

INVESTMENT ACCELERATORS

Brad Bernthal*

Abstract

This Article documents and explains the legal and extralegal dimensions of Investment Accelerator systems. Accelerators are a new class of institution that supports entrepreneurs and early stage startups. Investment Accelerators take an ownership stake in companies that participate in an intensive, time limited program. Interviews reveal the surprising extent to which parties in many Investment Accelerators exchange economic value in the absence of formal agreement. Startups share proprietary information with highly accomplished mentors who, in turn, contribute their time and connections without direct compensation. This under contracted and informal arrangement raises concerns about opportunism. Data from an original investigation presents a description of Investment Accelerator organization and its effects. Research reveals makes three notable findings about how IAs organize resources in the service of innovation objectives. First, Investment Accelerators mingle formal and informal mechanisms to assemble a system of stakeholders that spans an entrepreneurial community. Second, informal mechanisms attract a wider pool of mentor participants, including desirable professionals who would not participate as full time hires or as contributors pursuant to a contract. Third, Investment Accelerators show that, under certain circumstances, informal network governance constrains opportunism, even where a network is rapidly assembled and new entrants are included.

* Associate Professor of Law, Colorado Law; Director of the Entrepreneurship Initiative, Silicon Flatirons Center. Disclosures: the Author has served as a mentor with TechStars Boulder since 2008. The Author also taught as a co-professor with Sue Heilbronner, a principal of the MergeLane accelerator program. Individuals affiliated with Techstars and MergeLane are financial supporters of the Silicon Flatirons Center and Colorado Law. For helpful comments, thank you to Sanjai Bhagat, Carla Bustamante, Deborah Cantrell, Kristen Carpenter, Erik Gerding, Brad Feld, Darian Ibrahim, Laura Kornish, Sharon Matusik, Jason Mendelson, Helen Norton, Scott Peppet, Elizabeth Pollman, Paul Ohm, Pierre Schlag, Andrew Stock, Harry Surden, Phil Weiser, Jack Wroldson, participants in the *Academico del Nucleo Milenio Estrategia de Emprendimiento Bajo Incertidumbre* (Santiago, Chile April 2015), attendees at the Silicon Flatirons Center's Roundtable on the governance of accelerators (Boulder, CO, December 2014), colleagues who joined the Colorado Law School's Works In Progress session (Boulder, CO, October 2014), and participants in the Colorado Law's Junior Business Law Scholar's Conference (Boulder, CO, July 2014 and July 2015). Additionally, thank you to Tyler Park, Shannon Kerr, and Eli Jimmerson for high caliber research assistance. Any errors in this Article are the responsibility of the Author.

INTRODUCTION

This Article explores the legal and extra-legal dimensions of accelerator systems. Accelerators operate at an entrepreneurial confluence where for profit ambitions meet volunteer help. The lynchpin of a successful accelerator is the provision of expert assistance to new companies. Many accelerators rely upon an informal network of volunteers to provide expertise to startups that, in turn, commonly share with experts their secrets and future plans. Existing literature suggests that opportunistic – rather than cooperative – behavior would be common in the absence of a formal organizational arrangements. Yet research shows that accelerators extensively rely upon volunteers with whom they lack legal safeguards. This Article documents and examines the puzzle of accelerator organization, with special attention to the behavioral consequences of informal governance choices.

Legal scholarship barely mentions accelerators.¹ But this new class of institution now exists world-wide in a range of forms that provide scaffolding upon which startups are built. Just a decade after their first incarnation, there are at least 5,537 entities that self-identify as an “accelerator.”² An accelerator arranges a fixed term of intensive help to startups at their earliest stages. Diverse efforts related to innovation – ranging from seed investment³, to economic development⁴, to corporate innovation⁵ - incorporate the accelerator model.⁶ The accelerator is the 21st century’s most notable institutional development aimed at the support of startup companies.⁷

¹ Prior legal scholarship has not examined the accelerator organization, however, accelerators are mentioned by scholars focused upon other topics. John Coyle and Joseph Green, as part of a study on contractual innovation, examine documents used in connection with accelerator investments at Y-Combinator and Techstars. See John Coyle & Joseph Green, *Contractual Innovation in Venture Capital*, 66 Hastings L.J. 133 (2014) (discussing convertible debt structures and other early stage finance documents). Dana Thompson notes that accelerators such as Y-Combinator and Techstars are “hot commodities” in an essay focused upon the University of Michigan Law School’s clinical work for startups in a campus based accelerator for student led ventures. See Dana Thompson, *Accelerating the Growth of the Next Generation of Innovators*, 8 OHIO ST. ENTREPRENEURIAL BUS. L.J. 379, 379 (2013).

² See F6S, <http://www.f6s.com/accelerators> (last visited July 6, 2015) (5,537 entities self-identify as an accelerator). Within this group, at least 230 investment accelerators exist, as discussed *infra* note 44.

³ Y Combinator, <https://www.ycombinator.com/about/> (last visited June 24, 2015).

⁴ See, e.g., Ross Baird, Lily Bowles & Saurabh Lall, *Bridging the Pioneer Gap: The Role of Accelerators in Launching High Impact Entrepreneurs* 7 (2013) available at <http://www.aspeninstitute.org/sites/default/files/content/docs/ande/Bridging%20the%20Pioneer%20Gap%20The%20Role%20of%20Accelerators%20in%20Launching%20High%20Impact%20Enterprises%20.pdf>; Julian Andrés Herman Rodríguez, *Start-up Development in Latin America: The Role of Venture Accelerators*, (2015) (Master’s Thesis, MIT), (on file with Author); Startup Chile, <http://www.startupchile.org/> (last visited June 24, 2015).

⁵ See, e.g., Startup Bootcamp, <http://www.startupbootcamp.org/> (last visited June 24, 2015); Nike Fuel Lab, <http://www.nikefuellab.com/> (last visited June 24, 2015); Disney Accelerator, <http://disneyaccelerator.com/> (last visited June 24, 2015).

⁶ See, e.g., C. Scott Dempwolf, Jennifer Auer, and Michelle D’Ippolito, *Innovation Accelerators: Defining Characteristics Among Startup Assistance Organizations* (Small Business Administration Office of Advocacy, eds., 2014) (identifying categories of startup assistance organizations; further subdividing accelerators into social accelerators, university accelerators, corporate accelerators, and innovation accelerators).

⁷ See generally LUKE DEERING, *ACCELERATE: FOUNDER INSIGHTS INTO ACCELERATOR PROGRAMS*, 7 (2014) (Brad Feld observing that the accelerator is a “worldwide phenomenon” that changed “the way company creation and early stage investing” works.) Two other emerging institutions rival accelerators as the

Among accelerator forms, the distinguishing characteristic of the Investment Accelerator (“IA”) is that it takes partial ownership in startups. The IA fuses pre-existing parts of the startup ecosystem. Similar to venture capital (“VC”) firms, an IA is a for-profit fund that invests capital (albeit at modest levels) into startups, known as portfolio companies.⁸ Similar to an incubator, which provides real estate to multiple startups, an IA collocates portfolio companies within a common location. Similar to an MBA program, entrepreneurs and their startups join and exit in lock-step akin to a graduating class. Numeric proliferation of IAs and the institution’s growing economic importance invites closer examination.⁹

This investigation of IAs fits within a cluster of legal scholarship that studies how innovation is organized. IAs operate in environments marked by high uncertainty and information asymmetry that are susceptible to opportunism. Analyzing similar conditions, a literature in law and entrepreneurship explores how venture capital¹⁰ and angel investing¹¹ weave together complex contracts, intermediaries, and non-contractual mechanisms (such as reputation) in order to align incentives and constrain opportunistic behavior. More broadly, where parties collaborate in search of innovation outcomes, legal scholars in recent years document novel organizational forms that past theory neither predicts nor adequately explains.¹² Examination of IAs adds to the growing body of legal literature that seeks to understand organizational choices within innovation environments. It explains that, contrary to what previous literature would suggest, the IA’s informal network governance constrains opportunism even where an expert network

most important development in entrepreneurship over the past 15 years. One, some believe crowdfunding will change entrepreneurial finance. Non-equity crowdfunding, enabled by sites such as Kickstarter or Indiegogo, is notable. But the promise of widespread equity-based crowd funding, contemplated by Title III of the JOBS Act, so far remains an unrealized promise. *See generally* C. Steven Bradford, *The New Federal Crowdfunding Exemption: Promise Unfulfilled*, 40 SEC. REG. L. J. 195 (2012); Andrew A. Schwartz, *Crowdfunding Securities*, 88 NOTRE DAME L. REV. 1457 (2013); Jumpstart Our Business Startup Act (JOBS Act), Pub. L. No. PL 112-106 §§ 301-305, 12 Stat. 306, 315-323 (2012). Two, co-working spaces yield many benefits of social integration and information sharing. Relative to accelerators, however, co-working spaces are not as important in performing certification, educational, and financial intermediary functions.

⁸ The term “portfolio company” mirrors nomenclature of private equity and venture capital, which refers to companies that their funds invest in as portfolio companies. ANDREW METRICK, *VENTURE CAPITAL AND THE FINANCE OF INNOVATION* 3 (2007). A startup portfolio company is an entrepreneur-driven firm that aims to solve a pain through scalable innovation amid conditions of extreme uncertainty. This definition captures the type of company that accelerators generally target for selection. *See generally* RANDALL STROSS, *THE LAUNCH PAD: INSIDE Y-COMBINATOR, SILICON VALLEY’S MOST EXCLUSIVE SCHOOL FOR STARTUPS* 67 (2012).

⁹ Over 230 IAs have assisted 4,858 companies, as discussed *infra* note 44. Y Combinator estimates that its companies have a combined value of over \$30 billion. Y Combinator, <http://www.ycombinator.com/> (last visited June 24, 2015). Techstars, a multi-city program founded in 2007, has portfolio companies that have garnered over \$900 million in total funding. Techstars, *Stats*, <http://www.techstars.com/companies/stats/> (last visited July 8, 2015).

¹⁰ *See, e.g.*, D. Gordon Smith, *Venture Capital Contracting in the Information Age*, 2 J. SMALL & EMERG. BUS. L. 133 (1998); Ronald Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STANFORD L. REV. 1067 (2003).

¹¹ *See, e.g.*, Coyle & Green, *supra* note 1; Darian Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 Vand L. Rev. 1405 (2008) [hereinafter Ibrahim Behavior].

¹² “[R]apidly innovating industries are not behaving the way that theory expects.” Ronald Gilson, Charles F. Sabel, & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431, 432 (April 2009). *See* discussion and accompanying notes 183-186 in Section III(A) *infra*.

is rapidly assembled and new entrepreneurial entrants are introduced into an accelerator system.

This investigation is the first within legal literature to examine IAs. The Author conducted 48 interviews spanning 17 accelerators in order to examine IA organizational choices. This research does not investigate all accelerator types, however, it focuses upon the mentor-driven IA, a model promoted by an industry association (the Global Accelerator Network) and numerically the most widespread type of IA.¹³ Interviews involved three different types of accelerator stakeholders: entrepreneurs who founded startup companies, principals of accelerator entities, and mentors who advise startups. Research shows that IAs mingle formal arrangements (such as contracts and the accelerator itself) with informal arrangements in order to integrate stakeholders into a common system. Accelerators organize a broad range of individuals – investors, entrepreneurs, attorneys, accountants, and functional specialists – that span the startup community.¹⁴

Informal and under contracted dimensions of an IA system are intriguing. In function, mentors and startups exchange great value in an environment of open information exchange. Interviews reveal the extent to which startup companies share proprietary information with mentors who, in return, contribute their time and connections to the startup. This dimension is so important that IAs publicize themselves as “mentor driven” entities.¹⁵ But the most crucial dimension of an IA – expert mentors – are missing from the formal organizational structure. Mentors commonly lack privity with the accelerator. They also interact with startups neither as employees nor subject to a formal contract. Among the research findings: startups within IAs almost never ask for confidentiality or non-disclosure agreements (“NDAs”) from mentors. Meanwhile, mentors – even those who are investors – do not receive direct compensation nor do they insist on formal options to protect their ability to directly invest in a startup. Mentors’ involvement outside of an accelerator’s formal dimensions challenges assumptions about economic motivation and opportunistic behavior.¹⁶

¹³ See discussion and accompanying notes 94-98 in Section I(C) *infra*.

¹⁴ See, e.g., Susan Cohen, *What Do Accelerators Do? Insights from Incubators and Angels*, INNOVATIONS 19-25 (2013) (discussing distinctive nature of accelerators relative to incubators and angel investors).

¹⁵ See, e.g., Global Accelerator Network, <http://gan.co/the-network> (last visited June 25, 2015). (highlighting that GAN “connect[s] the top mentorship-driven, seed-stage accelerators around the world.”); Bluestartups Accelerator, <http://bluestartups.com/information-about-blue-startups> (last visited June 25, 2015). (“A member of the Global Accelerator Network, Blue Startups follows the Techstars mentor-driven accelerator model, reaching networks in Hawai‘i, Asia and the Silicon Valley); see also Sandy Yu, *The Impact of Accelerators on High-Technology Ventures*, (May 2014) (unpublished thesis, New York University Stern School of Business) (on file with Author) (despite financial investment, the “main” value add of accelerators is “mentoring, network connections, and interactions with companies in the same cohort.”).

¹⁶ Accelerator organization raises questions of motivation – i.e., why do mentors participate for free? This issue animates a forthcoming companion article. Brad Bernthal, *For-Profit Peer Production Governance Structure And The IA* (forthcoming 2016). The companion piece observes that the IA’s mentor network bears resemblance to peer production entities studied by Benkler and others, where participants volunteer without direct compensation.

Reliance upon informal mechanisms, known as network governance¹⁷, of course is not the only way that accelerator expertise could be organized.¹⁸ Indeed other strategies are sometimes observed among IAs. The IA may vertically integrate expertise through in-house employees – e.g., hire experts to create a roster of mentors, technical advisors, service providers, and other resources. Additionally, an IA may contract for expertise – e.g., rely upon contracts to attract mentors and others who interact with portfolio companies.¹⁹ While each of these forms is observable among IAs, neither option appears to be the majority trend. In terms of adoption, network governance organization of experts is more widespread than vertical integration or contract based strategies.²⁰

Evidence from interviews explains the puzzle of why startups and outside mentors routinely exchange valuable information without any form of legal protection. Legal factors are one consideration. Many industry professionals would not become mentors if formality were required. Professional investors active in entrepreneurial finance, for example, refuse to sign NDAs and confidentiality agreements in order to avoid the risk of liability. Investors and certain entrepreneurs, moreover, will not enter into direct agreements for compensation because they would violate an express or implied duty of loyalty agreement to work solely for a primary employer. Seen this way, accelerator systems bypass formal arrangements in part to avoid excluding a valuable pool of experts. In addition, mentor contributions are voluntary, which relieves IAs from compensation-related cost constraints. Overall, informal organization allows IAs to attract a broader network of people and broker a wider range of informational trades than if privity were insisted upon.

This raises a behavioral query: how does network governance prevent bad conduct that could outweigh the value of exchange? Opportunism possibilities loom throughout the IA. Mentors could steal a portfolio company's idea or share confidential information with a competitor. The absence of formal agreement further exposes a portfolio company to disputes concerning promised equity ownership or intellectual property rights. Informality would seem to be a recipe for leakage of a startup's insights, intellectual property disputes, and copycat behavior. Startup companies, in turn, are able to take the advice and run, frustrating mentors who wish to invest in the startup. In short, informality may lead to opportunistic behavior deleterious to the value of accelerator participation.²¹

Extensive legal scholarship explains how social norms and relational contracts operate to constrain opportunism.²² Reputational enforcement offers a social sanction

¹⁷ See Walter Powell, *Neither Market Nor Hierarchy: Network Forms of Organization*, 12 RES. ORG. BEHAV. 295, 322 (1990); C. Jones, W.S. Hesterly, & S.P. Borgatti; *A General Theory of Network Governance: Exchange Conditions and Social Mechanisms*, 22 Acad. Mgmt. Rev. 911, 916-25 (1997).

¹⁸ Ronald Coase's classic framework of build vs. buy underscores alternative approaches. The theory of the firm bifurcates the use of contracts within a market (i.e., "buy") versus integration of resources within a firm hierarchy (i.e., "build"). Coase posits that a governance structure is preferred that is "the lower cost transaction form" - that is, the system that comparatively reduces a firm's net costs related to specific exchanges. Ronald Coase, *The Nature of the Firm*, ECONOMICA, 386, 386 (1937).

¹⁹ See discussion of alternative IA forms, *infra* notes 90-92.

²⁰ This Article does not claim that one model is more successful on average than the other. Data for a comparative analysis does not yet exist. See discussion of data in Section I(A) *infra*.

²¹ See discussion and accompanying notes in Section III(A) *infra*.

²² See discussion and accompanying notes in Section III(A) *infra*.

that regulates exchange where certain conditions hold.²³ The problem is that accelerators do not fit observed conditions where informal constraints work. An IA builds networks, introduces new entrepreneurs to a community, disseminates novel norms, and generally differs in important respects from more traditional and well-studied environments where network governance prevails. What is striking about IAs is that organizational elements are assembled with lightning speed, in comparison to past legal scholarship which observes the decades or longer required to establish norms where informal and extralegal tools regulate economically significant behavior. Yet a conservative assessment of the data is that opportunistic behavior is far less problematic in IAs than network governance literature would predict. Interviews report that serious idea theft or confidentiality breach is infrequent. Predatory coercive behavior occurs, however, it occurs at levels that do not undermine IAs' value from the perspective of its participants.

This Article concludes that three reasons best explain these observations and provide insight about how IAs function to constrain opportunism in innovation environments. One, accelerators build networks that utilize prior connections and overlay pre-existing norms already present in the startup community. The core of an informal mentor network is assembled from accelerator principals' personal relationships. By grafting pre-existing networks onto the "new" IA network, accelerators build upon established norms and set in motion a cooperation cascade of desirable behavior. Two, IA principals aggressively shape startup culture through communications that include books, prominent blogs, and an industry group. The broad reach of these communications establish and influence norms of behavior in the overall startup community, as well as within individual accelerators. Three, the social integration of an IA system lowers the cost to mobilize group social sanctions where an individual deviates from behavioral norms. The IA mingles formal and informal mechanisms to connect stakeholders that span the startup community. This gives accelerator principals the power to impose high penalties through general collective sanctions. Where mentors seek direct gain at the expense of portfolio companies (or vice-versa), the interconnected system allows managing directors to take steps to punish such behavior through group enforced consequences.²⁴

The proceeding four sections explore the governance structure of an IA. Section I introduces the accelerator to legal scholarship. It describes accelerators from a broad perspective and then defines a specific subcategory, the mentor-driven IA. It also explains the Article's scope and research methodology. Section II then details how the IA's governance structure mingles formal and informal mechanisms. Section III next examines the problem of opportunistic behavior. It notes that IAs do not fit previously observed circumstances where norms and informal tools constrain opportunistic behavior, yet evidence from IAs suggest that opportunism is addressed. Section IV explores this puzzle. It explains that an IA facilitates social integration in a way that rapidly disseminates norms and strengthens reputational constraints.

²³ See discussion of network governance and reputation markets in Section III(A) *infra*.

²⁴ See discussion of opportunism in Section IV(B) *infra*.

I. ANATOMY OF THE ACCELERATOR

This Article presents an inquiry into Investment Accelerator governance, with emphasis on the implications of informal elements for opportunistic behavior and organization. The institutional form of the accelerator is unfamiliar to many legal scholars. Section I provides foundation by introducing the accelerator to legal literature. Subsection A explains that accelerators evolved to address the needs of a new type of 21st Century startup that requires only modest levels of financial capital. It begins with an example, Everlater, a startup that participated in the 2009 Techstars Boulder program. Subsection B is a brief taxonomy of the different types of accelerators that have emerged since 2005. Readers already familiar with accelerators may wish to skip directly to Subsection C. Subsection C describes the Article's methodology and scope of original investigation.

A. Everlater and the Emergence of a New Institutional Form

In 2007, Nate Abbott and Natty Zola made a mildly surprising career decision.²⁵ They took their savings from finance industry jobs in New York City and traveled extensively in Central and South America.²⁶ The following year, their bank accounts depleted, Abbott and Zola made a more surprising career decision: they founded a technology company.²⁷ Sharing pictures and stories of their travels with friends and family proved frustrating. The duo moved back to their parents' homes, worked out of the basement, and aimed to build a social media platform to allow travelers to better share their adventures. Their company, Everlater, was born. Like most startups, Everlater was more likely to fail than to succeed.²⁸

Abbott and Zola needed outside help.²⁹ Startups require more than bright idea, strong internal execution by the founding team, and market timing luck in order to make

²⁵ Factual representations about Everlater collected through an interview with Everlater co-founder Nate Abbott. Telephone Interview with Nate Abbott, Co-Founder, Everlater in Boulder, CO (November 26, 2014). The Author also knew and periodically interacted with the Everlater team during the relevant time frame, beginning in early 2009 through exit of the company to Mapquest.

²⁶ Abbott started his travels in July 2007. Zola joined in January 2008. *Id.*

²⁷ This path is surprising insofar as Zola and Abbott faced formidable challenges. They had no entrepreneurial experience or MBA backgrounds. The duo aimed to build a technology company, however, neither Abbott nor Zola knew how to program software. Further Abbott and Zola were in no position to hire employees, a reality underscored by the fact that the founders returned to live in their parents' homes in order to save on expenses. *Id.*

²⁸ A 2012 study by Shikhar Ghosh found that 75% of VC backed startups, most of whom raised \$1 million or more between 2004-2010, "failed." Owing to a different criteria used to define failure, Ghosh's findings are dimmer than those of the National Venture Capital Association, which puts failure rates closer to 25% to 30% among venture-backed businesses. See Deborah Gage, *The Venture Capital Secret: 3 Out of 4 Start-Ups Fail*, WALL STREET JOURNAL (September 20, 2012) available at <http://online.wsj.com/news/articles/SB10000872396390443720204578004980476429190>.

²⁹ Everlater needed help on a long list of items. Since neither founder was a technologist, they required help to build the product. Even if their dream product were complete, moreover, Everlater faced uncertainty in the market. Would customers adopt a new type of social network platform oriented around sharing travel experiences? The business model also remained unclear. In particular, how would Everlater's social network product ultimately make money? Finally, even if paying customers were interested, would a competitor arise that would win the market? Nate Abbott, *supra* note 25.

it. Necessity militates that a startup collaborates outside the firm's boundaries. The importance of outside expert help is one reason that startups tend to cluster in close geographic proximity.³⁰ Several institutional forms - including incubators³¹, venture capital³², and angel investing³³ - emerged in response to startups' thin intrafirm resources.³⁴ Yet none of these options were tailored to Everlater's needs.³⁵

Techstars Boulder - an investment accelerator - accepted Everlater in its May 2009 cohort,³⁶ one of ten companies selected out of over 500 applicants.³⁷ Techstars helped Everlater with the fundamental necessity of a new business: survive myriad challenges with scarce resources long enough to develop and deploy a product or service.³⁸ During their three and a half months in the accelerator program, Abbott and

³⁰ Despite higher real estate costs and greater competition for employee talent, startups nonetheless collocate in geographic areas such as Silicon Valley, Boston, and other locations with high entrepreneurial density. See, e.g., AnnaLee Saxenian, *Inside-Out: Regional Networks and Industrial Adaptation in Silicon Valley and Route 128*, 2 CITISCAPE: J. POL'Y DEV. & RES. 41 (1996). Open innovation helps explain the attraction of entrepreneurial concentration. Open innovation allows external sources to generate the ideas that are then commercialized internally by a firm, while internal ideas can be commercialized by external start-up companies and entrepreneurs. As Henry Chesbrough observes, "The boundary between a firm and its surrounding environment is more porous, enabling innovation to move easily between the two." Bruce Katz & Julie Wagner, *The Rise of Innovation Districts: A New Geography of Innovation in America*, Brookings, 8 (May 2014), available at <http://www.brookings.edu/~media/Programs/metro/Images/Innovation/InnovationDistricts1.pdf>.

³¹ An *incubator* physically collocates startup companies by offering flexible real estate in exchange for cash and/or equity. See DEERING, *SUPRA* NOTE 7, at 13.

³² METRICK, *SUPRA* NOTE 8, AT 3. A *venture capitalist* (VC) provides financial capital and active post investment assistance to startups. Specifically, a VC: (i) is a financial intermediary between a source of financial capital (known as a limited partner) and a startup (known as a portfolio company); (ii) invests in private companies for non-public securities; (iii) seeks a high return on capital (not just an interest yield); (iv) is an active investor who is closely involved in a company after investment; and (v) has a limited time frame for a fund, which means that monies must be returned to limited partners on a specific time horizon.

³³ An angel investor is unlike a VC insofar as an angel invests her own money. See Ibrahim Behavior, *supra* note 11.

³⁴ For example, in addition to financial capital, venture capitalists support startup companies by providing a variety of services including social capital, reputational capital, strategic advice, and other forms of help. Dennis Jaffe & Pascal Levensohn, *After the Term Sheet: How Venture Boards Influence the Success or Failure of Technology Companies* (2003), available at <http://www.levp.com/news/whitepapers.shtml>.

³⁵ Everlater did not have intensive physical infrastructure needs that an incubator might provide. A VC would offer the type of expertise that Everlater required. But Everlater was too early and speculative for a multi-million dollar VC investment. An angel investor was a more plausible source of help. But Everlater lacked trusted connections with angel investors and, moreover, Everlater would have had difficulty attracting substantial angel investment without a functional product. Nate Abbott, *supra* note 25.

³⁶ Different terminology attaches to the classes in different accelerators. For example, Startup Chile refers to a class as a "generation." Interview with Sebastian Vidal, Director, Startup Chile, in Santiago, Chile (March 20, 2015). In the parlance of Y-Combinator, a class is a "batch." See Stross, *supra* note 8, at 6.

³⁷ There were 521 applications for portfolio company openings in the 2009 Boulder and Boston Techstars classes. See Email from Jed Christiansen, Director of Technology, Techstars, to Author (January 15, 2015 2:13 PM) (on file with Author).

³⁸ Startups like Everlater are fragile organizations that must overcome "liabilities of newness." Benjamin Hallen, Christopher Bingham & Susan Cohen, *Do Accelerators Accelerate? A Study of Venture Accelerators as a Path to Success 4* (2013) (citing A. Stinchcombe, *Social Structure and Organizations*, 17 *Advances in Strategic Management* 229 (1965)). Hallen *et. al.* note that startups "have a high-risk of failure or limited growth as they often begin with insufficient resources for long-term survival, have underdeveloped operational and managerial capabilities and lack legitimacy with customers, employees and other key stakeholders." *Id.* at 2.

Zola met with dozens of experienced entrepreneurs and investors who served as mentors. Mentors advised Abbott and Zola about how to build the company's technology, improve their product, and communicate to others about their vision for the company. In mid-August 2009, Everlater exited the program. Along with the other companies in its Techstars cohort, Everlater's "graduation" involved presenting its business at Demo Day, a public facing event that attracted roughly 200 investors and 500 community members. Buoyed by its progress Everlater secured outside investment from an early stage investment fund. The business continued until November 1, 2012, when the company sold to AOL. Everlater became part of Mapquest. AOL then tapped Abbott and Zola to take over the Mapquest Denver operation.³⁹

Accelerator pioneers Y-Combinator and Techstars emerged in 2005 and 2007, respectively, to serve a generation of entrepreneurs, like Abbott and Zola, who pursued startups on a shoestring budget. In previous decades, a startup like Everlater would have been prohibitively costly – absent significant backing from an outside investor – for first-time entrepreneurs to launch. But during the first decade of the 2000s, a dramatic drop in technology costs made it viable for a multi-founder company to launch with a modest amount of capital investment.⁴⁰ Other trends enabled faster creation of products and facilitated ease of distribution.⁴¹ Collectively these developments expanded the pool of entrepreneurs able to pursue scalable business models on the relative cheap with readily available information technology tools.

Stories like Everlater fuel rapid accelerator expansion. The accelerator model first emerged in 2005. Today 5,537 entities self-identify as an "accelerator."⁴² It is premature to assess the overall efficacy of accelerators or their enduring role in the entrepreneurial ecosystem.⁴³ But existing numbers suggest meaningful levels of activity. Portfolio

³⁹ In April 2015, Zola subsequently left Mapquest to take over as co-managing director at Techstars Boulder. See Techstars Blog, David Brown, *Announcing New Managing Directors for London, METRO Accelerator and Boulder* (April 22, 2015) <http://www.techstars.com/announcing-new-mds-for-london-metro-accelerator-and-boulder/>.

⁴⁰ Startup capital requirements dropped so much that it was said that "\$500,000 is the new \$5 million." Peter Cohan, *How Mike Maples Jr. Became One of Silicon Valley's Great Investors*, *Forbes* (Dec. 11, 2012 8:58 AM) <http://www.forbes.com/sites/petercohan/2012/12/11/how-mike-maples-jr-became-one-silicon-valleys-great-investors/> (line attributed to Mike Maples, Jr.). This quote refers to the rapid reduction -- an estimated 100 times over ten years between 2000 and 2010 -- in technology costs to store, process, and move information. See Paul Miller & Kristen Bound, *The Startup Factories: The Rise of Accelerator Programmes to Support New Technology Ventures* 21 (2011), available at http://www.nesta.org.uk/sites/default/files/the_startup_factories_0.pdf. See also Coyle & Green, *supra* note 1, at 133, 155-156 ("a confluence of developments in technology -- including cloud-based servers, cloud-based software, and open-source code -- substantially reduced the costs of launching a technology based start-up, beginning in approximately 2005").

⁴¹ The wider availability of software building blocks, such as open source tools, allows software developers to build products in less time. Meanwhile the availability of distribution over the Internet or through an app store reduces customer acquisition costs and enables forms of direct monetization. Miller & Bound, *supra* note 40, at 22.

⁴² This is more than double the number 2,686 from when research on this project started in Summer 2014. See F6S *supra* note 2 (5,537 entities self-identify as an accelerator).

⁴³ See, e.g., Yuliya Chernova, *Techstars Graduates' Survival Rates: What the Numbers Show*, *Wall Street Journal* (Nov. 20, 2014), <http://blogs.wsj.com/venturecapital/2014/11/20/techstars-graduates-success-rates-what-the-numbers-show/>. The gestation period of a startup commonly takes 5-7 years. The fate of many accelerator startups remains uncertain. For example, Techstars has expanded rapidly in recent years, meaning

company participants in accelerators have secured over \$10 billion in overall funding.⁴⁴ At least 4,858 companies have gone through accelerator programs.⁴⁵ These companies garnered over \$3.5 billion in exit valuations.⁴⁶ Visible success stories among IA participants include acquired companies Twitch, Heroku, Vizify, and Revolv, as well as highly valued on-going enterprises Airbnb, Dropbox, DigitalOcean, and Orbotix.⁴⁷

Whether this new institutional form helps or hinders startups has important implications. From an economic perspective, entrepreneurship involves risky companies with high risk of failure; however, overall economic growth is tied to the aggregate health of entrepreneurial ventures.⁴⁸ Moreover, from a social perspective, accelerators today play a prominent role in supporting a diverse range of goals, including reduction of poverty in East Africa⁴⁹, government efforts to build an innovation culture in Santiago, Chile⁵⁰, and enhanced support for women entrepreneurs⁵¹. Finally, three additional lines of analyses suggest that accelerators merit attention. *One*, accelerators may help overcome geographic bias in entrepreneurship.⁵² *Two*, accelerators may provide educational value for participants that manifests in ways outside of portfolio company success.⁵³ And *three*, accelerators may impact regional economic development.⁵⁴

that the vast majority of its companies remain in operation. Of the 556 Techstars portfolio companies to date, 422 remain active, 73 have been acquired, and 61 have failed. Techstars, *supra* note 9. Even for companies that have exited, visibility into outcomes is imperfect, as private company acquisition prices are often undisclosed. See Rip Empson, *Economic Impact Of Startup Accelerators: \$1.6B+ Raised, 4,800+ Jobs Created, 2,000 Startups Funded*, TechCrunch (Nov. 27, 2012), <http://techcrunch.com/2012/11/27/economic-impact-of-startup-accelerators-1-6b-raised-4800-jobs-created-2000-startups-funded/>.

⁴⁴ Seed-DB, *Seed Accelerators and Groups* (last visited July 8, 2015), <http://www.seed-db.com/accelerators>. Y Combinator companies have received over half of outside funding landed by accelerator portfolio companies, with 694 batch companies attracting more than \$4 billion of outside funding. *Id.* Y Combinator estimates that its companies have a combined value of over \$30 billion. Y Combinator, *supra* note 9. Techstars, a multi-city program founded in 2007, has portfolio companies that have garnered over \$900 million in total funding in that period. Seed-DB, *Supra*.

⁴⁵ *Id.*

⁴⁶ Seed-DB, *Y-Combinator*, <http://www.seed-db.com/accelerators/view?acceleratorid=1011> (last visited July 8, 2015); Techstars, *supra* note 9.

⁴⁷ See, e.g., Chernova, *supra* note 43.

⁴⁸ See, e.g., M.A. Carree & A.R. Thurik, *The Impact of Entrepreneurship on Economic Growth*, in International Handbook of Entrepreneurship Research 1 (Zoltan Acs & David Audretsch eds. 2002) available at <http://hadjarian.org/esterategic/tarjomeh/2-89-karafariny/1.pdf> (surveying literature on studies that link entrepreneurship to macro-economic growth).

⁴⁹ See Baird et al., *supra* note 4, at 7 (referencing GrowthAfrica); see GrowthAfrica, <http://www.growthafrica.com/> (last visited July 7, 2015).

⁵⁰ See Juanita Gonzalez-Urbe & Michael Leatherbee, *Business Accelerators: Evidence from Start-Up Chile*, (March 2015) (unpublished manuscript) available at <http://www.lse.ac.uk/fmg/events/SUP-Gonzalez-Urbe-Leatherbee-13032015.pdf>; Startup Chile, *supra* note 4; see also Rodriguez, *supra* note 4.

⁵¹ See MergeLane, (last visited July 7, 2015) <http://www.mergeLane.com/>.

⁵² Venture capital and angel investment is strongly biased in favor of local companies and, as a result, entrepreneurs with companies located outside of entrepreneurial hubs often lack access to capital and startup support. Douglas Cumming & Na Dai, *Local Bias in Venture Capital Investments*, 17 J. Empirical Fin. 362, 362 (2010). Accelerators often actively recruit founders from areas outside their region. See DEERING, *SUPRA* NOTE 7, AT 15.

⁵³ For example, an entrepreneur's learning during an accelerator may later prove valuable in larger company contexts and subsequent entrepreneurial ventures.

B. Genealogy of Accelerators

The first accelerator, Y-Combinator, debuted in 2005.⁵⁵ Since that time two important variants of the accelerator model have emerged. One is the for-profit private investment accelerator (the “IA”). The IA takes an ownership stake in a portfolio of companies in exchange for services and a modest amount of capital. Akin to the venture capital during the latter half of the 20th century, IAs emerged as an “experiment in finance” designed to make a profit.⁵⁶ A crucial difference between IAs and VCs is accelerators’ emphasis on helping entrepreneurs at a startup’s earliest stages.⁵⁷ IAs number at least 234, including high profile franchises such as 500 Startups, Techstars, and MuckerLab.⁵⁸ The IA category also includes corporate-sponsored, affinity group, and post-accelerator accelerators.⁵⁹ A second type of accelerator is the non-investment accelerator (a “NIA”). A NIA seeks an impact that is measured in terms beyond a

⁵⁴ Evidence suggests that accelerator networks generate more early stage finance activity within the region. Yael Hochberg & Daniel Fehder, *Accelerators and Ecosystems*, 348 *Science* 1202 (2015). On the importance of networks within entrepreneurial systems, see generally Maryann Feldman & Ted Zoller, *Dealmakers in Place: Social Capital Connections in Regional Entrepreneurial Economies*, 46 *Regional Studies* 23 (2012).

⁵⁵ Y-Combinator is recognized as the original IA, however, it no longer describes itself an accelerator. Instead Y-Combinator now distinguishes itself through the label “seed fund.” See Yael Hochberg, Susan Cohen and Dan Fehder, *These Are The Top 20 US Accelerators*, TechCrunch (March 17, 2015), <http://techcrunch.com/2015/03/17/these-are-the-top-20-us-accelerators/> [hereinafter Hochberg et al. Top 20]. For purposes of this Article, Y-Combinator is nonetheless categorized as a form of Investment Accelerator. Y-Combinator helped pioneer the accelerator movement and, for the majority of time since 2005, Y-Combinator was labeled an accelerator.

⁵⁶ See Stross, *supra* note 8, at 6. The venture capital model evolved throughout the 1960s to *inter alia* match financial capital -- often from the east coast -- to cash starved nascent companies on the west coast. See generally SOMETHING VENTURED (Miraline Productions, Geller/Goldfine Productions 2011).

⁵⁷ The private entrepreneurial sector acts as a funnel with a large number of participants at the top that are whittled down over stages to a few outsized winners at the bottom. Pre-seed and seed stage companies, at the top of the funnel, are the minor leagues of high-growth entrepreneurship where new company ideas begin. Work with entrepreneurs at this stage is the core competency of an accelerator. See generally David Freedman, *Why The Series A Crunch Might Be a Good Thing*, Inc., October 2014, available at <http://www.inc.com/magazine/201310/david-freedman/why-the-series-a-crunch-might-be-good.html>.

⁵⁸ See SEED-DB, *supra* note 44; 500 Startups, <http://500.co/> (last visited July 8, 2015); See Techstars, <http://www.techstars.com/> (last visited July 8, 2015); See Mucker Capital, <http://www.muckercapital.com/muckerlab/about/> (last visited August 3, 2015); See Hochberg et al. Top 20, *supra* note 55.

⁵⁹ Corporate accelerators marry the accelerator form to direct industry sponsorship from incumbent companies. Startupbootcamp Global has a European footprint that includes 11 corporate accelerators and spans seven countries. Interview with Anonymous Director #14, Managing Director, Accelerator (Mar. 11, 2015). Techstars - originally founded as a private, standalone IA - now has significant involvement leading corporate accelerator programs through its *Powered by Techstars* program. Affinity group accelerators target help for entrepreneurs oriented around a common purpose and, often, for entrepreneurs from a specific group. For example, MergeLane aims to help women-led startups, while Upwest focuses upon bringing Israeli-led startups to Silicon Valley. MergeLane *supra* note 51; Upwest, *About us*, <http://upwestlabs.com/about-us> (last visited July 10, 2015). Finally, a post-accelerator accelerator responds to the initial wave of accelerators. As accelerators proliferate world-wide, it is now possible for entrepreneurs and their companies to hop from one accelerator to another. Recognizing this emergent development, Austin’s Capital Factory specializes in companies that have already completed an accelerator program.

startup's direct pecuniary gains.⁶⁰ NIAs do not take equity ownership in startups and, instead, often rely upon public or private charitable support to fund operations. A NIA's objectives may include economic development, entrepreneurial education, or another social purpose goal.⁶¹

This Article focuses on the first category of for-profit IAs. Several features are associated with the IA, including⁶²:

- (i) a competitive application process to select startups⁶³;
- (ii) collocation of startups within a common physical location;
- (iii) intensive mentoring of startups and exchange of information among participants⁶⁴;
- (iv) startups synchronously enter and exit the program in "cohorts" (akin to a boot camp or university program) and progress through the accelerator in a compressed time period⁶⁵;
- (v) startups receive modest financial investment and services in exchange for equity to the accelerator; and
- (vi) an accelerator certifies startups through admission to the program, "demo days," and other devices⁶⁶.

⁶⁰ For example, a general social accelerator, such as the Unreasonable Institute, prioritizes assistance to startups who seek to address problems for poor populations, achieve environmental objectives, and pursue other philanthropic objectives. *See, e.g.,* Unreasonable Institute, *What we do*, <http://unreasonableinstitute.org/what-we-do/> (last visited July 8, 2015); Aspen Network of Development Entrepreneurs, *About ANDE*, <http://www.aspeninstitute.org/policy-work/aspen-network-development-entrepreneurs> (last visited July 8, 2015).

⁶¹ Startup Chile is an example of a non-profit accelerator oriented around geographic economic development. Startup Chile, *supra* note 4 ("Four years ago, Start-Up Chile was born. Its mission -- to literally transform the Chilean entrepreneurial ecosystem"). For a list of university accelerators, *see* Acceleratorinfo, <http://www.acceleratorinfo.com/see-all.html> (last visited July 8, 2015). For an examination of social impact accelerators, *see* Baird et al., *supra* note 4.

⁶² Cohen and Hochberg describe accelerators as a "fixed-term, cohort-based program, including *mentorship* and educational components, that culminates in a public pitch event or demo-day." Susan Cohen & Yael Hochberg, *Accelerating Startups: The Seed Accelerator Phenomenon* 4 (March 30, 2014) (emphasis in original), available at http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2418000. Seed DB additionally defines seed accelerators negatively by excluding programs (i) "where the startup pays for mentoring," (ii) "where the startup pays (discounted) rent in return for equity and/or discounted business service.," and (iii) "where applications are restricted to students." SEED-DB, *supra* note 44.

⁶³ Accelerators strive to be selective. Admission rates of 10% or lower are common with lower than 2% admittance to the most prestigious accelerators. Yu, *supra* note 15, at 9, n.3 (citing 2012 Y Combinator acceptance rate as 2% and Techstars NYC rate as 0.6% for 2013).

⁶⁴ Participating companies enter accelerators at early stages of their lifecycle. On average, portfolio companies are 10 months old upon acceptance. Yu, *supra* note 15, at 17. This is a point where outside inputs "influence the direction of the portfolio companies while they are still malleable." Cohen & Hochberg, *supra* note 62, at 13.

⁶⁵ The time limited cycle of an accelerator, typically about three to four months, is accompanied by pressure on participants to work with intensity which most consider unsustainable.

⁶⁶ Where asymmetric information exists, as between outside parties and a startup, third party intermediaries emerge to perform certification functions that signal quality that is otherwise difficult to discern. Jin-Hyuk Kim & Liad Wagman, *Portfolio Size and Information Disclosure: An Analysis of Startup Accelerators* 29 J. Corp. Fin. 520, 522 (2014), available at <http://www.sciencedirect.com/science/article/pii/S0929119914001333#>. Accelerators perform screening and

The above description helps distinguish IAs from other entities designed to support entrepreneurs. Figure 1 below, based upon work by Cohen and Hochberg⁶⁷, is a summary comparison of accelerators to other entities.

Indicia of IA	Incubator	Venture Capitalist	Angel Investor
<i>Highly competitive application.</i>	Sometimes. But larger barrier to entry involves ability to pay rent.	Highly competitive. But most companies that get selected have a pre-existing connection to VC.	Somewhat competitive.
<i>Physical collocation of portfolio companies.</i>	Yes.	No.	No.
<i>Expert advice and educational functions are prominently featured.</i>	Highly variable.	Yes.	Highly variable.
<i>Money and services in exchange for equity in a portfolio company.</i>	Infrequent that financial capital will be provided by incubator. Real estate is primary service.	Yes.	Yes. Extent of services involvement varies widely depending on angel's expertise and time availability.
<i>Certification functions to prospective investors, customers and suppliers.</i>	Low.	Yes.	Varies widely, depending on prestige of investor.
<i>Portfolio companies arrive and exit synchronously as a cohort.</i>	No.	No.	No.

Figure 1: Comparative Chart of Institutions Designed to Support Startups

C. Scope of Investigation, Methodology and Limitations

This Article focuses upon how IAs are organized. Accelerators are under researched⁶⁸ but scholarly progress is in motion. Business scholars investigate the

reputational functions, similar to higher educational institutions, which certify participants' quality to those outside the accelerator. Yu, *supra* note 15, at 10. High selectivity means that admission into an accelerator signals validation of a company's idea and the quality of its founders. Miller & Bound, *supra* note 40, at 27 (citing founders from accelerator portfolio companies who identified that to say their company has been selected as a "promising startup" by an accelerator proved a "major benefit" with stakeholders including journalists, investors and potential clients).

⁶⁷ Cohen & Hochberg, *supra* note 62.

efficacy of accelerator results upon portfolio companies.⁶⁹ Economists consider questions of accelerators' information disclosures.⁷⁰ Accelerators also present questions of economic geography.⁷¹

Scholars have yet to examine accelerator governance structure. The field of law and entrepreneurship provides tools to explore governance in innovation industries.⁷² A specific exchange between people or firms is distinguishable from the broader context – viz., the “governance structure” – against which a specific exchange occurs.⁷³ Governance structures address fundamental choices of organization, such as who controls decisions, where resources should be allocated, how economic benefits are shared, how inputs are directed toward one function and away from alternative uses, and ways to discipline opportunistic behavior. Governance “mechanisms for exchange”⁷⁴ facilitate the organization of resources necessary to create goods and services. Accelerators, like all organizations, may organize production through legal contracts⁷⁵, firm hierarchy⁷⁶, informal norms⁷⁷, extralegal structures⁷⁸, or a mix thereof.⁷⁹ This Article examines the governance choices that define IA organization.

⁶⁸ There is “little attention in the literature.” Kim & Wagman, *supra* note 66, at [pinpoint]. The research is “anemic” on impact of accelerators. Cohen & Hochberg, *supra* note 62, at 3.

⁶⁹ See, e.g., Benjamin Hallen, Christopher Bingham, and Susan Cohen, *Do Accelerators Accelerate? A Study of Venture Accelerators as a Path to Success* 32 (2013) (finding that, among startups that receive VC funding, accelerator portfolio companies learn and develop networks faster irrespective of the founders' prior level of experience; varying degrees of efficacy between accelerators); Yu, *supra* note 15, at 6, 25 (asking “are accelerators effective and how do they impact new ventures?”).

⁷⁰ Kim & Wagman, *supra* note 66, at 522.

⁷¹ Rodriguez, *supra* note 4; Hochberg et al. Top 20, *supra* note 55; Miller & Bound, *supra* note 40, at 27.

⁷² See, e.g., Smith, *supra* note 10; Gilson, *supra* note 10; Coyle & Green, *supra* note 1 (discussing convertible debt structures); Ibrahim Behavior, *supra* note 11; Darian Ibrahim, The New Exit in Venture Capital, 65 VAND. L. REV. 1 (2012) [heretofore Ibrahim New Exit].

⁷³ See, e.g., Oliver Williamson, *Transaction Cost Economics*, 22 J. L. & Econ. 233, 250 (1979) [heretofore Williamson Transition Cost]. Williamson notes that the “[t]ransaction is the basic unit of analysis, but governance is an effort to craft order, thereby to mitigate conflict and realize mutual gains.” Oliver Williamson, *The New Institutional Economics: Taking Stock and Looking Forward*, 38 J. ECON. LIT. 595, 599 (2000) (emphasis in original) [heretofore Williamson New Institutional Economics].

⁷⁴ See Jones et al., *supra* note 17, at 916-925.

⁷⁵ See generally Williamson Transition Cost, *supra* note 73, at 250.

⁷⁶ See generally Coase, *supra* note 18. Following Coase, transaction cost economics undertook to identify how transactions differ, identify the attributes of governance structures, “effect a discriminating match” between transactions and governance structures, and - finally - see if “predicted alignments are corroborated by the data.” Williamson New Institutional Economics, *supra* note 73, at 599.

⁷⁷ Gillian K. Hadfield, *Legal Infrastructure and the New Economy*, 8 ISJLP 1, 11 (2012) (citing examples of social norms of trust and market responses to reputation for renegeing as sources of “economic relational services”).

⁷⁸ Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Cooperation*, 99 MICH. L. REV. 1724, 1726 (2001) [heretofore Bernstein Cotton]; Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Obligations in the Diamond Industry*, 21 J. LEGAL STUD. 115 (1992) [heretofore Bernstein Diamond].

⁷⁹ Peer Zumbansen, *Rethinking the Nature of the Firm: The Corporation as a Governance Object*, 35 SEATTLE U. L. REV. 1469, 1470 (2012) (“Contract, which cannot be studied in isolation, occurs within the intersecting modes of governance and, as a result, provides a crucial element for building a new interdisciplinary theory of governance.”); Steven Hetcher, *Hume's Penguin, Or, Yochai Benkler and the Nature of Peer Production*, 11 VAND. J.

Investigation of accelerators grew out of the Author's personal involvement in Techstars Boulder, where he has served as a mentor since 2008. In December 2014, during a three hour Roundtable discussion in Boulder, Colorado, the Author presented a preliminary analysis about IA organization to 25 individuals who are active with startups and accelerators. Participants included representatives from five different accelerators. To test and better inform the governance picture, the Author next conducted a series of 48 individual interviews between January and July 2015. Interviews spanned 17 accelerators. While this does not purport to cover all types of accelerators, this investigation focuses upon the mentor-driven IA, the model promoted by the leading industry association and the one that appears to be expanding the fastest.⁸⁰ Where this Article directly cites interviews, citations are to interviews numbered within three groupings of active accelerator stakeholders: Managing Directors (17 interviews), Mentors (15 interviews), and Entrepreneurs (16 interviews).⁸¹ Interviews were conducted by phone or video conference and lasted between 20 and 50 minutes. To promote candor, interviewees were informed that interview data would inform an academic article, but that neither interviewees nor their respective accelerators would be identified without permission.⁸² This methodology informs a detailed description of IA governance as well as a portrait of stakeholder behavior and beliefs about IA systems.

At least two limitations attach to the methodology. First, it relies extensively upon interview data collection. This is susceptible to possible inaccurate responses – intentional or unintentional – by interviewees. Second, in order to reach IA stakeholders, the Author relied upon a mix of “cold” email outreach as well as “warm” introductions from two individuals active within accelerators. The “cold” email outreach to accelerators were based on a list included in a recent book on accelerators.⁸³ “Warm”

ENT. & TECH. L. 963, 972 (2009) (citing Benkler's use of peer production as a complement to production by a traditional firm).

⁸⁰ See discussion and accompanying notes 96-100 in Section I(C) *infra*. Other scholars have found interview techniques helpful when studying new phenomena in entrepreneurship. See Ibrahim New Exit, *supra* note 72; John F. Coyle & Gregg D. Polsky, *Acqui-Hiring*, 63 Duke L.J. 281, 314 (2013)(using similar method).

⁸¹ “Entrepreneur” in this case refers to a startup co-founder whose startup participated in an accelerator program as a portfolio company. “Mentor” refers to a mentor in an accelerator program. “Managing Director” refers to an individual who leads or co-leads the accelerator. Nomenclature around the role of “Managing Director” can vary, so some individuals had a different formal title, but they lead the accelerator operation. One exception is that Managing Director Interview #5 was an accelerator's Chief of Staff, not the accelerator's managing director. Some individuals interviewed have been in multiple accelerator roles, such as Entrepreneur #16, who was a mentor in the accelerator before launching a new startup. Where an individual has occupied multiple roles, the individual is grouped according to the role that the interview primarily addressed.

⁸² There are three minor exceptions to the foregoing: (1) Mentor Interviews #14 and #15 were conducted in person; (2) Mentor #14 and Managing Director #15 were interviewed early in the period of research for this Article (in June 2014); and (3) anonymity was not promised prior to interviews with Mentor #14 nor Managing Director #15.

⁸³ See DEERING, *SUPRA* NOTE 7, AT [].

introductions came from individuals active within IAs.⁸⁴ This Article's investigation biases toward software and Internet-oriented IAs in the United States.⁸⁵

II. GOVERNANCE IN INVESTMENT ACCELERATORS

This Section documents and explains notable organizational dimensions of the IA. Subsection A depicts the organization of an IA system. Subsection B then observes the informal governance used to organize mentor's interactions with portfolio companies. Finally, Subsection C inquires why mentors have privity with neither the accelerator nor the portfolio company.

A. Organizational Structure: A System Larger Than Its Formal Parts

From a financial perspective, an IA is a version of a "super angel" fund.⁸⁶ The light capital required to launch software startups in the early 2000s made possible the IA strategy. An IA invests in every participating portfolio company within a cohort. An IA is in the "hits business" since gains from successful portfolio company exits must offset the many inevitable IA investment losses.⁸⁷ From an IA principals' perspective, if just a few nascent portfolio companies eventually succeed within large markets, then the IA fund model would be profitable.⁸⁸

An IA must organize expert resources in order to provide the strategic assistance that portfolio companies require. In theory, three organizational possibilities are available: build, buy, or network.⁸⁹ In practice, each approach is observed. For example, Y-Combinator uses a "guru model" of full-time expert partners who perform the bulk of

⁸⁴ See Global Accelerator Network *supra* note 15.

⁸⁵ It is not claimed that these approaches yield evidence that is representative of NIAs or accelerators on an international scale. More investigation is required before conclusions can be drawn that are representative of a wider group of accelerators.

⁸⁶ Super angels are prolific investors in early stage companies. Confusingly, the savior term "angel" is used to describe so-called "super angels" as well as other early stage individual investors. While a "regular" angel investor uses his or her own money, a super angel typically invests money on behalf of a fund. David Mangum, *Bringing Angel Investing Out of the Shadows*, Silicon Flatirons Report (2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2285575. A super angel follows the familiar fund pattern of entrepreneurial finance: (i) a principal raises a fund from third party investors, (ii) the fund invests resources required by a startup (e.g., capital, guidance, introductions to others), (iii) in consideration the fund takes an equity ownership stake, and (iv) the fund ultimately returns proceeds from investments back to its investors. See generally METRICK, *supra* note 8, at [].

⁸⁷ Paul Buchheit of Y-Combinator said that Dropbox, as of 2012, was "worth more than the next 199 [Y-Combinator] companies combined". Stross, *supra* note 8, at 225. Accelerators have index fund like characteristics insofar as the manager invest others' money in a large number of portfolio of companies. *Id.* at 6, 88.

⁸⁸ Modest up front capital requirements also allows startups the flexibility to profitably pursue smaller markets than prior tech ventures which were forced to pursue large markets in hopes of repaying the large upfront capital costs. Miller & Bound, *supra* note 40, at 24 (quoting Dave McClure that "medium exits" that are "singles and doubles" work well for the accelerator model).

⁸⁹ See notes 75-79 *supra*.

hands-on advising to portfolio companies.⁹⁰ This is a “build” strategy in the theory of the firm parlance.⁹¹ A second option is to engage experts through direct contracts, as observed in the Founder Institute.⁹² Founder Institute contracts with mentors who receive equity interest in the accelerator’s overall performance. This is a “buy” strategy in the theory of the firm parlance.⁹³ Techstars uses a third type of organizational strategy. Techstars assembles a volunteer “network” of experts to counsel portfolio companies.⁹⁴ Rather than hire an in-house bench of experts (build), or contract for experts outside the firm (buy), mentor-driven accelerators rely upon informal network governance.⁹⁵

The mentor-driven accelerator appears more widespread than the vertically integrated guru model or the formal contract model.⁹⁶ Mentor-driven IAs, such as Techstars, organize volunteer experts through informal means while embracing volunteers’ contributions as central to their value proposition.⁹⁷ Replication of the mentor-driven model is bolstered by an industry association, the Global Accelerator Network (“GAN”),⁹⁸ which promotes the informal model.⁹⁹ Spun out of Techstars in

⁹⁰ More specifically, Y-Combinator relies heavily upon its in-house managing partners to guide teams through office hours. It also encourages participants to use Y-Combinator alumni and friends for connections and introductions. While Y-Combinator does not require physical collocation within a single facility, it does require that teams relocate to northern California, where the batch convenes for events such as prototype day and Tuesday dinners. Stross, *supra* note 8, at 118-121, 150-151.

⁹¹ Ronald Coase’s theory of the firm bifurcates the use of contracts within a market (i.e., “buy”) versus integration of resources within a firm hierarchy (i.e., “build”). Coase, *supra* note 18.

⁹² “Founder Institute’s Shared Liquidity model provides an incentive for Mentors to proactively help our companies.” Founder Institute, *Mentors*, <https://fi.co/mentors>, (last visited July 9, 2015). The pool allows mentors, Founder Institute graduates, and Founder Institute Directors to share “equity in the companies formed from each program cohort.” Founder Institute, *The Shared Liquidity Pool*, http://fi.co/liquidity_pool#, (last visited July 9, 2015).

⁹³ See generally Coase, *supra* note 18.

⁹⁴ See Techstars, *Mentoring at Techstars*, <http://www.techstars.com/mentoringattechstars/> (last visited July 30, 2015).

⁹⁵ See generally Powell *supra* note 17, at 295 (describing network forms of governance).

⁹⁶ “The [mentor-driven] Boulder model has won.” Interview with Anonymous Mentor #8, Mentor, Y-Combinator & Techstars (Apr. 15, 2015) (notes on file with Author). This mentor is closely involved in both Y-Combinator and Techstars programs. To be clear, this is not a claim that one model is more successful on average than the other. Data for this does not yet exist. See note 65, *supra*.

⁹⁷ Yu, *supra* note 15 (compared to angel and even VC assistance, “the magnitude and frequency of mentorship is much higher in an accelerator”).

⁹⁸ See, e.g., Managing Director #4, who runs a non-Techstars accelerator in the Midwest, who noted that they “mirror the Techstars ethos” and seek mentors “who give before they get.” Interview with Anonymous Director #4, Managing Director, Accelerator (Mar. 17, 2015) (notes on file with Author).

⁹⁹ Another factor that helped tip private accelerators toward the mentor-driven model involved another split in approaches between Techstars and Y-Combinator. Since its founding in 2006, Techstars built out a cross-geography network of accelerators that now spans 13 cities. Techstars, *Locations*, <http://www.techstars.com/program/locations/> (last visited July 10, 2015). This included a norm of mentorship practices. Meanwhile, Y-Combinator increased its batch sizes within Silicon Valley, but did not expand to other locations. This gave the Techstars model greater geographic reach.

2010, GAN provides a playbook of accelerator best practices and connects accelerators into a common network. The reach includes 70 IAs across 100 cities and 6 continents.¹⁰⁰

IAs mingle formal and informal governance mechanisms with a view toward creation of a profitable investment fund.¹⁰¹ A stylized depiction of the for-profit, mentor driven accelerator structure is represented in Figure 2 below.¹⁰² Arrows within Figure 2 reflect formal relationships; rounded connections without arrows indicate informal relationships.

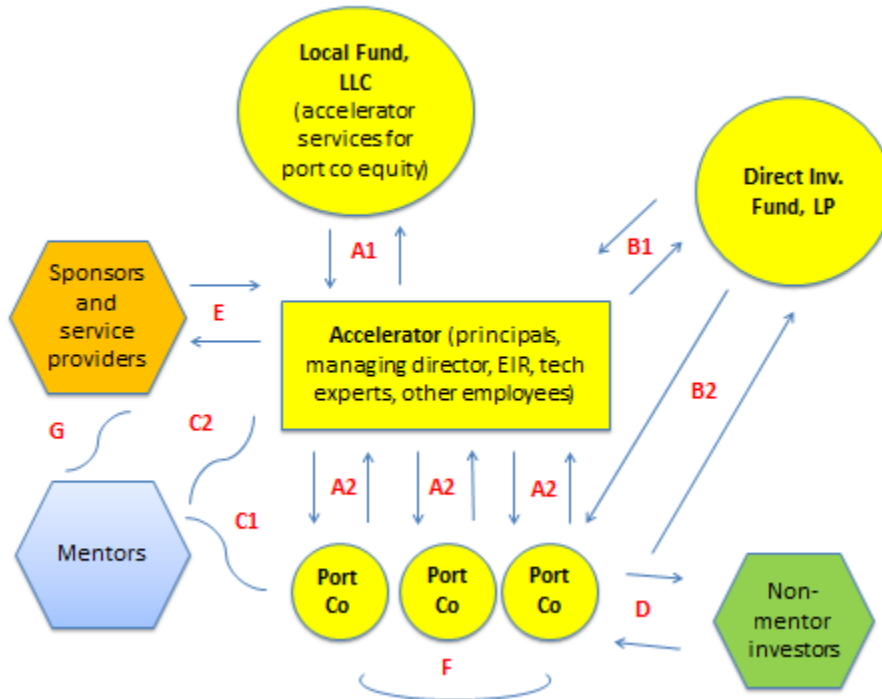


Figure 2: Diagram of the Mentor-Driven, Investment Accelerator System

Figure 2 highlights the two most notable dimensions of the IA’s governance structure. *One*, accelerators situate exchanges between parties within the framework of an interconnected system. *Two*, an accelerator’s system blends formal and informal tools. Each of these is explained in turn.

¹⁰⁰ See Global Accelerator Network *supra* note 15. (highlighting that GAN “connect[s] the top mentorship-driven, seed-stage accelerators around the world.”).

¹⁰¹ See Section III(A) *infra*, comparing mingling to the braided arrangement observed by Gilson where firms target “collaborative innovation in a world of heightened uncertainty.” See Ronald Gilson, Charles F. Sabel, & Robert E. Scott, *Braiding: The Interaction Of Formal And Informal Contracting In Theory, Practice, and Doctrine*, 110 COLUM. L. REV. 1377, 1382 (2010).

¹⁰² To be sure, accelerator funding models vary and, accordingly, Figure 1’s stylized depiction exactly fits some accelerators but other less so. For discussion of Y-Combinator’s funding model, especially changes during 2011-12, see Stross, *supra* note 8, at 87-88, 230 (depicting evolution of Y-Combinator from self-funded by founders, to Sequoia’s involvement in 2009, to engagement of others allowing each Y-Combinator team to take a convertible note on favorable terms).

The first notable feature illustrated by Figure 2 is that accelerators situate exchanges between parties within a larger system of interconnected stakeholders. Accelerators are a cohesive bond that integrates a wide range of players in a startup community. Interactions occur as the accelerator constellation facilitates relationships between:

- investors and accelerator managers (relationships A1 and B1)
- mentors and portfolio companies (relationship C1)
- mentors and accelerator managers (relationship C2)
- service providers and others within the accelerator system (relationships E and G)
- investors and portfolio companies (relationships A2, B2, C1 and D)
- portfolio companies and other portfolio companies (relationship F)
- mentors and mentors (often through relationships C1 and C2)

A second notable feature shown in Figure 2 is the mingling of formal and informal mechanisms. Formal governance includes (i) the formal boundaries of the accelerator firm itself (indicated by the box in the center of Figure 2), and (ii) formal contracts between participants in the accelerator system (indicated by arrows between parties in Figure 2). Significantly, the accelerator system depends on informal as well as formal relationships. Informal tools regulate other relationships (indicated by rounded lines in Figure 2), including those between a mentor and a portfolio company, a mentor and an accelerator, and between a portfolio companies and other startups within its cohort.

The center of Figure 2 shows the accelerator entity itself. Typically the accelerator is led by a hands-on operator, often titled as the managing director.¹⁰³ An entrepreneur-in-residence (an experienced entrepreneur who is in between companies), designated technologists¹⁰⁴, student interns, and other staff may also be formally designated as employees within the accelerator itself.

Formal agreements govern the pool of money raised by the accelerator, described in Figure 2 as the *Local Fund LLC* (“Local Fund”).¹⁰⁵ The Local Fund provides sufficient cash to pay for accelerator operations (A1) and initial investment into portfolio companies (A2).¹⁰⁶ An accelerator’s initial investment into a startup company is also made pursuant to a formal agreement (A2). This is typically \$15,000-\$25,000 and

¹⁰³ Many - if not most – IA founders are experienced angel investors. Cohen & Hochberg, *supra* note 62, at 13.

¹⁰⁴ For example, Techstars hires “Hackstars” – i.e., “highly-skilled software developers and designers” who are fluent in coding languages of the day. *Hackstars*, TECHSTARS, <http://www.techstars.com/hackstars/> (last visited June 27, 2014).

¹⁰⁵ A Local Fund’s size and fund raising periodicity varies. An accelerator may raise a new Local Fund for every 3-4 cohorts. Managing Director interviews [# # # - fact check the averages across interviews].

¹⁰⁶ Interviews with Anonymous Mentor #14, Mentor, Accelerator (June 21, 2014 and July 13, 2015) (notes on file with Author).

services in exchange for 5-7% of the startup.¹⁰⁷ Capital for the Local Fund may come from area VCs, angel investors and entrepreneurs, some of whom also participate as accelerator mentors.¹⁰⁸ One managing director noted that over 1/5 of the mentors in the accelerator invested in the Local Fund.¹⁰⁹

Certain high prestige accelerators¹¹⁰ offer portfolio companies the option of additional financing in the range of \$100,000. This occurs through a separate investment vehicle, labeled in Figure 2 as the *Direct Investment Fund, LP* (“Direct Investment Fund”). The Direct Investment Fund is funded by a different group of partners than the Local Fund. The Direct Investment Fund is managed by the accelerator (B1) who has a share in the profits, however, the accelerator’s principals often do not have “skin in the game” for a Direct Investment Fund.¹¹¹ A Direct Investment Fund’s investment into portfolio companies is not automatic (B2). Rather, a portfolio company elects whether to accept the option to take the Direct Investment Fund’s money at the conclusion of the accelerator program. The Direct Investment Fund often structures such investments (B2) on company-favorable terms in the form of a convertible note.¹¹²

Accelerators broker a host of other relationships. Most important, mentors recruited by accelerator principals (C2) counsel portfolio companies (C1). Portfolio companies sometimes convene mentors simultaneously in order to provide advice, which leads to informal mentor – mentor interactions.¹¹³ Nonmentor investors (D) are angels and venture capitalists that look to accelerators as a source of deal flow, attend Demo

¹⁰⁷ An accelerator emphasizes its services because the parties typically do not intend for accelerator investment to serve as company valuation event. See Miller & Bound, *supra* note 40, at 29. If considered a valuation event, then the valuation of the company would be relatively modest. For example, if an accelerator provides \$20,000 in exchange for 6% ownership, then the post-money company valuation of a company would be \$333,000. This would be well below “market” value for most startups entering high caliber accelerators.

¹⁰⁸ Some local accelerator funds solely invest in accelerator portfolio companies. [evidence] Others, such as Dave McClure’s 500 Startups fund, invest both in accelerator and non-accelerator portfolio companies. [evidence – Y Combo at 87]

¹⁰⁹ Interview with Anonymous Director #1, Managing Director, Accelerator (Feb. 24, 2015) (notes on file with Author). Distributions are made to LLC members as portfolio company exits or dividend events occur. In exchange for its active role in managing the Local Fund, the Accelerator receives fees to cover its operations as well as a share in the Local Fund’s profits. Unlike typical VC fund vehicles, the Local Fund is structured as an LLC without a hard deadline for returning capital to its members. Structured this way, the LLC affords time flexibility for portfolio companies that do not seek an exit event. This approach, however, also means that some portfolio company ownership may remain illiquid within the LLC for an indefinite time horizon. Mentor #14, *supra* note 106; Managing Director interviews [## #]. Most VC funds are organized as limited partnerships and must be liquidated within a limited time frame. METRICK, *SUPRA* NOTE 8, AT 3.

¹¹⁰ This Article defines a “high prestige” accelerator as Y-Combinator and programs listed by Cohen and Fehder as among the top 20 in the United States. See Hochberg et al. Top 20, *supra* note 55.

¹¹¹ “Skin in the game” is a mechanism which requires individual general partners put their own money into a fund. The concern is that without skin in the game, a GP may consider the fund as option value, and take risks that the limited partner would not desire. Skin in the game is designed to mitigate agency cost problems vis-à-vis limited partners by aligning general partner / limited partner incentives.

¹¹² Director #1, *supra* note 109; see Coyle & Green, *supra* note 1.

¹¹³ Interview with Anonymous Mentor #5, Mentor, Accelerator (Apr. 8, 2015) (notes on file with Author). Mentor interview #5 said that “everyone appreciates that these are networking opportunities” He said that, while mentoring a portfolio company, he met experts in different areas with “the right type of overlap.” Such meetings occurred in the accelerator office’s office as well as over dinners where the portfolio company convened two or more of its mentors.

Days, and invest in accelerator portfolio companies. Further, service providers (E) – such as law, accounting, PR and technology firms – sponsor accelerators by providing financial and in-kind support, often in exchange for visibility or quasi-exclusivity. Service providers provide sponsorship and discounted services because they seek inroads to new startups¹¹⁴ as well as engagement with accelerator mentors and investors. Interviews suggest variance in the value of peer learning within accelerators, however, most entrepreneurs emphasize the therapeutic value of such interactions.¹¹⁵ Finally, portfolio companies within a cohort (F) regularly engage one another in information exchanges.¹¹⁶

B. The Informal Organization of Mentor – Entrepreneur Interactions

Interviews show that the mentor – portfolio company relationship remains informal, with limited exceptions¹¹⁷, during the duration of a startup’s time in the accelerator.¹¹⁸ Three types of volunteers work as IA mentors: experienced entrepreneurs, functional specialists (individuals with expertise in areas such as finance, marketing, technology, or law), and prospective partners (such as investors who bundle help with the option of a future on-going relationship). These individuals work in accelerator systems outside of the formal legal structures that are part of a business lawyer’s basic toolkit.¹¹⁹ Mentorship is different than formal arrangements – such as a consulting relationship or service provider arrangement – that connects a portfolio company to an outside firm or individual.¹²⁰ Mentorship is also separate from vertical integration – such as hiring an employee or adding a director to a startup board – where a resource is formally brought within a portfolio company’s boundaries. Mentors occasionally assume a post-accelerator role with a portfolio company as an advisor, investor, board member, or executive. But such relationships are formalized after the program is complete.

¹¹⁴ Miller & Bound, *supra* note 40, at 11.

¹¹⁵ Many entrepreneurs noted that intra cohort interactions operate as a “support group” for entrepreneurs who frequently endure stressful days. Interview with Entrepreneur #7, Entrepreneur, Accelerator (Apr. 9, 2015) (notes on file with Author).

¹¹⁶ Relatedly, where accelerators operate for multiple years, an emerging version of mentorship features help from an accelerator’s portfolio company alumni.

¹¹⁷ There are at least two indirect exceptions to mentor informality. One, a private accelerator’s Stock Purchase Agreement with a portfolio company may include an indemnification provision that protects mentors against claims arising from actions by the portfolio company. *See* E-mail from Anonymous Director #5, Managing Director, Accelerator, (January 5, 2015) (on file with Author). This managing director indicated that the same indemnification language is used in other private accelerators. Two, an accelerator’s insurance policy may cover mentors for certain actions. In the Author’s experience, it is unlikely that many accelerator mentors are aware of either of these protections.

¹¹⁸ Mentor #3, who had prior experience helping domestic entrepreneurs through incubators and international entrepreneurs through government programs, said that the accelerator’s approach is “extremely informal and unstructured” compared to other forms that organize entrepreneurial support. Interview with Anonymous Mentor #3, Mentor, Accelerator, (Apr. 6, 2015) (notes on file with Author).

¹¹⁹ *See, e.g.,* CONSTANCE E. BAGLEY & CRAIG E. DAUCHY, *THE ENTREPRENEUR’S GUIDE TO BUSINESS LAW* 516-585 (4th ed. 2007).

¹²⁰ Director #1, *supra* note 109; Interview with Anonymous Director #5, Managing Director, Accelerator (Apr. 8, 2015) (notes on file with Author).

Informality extends to compensation arrangements and economic rights.¹²¹ In other entrepreneurial circumstances, investors commonly use contractual incentives – such as staged investments and equity grants that vest over time – to align interests and constrain agency costs.¹²² But in IAs a direct payment for mentor services is eschewed.¹²³ A minority of mentors invest in the local accelerator and, accordingly, have a financial interest in overall accelerator performance.¹²⁴ Otherwise, as Managing Director #2 expressly tells mentors, your work during the program is “voluntary” and “pro-bono. After the program, you can do whatever you want. But you cannot ask [for compensation] during the program.”¹²⁵ When asked about possible payment to mentors, one IA employee replied that she “just threw up in my mouth a little bit.” She said that payment would be “a perversion of the model. That is a service provider. It is not a mentor relationship.”¹²⁶ Managing directors argue that a non-pecuniary mentor structure enhances objectivity and honesty in portfolio company interactions.¹²⁷ “As soon as you say ‘I need X to do that’ then you’ve moved from mentor to sales guy. And everything will be questioned in terms of authenticity.”¹²⁸

¹²¹ Interviews surfaced two exceptions. In one, the portfolio company approached a mentor about a paid relationship to help its branding efforts. The mentor expressed concern that acceptance would change him from a “mentor to a vendor,” which would alter the order “on the totem pole” of the relationship. The mentor said that he would agree to this only with the explicit blessing of the program’s managing director. Interview with Anonymous Mentor #10, Mentor, Accelerator (Apr. 16, 2015) (notes on file with Author). The second exception occurred in an accelerator located outside an entrepreneurial center, which initially offered a shared equity interest in the accelerator to participating mentors, similar to the Founder’s Institute model. Interview with Anonymous Mentor #4, Mentor, Accelerator (Apr. 6, 2015) (notes on file with Author).

¹²² PAUL GOMPERS & JOSH LERNER, *THE VENTURE CAPITAL CYCLE* 171 (2004) (discussing staging as a tool to constrain agency costs); BRAD FELD & JASON MENDELSON, *VENTURE DEALS* 50 (2d ed. 2012) (explaining vesting agreements).

¹²³ Managing Director #11 said her accelerator instructs portfolio companies that if a mentor starts to talk about any kind of compensation, “please let us know.” Interview with Anonymous Director #11, Managing Director, Accelerator (Mar. 25, 2015) (notes on file with Author). Questions of mentor motivation are examined in a companion Article. Bernthal, *supra* note 16.

¹²⁴ See Section [II(B)] *supra*.

¹²⁵ Interview with Anonymous Director #2, Managing Director, Accelerator (Mar. 6, 2015) (notes on file with Author). Managing Director #8 relayed that there needs to be a no strings attached period before [a formal relationship] happens. Interview with Anonymous Director #8, Managing Director, Accelerator (Mar. 12, 2015) (notes on file with Author).

¹²⁶ Director #5, *supra* note 120. See also Interview with Anonymous Director #6, Managing Director, Accelerator (Mar. 13, 2015) (notes on file with Author) (“In almost all cases, I wouldn’t want mentors who would do it for money. Mentorship is about giving back to the community, expanding richness, and giving what you’ve done as an entrepreneur to another”).

¹²⁷ There is some irony in IAs’ position that an equity interest would undermine authenticity since, after all, private accelerators themselves own a portion of the portfolio companies that they assist. Indeed Entrepreneur #12 described accelerator help – in admiring terms – as similar to that an interested board member would perform. Interview with Anonymous Entrepreneur #12, Entrepreneur, Accelerator Apr. 17, 2015) (notes on file with Author).

¹²⁸ Director #1, *supra* note 109. Another managing director said that the core value of honest feedback was memorialized in t-shirts made by his wife that said, “we tell you your baby is ugly.” He underscored that honesty would be undermined in a transactional setting between mentors and portfolio companies. Director #2, *supra* note 125. Mentor #11 echoed this sentiment. It is “better for a business if

Control rights, ownership of intellectual property, and confidentiality are also left to informal constraints.¹²⁹ In certain non-IA transactional settings, contractual restrictions, such as a negative covenant that prohibits disclosure of confidential information, are used to guard against behavior associated with improper information disclosures.¹³⁰ In contrast, formal restrictions that would subject an IA mentor to negative covenants, such as confidentiality or non-compete obligations, face strong hostility. Accelerators push founders toward disclosure and discourage use of NDAs, even where a portfolio company is initially reticent to share information outside the startup's boundaries.¹³¹ Entrepreneur #6 said that his IA "pounded it into you" that a startup's ideas must be shared outside the company and that the chances of "someone taking [an idea] is astronomically small."¹³²

The informal structure is puzzling given the central role that mentor – portfolio company relationships perform in accelerator programs. Mentors provide the benefit of their expertise through four phases of interactions: (i) self-selected matching early during an IA program, (ii) close engagement where lead mentors work deeply with mentee startups, (iii) network extension where a mentor introduces a startup to people outside the accelerator network, and (iv) post-accelerator involvement. Mentors commonly spend

you're not" an investor because it facilitates "complete objectivity." Interview with Anonymous Mentor #11, Mentor, Accelerator (Apr. 20, 2015) (notes on file with Author).

¹²⁹ Under certain circumstances implied duties of confidentiality exist under trade secret law, even without a formal written agreement. Even in the absence of a formal NDA, accordingly, a plaintiff could potentially make an argument for an implied duty of confidentiality on the part of the mentor. *See, e.g., Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974) (citing *Cincinnati Bell Foundry Co. v. Dodds*, 10 Ohio Dec. Reprint 154, 156, 19 Weekly Law Bull. 84 (Super. Ct. 1887)); *see also* Ari B. Good, *Trade Secrets and the New Realities of the Internet Age*, 2 Marq. Intell. Prop. L. Rev. 51, 65 (1998).

¹³⁰ Negative covenants are disfavored by venture capitalists. But they are used in other contexts. For example, a potential company acquisition is amenable to use of negative covenants concerning information disclosures. *See, e.g.,* Ken Sawyer et al., *Saints Capital, A Guide to Secondary Transactions: Alternative Paths to Liquidity in Private Companies* 6 (2010), available at <http://www.saintscapital.com> ("Once a potential buyer has indicated a sufficient level of interest in the transaction, they will be willing to sign a confidentiality agreement with the company, at which point the company can share a more substantial amount of information").

¹³¹ Entrepreneur #11 said that Managing Directors in accelerator stressed the theme that portfolio companies should not worry about getting "ripped off" and instructed startups to avoid NDAs. "There were people in program who wanted to use NDAs. [Names omitted] told them 'no way.'" Interview with Anonymous Entrepreneur #11, Entrepreneur, Accelerator (Apr. 16, 2015) (notes on file with Author).

Interviews observed two exceptions to the general rule of informal relationships with mentors. One exception involved an instance a mentor wrote original "code" (i.e., he programmed software) for use in a portfolio company web-site. The portfolio company and mentor entered into an unpaid agreement designed to clarify that legal ownership of the code – a form of intellectual property – was the property of the company. Interview with Anonymous Entrepreneur #9, Entrepreneur, Accelerator (Apr. 10, 2015) (notes on file with Author). The second exception occurred in a public accelerator located outside an entrepreneurial center. This accelerator includes a NDA provision in agreements with its volunteers, who are designated as "in residence" within the accelerator. "It is my responsibility running the program to make sure that I am protecting the companies." Director #11, *supra* note 123 (Document on file with Author "noting that the subject of a non-disclosure agreement (NDA) will be addressed by ETC staff with all parties prior to the initial interaction").

¹³² Entrepreneur #11, *supra* note 131 (adding that "after that, I tried to tell as many people as possible about the idea").

about 1-2 hours per week in an accelerator.¹³³ Meanwhile, portfolio companies commonly spend an average of 4-6 hours per week meeting with mentors.¹³⁴

Despite the absence of formal protections, open communication patterns are the norm in accelerators. A portfolio company transparently shares confidential information about the business with dozens of mentors. Portfolio companies are quick to “be as transparent as possible” and “100% open” in sharing information with mentors.¹³⁵ The norm of sharing is heavily promoted.¹³⁶ The ability of a portfolio company to benefit from mentor assistance is framed as a function of transparency in the relationship.¹³⁷ A culture of sharing is further buoyed by a core conviction within IAs is that startup success “is all about execution.”¹³⁸ Conventional wisdom in software holds that “ideas are easy, execution is hard” and that “speed is the ultimate start up weapon” because an “entrepreneur’s greatest advantage is the inertia of others.”¹³⁹ Entrepreneurs believe, moreover, that a mentor’s inclusion in the network is a sign of trustworthiness. Portfolio companies report that they are quick to trust mentors introduced to them through the curated accelerator network.¹⁴⁰

Context matters, however, and caution is occasionally urged. For example, Managing Director #1 led separate accelerator programs, one in a large city and the other in a smaller town. In the large city, she warned portfolio companies to be somewhat

¹³³ Quantitatively, interviews show that mentors commonly help a minimum of an hour per week, with a median range of 2-4 hours per week. From the managing director perspective, 2 – 4 hours per week is median. Director #1, *supra* note 109. This is generally consistent with mentor interviewee estimates. Managing Director #11 said her mentor has an hour per week minimum guideline and that 90% of their mentors complied with this obligation. Director #11, *supra* note 123. [review notes / identify more numbers] Mentors sometimes well exceed this level. One accelerator has had two serial entrepreneurs, each between startups, mentor for 40+ hours per week. Director #1, *supra* note 109.

¹³⁴ [Review interview notes and add citations.]

¹³⁵ Interview with Anonymous Entrepreneur #3, Entrepreneur, Accelerator (Apr. 8, 2015) (notes on file with Author) (“as a founder, I try to be as transparent as possible”); Entrepreneur #9, *supra* note 131 (“I’d share everything – try to be as open with everyone about everything”); Entrepreneur #12, *supra* note 127 (“I’m older and I’ve gone around the horn . . . I remember being guarded . . . a long time ago”); Interview with Anonymous Entrepreneur #14, Entrepreneur, Accelerator (Apr. 30, 2015) (notes on file with Author) (was “100% open” in sharing information with mentors).

¹³⁶ “Net net you end up learning more than you end up losing or revealing.” Interview with Anonymous Director #3, Managing Director, Accelerator (Mar. 16, 2015) (notes on file with Author).

¹³⁷ One mentor tells mentees that “I can only be a mentor if you’re completely transparent with me.” Mentor #8, *supra* note 96.

¹³⁸ Entrepreneur #9, *supra* note 131 (adding, “if someone can out execute me in this space, better to know now.”); *see also* Section IV *infra* (discussing importance of execution over idea in software startups).

¹³⁹ Director #4, *supra* note 98. (“Ideas are free and cheap . . . comes down to execution”; “Speed is the ultimate start up weapon”); Director #11, *supra* note 123 (the “Entrepreneur’s greatest advantage is the inertia of others”); Entrepreneur #3, *supra* note 135 (if “someone can steal [my company’s ideas], go ahead. I will out-execute you”).

¹⁴⁰ Entrepreneur #15 reported that “[Accelerator name] does a good job of screening. [I] felt like [the mentors] were trusted.” Interview with Anonymous Entrepreneur #15, Entrepreneur, Accelerator (May 1, 2015) (notes on file with Author). Entrepreneur #2 observed that “[w]hen you meet someone through someone else, that relationship evolves faster than” where a new connection is made in the absence of an introduction. Interview with Anonymous Entrepreneur #2, Entrepreneur, Accelerator (Apr. 6, 2015) (notes on file with Author).

guarded before fully sharing information. In the smaller town's program, in contrast, she did not raise concern.¹⁴¹ Corporate accelerators, where a corporate sponsor could conceivably steal a portfolio company's idea, present another exception. Managing Director #13, who leads a corporate accelerator, noted the heightened sensitivity. When a portfolio company enters the program, accordingly, its principals must sign a statement that they understand there is not any confidentiality is in place.¹⁴²

The time limited nature of the IA cohort creates a natural expiration date for a mentor's commitment to a portfolio company. The fixed time frame creates a trial period after which, where informal interactions are promising and parties wish to maintain a relationship, an arrangement could subsequently be formalized.¹⁴³ Even viewed this way, however, such a trial period exposes startups to misuse of their information and, moreover, is not without risk for mentors. One professional investor, a mentor in over 10 different accelerators, highlighted that an investor who does not secure a formal option to invest runs the risk of getting squeezed out of a deal at a later time.¹⁴⁴ The individual noted that IAs discourage formal investment agreements prior to the close of a program because it would deter other investors from attending demo day due to signals that the best companies have already been funded. Further, IAs believe that portfolio companies will get better valuations following the accelerator program. Mentors who desire to invest in portfolio companies, as a result, are exposed to risk. A mentor who helps increase the value of a startup could ultimately pay more for the investment at a later date or get shut out of an investment round entirely.

C. Why Do Informal Structures Govern Mentor – Entrepreneur Relationships?

Three factors – cost, self-selection, and legal frictions – explain why IAs select informal tools to govern mentor – portfolio company interactions. Each is addressed in turn below.

The first reason is cost. Free labor is, not surprisingly, an attractive model of production from the perspective of an owner. An IA that formally engages mentors in exchange for cash or equity payment is constrained by compensation expenses. An individual's willingness to volunteer and bypass direct compensation may also signal past

¹⁴¹ Director #1, *supra* note 109.

¹⁴² Interview with Anonymous Director #13, Managing Director, Accelerator (Feb. 23, 2015) (notes on file with Author) (noting that, as an additional safeguard, the accelerator was careful when selecting companies to not select companies that were "too competitive" with something that the sponsor company was working on). Managing Director #14, also involved in corporate accelerators, said that risk of theft is easy to overstate. "Corporates think it is easier to partner than to replicate. Corporates cannot move very fast." Director #14, *supra* note 59.

¹⁴³ This is akin to the time frame of "formal contractual preliminaries" in other contexts where participants considering partnership seek "to learn [others'] capabilities and characteristics . . . in an uncertain world." Gilson et al., *supra* note 101, at 1383-84, 1425.

¹⁴⁴ "I almost never close an investment of a company that I'm mentoring until after demo day. But I line things up. I don't expect anything from companies that I'm mentoring other than opportunity to invest. I tell them, "There will be a time when a VC wants to squeeze you out. I want you to stand up for me." Mentor #8, *supra* note 96.

financial success and community mindedness.¹⁴⁵ The volunteer structure removes compensation cost-related constraints. The low costs of organizing volunteer mentors allows an IA to assemble a comparably larger expert network, relative to the guru and contract models, albeit one where many mentors spend a fraction of their time in an IA instead of a small number of partners dedicated full time to an IA.

Second, interviews show the value of mentor self-selection and the cabined responsibility of informal mentorship. The majority approach is to allow mentors and portfolio companies to self-select one another, thereby avoiding a “forced match” relationship.¹⁴⁶ In the first phase of an IA program, an accelerator organizes structures where mentors and portfolio companies can quickly meet in person.¹⁴⁷ Mentors prefer self-selection rather than being assigned to a task.¹⁴⁸ Informal arrangements sidestep transactional structures that could “crowd out” norm driven behaviors.¹⁴⁹ Mentors note that an assigned formal transactional relationship would heighten responsibilities and diminish enjoyment. Informal relationships help separate a mentor’s efforts from

¹⁴⁵ Managing Director #14 said that direct compensation would “have a bottom feeder impact” in attracting the wrong type of mentor. Director #14, *supra* note 59.

¹⁴⁶ “I’ve never seen [a forced match] work well in any context.” Director #3, *supra* note 136; *but see* Managing Director #2 (high reputation accelerator that augments self-selection with intentional matching of its best mentors with portfolio companies before program starts) and Managing Director #14 (citing “more of a matching process” between corporate mentors and portfolio companies”). Director #2, *supra* note 125; Director #14, *supra* note 59. Managing directors in less established accelerator programs supplement self-selection through more active matching of mentors and companies, presumably because mentors are less motivated to proactively engage without prompt. Further some corporate accelerators augment self-selection by requiring a portfolio company to work with an assigned corporate mentor from the accelerator sponsor company. Entrepreneur #7, *supra* note 115.

¹⁴⁷ One accelerator started with 110 mentor meetings over the first 30 days. Entrepreneur #3, *supra* note 135. *See, e.g.*, Director #1, *supra* note 109; Even at 40 meetings, a participant described the initial experience as “pretty overwhelming.” Interview with Anonymous Entrepreneur #8, Entrepreneur, Accelerator (Apr. 9, 2015) (notes on file with Author).

¹⁴⁸ Mentor #5, *supra* note 113.

¹⁴⁹ Academic literature examines problems where formal contracts “crowd out” motivations to meet behavior expectations in norm-based or exchange-based interaction contract. *See* Gilson et al., *supra* note 101, at 1400, N.6 (citing relevant literature). Interviews with IA stakeholders reflect an effort to guard against transactional motives crowding out social motives. “[Payment] comes with responsibilities . . . [it] would make me do things that I don’t want to do. . . . I enjoy . . . giving my time to these kids. That would change that.” Mentor #3, *supra* note 118. Payment “would have felt different. It would have been a job. There is something about volunteering your time . . . the idea that I was giving back that made it more important.” Interview with Anonymous Mentor #9, Mentor, Accelerator (Apr. 15, 2015) (notes on file with Author). The legal document “changes the relationship” and “makes it much more transactional” – not about “putting love into it” Formal arrangements become “more about the money, more about what are you going to get.” Director #6, *supra* note 126. Mentor #9 said that payment would crowd out a feeling of mission. “Then it becomes commerce. We have a vision that [a mentor] likes.” Mentor #9, *supra*. Interviews suggest that informality, where mentors do not enter into contracts with startups or accelerator, informality facilitates trust. Managing Director #9 said that the “[i]rony is that there should be more trust with an NDA in place.” But something about not having a contract that facilitates more trust. Interview with Anonymous Director #9, Managing Director, Accelerator (Mar. 10, 2015) (notes on file with Author). Entrepreneur #3 similarly observed that a contract “assumes distrust” and implies that a party will take legal action if another breaks the contract. Entrepreneur #3, *supra* note 135.

professional contexts of pecuniary quantification, where an individual “would start trading [their efforts] off for other financial opportunities that they have.”¹⁵⁰

Third, and most importantly, the informal structure reduces legal frictions that might frustrate participation of desirable mentor candidates.¹⁵¹ Such frictions go beyond contract-related transaction costs.¹⁵² For example, a mentor who is a professional investor invariably speaks with multiple companies in a similar competitive space. Such investor is loath to expose herself to the risk of a breach of contract claim associated with an NDA or confidentiality agreement and, as a result, neither an accelerator nor a portfolio company is “going to get a super amazing person to sign an NDA.”¹⁵³ In addition to resisting negative covenants, contractual or implied duties of loyalty further prevent some mentors from entering into a contract for direct compensation. For example, professional investors are subject to restrictive covenants in their fund agreements with limited partners. A common covenant limits the startup activity a general partner can engage in outside of a VC fund.¹⁵⁴ Similarly, one mentor – an entrepreneur – said that he would refuse cash compensation for his mentor work due to “a conflict of interest with my existing business.”¹⁵⁵ In summary, an accelerator’s informal strategy to organize experts allows certain mentors to participate as volunteers even where they could not or would not enter into a formal contract or receive direct compensation.

Overall, it is important to note that an informal mentor structure (i) allows an IA to tap into a pool of otherwise unavailable individuals, and (ii) engage an expanded roster of experts. Thus, network governance creates a different mentor composition than the guru model of in-house experts (which involves a few experts) or the market-based model of paid experts (which is constrained by compensation). This observation is

¹⁵⁰ Director #13, *supra* note 142.

¹⁵¹ The key is that we want to limit as much friction as possible . . . eliminate any barriers.” Director #4, *supra* note 98. Director #2, *supra* note 125. (“We want it to be low friction. People are doing this because they love it”).

¹⁵² Resources are scarce at early stages of a company’s lifecycle and the accelerator’s informal practices saves on costs such as legal work. But transaction costs likely play only a minor role in IAs’ organizational decisions. Non-disclosure agreements, proprietary invention and assignment agreements, and confidentiality agreements are standardized documents that do not require elaborate customization. Costs associated with use of these forms would not be burdensome. Moreover, attorneys often sponsor accelerators and are willing to give away low-cost standardized work in exchange for the prospect of future work.

¹⁵³ Director #5, *supra* note 120; “I cannot sign an NDA.” Mentor #8, *supra* note 96; BRAD FELD & JASON MENDELSON, *VENTURE DEALS* 149 (2d ed. 2012) (“Don’t ask a VC for a *nondisclosure agreement* (NDA) . . . If [a VC sign] an NDA regarding any company, they’d likely run afoul of it if they ended up funding a company that you consider a competitor. An NDA will also prevent a VC from talking to other VCs about your company, even ones who might be good co-investors for your financing.”). Consistent with this, one entrepreneur who tried to use NDAs noted that he “definitely had people balk at having to sign an NDA.” Interview with Anonymous Entrepreneur #4, Entrepreneur Accelerator (Apr. 8, 2015) (notes on file with Author).

¹⁵⁴ PAUL GOMPERS & JOSH LERNER, *THE VENTURE CAPITAL CYCLE* 78 (2004).

¹⁵⁵ “It is not a written business agreement. But I would view it as a conflict.” Interview with Anonymous Mentor #2, Mentor, Accelerator (Apr. 6, 2015) (notes on file with Author).

noteworthy as it highlights that informal structures affect exchanges between mentors and portfolio companies in two important ways.

One, by attracting mentors who would not enter into a formal arrangement, network governance enables informational trades that would not otherwise occur. Creative talent is the most critical input in information production and, moreover, human inputs required for innovation are “highly variable” compared to other material resources.¹⁵⁶ Participation of high functioning mentors, such as venture capitalists and serial entrepreneurs, is important because creative talent and entrepreneurial experience is not fungible.¹⁵⁷ A governance structure that attracts people who would not participate under the terms of another governance structure impacts the character of exchange.

Two, an informal mentor network can be enlarged, relative to the guru model, which increases the likelihood that a mentor within a network possesses valuable insight and relevant connections that would benefit a portfolio company. An IA commonly has over 100 mentors involved.¹⁵⁸ The larger size yields network effects, where the addition of a user to a network enhances the value of the network for other users.¹⁵⁹ This is important in fast changing industry sectors, such as information technology and software, where information is disaggregated across dispersed pockets of expertise.¹⁶⁰ By drawing upon a greater number of expert mentors, an IA increases the likelihood that a startup will identify a mentor with relevant information and industry-related contacts. Interaction with multiple individuals further facilitates emergent ideas where one idea builds upon another.¹⁶¹ This benefit can be directly observed, for example, where a portfolio

¹⁵⁶ Yochai Benkler, *Coase's Penguin, or, Linux and The Nature of the Firm*, 112 YALE L.J. 369, 404 (2002).

¹⁵⁷ Josh Lerner, *Yale University Investments Office: June 2003*, at 4 (HBS Case) (citing variance in private equity manager performance as over 20% per annum between 25% and 75% percentile performers). On non-fungibility of talent in creating new companies, see generally RICHARD FLORIDA, *THE RISE OF THE CREATIVE CLASS – REVISITED* (2014).

¹⁵⁸ Director #2, *supra* note 125; Director #3, *supra* note 136; Director #11, *supra* note 123; Director #13, *supra* note 142; A too large network, however, can lead to under participation. Director #8, *supra* note 125.

¹⁵⁹ For example, Mentor #8 noted that in an accelerator system, by the time that “I invest in [a portfolio company], these companies and I have a network that would not have existed” without the accelerator program. As a result, everyone gets a “larger return” than if relational interactions were assigned in advance. Mentor #8, *supra* note 96. On network effects, see Jonathan Nuechterlein & Philip Weiser, *Digital Crossroads* 4-6 (2013) (defining and explaining the phenomenon of “network effects”). Network effects relate to open innovation, discussed in footnote [] *supra*, because “in today’s economic landscape, no one company can master all the knowledge it needs, so companies rely on a network of industry collaborators.” Katz & Wagner, *supra* note 30.

¹⁶⁰ It is difficult but crucial for an information technology-oriented startup to monitor relevant external changes that affect its business. Complexity in interconnected technology systems, importantly, is such that no one person or entity can track all developments. For example, Bill Joy observes that technology is at once more interconnected yet less comprehensible, a phenomena he calls the “entanglement.” See, e.g., W. Daniel Hillis, *2010: How is the Internet Changing the Way You Think?*, Edge, <http://edge.org/response-detail/10707> (last visited July 25, 2015); Steve Mirsky, *The Coming Entanglement: Bill Joy and Danny Hillis*, Scientific American (February 15, 2012), <http://www.scientificamerican.com/podcast/episode/the-coming-entanglement-bill-joy-an-12-02-15/>.

¹⁶¹ Emergence is “the creation of attributes, structures, and capabilities that are not inherent to any single node in the network.” DON TAPSCOTT & ANTHONY WILLIAMS, *WIKINOMICS: HOW MASS*

company hosts bi-weekly dinners so that its mentors could interact and build on one another's ideas.¹⁶² A wider pool of mentors, as observed in other collaborative contexts, expands the "possible ways in which cooperating individuals can make each other creative in different ways than they otherwise would have been."¹⁶³

In sum, a confluence of cost, volunteerism, and legal factors militate in favor of an IA's informal mentor network. This explanation is informative about why an IA prefers informal mentor organization. A larger question remains concerning informal structure and behavioral constraints. Namely, does network governance work to constrain opportunistic behavior? Section III addresses this question of opportunism.

III. INFORMAL GOVERNANCE AND OPPORTUNISM

A core participant in an IA system – mentors – is absent in formal governance arrangements. Informality raises important questions of opportunism, including agency costs whereby a party acts to benefit herself at the expense of another (and, indirectly, at the expense of the IA).¹⁶⁴ Subsection A explains that IAs look different than other contexts in which informal mechanisms effectively control opportunism. Subsection B presents evidence that IAs nonetheless appear to constrain opportunistic behavior.

A. Theories on Informal Structures and Opportunism

The problem of opportunism – *i.e.*, "self-interest seeking with guile"¹⁶⁵ – must be addressed in order for network governance to effectively organize economic activity such that formal law is rejected or subordinate to social practices.¹⁶⁶ The twin problems of uncertainty and information asymmetry give rise to opportunism possibilities. Venture capital¹⁶⁷ and angel investment¹⁶⁸, similar to IAs, operate amid extreme conditions of

COLLABORATION CHANGES EVERYTHING 44 (2006). Erik Brynjolfsson and Andrew McAfee observe how complementary innovations expand the ability to "combine and recombine" ideas, which cascades and accelerates into combinatorial explosions. ANDREW MCAFEE & ERIK BRYNJOLFSSON, *RACE AGAINST THE MACHINE* 20-21 (2012).

¹⁶² Interview with Anonymous Entrepreneur #7, Entrepreneur, Accelerator (April 9, 2015) (notes on file with Author).

¹⁶³ Benkler, *supra* note 156.

¹⁶⁴ See, e.g., Gilson, *supra* note 10, at 1069 (agency costs are among the fundamental problems that "inevitably bedevil early-stage, high-technology financing"); see generally George Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q. J. ECON. 488 (1970) (classic analysis of market inefficiencies stemming from asymmetric information between buyers and sellers in used car market).

¹⁶⁵ See, e.g., Williamson Transition Cost, *supra* note 73, at 234. (observing variants of opportunism that includes adverse selection, moral hazard, shirking, subgoal pursuit, and strategic behavior).

¹⁶⁶ See, e.g., Bernstein Diamond, *supra* note 78, at 121-130; Bernstein Cotton, *supra* note 78, at 1762. Outside of legal scholarship, many instances of coordination outside of hierarchies, markets, and resort to formal law have been chronicled, including network governance in the industry sectors of semiconductors, biotechnology, film, music, financial services, fashion, and Italian textiles. Jones et al., *supra* note 17, at 916-925.

¹⁶⁷ See, e.g., Smith, *supra* note 10; Gilson, *supra* note 10.

uncertainty.¹⁶⁹ Uncertainty is uniquely problematic for collaboration structure architects. This is because “uncertainty about the future makes specifying most future states – let alone the appropriate action that is to be taken if they occur – prohibitively costly or impossible.”¹⁷⁰ Information asymmetry, where one party knows substantially more than a counterparty, also is endemic to entrepreneurial collaboration.¹⁷¹ An effective governance structure facilitates collaborative exchange while constraining opportunism.¹⁷²

Opportunistic behavior in IAs could take many forms.¹⁷³ For example, mentors – who often have relevant expertise in a portfolio company’s industry sector – could steal a portfolio company’s idea, or share confidential information with a competitor.¹⁷⁴ Exchange in the absence of formal agreement further exposes a portfolio company to disputes concerning promised equity ownership or intellectual property rights.¹⁷⁵ Less overt forms of undesirable behavior occur where an accelerator mentor primarily seeks self-advancement. For example, a mentor could insist that a portfolio company provide

¹⁶⁸ See, e.g., Coyle & Green, *supra* note 1 (discussing convertible debt structures); Ibrahim Behavior, *supra* note 11.

¹⁶⁹ Gompers & Lerner, *supra* note 122, at 6-7, 157 (defining uncertainty as “a measure of the array of potential outcomes for a company or project”).

¹⁷⁰ Gilson et al., *supra* note 101, at 1391. Neither formal contracts nor informal networks are impervious to the deleterious effects of uncertainty. The efficacy of formal contracting techniques degrades because a counterparty’s performance is difficult to delineate *ex ante* and, further, expensive for a court to verify *ex post*. The efficacy of informal network governance, meanwhile, degrades because performance is difficult to observe. “The performance of both standards and rules deteriorates.” *Id.* at 1392.

¹⁷¹ See, e.g., Ibrahim New Exit, *supra* note 72, at [pinpoint].

¹⁷² “Opportunism is a central concept in the study of transaction costs” because, absent such hazards, many contract problems vanish. See, e.g., Williamson Transition Cost, *supra* note 73, at 234, 241-242. Unforeseeable changes over time militate in favor of flexibility and, accordingly, governance structures must address the “constant clash” between the need for predictable stability and the need to respond to change. Ian R. Macneil, *Contracts: Adjustment of Long-Term Economic Relations Under Classical, Neoclassical, and Relational Contract Law*, 72 N.W. U. L. REV. 854 (1978).

¹⁷³ Opportunistic behavior is not limited to mentor actions at the expense of portfolio companies. This can go the other direction, too. For example, Section II(C) *supra* discusses the risk of an investor mentor putting significant energy into a portfolio company, then getting squeezed out of a subsequent VC deal. Mentor #8, *supra* note 96; see generally Jesse M. Fried & Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 N.Y.U. L. Rev. 967, 990 (2006) (discussing entrepreneurial opportunism at investor expense). Other companies in an accelerator cohort, additionally, could poach ideas and techniques.

¹⁷⁴ This is the “Facebook” problem. See, e.g., Farhad Manjoo, *Great Social Networks Steal*, Slate (Sept. 15, 2011, 5:35 PM) http://www.slate.com/articles/technology/technology/2011/09/great_social_networks_steal.html.

¹⁷⁵ Two further drawbacks associated with mentor interactions are observed, however, they do not present instances of intentional individual action that is opportunistic. One is that open communications with mentors, even where ideas are not stolen, raises issues that may compromise a portfolio company’s intellectual property (“IP”) protection. For example, external disclosures of proprietary ideas can adversely affect trade secret protection and trigger the time to patentability. One mentor – an individual with over 40 patents filed – raised his general concern about issue. “They are very exposed.” Mentor #11, *supra* note 128. Sean O’Connor writes about a similar problem in the crowdfunding context. See Sean O’Connor, *Crowdfunding’s Impact on Start-Up IP Strategy*, 21 Geo Mason L. Rev. 895, 895-918 (2014). Problem number two involves leakage. Managing Director #3 said that while a company’s “core idea” has not been stolen, he observes that open sharing inevitably leaks a startup’s “tactics,” such as customer acquisition techniques, that can be reused by others. Director #3, *supra* note 136.

compensation for help that is not in the portfolio company's interest, such as engagement for future services at outsized rates.

The observation that networks govern exchanges – notwithstanding the sway of the *build vs. buy* distinction upon conventional wisdom – is not new.¹⁷⁶ Across several industries social norms govern transactions or, in the alternative, social norms and formal contracts work interdependently to regulate exchange.¹⁷⁷ Craft industries, the film and recording businesses, fashion, and regional industrial districts each feature substantial “non-market, non-hierarchical modes of exchange.”¹⁷⁸ Increased frequency of network governance observations animate theory within business about the conditions under which network governance will be “comparatively advantaged” over other governance forms that are available.¹⁷⁹ A critical question is when – i.e., under what circumstances – are private sanctions associated with network governance effective?¹⁸⁰

Legal scholars study a range of network governance forms.¹⁸¹ A line of scholars – including Stuart McCauley, Ian Macneil, Robert Ellickson, David Chardy, and Lisa Bernstein – examine collaborative exchanges in informal and extralegal ways.¹⁸² More recently scholars including Ronald Gilson *et. al.*¹⁸³, John Coyle and Greg Polsky¹⁸⁴, and

¹⁷⁶ For example, twenty five years ago Walter Powell distilled numerous research studies and found that “[n]etwork forms of organization – typified by reciprocal patterns of communication and exchange – represent a viable pattern of economic organization.” Powell, *supra* note 17, at 295.

¹⁷⁷ See, e.g., Gilson *et al.*, *supra* note 101, at 1382; see Alex Raskolnikov, *The Cost of Norms: Tax Effects of Tacit Understandings*, 74 U. CHI. L. REV. 601, 601, 605 (2007) (summarizing extant social norm scholarship as “mostly favorable” toward informal business practices and, in turn, examining the “dark side” of reliance upon social norms; Raskolnikov analyzes possible tax avoidance strategies in informal transactions that, if legally formalized, would otherwise trigger taxable events).

¹⁷⁸ Powell, *supra* note 17, at 295 (citing multiple studies outside of legal literature).

¹⁷⁹ See, e.g., Jones *et al.*, *supra* note 17, at 916-925 (factors of demand uncertainty, task complexity, asset specificity, and frequency, as well as structural embeddedness, shape where network governance arises and is competitively advantaged over other organizational structures).

¹⁸⁰ *Id.*

¹⁸¹ Raskolnikov, *supra* note 177, at 604 (citing others' studies of informal practices among “grain and feed merchants, cotton traders, diamond dealers, garment works, lobster fishermen, beekeepers and orchard growers, shippers and rail carriers”).

¹⁸² Bernstein Diamond, *supra* note 78, at 135; Robert Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 Stan. Law Rev. 623, 628 (1986) (studying relationships that eschew resort to formal property law to settle disputes and instead “enforce informal norms”); Ian Macneil, *Relational Contract Theory: Challenges and Queries*, 94 Nw. U. L. Rev. 877 (2000) (discussing relational contracts) [heretofore Macneil Relational Contracts]; David Charny, *Nonlegal Sanctions in Commercial Relationships*, 104 Harv. L. Rev. 373, 375 (1990) (examining extralegal mechanisms for enforcement of agreements); Stuart Macaulay, *Non-Contractual Relations In Business: A Preliminary Study*, 28 AMERICAN SOCIOLOGICAL REVIEW 55, 64-65 (1963) (“Disputes are frequently settled without reference to the contract or potential or actual legal sanctions” . . . In most situations contract is not needed”).

¹⁸³ See Gilson, *supra* note 10, at 1086; Gilson *et al.*, *supra* note 101, at 1382 (discussing “informal obligations [that] interact within a formal governance structure that regulates” information exchanges).

¹⁸⁴ See Coyle & Polsky, *supra* note 80, at 314 (explaining acquirer reluctance to poach startup employees without buying company as deterred by network sanctions related to future dealings, loyalty, and social sanctions).

Jonathan Barnett¹⁸⁵ analyze informal structures within entrepreneurial settings and innovation industries. Relatedly, Yochai Benkler identifies a subspecies of network governance – peer production – that bears resemblance to accelerators’ informal mentor networks.¹⁸⁶ Distillation of the legal literature presents three broad lessons about the conditions where social mechanisms sufficiently constrain self-interested behavior in a way that displaces or complements other modes of exchange regulation, such as legal recourse and bureaucratic rules. First, behavioral norms must be well-established in a community over time. Second, circumstances must exist for reputation to police behavior that deviates from community norms. And third, informal norms are frequently embedded within formal structures. Each of these considerations, as applied to accelerator informal mentor networks, are discussed.

First, norms to regulate transactions may take decades – or longer – to take hold. Customs, norms, and religion are social institutions that are deeply rooted in culture and tend to be slow moving and “display a great deal of inertia.”¹⁸⁷ For example, Lisa Bernstein details the extralegal practices of the diamond industry that arise from social norms.¹⁸⁸ Jewish customs, developed over centuries, inform the industry-specific practices that order exchanges in the diamond trade.¹⁸⁹ These practices, which reside predominantly outside formal law, perform law-like functions to regulate trades and broker disputes that involve the exchange of goods. Robert Ellickson observed similar reliance upon long-standing social customs over formal property law in his classic study of cattle trespass disputes among ranchers in Shasta County, California.¹⁹⁰ Notably, an extended time frame for norms to take hold would appear problematic for an IA. IAs did not exist until 2005. Literature suggests that it would be difficult for an IA to create and disseminate behavioral norms within a truncated period of time.

Second, reputational enforcement offers a powerful social sanction sufficient to regulate exchange where certain conditions hold.¹⁹¹ Four elements must be present for a reputation market to effectively function: (i) repeat behavior must be anticipated by

¹⁸⁵ See Jonathan Barnett, *The Illusion of the Commons*, 25 Berkeley Tech L.J. 1751 (2010).

¹⁸⁶ Benkler, *supra* note 156 (also describing commons based peer production as a “third model of production”); see also YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* 60 (2006); Tapscott & Williams, *supra* note 161.

¹⁸⁷ Williamson New Institutional Economics, *supra* note 73, at 597. See also Jones et al., *supra* note 17, at 916-925 (Because “networks involve disseminating cultural beliefs and values among many autonomous exchange parties, it may take decades to establish the shared understandings, routines, and conventions for complex tasks.”).

¹⁸⁸ Bernstein Diamond, *supra* note 78, at 123. In a subsequent article, Bernstein details the cotton industry, which has “almost entirely opted out of the public legal system.” Reputational constraints and norms of behavior, many of which come down from the “Old South” over hundreds of years, continue to the strongly influence cotton industry practices. Bernstein Cotton, *supra* note 78, at 1764-65.

¹⁸⁹ Bernstein Diamond, *supra* note 78, at 135.

¹⁹⁰ Ellickson, *supra* note 182, at 628 (conducting empirical test of Coase theorem and finding that cattle ranching residents, embedded in “complex continuing relationships,” eschew resort to formal property law to settle disputes and instead “enforce informal norms”).

¹⁹¹ “Reputation involves an estimation of one’s character, skills, reliability, and other attributes important to exchanges and is important under exchange conditions of uncertainty and customization.” Jones et al., *supra* note 17, at 916-925; see also Barnett, *supra* note 185, at 1767-1774 (discussing the “cooperation gamble” and identifying conditions where reputation works within a sharing regime).

participants; (ii) there are shared expectations about appropriate behavior; (iii) a party's conduct is observable for those who consider doing business the party in the future; and (iv) consequences exist for social norm violations.¹⁹² An IA system does not appear to map onto these conditions. Notably, the majority of portfolio company founders are new entrants into the network, many of whom relocate from another location to join an accelerator.¹⁹³ Working with "strangers" is not the type of "compact and homogenous" community where social sanctions are most effective.¹⁹⁴ When individuals come from different backgrounds, the system may lack shared norms about expected behavior. Finally, the accelerator network is not geographically stable. Some percentage of portfolio companies will geographically relocate elsewhere after the accelerator program. This diminishes the expectation of repeat future transactions within a community.

Third, formal and informal structures interact to regulate exchange in interdependent ways.¹⁹⁵ Legal scholars highlight the interdependence of legal and social institutions in transactional settings.¹⁹⁶ Stuart Macaulay's study of Wisconsin business owners in the 1960s observed that, where social practices and normal business dealings do not track the formal letter of agreements, business people often disregard formal contracts and instead rely upon business practices.¹⁹⁷ Macaulay's study underscores Macneil's view that "exchange relations" are the essential dimension of contract.¹⁹⁸ The influence of this insight is such that "[w]e are all relationists now" in viewing formal agreements as part of "enveloping relations."¹⁹⁹ Consistent with the importance of social factors, commercial parties enter into obligations that are unenforceable as a matter of

¹⁹² See Gilson, *supra* note 10, at 1086; see generally Joseph Bankman & Marcus Cole, *The Venture Capital Investment Bust: Did Agency Costs Play a Role? Was it Something Lawyers Helped Structure?*, 77 CHI.-KENT L. REV. 212 (2001); Bernstein Cotton, *supra* note 78, at 1763-64.

¹⁹³ Indeed among 14 portfolio companies within IAs interviewed for this Article, 10 geographically relocated for the accelerator program.

¹⁹⁴ Gilson et al., *supra* note 101, at 1393 ("Informal contracting, even that supported by taste and character, works best with repeat play in the narrowest sense: That the same actors repeatedly do the same things with each other makes conduct more observable, an indispensable element of informal contracting").

¹⁹⁵ See generally, Williamson New Institutional Economics, *supra* note 73, at 597; Zumbansen, *supra* note 79, at 1482 (legal-sociological scholars have "explored the interaction between formal and informal order systems" in order to "draw an impressively more layered and differentiated picture" of how contracts function).

¹⁹⁶ For example, Lawrence Lessig observes that regulation of behavior involves the interaction of law, social norms, the market, and background architecture. Lawrence Lessig, *Code And Other Laws of Cyberspace* 87-88 (1999) ("Changes in any one will affect the regulation of the whole").

¹⁹⁷ Macaulay, *supra* note 182, at 64-65 ("Disputes are frequently settled without reference to the contract or potential or actual legal sanctions" . . . In most situations contract is not needed."). Formal contracts, however, are not superfluous in such circumstances. Formal legal instruments set expectations between parties and their possible enforcement serves as a default mechanism. *Id.* at 66 ("it makes a difference if one is demanding what both concede to be a right or begging for a favor.").

¹⁹⁸ Macneil Relational Contracts, *supra* note 182, 880-881 (defining "contract" as "relations among people who have exchanged, are exchanging, or expect to be exchanging in the future – in other words, exchange relations"). Macneil's conception of a relational contract theory begins with the proposition that "every transaction is embedded in complex relations." *Id.* Social norms affect the development and enforcement of contracts because, where a formal contract is entered into, at least some relationship between parties "invariably exists outside an actual transaction." Macneil, *supra* note 172, at 856.

¹⁹⁹ Macneil Relational Contracts, *supra* note 182, at 901 (citing Robert E. Scott, *The Case for Formalism in Relational Contract*, 94 Nw. U. L. Rev. 847, 852 (2000)).

contract law, however, the availability of nonlegal sanctions nonetheless functionally enforces such commitments.²⁰⁰ Similarly, venture capital contracts augment formal contracts with social reputational constraints, a strategy which permits reliance upon “implicit contracts” in VC deals.²⁰¹ “The fact that investors in Silicon Valley will not bring suits against entrepreneurs does not mean that they lack the ability to sanction bad behavior by entrepreneurs. As one attorney explained, ‘VC’s don’t sue their founders. They keep a list. And they tell their friends.’”²⁰²

Mingling formal and informal mechanisms is particularly useful to constrain opportunism amid uncertain conditions, such as where parties engage in entrepreneurial endeavors.²⁰³ In bilateral relationships, Gilson highlights that parties “braid” formal and informal tools to address the governance dilemmas presented in high uncertainty environments.²⁰⁴ The braid twines lightweight formal processes and informal mechanisms to develop an as-yet underspecified innovation.²⁰⁵ A braid constrains opportunism because “formal contracting establishes processes that make behavior observable enough to support informal contracting over the substance of the innovation.”²⁰⁶

IA governance resembles a braid insofar as formal and informal agreements are mingled amid a high uncertainty environment. But the type of braid contemplated by Gilson *et. al.* is different than observed with IA mentors. Gilson describes formal and informal elements within a dyadic collaboration.²⁰⁷ In contrast, the formal dimension is absent in mentors’ relationships with IAs and portfolio companies. Instead an accelerator mingles formal and informal mechanisms across multiple stakeholders. For example, an accelerator investment into a portfolio company is formal, while a portfolio company relationship with a mentor is informal. The multilateral – as opposed to bilateral – configuration of accelerator relationships is, accordingly, of a different nature

²⁰⁰ Charny, *supra* note 182, at 375.

²⁰¹ Gilson, *supra* note 10, at 1086; *see generally* Mark Suchman & Mia Cahill, *The Hired Gun As Facilitator: Lawyers and The Suppression of Business Disputes In Silicon Valley*, 21 Law & Soc. Inquiry 679, 683 (1996).

²⁰² Coyle & Polsky, *supra* note 80, at 310. This quote underscores that, in addition to social dimensions of a bilateral relationship within an exchange, transactions are embedded within a larger social context that involves third parties. Sociologist Mark Granovetter emphasizes the importance of social context as it relates to a transaction. Granovetter stresses “structural embeddedness” and observes that “economic action and outcomes . . . are affected by actors’ dyadic (pairwise) relations and by the structure of the overall network of relations.” Mark Granovetter, *Economic Action and Social Structure: The Problem of Embeddedness*, 91 *The American Journal of Sociology* 481, 487 (1985).

²⁰³ *See* Gompers & Lerner, *supra* note 122, at 6-7, 157 (defining uncertainty as “a measure of the array of potential outcomes for a company or project”); Gilson *et al.*, *supra* note 101, at 1422. A related conception of uncertainty involves projections about the future that defy probabilistic form. [cite Frank Knight].

²⁰⁴ Parties “braid formal and informal elements in ways that enhance the collaborative process, reducing the risk of opportunism and motivating the iterative exchange of private information.” Gilson *et al.*, *supra* note 101, at 1405. “This technique allows potential collaborators to explore and develop their relations, but it does not impose mutually enforceable obligations to pursue a particular project.” *Id.* at 1377.

²⁰⁵ “The information exchange that braids formal and informal elements is itself neither fully formal nor fully informal by conventional criteria.” Gilson *et al.*, *supra* note 101, at 1384.

²⁰⁶ Gilson *et al.*, *supra* note 101, at 1384, 1402. (“It is this information-sharing regime that braids the formal and informal elements of the contract, endogenizing trust, and thereby supports the informal enforcement of the parties’ substantive performance.”).

²⁰⁷ Gilson *et al.*, *supra* note 101, at 1404.

than observed by Gilson *et. al.* It is unclear whether this type of multilateral mingling across stakeholders would be expected to build trust and constrain opportunism.

In sum, IAs present materially different circumstances than previously observed contexts by legal scholars where network governance constrains opportunism. Theory raises concerns that informal mechanisms would likely be inadequate to constrain opportunism. Accelerators integrate a range of stakeholders into a common system, rapidly assemble mentor networks, introduce new entrepreneurs to the community, and diffuse novel norms. This gives rise to the hypothesis that accelerators would struggle to prevent opportunistic behavior, such as idea theft and self-interested advising, by mentors.

B. Observation: “It Would Be Right There,” But Opportunistic Behavior Occurs Less Frequently Than Expected

Interviews for this study examined two categories of opportunistic behavior by a mentor at the expense of a portfolio company. One, blatant theft or misuse of a portfolio company’s information presents a direct threat to a startup. A second concern is that a mentor exerts coercive pressure upon the portfolio company to enter into a formal engagement designed to benefit the mentor, even where such arrangement is not in the portfolio company’s interest.

The first category – blatant theft and misuse of information – is rarely observed. Managing Director #7 expressed astonishment when asked to reflect on the lack of theft over the multiple years of his accelerator’s operation. Portfolio company product roadmaps, he noted, are confidential. “It would be right there . . . [a roadmap] would be so easy [to steal].”²⁰⁸ But it has not happened. Across accelerator networks, interviews with managing directors, portfolio companies and mentors underscore how unusual theft is within accelerator systems.

One high magnitude breach of mentor – portfolio company trust was reported.²⁰⁹ A portfolio company founder met with a mentor and shared his product idea. Upon learning of the founder’s idea, the mentor in turn filed a patent.²¹⁰ A dispute ensued between the founder’s startup and the mentor. Individuals close to the accelerator intervened on behalf of the startup. Reputational sanctions involved communicating the mentor’s conduct to investors and other entrepreneurial community members. After months of wrangling, the mentor ultimately transferred the IP to the founder’s company in exchange for compensation.²¹¹

²⁰⁸ Interview with Anonymous Director #7, Managing Director, Accelerator (Mar. 18, 2015) (notes on file with Author). Each semi-structured interview directly asked about whether the interviewee had ever heard of someone in the accelerator “stealing an idea” “misusing confidential information” or “sharing information with competitors.”

²⁰⁹ Mentor #14, *supra* note 106.

²¹⁰ Under the America Invents Act, a first to file regime, the mentor sought to secure patent rights even though the founder and his team had created the product. *See generally* Wendell Ray Guffey & Kimberly Schreiber, *America Invents Act: The Switch to A First-to-File Patent System*, 68 J. MO. B. 156 (2012).

²¹¹ Mentor #14, *supra* note 106.

Two other reported opportunism events involving mentors were less serious. Entrepreneur #3 relayed a bad experience in a startup support program that, while not an accelerator, included a mentorship component. A purported mentor posed as a would-be acquirer. The tactic, he determined, proved to be an attempt to gain information about his company, not a genuine interest in purchasing the company.²¹² Managing Director #16, who leads an international accelerator, once suspected that a mentor sought to poach ideas through his interactions with portfolio companies. As a consequence, the accelerator then did not involve the mentor again.²¹³

Among the 16 entrepreneurs interviewed, no entrepreneur experienced direct theft or confidentiality breach of their startup's idea. Overall, 46 out of 47 interviewees replied that they have never heard of a serious theft occurrence that economically injured an accelerator participant. Neither did interviewees know of an instance where a mentor grossly misused proprietary information by providing it to a competitor. Research suggests that the frequency of outright idea theft and information misappropriation is statistically small. A rough estimate suggests that less than 1% of portfolio companies experience this type of serious opportunistic behavior by mentors.²¹⁴

The second category of opportunism involves predatory self-interested behavior. Where a mentor helps a portfolio company, and a prospective future relationship is possible, there is a "subtle line" between a connection that benefits a portfolio company and a self-interested individual "trolling" to look for a job.²¹⁵ A mentor crosses the line of acceptable accelerator norms where a mentor coerces a company into direct compensation in exchange for assistance. Among 16 entrepreneurs interviewed, only one reported a direct experience of coercive mentor behavior.²¹⁶ Entrepreneur #13 reported a "hard sell" from mentor selling financial models. The team reported the issue to the managing director. Entrepreneur #13 said that, after that, the mentor was "either removed or not invited back" to the accelerator.²¹⁷ Managing director interviews

²¹² Entrepreneur #3, *supra* note 135.

²¹³ Interview with Anonymous Director #16, Managing Director, Accelerator (Apr. 7, 2015) (notes on file with Author).

²¹⁴ This investigation covered 17 accelerator programs, many of which had multiple cohorts. If we assume that the average accelerator in the study completed four cohorts, with an average of 10 companies per cohort, then interviews for this Article would be at least familiar with 680 accelerator companies. (This likely understates the number of observations, as some entrepreneurs and mentors participated in additional accelerator programs, too.) Only one reported instance of high magnitude direct idea theft was reported. Even if it is assumed that four other companies experienced theft but went unreported, then $5 / 680 = .8\%$ of the portfolio company population.

²¹⁵ Interview with Anonymous Entrepreneur #16, Entrepreneur, Accelerator (May 12, 2015) (notes on file with Author).

²¹⁶ Interview with Anonymous Entrepreneur #13, Entrepreneur, Accelerator (Apr. 20, 2015) (notes on file with Author). Overall, service providers are viewed with particular suspicion as a category of mentor that often seeks direct benefit in exchange for startup help. Portfolio companies that raise money before entering accelerator program, and presumably could pay for services, are an attractive target for service providers. Accelerators exercise caution before admitting service providers to a mentor network. Managing Director #1 attempts to screen out service providers. Director #1, *supra* note 109. Managing Director #11 similarly is wary of "people looking to build a book of business" through accelerator mentorship. Director #11, *supra* note 123.

²¹⁷ Entrepreneur #13, *supra* note 216.

revealed a few other isolated instances of other mentors who requested immediate direct benefit from portfolio companies. Managing Director #12 told of an individual whom her accelerator invited to visit, covering the individuals' travel costs, so that he would mentor portfolio companies. While at the accelerator, the mentor then asked companies for equity in exchange for his help.²¹⁸ Managing Director #2 similarly reported that, during the first year of his accelerator program, a mentor pushed inappropriately hard to become CEO of a company.²¹⁹

Self-interested requests for direct compensation may be coercive and, if accepted by portfolio companies, unfairly benefit a mentor. But in isolated instances it presents a mild version of opportunism. Unlike a mentor taking information and filing a patent, for example, a mentor's request for a share of equity or a formal service provider relationship does not present a grave threat to a portfolio company. The greater risk of such behavior is to the health of the overall accelerator system. From a systemic perspective, it is crucial that self interested behavior is infrequent. Otherwise entrepreneurs would enter into mentor conversations concerned about a hidden price tag. This mistrust would chill interactions between portfolio companies and mentors.

Overall, the data reported by interviews suggests that mild forms of opportunism do not overwhelm the system. Interviews show that entrepreneurs find mentor interactions to be highly valuable overall. Among 16 entrepreneurs interviewed, 12 reported strongly positive experience working with accelerator mentors, two reported mixed experiences, and two reported that mentors provided minimal value.²²⁰ Each entrepreneur involved in a high reputation accelerator reported a strongly positive experience. Coercive behavior occurs, however, it occurs at infrequent levels that do not overwhelm IAs. A conservative assessment of interview data is that accelerators do "well enough" and that opportunistic behavior is far less problematic than network governance literature would predict. The question is why.

IV. EXPLAINING THE ACCELERATOR OPPORTUNISM PUZZLE

The mentor-driven accelerator is to startup expertise what the bumblebee is to flight: surprisingly effective.²²¹ Informal arrangements expose startups to limited predatory behavior, however, mentor opportunism is more muted than theory would predict. Why does opportunistic behavior not overwhelm the benefits of informal

²¹⁸ Interview with Anonymous Director #12, Managing Director, Accelerator (Mar. 24, 2015) (notes on file with Author); Managing Director #14 similarly observed "uninformed behavior" by a mentor who asked for equity during the program. Director #14, *supra* note 59.

²¹⁹ Director #2, *supra* note 125 (as a result, the mentor was "cut out" of future accelerator programs).

²²⁰ Entrepreneurs #6 and #11 reported mixed value in mentorship. Entrepreneurs #4 and #10 reported low value in their accelerator's mentorship program. Notably, Entrepreneurs #4 and #10 participated in the same accelerator program. As discussed in note 131 *supra*, this accelerator is located in a city that is not an entrepreneurial hub. The accelerator also includes a NDA provision in agreements with its expert volunteers, who are designated as "in residence" within the accelerator, and which are limited in number.

²²¹ Bumblebee flight appears to defy what simplified engineering calculations might predict. The fact that bumblebees fly, of course, underscores that it is a myth to say "bumblebee flight violates the laws of physics." *See, e.g.*, <http://www.todayifoundout.com/index.php/2013/08/bumblebee-flight-does-not-violate-the-laws-of-physics/> (last visited June 17, 2015).

interactions? Subsection A first addresses alternative interpretations of evidence concerning opportunism in accelerators. Subsection B next explains that accelerator principals graft pre-existing networks onto accelerator systems in a manner that facilitates cooperation cascades and disseminates the norms of the pre-existing network.

A. *Alternative Explanations*

Before turning to the Author's explanation, two alternate accounts of the data should be addressed. One, opportunistic behavior could be common within accelerators, but it is hard to observe and/or under reported through interviews. This interpretation speculates that the interview data is flawed by accelerator participants' inability to get information about improper disclosures and, further, by interviewees' reluctance to disclose problems within accelerators. This explanation seems unlikely. It is true that some forms of opportunism, such as information leakage to a competitor, may be difficult to observe. But over time, if this behavior is pervasive, one would expect some stories to come back around to portfolio companies and other entrepreneurial stakeholders. Moreover, at the outset of interviews, each interviewee was promised that neither her name nor her accelerator would be identified. Interview participants spoke openly about elements of accelerators they disfavored. It seems unlikely that individuals refused to speak frankly about opportunism when they candidly critiqued other accelerator elements.

A second explanation, software industry-related exceptionalism, is plausible for why theft and information misuse rarely occurs. IAs traditionally cater to portfolio companies in the software, Internet and mobile industries. Mentors and portfolio companies active in these sectors have ample information worth exchanging at early stages of the company's lifecycle. But little of it is worth stealing. This line of analysis posits that a head start, along with the ability to iterate in faster innovation cycles, is more powerful than ideas kept in secret or elaborate intellectual property schemes erected at the earliest stages of a company's lifecycle.²²² In short, the industry-related exceptionalism view explains a lack of opportunism as a lack of *opportunity* to steal something of value from software startups. The industry exceptionalism explanation may be a partial explanation, however, it is not fully satisfying, either.²²³ Confidential

²²² See note 136, *supra* (explaining belief that execution is far more important than idea). Managing Director #3 said that few successful startups can stay "in a bubble . . . The benefit of being relatively more open offsets or outweighs the downsides of that openness." *Id.* Managing Director # 5 noted that a startup "more likely to die for its own actions than [because an idea is] stolen by another." Director #5, *supra* note 120. See, e.g., Saxenian, *supra* note 30. (highlighting speed of product iteration among companies that embraced open information sharing as decisive advantage in Silicon Valley technology companies, compared to Boston companies, between 1975 and 1990).

²²³ A question for future accelerator research is a cross-sector IA comparison of opportunistic behavior related to theft or misuse of confidential information. The accelerator model is expanding to industry sectors with longer development cycles, such as energy. Surge Ventures, *About Surge*, <http://www.surgeventures.com/about> (last visited July 27, 2015). Here the advantages of a head start may prove less important, and more robust intellectual property protections may be warranted. If industry exceptionalism is correct, one would expect to see much higher levels of opportunistic behavior in accelerators where information is openly shared and IP is "worth stealing," such as energy, biotechnology, and healthcare sectors.

information is less important in software than in areas with longer product gestation cycles and stronger reliance upon IP protection.²²⁴ But confidential information nonetheless matters. As Managing Director #7 noted, for example, a startup's roadmap contains valuable information. Interviewees acknowledge that they regularly shared information with mentors that they would not want shared with competitors.²²⁵ Moreover, there are companies in software, Internet and mobile industries think that ideas matter and, as a result, operate in what is called *stealth mode* hidden from public view.²²⁶

B. Mentor Network Assembly

This investigation concludes that opportunism is principally limited by three strategies that collectively deter bad mentor behavior: (i) graft an existing network onto an accelerator system; (ii) aggressively use communications platforms – especially blogs, books, and an industry group association – to congeal startup community norms; and (iii) mingle the informal mentor network with other formal contracts in a manner that enables effective system-wide reputational policing. Each is discussed in turn below.

i. Accelerators graft pre-existing networks into a larger accelerator system

First, the core of an informal mentor network is typically assembled from accelerator principals' personal relationships. Interviews show that pre-existing networks are grafted onto the "new" accelerator systems.²²⁷ Accelerator principals assemble informal mentor networks. Managing directors play the most active role.²²⁸ Venture capitalists and area investors involved at founding stages of the accelerator also sometimes assist mentor recruitment.²²⁹ In addition to connections from accelerator principals, the balance of mentors join accelerators primarily through trusted

²²⁴ See generally Stuart J.H. Graham, Robert P. Merges, Pam Samuelson, and Ted Sichelman, *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BerkeleyTech. L.J. 1255, 1292 (2009) (finding "value of patenting among startups in biotechnology and medical devices (and venture-backed IT hardware) stands in stark contrast to the (un)importance ascribed to patents by software and Internet firms.").

²²⁵ "I would not have laid out my weaknesses as much to someone I'm competing with" as I would to a mentor. Entrepreneur #14, *supra* note 135. More broadly, the big idea for a startup sometimes matters. For example, concerns about public release of information lead software companies to sometimes operate in stealth mode and request that others refrain from disclosing any information about the company. Stross, *supra* note 8, at 6.

²²⁶ Cory Janssen, *Stealth Mode*, Techopedia (last visited July 27, 2015) <http://www.techopedia.com/definition/23782/stealth-mode>.

²²⁷ A graft is a "a piece of living tissue that is transplanted surgically." [cite dictionary definition].

²²⁸ Director #3, *supra* note 136; Director #11, *supra* note 123.

²²⁹ Two private accelerators surveyed had help at formative stages from an area venture capitalist. Director #1, *supra* note 109; Director #8, *supra* note 125; Managing Director #16 reported that his accelerator started as a VC firm but now is funded by a separate accelerator fund. Director #16, *supra* note 213. As Brad Feld, a principal involved in Techstars Boulder wrote, "Basically, I reached out to all my friends and said 'would you be a mentor for this new Techstars thing we are doing?'" Brad Feld, *Mentors 11/18: Either Commit to Mentor or Do Not, Either is Fine*, Feld Thoughts (April 9, 2015), <http://www.feld.com/archives/2015/04/mentors-1118-clearly-commit-mentor-either-fine.html>.

introductions from pre-existing mentors.²³⁰ In aggregate, one managing director observed that mentors are “all [from] personal relationships.”²³¹ Indeed personal connections are so privileged in high reputation accelerators that volunteers who do not come through an introduction are met with suspicion.²³² “Most of the time where someone approaches us, [she is] not a good mentor.”²³³ Another managing director said that “100% of [the mentor network is] a person we know or come through people that we know well.”²³⁴

Accelerators further guard against opportunism by restricting access to a limited number of new portfolio companies and new mentors.²³⁵ A smaller size network with more repeat interactions increases ties such that “actors involved tend to see their interests and needs as aligned rather than in opposition.”²³⁶ Following an introduction, the managing director typically evaluates prospective mentors.²³⁷ New mentors are closely vetted in high prestige accelerators so that, from the perspective of a startup, there is a “safe, pre-screened mentor network [where] leeches were weeded out long ago[.]”²³⁸ Trial periods for new mentors supplement screening efforts. Managing Director #7 uses guest office hours as a trial for new mentors. Following guest office hours, Managing Director #7 surveys portfolio companies on mentor performance. If 75% of the portfolio companies approve, then the mentor passes and is invited to join the program.

²³⁰ Director #5, *supra* note 120; Interview with Anonymous Mentor #7, Mentor, Accelerator (Apr. 9, 2015) (notes on file with Author); Mentor #11, *supra* note 128.

²³¹ Director #3, *supra* note 136. *But see* Managing Director #8, a Midwest accelerator that in its first year left mentorship open to volunteer sign up. Roughly 400 individuals signed up. Managing Director #8 relayed that the loose network did not work well. In its second year the accelerator changed to a mentor format that featured a core group of 10 active mentors in each of five areas, with the broader mentor group available for support. Director #8, *supra* note 125.

²³² This Article refers to “high reputation” accelerators as those ranked in the Top 20 of the 2015 survey conducted by Hochberg *et. al.* *See* Hochberg *et al.* Top 20, *supra* note 55.

²³³ Director #5, *supra* note 120. Managing Director #11 reported a variant of this where, in her accelerator, it would be “impolitic to say no” to volunteers who wanted to mentor. Her accelerator created different roster for “full time” mentors and “general mentors.” The latter category was less included in the accelerator’s activities. Director #11, *supra* note 123.

²³⁴ Director #6, *supra* note 126. Managing Director #12 said that every mentor had a pre-existing connection to the program and it is “never a cold ask.” Director #12, *supra* note 216.

²³⁵ Accelerators are often highly selective in portfolio company admission, as discussed in Section II *supra*, with admission rates under 10% and cohort sizes commonly in the 10-12 company range. Restricted network access is also cited as an element of effective network governance. Jones *et al.*, *supra* note 17, at 916-925; *see also* Barnett, *supra* note 185, at 1773-1774 (discussing increases in group size as eroding cooperating incentives to common projects). In addition to other benefits, restricted access decreases the amount of monitoring required to police behavior. Jones *et al.*, *supra* note 17, at 916-925; *see also* Barnett, *supra* note 185, at 1773-1774.

²³⁶ Jones *et al.*, *supra* note 17, at 916-925; *see also* Hetcher, *supra* note 79, at 978-80 n.56 (describing Ellickson’s observation that close-knit communities can more easily overcome collective action problems and that “smallness” is “highly correlated with close-knittedness”).

²³⁷ The informal nature of these interactions leaves room for confusion. One mentor thought he was automatically “in” following an introduction, only to find himself later interrogated by a managing director. “Is this an interview?” he asked. “Of course it is an interview!” the managing director replied. Mentor #7, *supra* note 230.

²³⁸ DEERING, *supra* note 7, at 121 (quoting Alex White, CEO, NextBigSound). Selectivity screens for individuals who in the past have behaved in ways that are inconsistent with desired social norms. Jones *et al.*, *supra* note 17, at 916-925 (screening based on reputation provides “information about the reliability and goodwill of others” that reduces behavioral uncertainty).

Meanwhile, Managing Director #1 supplements screening with a “mentor in training” program. This program pairs new mentors with a team of pre-existing mentors. New mentors receive “roundtrip feedback” from portfolio companies.²³⁹ As Managing Director #1 notes, this process “sets some rules that, yes, you can be fired” from the mentor network.

Mentorship status is exclusive in high reputation accelerators, which typically reside within entrepreneurial geographies where mentor prospects are concentrated. Successful IAs create a virtuous cycle where a mentor gets exposure to several high functioning founders within a cohort. As expert mentors join an accelerator network, more elite portfolio companies are likely to join the accelerator; in turn, the higher caliber the portfolio companies in an accelerator, the more elite mentors want to join the network.²⁴⁰ In addition to the substantive benefits of interactions, the virtuous cycle generates reputational benefits for mentors and portfolio companies related to admission into an exclusive entity.²⁴¹ One managing director of a high reputation accelerator relayed that she takes 3-5 meetings a week with prospective mentors.²⁴² The same managing director estimated that about 1 in 20 prospects ultimately become mentors. In these meetings the “primary objective” is to assess whether the mentors’ “agenda and motivation” is to help other entrepreneurs, as opposed to “networking and business development.”²⁴³ Mentor selectivity appears lower for lesser reputation accelerators or as well as for accelerators in geographic areas that lack entrepreneurial depth.²⁴⁴

The network graft strategy helps explain accelerator success in rapid network assembly. The “new” accelerator network, to be sure, is not the same composition as the “old” network. New mentors are added and, additionally, most portfolio company founders are new to a network. Yet the pre-existing network ports over network cohesion as well as entrepreneurial norms into the accelerator system. In this way, accelerators do not introduce whole cloth cultural norms and expected behaviors.²⁴⁵ Accelerators instead

²³⁹ If a new mentor fails to attract a threshold of favorable feedback, then the managing director revisits the mentor’s status.

²⁴⁰ Similarly, as discussed in Part V *infra*, high caliber mentors want to be in the same network as other high caliber mentors, too.

²⁴¹ Relatedly, capable founders want to be in the same cohort as other quality founders. Everlater founder Nate Abbott highlighted the attraction of working in proximity with other founders as an important part of the calculus that led Everlater to Techstars. “We’d been sitting in a basement alone. We were desperate for the camaraderie of working with others.” Nate Abbott, *supra* note 25; *see also* DEERING, *supra* note 7, at 114. (quoting Ev Kontsevov, CEO, MailGun) “At the end of our Y Combinator batch we became close friends with other founders . . . people tend to underestimate the importance of this. When you’re trying not to die, having so many lie-minded, supportive friends is extremely comforting and helps you get over the bumps.”

²⁴² Director #1, *supra* note 109.

²⁴³ Director #1, *supra* note 109.

²⁴⁴ Entrepreneur #4, *supra* note 153; Interview with Anonymous Entrepreneur #6, Entrepreneur, Accelerator (Apr. 9, 2015) (notes on file with Author).

²⁴⁵ *See* Suchman & Cahill, *supra* note 201. Reliance upon existing networks, it should be noted, is not an unmitigated good. Mentor networks that come from pre-existing relationships may have the effect of excluding groups that are underrepresented in an “old boys club” of relationships. Director #11, *supra* note 123.

utilize prior connections and overlay pre-existing norms already present in the startup community.²⁴⁶

This baseline set of behaviors appears to create what behavioral psychology calls a “cooperation cascade” for the new accelerator system.²⁴⁷ Public game experiments show that initial exposure to cooperative or uncooperative behavior, whether direct or indirect, powerfully influences subsequent actions by a group member.²⁴⁸ Cooperative behavior “cascades” into other individual’s actions.²⁴⁹ Lisa Bernstein observes similar behavior in the cotton industry, where trade association members enter into relationships with an expectation of cooperation, then “each is likely to begin the contracting relationship by cooperating and thereafter to respond to cooperation with cooperation.”²⁵⁰ Within accelerators, the baseline behavior of pre-existing network members works as a “social contagion” that affects the future conduct of other group members.²⁵¹ By grafting pre-existing cooperative networks onto an accelerator system, accordingly, IAs stack the deck in their favor.

ii. *Rapid Dissemination of Norms*

A second strategy that accelerators use to guard against opportunism is to shape startup culture’s understanding of behavioral norms through communications. Network governance scholars point to the importance of macroculture. Macroculture “is a system of widely shared assumptions and values” about roles and behavior patterns.²⁵² Shared understandings align expectations among network participants, create “idiosyncratic language” that signals understood complex routines, and provide rules of thumb to guide action under unanticipated future events.²⁵³ Agreement about behavioral expectations gives rise to implicit contracts between parties in social exchange.²⁵⁴ Such agreement also increases community enforcement of social sanctions, such as ostracism or reduced social status, for individuals who violate shared norms.²⁵⁵

²⁴⁶ See, e.g., Saxenian, *supra* note 30. (comparing norms of behavior in Silicon Valley and Boston); Ronald Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. Rev. 575 (1999)(discussing California’s prohibition on non-compete agreements as historical antecedent to emergence of Silicon Valley entrepreneurial norms).

²⁴⁷ J.H. Fowler & N.A. Christakis, *Cooperative Behavior Cascades in Human Social Networks*, 107 Proc. Nat’l Acad. Sci., 5334 (2010).

²⁴⁸ *Id.* In public game experiments, the prior contributions of other group members’ strongly influenced a newcomer’s behavior in future interactions, even when the newcomer works with others who were not involved in the earlier interaction. See also Gilson et al., *supra* note 101, at 1384 N.14 (discussing “gift exchange” relations).

²⁴⁹ *Id.*

²⁵⁰ Bernstein Cotton, *supra* note 78, at 1766.

²⁵¹ Fowler & Christakis, *supra* note 247.

²⁵² Jones et al., *supra* note 17, at 916-925.

²⁵³ *Id.*

²⁵⁴ See Gilson, *supra* note 10, at 1087.; Bernstein Cotton, *supra* note 78, at 1771 (describing cotton industry efforts to clarify “what types of behavior are to be classified as cooperation and what types are to be classified as defection.”).

²⁵⁵ Conduct that violates understood norms can result, at the network level, in collective sanctions against a person, and, at the individual level, in “sacrifice of psychic and social goods” such as a deviant’s reduced self-esteem, guilt, and unfulfilled self-image. Charny, *supra* note 182, at 393.

Communications that influence macroculture allow accelerators to establish and enforce norms of behavior in the startup community. Technology tools and social media allow startup communities to quickly share ideas within and across geographies. The influence of accelerators upon startup culture is considerable. Mentor #8, an investor active in more than 10 accelerators in the United States, observes that accelerators now “establish the rules of the game that everybody follows.”²⁵⁶ This behavioral expectation setting function is particularly important for “outsiders” who are entering the world of early stage investing, such as new funds or private equity funds entering the world of venture capital.²⁵⁷

Accelerator macroculture influence helps to normalize informality in the mentor-portfolio company relationship. Communications from accelerator principals frame behaviors that are desirable, at least from the perspective of accelerators, as normal within a startup community, even where such conduct may be distinctive and unexpected outside of that community. The norm of unilateral giving provides an illustration. This behavioral norm is articulated as “give before you get” (or, in a version more tailored for Twitter, #givefirst).²⁵⁸ Importantly, this norm facilitates the type of network governance relationship observed in IA mentor-portfolio company relationships.

“Give before you get” directs that experienced capitalists and other experts should give away assistance for free and subordinate interest in near term rewards associated with the exchange. Participants are asked to suspend expectations of direct reciprocity arising from collaborative exchange. The “give before you get” norm does not require pure altruism. But it requires participants to have faith that a third party in the network will later return a favor, rather than expecting or seeking to contract for direct reciprocal benefits in an exchange.²⁵⁹ To promote and reinforce “give before you get” behavior in the overall startup community, accelerators disseminate norms through written media such as traditional books, blogs and social media. For example, shortly after the inception of the Techstars mentor network, founders David Cohen and Brad Feld released *Do More Faster*.²⁶⁰

Accelerators also rapidly disseminate norms and behavioral expectations through blogs that are influential within the startup technology community. Each of the founders of the original two IAs, Paul Graham (Y-Combinator) and Brad Feld (co-founder of

²⁵⁶ Mentor #8, *supra* note 96.

²⁵⁷ *Id.*

²⁵⁸ “[Giving first] is not altruistic – you do expect to get things in return – but you don’t set up the relationship to be a transactional one.” Brad Feld, *Give Before You Get*, Feld Thoughts (January 1, 2013), <http://www.feld.com/archives/2013/01/give-before-you-get.html> (distinguishing between an advisor and a mentor; an “advisor says ‘I’ll help you with your company if you give me 1% of the equity’ . . . A mentor says, simply, ‘how can I help?’”); a Twitter search of #givefirst provides dozens of examples of how the term is used. Twitter, #givefirst (last visited July 27, 2015).

²⁵⁹ Indeed Managing Director # 4 counsels portfolio companies to “never feel obligated to do anything [regarding] direct compensation” to mentors. The “give before you get” norm of unilateral giving is why service providers are viewed with such disfavor by many accelerators. Service providers often seek to structure contributions as a reciprocal dyadic exchange. Director #4, *supra* note 98.

²⁶⁰ DAVID COHEN & BRAD FELD, *DO MORE FASTER* 306 (2011) (describing that “mentors give freely of their time” because Techstars is “all about community . . . [T]here is a genuine desire to see other succeed and a general belief that karma matters.” As of this writing, Feld is also working on new book effort, tentatively titled #givefirst.

Techstars), rank among the startup world's most prominent bloggers and command large social media followings.²⁶¹ Entrepreneur #10 noted that her behavior was strongly influenced by blog posts to “be generous with your knowledge and share everything that you know.”²⁶² Graham's and Feld's blog each discourage use of an NDA where entrepreneurs approach VCs.²⁶³ Managing Director #4, who leads a Midwestern accelerator, refers individuals in his accelerator to the blog posts of Brad Feld and Fred Wilson about why information sharing is a necessity.²⁶⁴

In addition to shaping startup macroculture *writ* broad, accelerators also make targeted efforts to shape behavioral expectations specific to the accelerator itself. For example, the Mentor Manifesto, originally released as a blog post, is now a touchstone of best practices distributed to accelerator mentors. The Mentor Manifesto provides bright lines concerning expected behavior, such as that a mentor should “[h]old information in confidence.”²⁶⁵ Managing Director #12, whose accelerator is not part of Techstars, reproduces the Mentor Manifesto in a letter of understanding document sent to mentors.²⁶⁶ An industry association, the Global Accelerator Network (“GAN”),²⁶⁷ replicates behavioral expectations across accelerators in different geographies. Spun out of Techstars, GAN provides a playbook of accelerator practices and connects accelerators into a common network. The reach includes 70 IAs across 100 cities and 6 continents.²⁶⁸ GAN's offerings include meetups and Conferences, development for managing directors, and benefits for members such as free hosting.²⁶⁹

Finally, accelerators sweep a variety of professionals into the broader system. Accountants, attorneys, and marketing professionals commonly participate as accelerator sponsors who provide in-kind services, financial sponsorship, or both. Suchman and

²⁶¹ For example, Graham and Feld have over 264,000 and 214,000 Twitter followers, respectively. [cites]

²⁶² Interview with Anonymous Entrepreneur #10, Entrepreneur, Accelerator (Apr. 13, 2015) (notes on file with Author) (characterizing blog posts as espousing an “all ships rise mentality” where “no one is going to steal your idea”).

²⁶³ See Paul Graham, *How To Start A Startup* (March 2005), <http://paulgraham.com/start.html> (last visited August 2, 2015) (“If you go to VC firms with a brilliant idea that you'll tell them about if they sign a nondisclosure agreement, most will tell you to get lost. That shows how much a mere idea is worth. The market price is less than the inconvenience of signing an NDA.”); See Brad Feld, *Why Most VC's Don't Sign NDAs* (February 14, 2006) <http://www.feld.com/archives/2006/02/why-most-vc-s-dont-sign-ndas.html> (last visited August 2, 2015).

²⁶⁴ Director #4, *supra* note 98.

²⁶⁵ See David Cohen, *The Mentor Manifesto* (August 28, 2011), <http://davidgcohen.com/2011/08/28/the-mentor-manifesto/> (last visited August 2, 2015).

²⁶⁶ While not signed by a mentor, Managing Director #12 requests that the mentor read and agree to the document before joining. Director #12, *supra* note 216 (“Mentors will maintain the confidentiality of any proprietary information of the participating companies. They will act as though they are bound by a standard non-disclosure agreement. This is essential for the long-term reputation of [accelerator name].”) This document also reproduces the Mentor Manifesto. The Manifesto also inspired another accelerator, MergeLane, to adopt a parallel document concerning mentee behaviors, entitled the Mentee Decree. Elizabeth Kraus, *The Mentee Decree*, MergeLane (February 13, 2015), <http://blog.mergelane.com/2015/02/18/the-mentee-decree/>.

²⁶⁷ See, e.g., Managing Director #4, who runs a non-Techstars accelerator in the Midwest, who noted that they “mirror the Techstars ethos” and seek people “who give before they get.” Director #4, *supra* note 98.

²⁶⁸ See, e.g., Global Accelerator Network, *supra* note 15 (highlighting that GAN “connect[s] the top mentorship-driven, seed-stage accelerators around the world”).

²⁶⁹ [Cite. Follow up to see if more information on GAN materials can be obtained.]

Cahill show how professionals play an important role in normalizing behaviors in a startup community, such as when they encourage a portfolio company to eschew use of an NDA.²⁷⁰ Based on Suchman and Cahill's work, there is reason to suspect that social integration of professionals within IAs leads these professionals to promote accelerator-friendly norms of behavior.²⁷¹

iii. *A Socially Integrated Structure Lowers The Cost of Group Sanctions*

A third prominent strategy that accelerators use to limit opportunism is a formal / informal mingling to connect individuals within the accelerator system. Informal mentor networks, as highlighted in Section II(A) *supra*, exist alongside formal contracts that bring entrepreneurs, IA investors, and service providers into a common system.

The governance structure's social integration of stakeholders spanning a startup community helps limit opportunism. A socially integrated entity that enhances connectivity between individuals "increases the value of the reputational bond that a [member] posts in each transaction" among members of the entity.²⁷² This is because a member's continued participation among those in the group is contingent upon cooperative behavior.²⁷³ Relatedly, the socially integrated entity may act as an information-intermediary by lowering costs associated with transmitting and acquiring reputational information.²⁷⁴

Reputational bonds in networks are enforced through two types of consequences, relationship specific, and general collective sanctions.²⁷⁵ The accelerator network makes it possible to quickly mobilize group social sanctions where an individual's deviations from norms become problematic. The mingled accelerator network lowers the cost of enforcing reputational bonds by increasing the penalty associated with general collective sanctions. Where mentors aggressively seek direct gain at the expense of portfolio companies (or vice-versa), the network allows managing directors to take steps to deter

²⁷⁰ Attorney behaviors "consist primarily of reassurance and tutelage in community norms, rather than of conventional adversarial representation." Suchman & Cahill, *supra* note 201, at 689. Overall, Suchman and Cahill argue that attorneys create and preserve "normative and cognitive understandings" within the entrepreneurial community. *Id.*

²⁷¹ For example, Mark Suchman and Mia Cahill detail the crucial role attorneys play in identification and reinforcement of social norms among startup participants in Silicon Valley. In particular, "lawyers quite literally produce and reproduce the social structures underpinning the local high-risk market" and, as a result, "create, transmit, and enforce the emerging norms of the community." Suchman & Cahill, *supra* note 201, at 683.

²⁷² Bernstein Cotton, *supra* note 78, at 1769 (2001) (describing role of mill association membership in cotton industry).

²⁷³ *Id.* at 1764 (mill association member "will realize that an act of defection will likely trigger a sequence of non-cooperative responses (most likely, refusals to deal) both from his transacting partner and ... from a certain number of other market participants.").

²⁷⁴ Bernstein Cotton, *supra* note 78, at 1752-53 (describing role of industry association in providing names of cotton industry transactors who refused to arbitrate or comply with adverse judgments; noting that "industry continues to rely on both social trust and information intermediary-based trust to support exchange").

²⁷⁵ Charny, *supra* note 182, at 392-393.

and punish such behavior.²⁷⁶ Alternative sanctions for opportunistic behavior includes excommunication²⁷⁷ from the network, behavior modification, or passive aggression.

Interviews conducted for this study suggest that this is how accelerators address predatory behavior. High magnitude breaches of trust are met with excommunication from the network.²⁷⁸ Managing directors are most commonly asked to intervene where coercion is reported.²⁷⁹ Managing Director #7 invites reports of undesirable behavior, such as mentor requests for compensation.²⁸⁰ One high reputation program experienced several problems in year one of its accelerator program in a large city and removed selected mentors from the program.²⁸¹ Another managing director directly intervened with a mentor to resolve a problem related to an unfair equity proposal for services.²⁸² Another punishment is that mentors are quietly isolated from the network. Managing directors, for example, do not invite undesirable mentors back to participate in the next cohort's activities. The sanctions, combined with the social integration of accelerators, present the threat of significant consequences for opportunism. Entrepreneur #16 noted that participants "realize the value" of the accelerator network and, accordingly, avoid actions that would "permanently, negatively" affect their status in the network.²⁸³

CONCLUSION

Collaborative efforts that target innovation entail high levels of uncertainty that drives novel forms of organization.²⁸⁴ Alternative governance arrangements are available to organize expert resources within Investment Accelerators. This Article makes three notable findings about how IAs organize resources in the service of innovation objectives. First, informal organization of experts is common in mentor-driven IAs. Second, network governance allows accelerators to attract a wider pool of mentor participants, including individuals who would not participate as full time hires or as contributors pursuant to a contract. Third, accelerators suggest that, under certain circumstances, network governance constrains opportunism, even where a network is

²⁷⁶ See discussion of opportunism in Section IV(B) *infra*.

²⁷⁷ Private sanctions are available to a counterparty harmed by an informal exchange, such as a firm's tit-for-tat responses to bad behavior or normative judgments about another's character, as well as community-based sanctions such as ostracism of a deviant actor. Gilson et al., *supra* note 101, at 1393.

²⁷⁸ Mentor #14, *supra* note 106.

²⁷⁹ This is consistent with Gilson's recognition that is helpful to have someone at the center of a network governance dispute resolution system. [check this; c/f Gilson 1409] Gilson et al., *supra* note 101, at 1409.

²⁸⁰ Director #7, *supra* note 208 ("We'd definitely keep our ears to the ground about compensation").

²⁸¹ [cite RT discussion]; Director #1, *supra* note 109; see also Entrepreneur #13, *supra* note 216.

Another removed a mentor from a program.

²⁸² Director #7, *supra* note 208.

²⁸³ Entrepreneur #16, *supra* note 215.

²⁸⁴ "[T]he firm in every epoch takes the shape necessary for the most pressing of the prevailing governance problems: risk in the last century, uncertainty in this one." See Gilson et. al., *Contracting for Innovation*, *supra* note 12 at 501. Two major developments, globalization and Internet technology, give rise to a need to accommodate "higher rates at which economic relationships now cross both firm and jurisdictional boundaries." Hadfield, *supra* note 77 at 1.

rapidly assembled and new norms are disseminated. Network grafts, whereby a pre-existing network is used to seed a new network system, facilitate cooperation cascades the limit opportunism. Mingling formal and informal governance mechanisms into a common system also lowers the cost to impose group sanctions to punish opportunistic behavior.

The results of this research suggest three implications for future investigation. First, the absence of direct compensation to mentors through formal agreement raises questions of motivation – i.e., why do mentors participate for free? Accelerators resemble another structure in which volunteers contribute without direct compensation: peer production. Peer production is typically associated with openly accessible digital goods such as Wikipedia and open source software. In contrast, IAs presents an opportunity to investigate peer production-like organization that benefit for-profit companies. The relationship between governance structure and contributor motivation in for profit settings is of interest.²⁸⁵

Second, legal literature on governance structure places great weight upon goals of transaction cost minimization and containment of opportunism associated with collaboration. These foci may obscure other important objectives in architecting collaboration. Especially in information industries with human inputs that exhibit high variance, goods are not fungible, and there is reason to believe that governance structure is endogenous to the quality of goods exchanged. Future research is warranted on the relationship of governance structure and how it affects the quality of information goods. There is reason to hypothesize that the informal structures of accelerators, which preserve self-selection and volunteerism, may better promote creativity in ways that more formal structures would not. Research in sociology and psychology suggests that governance structure may have important implications for the quality of creative ideas.²⁸⁶

A third area for future accelerator research is how network governance fits into law school pedagogy. Topics of relational contracts and network governance are now well explored in legal scholarship. Law school subjects that teach contexts where collaborative exchanges occur – most typically, contracts and corporations – understate (or ignore) the option and nuance of network governance alternatives.²⁸⁷ The findings of other legal scholars over the past decade, such as Gilson’s exploration of braided contracts and Benkler’s observation of peer production systems, as well as evidence from other disciplines about the increased use of network governance, suggest that law schools

²⁸⁵ See Bernthal, *supra* note 16.

²⁸⁶ See, e.g., TERESA AMABILE, *CREATIVITY IN CONTEXT* (1996); Deci, Ryan & Koestner, *A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation Psychological Bulletin*, Vol. 125, No. 6, 627-6 (1999).

²⁸⁷ A focus upon traditional conceptions of governance, such as the build vs. buy distinction, is that this may unduly limit legal tools in a way that fails to keep up with underlying economic transformations. See generally Hadfield, *supra* note 77, at 2, 19 (observing that the “new economy demands not just merely more but different from law, both at the level of the transaction and the level of the market” but that “legal infrastructure – the socially available set of legal materials that economic actors can use to help govern relationships – has not kept up with this transformation in the economic demand for law.”).

may consider increased emphasis on the role of informal governance tools in the mainstream curriculum.