very small, and sometimes closed, ecosystem to the innovator regardless the actual size of the physical boundaries.

The Middle Mile Problem is expanding the reach of decentralized entrepreneurial support to the degree that each participant in the ecosystem has a "proof of stake" as a peer or provider; trust is the participatory stake in the ecosystem. The underpinning element of this problem is that of the innovator's trust framework. Most entrepreneurs depend on a Trust Framework or a Reputational Framework. The Trust Framework is made up mostly of friends, family, and close peers; essentially "I trust this group of people." The Reputational Framework is one made of mostly institutions and groups; essentially "I trust this group of people because of an association with an institution or group." The challenge with each of these frameworks is that they take time to develop.
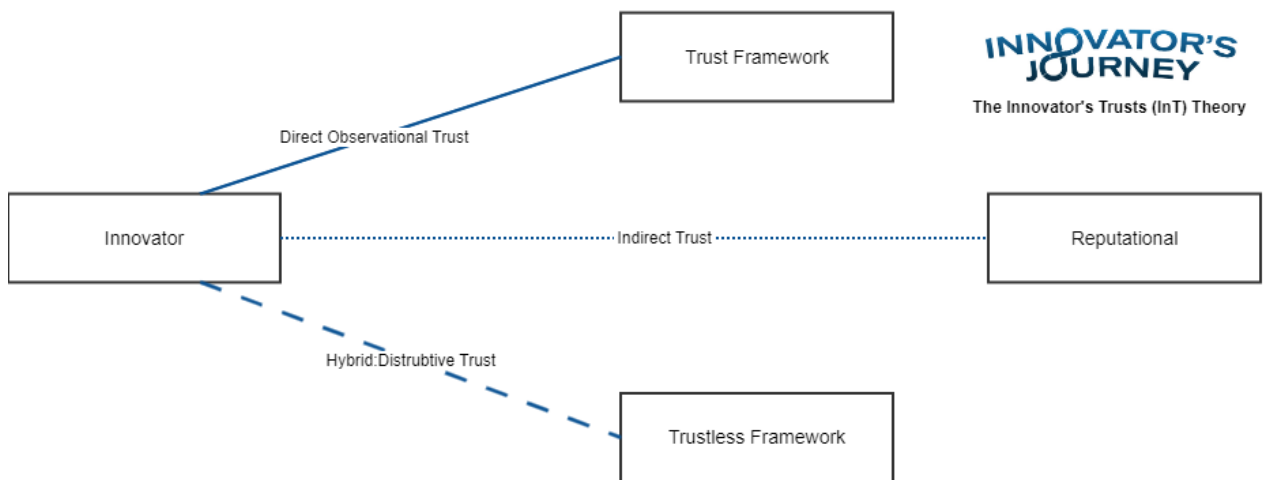

As a practitioner in the state of Florida I continue to observe a wide range of relationships within entrepreneurial ecosystems. I was able to capture two dimensions of trust related to the innovator's journey: Trust Frameworks and Networks of Trusts. The Innovator's Journey is moderated by "Trusts". Each innovator endures personal risk in sharing the results from ideation and opportunity recognition. They seek development and support of those ideas from three authenticated types of trusts. *Direct Trust* is observational. *Indirect Trust* is reputational. *Hybrid Trust* is distributive. Within this framework innovators entrust intermediaries to facilitate and advance the development process. Meanwhile, intermediaries facilitate the transfer of knowledge and/or emit knowledge spillover to accelerate the Innovator's Journey.

Building direct trust can be a lengthy process for innovators and it remains one of the reasons why academic and government entities are so vital to ecosystem development. They carry an assumption of

safety and trustworthiness based on institutional reputation. Even so, there are other providers and networks where indirect trust is built along the innovator's journey; this process which may take years for some, results in a Network of Trusts for a wide range of tasks. The ability to automate trusts that can increase efficiency and speed on the innovator's journey is a big part of the Last Mile Problem.

Currently, there are global entities and a score of publications that rank ecosystems based on physical boundaries, patent production, Triple Helix assets, and research; Pivot.City will offer an on-chain compliment that lends itself to redefining what an ecosystem could be. Tomorrow's entrepreneurial ecosystem will avoid the hurdle of the innovator being limited to a physical boundary (off-chain); it will expand to where innovators can build trust and allocate resources on-chain to complement their off-chain location.
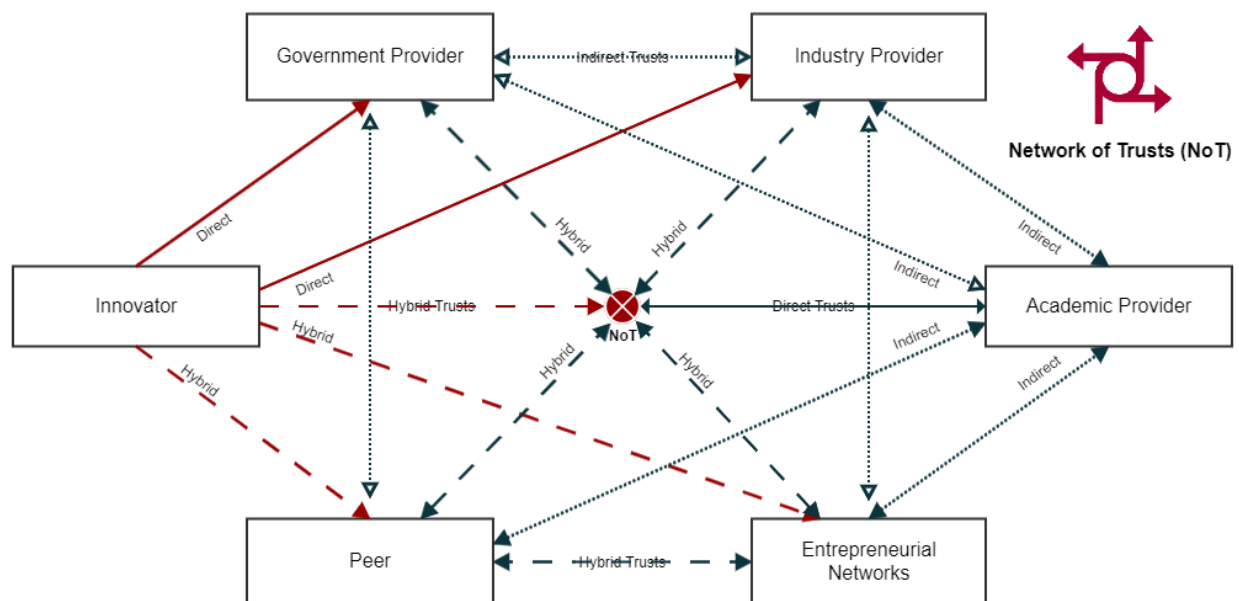
The Last Mile Problem is a trustless framework that reduces boundaries and improves connectedness. My proposition is that innovators short on time need a Trustless Framework that can multiply support, a Network of Trusts. Meaning, when an innovator lacks the time or location to develop relationships for development, they trust participation in a system of processes. This may extend to repetitive elements of human review and onboarding, whose automation could be scaled in a manner that allows for the reallocation of existing resources. While this approach requires both a paradigm shift in perspective and a level of interoperability, it will become a cornerstone of the social infrastructure required to support entrepreneurial ecosystems. The challenge is whether providers are willing to participate in a system in which they have a shared stake or remain entrenched in a position of ownership and overreliance on reputational capital. When there is a stake, an innovators peers could act as a provider in an ecosystem; enabling both to participate in multiple ecosystems while scaling support. In developing Pivot.City as a Last Mile solution, I was able to validate several elements of this approach in Jacksonville, FL.

Analyzing the Last Mile Problem

Background

In Jacksonville, FL, an aspect of The Last Mile Problem is that of entrepreneurial mentoring and support in innovation ecosystems. Currently, there is a lack of turnkey (or near turnkey) networks that provide consistent entrepreneurial experiences. The final leg of the innovator's journey is the delivery of near turnkey networks (connectedness) that deliver support to innovators in between stages of growth.

The mentorship of entrepreneurs and innovators is a subset of activities related to the pursuit of an innovation culture shaped by a community's mentality, cultural attributes, and the temporal dynamics of the community; this is true of entrepreneurs in both high- and low-entrepreneurship communities. The primary framework offered by institutions (academic, government, and industry) has focused on pairing innovators with experienced individuals in a programmatic way; with interaction that ranges from a few weeks to as long as a year. Some innovation communities have excelled in implementing intensity-driven programming, engagement opportunities, matching processes, and accountability partners into their mentoring programs. Most communities and institutions accomplish these tasks intermittently causing unequal experiences amongst mentors and mentees.

Evidence

Throughout my support of the Northeast Florida innovation community, I have observed many of the key elements of the entrepreneurial mentoring relationship. I have also uncovered what I describe as underlying elements of the mentoring relationship that create uneven experiences: channels, tools, and frameworks of support. Innovators pursue mentors through a wide range of channels: networking events, social media, institutions (accelerators & incubators), and volunteer networks. The tools leveraged to mentor innovators create an uneven experience as they range from paper, CRM, database, digital notes, emails, phones, standard forms, and countless systems of record that don't interact with each other. The frameworks of support for trusting mentors may emerge from friends and family (Trust Framework) or emerge from institutions with a reputation for assisting innovators (Reputational Framework).

Service Touchpoints

Service design is an international aspect of entrepreneurship. The service environment for supporting entrepreneurs is evolving as communities across the globe continue to become more entrepreneurial. Current market conditions in most developed economies include reduced economies of scale, reduced product standardization, and reduced transaction costs that allow entrepreneurs to compete at a high level. This form of open and distributive innovation is largely supported by entrepreneurial resource providers such as academic institutions, business organizations, and municipalities. These providers have exercised a consistent framework for servicing small business activities by leveraging business plan archetypes.

The emergence of the innovation economy has long warranted changes in the service design for supporting entrepreneurs distinct from that of the managed economy. In the managed economy resource providers focused on elements of business planning. Whereas the innovation economy hinges on a wide range of social interactions. It has been difficult to understand and improve the service design for supporting entrepreneurs in the new economy, in part, because the literature has focused primarily on economic growth factors and entrepreneurial characteristics. There are other entrepreneurial elements such as service ecologies, social infrastructure, social interactions, and service design that could contribute to

entrepreneurial theory and economic growth theory. Our ability to better understand the effects of these factors could enhance the impact of resource provider effectiveness. The initial Pivot.City service ecology is an on-ramp to a Blue Ocean strategy for entrepreneurial support.

Last Mile Solution: Pivot.City

P2P-2

We conducted more than two years of trials in Jacksonville (FL) leveraging a peer-to-peer/provider architecture (P2P-2). The creative approach promotes Peer-To-Peer entrepreneurial activity while crowdsourcing academic, industry, & government support for entrepreneurial pivots. The result is a smart economy for innovators with reduced boundaries. The P2P-2 concept is explained as an architecture that enables both Peer-To-Peer activity and Peer-To-Provider activity. This mechanism promotes learning from others with entrepreneurial experience, expertise, or access to knowledge. It also promotes sharing knowledge with peers and opportunities to reinvest in one's entrepreneurial community.

P2P-2 creates an opportunity for entrepreneurs and innovators to leverage relationships and sustain dialogue throughout the Innovator's Journey. At capacity, entrepreneurs at all stages and the entire ecosystem can be part of a movement to support innovators. It's a great way to build a network of trusts.

Network of Trusts

Pivot.City enables innovators and entrepreneurial resource providers to securely connect, and it reduces risks associated with sharing results from ideation and opportunity recognition (Sandbox). The platform elevates interoperability, privacy, security, and self-sovereignty for innovators. By crowdsourcing and validating resource providers, Pivot.City automates trusts for participants. The platform enables each innovator to form their own distributive entrepreneurial support network. Support is curated by providers leveraging templates (Stacks) to generate dialogue and feedback for the innovator.

Throughout the engagement process innovators continue to seek development and support to make pivots from three authenticated types of trusts: direct, indirect, and hybrid trusts. The newly formed Network of Trusts allows the innovator to build trusts across a multidimensional ecosystem. The blockchain network

represents an ecosystem of ecosystems across physical regions that may include academic institutions, entrepreneurs, government, industry, innovators, suppliers, validators, and vendors. The traceability and shareability of innovation accounting provide the framework to automate trusts between innovators and a broader range of ecosystem stakeholders.

Pivot.City Blockchain/Distributed Ledger

The blockchain model demonstrated features that can decentralize ecosystems and disrupt the service design of entrepreneurial support. Leveraging smart contracts based on an established entrepreneurial process model (EPMN) has proven to be more efficient than traditional small business plan approaches. Our process matched innovators and trial-based contracts to a network of trusts for managing dialogue between ecosystem participants. The blockchain trials have demonstrated optimization of peer-to-peer and peer-to-provider support leading to timesaving and efficiency. There is also the potential to address innovation accounting mechanisms for resource providers, mobility of innovation ecosystems, and interoperability. Our future work includes testing more use cases and further evaluating Pivot.City DLT as a Last Mile Solution for improving connectedness and machine learning.

Sample Use Cases

- Entrepreneurial Support
- Innovation Accounting
- Risk Management
- Vendor Management

Conclusion

For decades the service design of entrepreneurial ecosystems followed a consistent theme of centralization. Pivot.City disrupts that approach by decentralizing entrepreneurial support while increasing interoperability between peers and providers. The use of blockchain technology creates a form of entrepreneurial social infrastructure that can be mobilized and quickly adopted. Pivot.City grows the capacity of every entrepreneurial ecosystem because it enables the reallocation of existing assets. The infrastructure of the platform automates trust; establishes a common language for innovators and providers; and unifies ecosystems. Pivot.City as a Last Mile Solution, and as the first blockchain-enabled entrepreneurial support network, will establish a framework for building entrepreneurial capacity around the world.

Dr. Carlton Robinson

Email: info@innovators-journey.com | Website: go2.pivot.city