

Who Needs Contracts? Generalized Exchange Within Investment Accelerators

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WHO NEEDS CONTRACTS? GENERALIZED EXCHANGE WITHIN INVESTMENT ACCELERATORS

BRAD BERNTHAL*

Abstract

This Article investigates why an expert volunteers on behalf of startups that participate in a novel type of small venture capital (“VC”) fund known as a mentor-driven investment accelerator (“MDIA”). A MDIA organizes a pool of seasoned individuals – called “mentors” – to help new companies. An obvious organizational strategy would be to contract with mentors. Mentors instead voluntarily assist. Legal studies of norm-based exchanges do not explain what this Article calls the “mentorship conundrum” – i.e., the puzzling motivation of a mentor to volunteer within otherwise for-profit environments. This Article is the first to bridge the insights of generalized exchange theory with law and entrepreneurship. Generalized exchange, which describes systems when benefits are not directly returned by a recipient but by another member of a group, best explains how MDIAs induce volunteerism. Original research reveals that the absence of contract promotes a feeling of altruism while facilitating economically valuable aspects of mentor / startup interaction. Mentors realize indirect benefits that function as a consideration surrogate. Mentor rewards include reputation gains, learning benefits, and enhanced professional connections. The MDIA provides a study of how pro-social information sharing occurs in a commercial setting.

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I. INTRODUCTION

The mentor-driven investment accelerator (a “MDIA”) presents a conundrum for those who study entrepreneurial deals.¹ From a finance

1. This is the second part of a two-part investigation into investment accelerators. A companion article examines opportunism issues where participants openly share information amid informal accelerator environments. See Brad Bernthal, *Investment Accelerators*, 22 STAN. J.L. BUS. & FIN. 139 (2016) [hereinafter Bernthal, *Investment Accelerators*].

perspective, an investment accelerator is effectively a small venture capital (“VC”) firm that invests in a portfolio of private startups and aims to profitably return capital to investors.² A MDIA pools together roughly seventy-five experienced individuals – called “mentors” – who work closely with startup founders.³ Mentorship involves valuable information exchange between seasoned experts and MDIA portfolio companies.⁴ MDIAs dramatically expand the number of startups that obtain access to entrepreneurial expertise.⁵

Therein lays the mentorship conundrum. Why do highly qualified individuals give away free help to a for-profit company (a startup) nested within a small VC fund (an investment accelerator)? A “step zero” consideration for lawyers and business people is whether to use legal tools to organize collaboration.⁶ An obvious MDIA organizational

2. An investment accelerator may be more specifically classified as a specific sub-species of VC firm, known as a “super angel” fund. See discussion *infra* Part II.

3. The average number of “active” mentors in a MDIA network is sixty-nine. Interview with Patrick Riley, Chief Executive Officer, GAN network, in Boulder, Colo. (June 17, 2016) (notes on file with author). MDIA networks commonly range in size from 60–120 mentors. See discussion *infra* Part II.

4. A MDIA “portfolio company” is a startup that participates in an investment accelerator. 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 (2006). A startup 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). See Bernthal, *Investment Accelerators*, *supra* note 1, at 142, n.8; see discussion *infra* Part II.

5. The defining dimension of MDIAs, in terms of institutional innovation, is that they democratize expert mentorship to startups on an unprecedented scale, reaching a greater number of startups, across a wider range of geographies, and spanning more industry sectors than predecessor institutions. See discussion *infra* Section II.A.

6. “Step zero” refers to an inquiry required to determine whether a framework should be applied to a given situation. Administrative law contemplates a “Chevron Step Zero” – i.e., an initial inquiry into whether the Chevron framework of deference applies at all. See Cass R. Sunstein, *Chevron Step Zero*, 92 VA. L. REV. 187, 191 (2006). In arranging collaboration, a step zero inquiry refers which organizational approach should be used, a decision that must be made before determining *how* to use organizational mechanisms. Ronald Coase’s classic make vs. buy distinction underscores alternative organizational 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., “make” or “build”). R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA (N.S) 386, 386-87 (1937). Network governance and social norms literature shows that informal mechanisms are also available to organize collaboration and resource exchange. See, e.g., Walter W. Powell, *Neither Market nor Hierarchy: Network Forms of Organization*, 12 RES. ORG. BEHAV. 295, 322 (1990).

strategy would be to contract with mentors.⁷ Experts in a startup market environment could secure cash or equity in exchange for service as a startup board director, an advisory board member, a service provider, or a consultant.⁸ Mentors instead commonly contribute absent legal agreement and, moreover, a mentor does not typically secure cash or equity consideration (i.e., neither an accelerator nor a startup directly compensates a mentor).⁹ Thus a mentor — a crucial source of experience and professional connections within MDIAs — serves as a volunteer in a for-profit world. A conservative estimate is that a three to four month MDIA program attracts over \$1 million in mentor contributions.¹⁰ It is unclear how MDIAs make these valuable exchanges work without contracts.

I investigated the behavior of mentors through series of over sixty interviews conducted in 2015–16. This original research shows that informal arrangements promote a “veil of altruism.”¹¹ This promotes volunteerism even as it masks economic aspects of mentor / portfolio company exchanges. The result is a mixed-motive environment where indirect benefits function as a consideration surrogate to mentors. A theory well developed in sociology and anthropology, generalized exchange, best explains how MDIAs work. This Article is the first to bridge the insights of generalized exchange with law and entrepreneurship literature.

7. Experts possess scarce resources that are desired by startup entrepreneurs. An expert’s connections and tacit knowledge, for example, are not fungible. A challenge for new entrepreneurs, especially those outside of startup rich geographies, is a lack of access to experts. Juanita Gonzalez-Uribe & Michael Leatherbee, *The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile 28* (June 16, 2016) (unpublished manuscript), <http://ssrn.com/abstract=2651158> [<https://perma.cc/7S9A-N3YG>].

8. A unique feature of a MDIA is that, while a portfolio company directly enters into a financial agreement with a MDIA, mentor expertise provided to the portfolio company is provided outside of contractual agreements. Legal scholarship accounts of entrepreneurial finance, such as Gilson’s study of venture capital, places strong emphasis on the role of contracts to organize collaboration. See e.g., Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1069 (2003). In traditional VC settings, a portfolio company directly enters into a financial agreement with a VC fund, and one of the fund’s managing directors provides expertise to the portfolio company.

9. That is, a mentor engages with portfolio companies outside the boundaries of privity. See discussion *infra* Part II.

10. See discussion *infra* Part II.

11. “Organizations that facilitate generalized exchange readily produce a kind of veil of altruism around the movement of resources.” Robb Willer et al., *Structure, Identity, and Solidarity: A Comparative Field Study of Generalized and Direct Exchange*, 57 ADMIN. SCI. Q. 119, 148 (2012).

Sphero, a startup founded in 2010, is an emerging company buoyed by volunteer experts. In 2015, Sphero produced the Star Wars BB-8 toy, a miniature version of the blockbuster movie's drone robot controlled via a user's smart phone.¹² Sphero's journey includes many aspects common to a successful emerging company: a talented team, hard work, some luck,¹³ and new opportunities made possible by technology. But Sphero had one more element working in its favor: participation in two MDIA programs. Sphero met its current CEO Paul Berberian through the Techstars Boulder accelerator.¹⁴ Subsequent participation in the Disney accelerator helped the company land the BB8 deal.¹⁵ Almost everyone – Sphero, its founders, and the MDIAs who invested in the company – benefitted from this arrangement.¹⁶ Everyone, it would seem, except for most of the mentors who volunteered insights and connections without securing direct benefits in return.¹⁷

Why MDIA mentors volunteer is a contestable matter. Implied reciprocity is one possible explanation.¹⁸ This would characterize mentorship as a form of direct economic exchange with an implicit *quid pro quo*. But reciprocity is not how mentorship works. Accelerator norms specify that mentee portfolio companies are not obliged to provide direct value back to a mentor, let alone return value that is commensurate to the value of expert mentorship.¹⁹ This leads some mentors to view men-

12. BB-8, SPHERO, <http://www.sphero.com/starwars/bb8> [https://perma.cc/753E-7URB] (last visited Jun. 5, 2017).

13. During a visit to Boulder, President Obama played with an early robotics toy. This brought some welcome attention to the startup's product. See John Aguilar, *Obama Surprises The Sink During Boulder Visit, Gets Accidental Yogurt Splash*, DAILY CAMERA (Apr. 24, 2012), http://www.dailycamera.com/ci_20473325/obama-surprises-sink-gets-accidental-yogurt-splash [https://perma.cc/W5PJ-X47G].

14. Sphero is now on its 8th round of financing and has raised nearly \$80 million in outside funding. *Sphero*, CRUNCHBASE, <http://www.crunchbase.com/organization/orbotix#/entity> (last visited Aug. 10, 2016).

15. Daniel Roberts, *How Sphero brought a Star Wars droid from screen to toy*, FORTUNE (Sept. 3, 2015), <http://fortune.com/2015/09/03/sphero-star-wars-droid-toy/> [https://perma.cc/R4FA-8T53].

16. *Id.*

17. Of course, one mentor, CEO Paul Berberian, directly benefitted from his role as a mentor. But most others who volunteered time for Sphero neither own stock nor did they receive direct financial compensation. See Telephone Interview with Anonymous Mentor #5 (Apr. 8, 2015) (notes on file with author).

18. Mentors could, for example, help portfolio companies with the implicit understanding that help will be returned on a time deferred basis.

19. See David Cohen, *The Mentor Manifesto*, HI, I'M DAVID G. COHEN (Aug. 28, 2011),

torship as a public-spirited contribution. But research shows that mentorship is not an exercise in pure altruism either.²⁰ Something more complex is going on with MDIAs.

Legal scholarship does not account for MDIA mentorship. Law and society scholars highlight “order without law” instances where informal norms and extralegal systems substitute for private contracts.²¹ Studies document anecdotal conditions where order without law lowers parties’ net transaction costs while reputational sanctions substitute for contract to limit opportunistic behavior.²² Along these lines, in prior work I analyzed issues associated with opportunism in MDIAs.²³ That work described the organizational structure of Investment Accelerators and explained how MDIAs play a role as a norm generator and norm enforcer, allowing reputational sanctions to substitute for contract.

Yet the foregoing legal scholarship does not resolve the mentorship conundrum. Findings of reduced transaction costs in norm-based exchanges do not explain experts’ motivation to work in for-profit environments absent direct consideration.²⁴ Other lines of legal literature,

<http://davidgcohen.com/2011/08/28/the-mentor-manifesto/> [<https://perma.cc/9HQL-4J9Q>].

20. See discussion *infra* Parts III and IV.

21. See Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Obligations in the Diamond Industry*, 21 J. LEGAL STUD. 115, 157 (1992) (discussing opting out of the public legal system); Robert Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 STAN. L. REV. 623, 627 (1986) [hereinafter Ellickson, *Of Coase and Cattle*]; Gillian K. Hadfield, *Legal Infrastructure and the New Economy*, 8 ISJLP 1, 7, 12(2012) (also discussing opting out of the public legal system and citing examples of social norms of trust and market responses to reputation for renegeing as sources of “economic relational services”); Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 55, 55-56 (1963) (highlighting the significance of social relationships). Relevant legal scholarship is further discussed *infra* Section III.A.

22. See, e.g., Jonathan M. Barnett, *Hollywood Deals: Soft Contracts for Hard Markets*, 64 DUKE L.J. 605, 609 (2015); Bernstein, *supra* note 21, at 157.

23. Bernthal, *Investment Accelerators*, *supra* note 1, at 140.

24. Formal contracts and other legal agreements resolve a social dilemma by promising a benefit—i.e., consideration—to prompt a party’s participation. Further, a contract mitigates against free rider problems by prescribing obligations to be borne in exchange for receiving a benefit. Most order without law accounts fail to describe how *benefits* induce collaborator participation in instances where a beneficiary is not obligated to directly reciprocate a benefactor. In contrast, benefits of collaboration are discussed in negative legal spaces scholarship about intellectual property and human capital. See Jacob Loshin, *Secrets Revealed: Protecting Magicians’ Intellectual Property Without Law*, in LAW AND MAGIC: A COLLECTION OF ESSAYS 123-24, (Christine A. Corcos ed., 2010); Kal Raustiala & Christopher Sprigman, *The Piracy Paradox: Innovation and Intellectual Property in Fashion Design*, 92 VA. L. REV. 1687, 1688 (2006); Elizabeth L. Rosenblatt, *A Theory of IP’s Negative Space*, 34 COLUM. J.L. & ARTS 317, 318-19

such as incomplete contracts and braiding, also fail to solve the mentorship conundrum.²⁵ Incomplete contract theories explain uncertain conditions that lead parties to risk *ex post* contractual disputes in order to save on *ex ante* contracting costs.²⁶ Braiding literature documents uncertain environments where parties agree to procedural frameworks that build trust even as particulars of yet-unknown innovations are left underspecified.²⁷ But MDIA mentorship differs in two respects from incomplete contracts and braiding. First, a mentor does not enter in to a contract at all.²⁸ Second, a mentor does not participate in a simple two-party exchange.²⁹ A more panoramic perspective about the MDIA network helps explain how MDIA mentor / startup exchanges function.

This Article's central thesis is that generalized exchange theory provides valuable insights that best explain the mentorship conundrum. "Generalized exchange refers to the indirect giving and receiving of benefits among three or more people who belong to the same group, organization, or network."³⁰ In generalized exchange, a "benefit given to a person is reciprocated not by the recipient but by someone else in

(2011). Relatedly, Orly Lobel chronicles how experts and new companies interact in a variety of contexts that eschew formal intellectual property protection measures, bypass human capital controls, and minimize formal contracts. See ORLY LOBEL, TALENT WANTS TO BE FREE: WHY WE SHOULD LEARN TO LOVE LEAKS, RAIDS, AND FREE RIDING 7 (2013).

25. See Matthew Jennejohn, *The Private Order of Innovation Networks*, 68 STAN. L. REV. 281, 281-82 (2016); see also 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, (2010) [hereinafter Gilson et al., *Braiding*]; Robert E. Scott, *A Theory of Self-Enforcing Indefinite Agreements*, 103 COLUM. L. REV. 1641, 1642 (2003) [hereinafter Scott, *Self-Enforcing Agreements*]; Robert E. Scott & George G. Triantis, *Incomplete Contracts and the Theory of Contract Design*, 56 CASE W. RES. L. REV. 187, 190-91 (2005) [hereinafter Scott & Triantis, *Incomplete Contracts*].

26. Parties willing to trade lower front-end transactional costs for higher potential back-end enforcement costs enter into incomplete contracts. See, e.g., Scott & Triantis, *Incomplete Contracts*, *supra* note 25, at 190.

27. See Gilson et al., *Braiding*, *supra* note 25, at 1384; Ronald Gilson, Charles F. Sabel, & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431, 435-37 (2009) [hereinafter Gilson et al., *Contracting for Innovation*].

28. See *infra* Section III.A.

29. See *infra* Section III.A.

30. Willer et al., *supra* note 11, at 121 (citing BRONISLAW MALINOWSKI, ARGONAUTS OF THE WESTERN PACIFIC (1922)); PETER P. EKEH, SOCIAL EXCHANGE THEORY: THE TWO TRADITIONS (1974); Toshio Yamagishi & Karen S. Cook, *Generalized Exchange and Social Dilemmas*, 56 SOC. PSYCHOL. Q. 235, 235-48 (1993); Peter Bearman, *Generalized Exchange*, 102 AM. J. SOC. 1383, 1383-415 (1997). Generalized exchange stands in contradistinction to direct exchange, such as a bilateral contract, where two actors trade benefits with one another. Nobuyuki Takahashi, *The Emergence of Generalized Exchange*, 105 AM. J. SOC. 1105, 1106 (2000).

the group”³¹ Generalized exchange deepens insight about why individuals and firms engage in pro-social behavior, even when such behavior appears in tension with maximizing a party’s near-term economic self-interest.³² Two prominent MDIA characteristics attend generalized exchange: (1) unilateral giving, and (2) indirect return of benefits.³³

Unilateral giving occurs where a MDIA mentor does not expect direct consideration in return from a portfolio company that benefits from the mentor’s help.³⁴ Instead, mentors trust that they will indirectly receive benefits—sooner or later—from someone else, either within or outside of the MDIA network. Original research shows that, even as social norms operate in the absence of contract, mentors realize economically significant professional rewards that substitute for contractual consideration.³⁵ This Article traces the movement of indirect benefits. An expert mentor feels like a volunteer. But at the same time an expert mentor: (i) strengthens relationships with other mentors (such as investors and serial entrepreneurs); (ii) realizes learning benefits such as seeing technology and investment trends across MDIA companies; and (iii) enjoys reputational gains vis-à-vis third parties outside of the MDIA network.³⁶

This Article makes two scholarly contributions. One, it is the first to document how MDIAs institutionalize generalized exchange.³⁷ This in-

31. Peter Kollock, *The Economies of Online Cooperation: Gifts and Public Goods in Cyberspace*, in COMMUNITIES IN CYBERSPACE 223 (Marc A. Smith & Peter Kollock eds., 1999) (discussing peer production as a form of generalized exchange).

32. See generally Chapin F. Cimino, *The Relational Economics of Commercial Contract*, 3 TEX. A&M L. REV. 91, 102 (2015) (“It is a mistake to conflate relational with altruistic. In this context, relational means the tendency toward both cooperation and competition. An economic actor can and will be both pro-social (cooperative) and anti-social (opportunistic).”).

33. Takahashi, *supra* note 30, at 1105; Kieran Healy & Kimberly D. Krawiec, *Custom, Contract, and Kidney Exchange*, 62 DUKE L.J. 645, 654 (2012) (“Generalized exchange involves more than a dyadic relation.”).

34. A MDIA does not preclude the possibility of direct benefits from a portfolio company to a mentor. Rather, a direct benefit becomes a future option that a mentor and mentee may mutually exercise in the future. See discussion *infra* Part III.

35. This is significant where for-profit entities, such as MDIAs and their portfolio companies, privately appropriate gains that flow from volunteer help. See discussion *infra* Part II.

36. See *infra* Part IV.

37. In this respect, this Article draws upon and contributes to relational contract scholarship that locate transactions on a relational scale ranging from discrete to highly relational.

vestigation shows how MDIAs' version of startup finance mingles market benefits with social norms.³⁸ Two, outside of law and entrepreneurship, generalized exchange deepens legal scholars' understanding of pro-social behavior.³⁹ Generalized exchange is rarely studied within legal scholarship.⁴⁰ Yet, generalized exchange reveals much about how and why profit-oriented parties share information. This potentially could enrich other lines of legal scholarship, such as investigations of why parties eschew or minimize legal tools that could secure exclusive

Study of the relational dimensions of contract—as examined by Macauley, Macneil and others—emphasizes the social context of collaboration. See Macauley, *supra* note 21; Ian Macneil, *Relational Contract Theory: Challenges and Queries*, 94 NW. U. L. REV. 877, 888, 901 (2000); Cimini, *supra* note 32.

38. Other valuable studies analyze economically significant innovation generated by individuals who do not fully capture wealth created by the innovation. See generally ERIC VON HIPPEL, *DEMOCRATIZING INNOVATION* (2005) (documenting and explaining user based innovation); Powell, *supra* note 6, at 322.

39. See, e.g., LYNN A. STOUT, *CULTIVATING CONSCIENCE: HOW GOOD LAWS MAKE GOOD PEOPLE* 4 (2011). Stout critiques conventional economic wisdom that most “people act like members of the species *homo economicus*: they act selfishly and rationally.” Along similar lines, Orly Lobel draws upon law and behavioral economics to document the nuance of commercial actors' behavior and motivations. See LOBEL, *supra* note 24, at 178–81. Research in other disciplines support the view the pro-social behavior is often an effective strategy within commercial contexts. For an overview of organizational behavior literature that questions *homo economicus* assumptions, see ADAM GRANT, *GIVE AND TAKE: A REVOLUTIONARY APPROACH TO SUCCESS* 169–70 (2013), explaining why generous individuals who use “otherish” strategies perform better than selfish actors in corporate contexts. Connections between generalized exchange and pro-social commercial behavior is discussed further, *infra* Section III.B.

40. A notable exception is Healy & Krawiec, *supra* note 33, at 647–48, which provides extended treatment of generalized exchange theory in examining kidney donor regimes. Certain disciplines use the closely related term “generalized reciprocity.” See, e.g., Wayne E. Baker & Nathaniel Bulkley, *Paying It Forward vs. Rewarding Reputation: Mechanisms of Generalized Reciprocity*, 25 *Org. Sci.* 1493 (2014) (giving extended treatment of generalized reciprocity in organizational behavior literature). In the well-known book *Bowling Alone*, Robert Putnam explains generalized reciprocity as “I’ll do this for you know without expecting anything immediately in return and perhaps without even knowing you, confident that down the road you or someone else will return the favor.” See John Simonett, *Civility and “Generalized Reciprocity”*, *Bench & B. Minn.*, Feb. 2003, at 27, 28–29 (citing ROBERT PUTNAM, *BOWLING ALONE* (1st ed. 2000)). Aside from Healy and Krawiec, legal scholars rarely examine generalized exchange or generalized reciprocity in close detail. Generalized reciprocity is glancing referenced in certain descriptions of economic production and open source software. See e.g., Gillian K. Hadfield, *Legal Infrastructure and the New Economy*, 8 *I/S: J.L. & POL’Y FOR INFO. SOC’Y* 1, 11 (2012) (summarizing motivations to collaboration apart from “economic incentive of a property interest”); Liza S. Vertinsky, *Making Room for Cooperative Innovation*, 41 *FLA. ST. U. L. REV.* 1067, 1074 (2014) (describing open source settings of “self-enforcing swift trust which is based on generalized reciprocity between group members”).

intellectual property or direct economic benefits.⁴¹

This Article proceeds in five parts. Following this Introduction, Section II provides a primer on investment accelerators and mentor / startup relationships. Next, Section III describes generalized exchange. Section IV then applies descriptive features of generalized exchange to reveal mentor motivation. Generalized exchange rewards a mentor participant in two economically valuable ways: (i) *internal indirect benefits* realized by a mentor from another MDIA participant; and (ii) *external indirect benefits* appropriated by a mentor vis-à-vis a third party outside of a MDIA. Finally, Section V examines steps that MDIAs take to structure and promote generalized exchange. The MDIA is only a decade old. It remains to be seen whether this institutional form will stand the test of time. Section V distills the determinants of when a MDIA's generalized exchange is sustainable versus where volunteerism will likely fail over the long haul. This contributes to understanding of where formal contracting tools are – and are not – required to induce participation in information-based exchanges.

II. MDIAs INSTITUTIONALIZE THE ORGANIZATION OF VOLUNTEER HELP TO STARTUPS

This Section details who participates in MDIAs as well as the phases of interaction between startups and expert mentors. Subpart A provides a short primer on accelerators. Subpart B then describes how MDIAs harness mentors' free contributions. The summary is illustrative, not comprehensive, in providing a snapshot of how mentors and startup portfolio companies interact within a MDIA.

41. Scholarship that examines instances where parties eschew or minimize legal tools includes "negative legal spaces" and peer production literature. Anthony Casey and Andrew Sawicki argue that informal rules often function better than formal rules in fostering creativity. See Anthony Casey & Andres Sawicki, *The Problem of Creative Collaboration* 1 (Coase-Sandor Working Paper Series in Law and Economics, Working Paper, 2016), http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2486&context=law_and_economics [<https://perma.cc/AF7B-5KXH>] (arguing that "informal rules functioning through mechanisms like reputation and trust can sustain an organizational solution without a manager, a hierarchical firm, or formal law allocating control rights"). On peer production, see, for example, Steven A. Hetcher, *Hume's Penguin, or, Yochai Benkler and the Nature of Peer Production*, 11 VAND. J. ENT. & TECH. L. 963, 971 (2009) [hereinafter Hetcher, *Hume's Penguin*]; Yochai Benkler, *Coase's Penguin, or, Linux and The Nature of the Firm*, 112 YALE L.J. 369, 372 (2002) [hereinafter Benkler, *Coase's Penguin*]. Part III of this Article addresses how generalized exchange relates to negative legal spaces and peer production.

A. *A Short Primer on the Accelerator*

The accelerator is a relative newcomer among startup support institutions. A startup is an “organization formed to search for a repeatable and scalable business model.”⁴² Startups operate under severe resource constraints. Key inputs from outside the boundaries of a fledgling firm must fulfill functions for which a startup lacks in-house capability. Accelerators proliferated over the past decade following the launch of Y-Combinator, widely regarded as the first accelerator in 2005, and Techstars, another accelerator pioneer, which in 2007 developed the MDIA model and subsequently scaled it across geographies.⁴³ Growth has been fast.⁴⁴ Over 5,000 startups participated in accelerators between 2005 and 2015.⁴⁵ An accelerator combines many elements of pre-existing institutions and professional services that fill startup gaps by provision of specialized resources.⁴⁶ Accelerators provide a fixed term of intensive help – usually three to four months – to portfolio companies.⁴⁷ Help includes entrepreneurial expertise, funding, work space and facilities,⁴⁸ peer-to-peer learning among entrepreneurs in portfolio companies, and introductions to potential customers and funders.⁴⁹

42. STEVE BLANK & BOB DORF, *THE STARTUP OWNER’S MANUAL: THE STEP-BY-STEP GUIDE FOR BUILDING A GREAT COMPANY* 23 (2012).

43. See Bernthal, *supra* note 1, at 142, 151–52 (discussing genealogy of accelerators). Definitional skirmishes exist concerning the definition of accelerators. In short, an accelerator is distinguished from an incubator on two grounds. One, accelerators help companies in lock-step on a fixed time frame, while an incubator typically accepts companies on a rolling basis. Two, an investment accelerator provides financing to a startup. An incubator may charge a startup in exchange for space and assistance. *Id.*

44. See Yael V. Hochberg, *Accelerating Entrepreneurs and Ecosystems: The Seed Accelerator Model* 16 (Apr. 3, 2015) (conference draft), <http://yael-hochberg.com/assets/portfolio/IPEHochberg.pdf> [<https://perma.cc/4R9E-J2D8>].

45. See Cali Harris, *Selling Social Capital: United States-Based Accelerators That Sell Social Capital and the Startup Entrepreneurs Who Buy It* 3–4 (Spring 2016) (unpublished M.S.S. thesis, University of Colorado) (on file with author).

46. For example, venture capitalists and angel investors provide financing by connecting sources of outside capital to new companies. Incubators and co-working spaces arrange physical facilities tailored to startup needs. Fractional finance, marketing, and legal providers tailor professional services to startups.

47. Bernthal, *supra* note 1, at 148.

48. Many accelerators are members of Global Accelerator Network (GAN) and are able to offer startups third-party perks from GAN sponsors totaling over \$800,000. *Join Us*, GAN, <http://gan.co/join-us> [<https://perma.cc/6DHR-BKMP>] (last visited Jun. 5, 2017).

49. See Bernthal, *supra* note 1, at 161–62; Harris, *supra* note 45, at 2; Hochberg, *supra* note 44, at 14.

Investment accelerators are a permutation of the VC industry.⁵⁰ A common arrangement is that an IA bundles \$25,000 and non-financial help to a portfolio company in exchange for a 5–7% ownership stake.⁵¹ An IA’s financial success hinges – at least in part⁵² – around profitable outcomes that flow from ownership in portfolio companies. Thus, an investment accelerator is a version of a “super angel” fund, effectively a small VC firm that seeks to invest in a portfolio of startups and profitably return capital from early stage portfolio companies to limited partners.⁵³

The MDIA systematically organizes informal expert help to startups. Mentors are “ahead” of entrepreneurs in professional experience and network connections.⁵⁴ While MDIA mentorship may be surprising to those unfamiliar with startup practices, volunteer help is not as novel within entrepreneurial communities as one might expect.⁵⁵ MDIAs

50. Venture capitalists are intermediaries that match outside sources of capital and expertise to startups. Bernthal, *supra* note 1, at 151–52. The accelerator landscape can be divided into two camps from an entrepreneurial finance perspective: non-investment accelerators (NIA) and investment accelerators (IA). NIAs do not seek profit through equity ownership in startups. NIAs instead prioritize objectives that may include community economic development, entrepreneurial education, social impact, or affinity group support. In contrast, IAs take partial ownership in its startups. *Id.* at 142.

A notable variation to the NIA model is that used by the non-profit Chicago New Venture Challenge (NVC). Startups in this university-run program compete for part of a million in cash prizes and in-kind services. When a winning team either raises the next round of funding or exits the company, NVC takes a small piece of the equity, based on a valuation, so that funds come back into the program to help sustain and support it. Telephone Interview by Malea McKeown with Anonymous Accelerator Representative #25, (June 8, 2016) (notes on file with author).

51. See Bernthal, *supra* note 1, at 160–61; Hochberg, *supra* note 44, at 7.

52. In addition to returns from portfolio companies, there are three additional sources of possible MDIA revenue. One is that the MDIA solicits sponsorships, such as financial contributions from legal providers, accounting providers, and software providers. Two is that many MDIAs are paid to “power” (i.e., operate and organize) corporate accelerators. Three, MDIAs that raise investment funds sometimes take a small management fee. Harris, *supra* note 45. While these three additional sources of revenue may be material for MDIAs, the majority of a MDIA’s success or failure will hinge on returns from portfolio companies.

53. Super angels are prolific investors in early stage companies. 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 3* (May 12, 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2285575 [<https://perma.cc/L24U-DV6L>].

54. See Harris, *supra* note 45.

55. Many economically valuable relations occur beyond the boundaries of contractual protection and, without more, it is unsurprising to find informal collaboration. The surpris-

build on a pre-existing behavior norm in certain startup geographies. For example, Bill Campbell—known as “Coach”—mentored many startups and figures in Silicon Valley, including early assistance to Google founders Larry Page and Sergey Brin.⁵⁶ Along similar lines, in 1976, Mike Markkula was a business person who gave away free help to startups on a regular basis.⁵⁷ Upon the suggestion of venture capitalist Don Valentine, Markkula helped a young entrepreneur named Steve Jobs write a business plan early in the lifecycle of Apple Computers.⁵⁸ Beyond instances of *ad hoc* help, regional development initiatives developed similar programs of volunteer assistance. For example, CONNECT San Diego prominently notes that it “helps entrepreneurs with *expert guidance*, access to capital, and the business tools they need.”⁵⁹ Studies of San Diego’s regional economic development emphasize that CONNECT, founded in 1985,⁶⁰ fostered social networks critical to nurturing San Diego’s economic growth.⁶¹

The MDIA extends pre-existing behavior norms of volunteerism in two innovative ways. The MDIA: (i) pools mentor volunteers available to help portfolio company entrepreneurs as part of its for-profit business model; and (ii) organizes mentorship across geographies at a scale that,

ing aspect of MDIAs is that informal mechanisms prevail in a for-profit context where competitive innovation objectives are paramount, where private interests capture the gains of fruitful collaboration, and where formal contractual alternatives are familiar and readily available. These traits distinguish MDIAs, for example, from volunteer work for a non-profit board with a public mission. Further, the direct beneficiary in a MDIA is not an individual, but a company (a startup) nested within a larger for-profit company (an investment accelerator). This distinguishes MDIA mentorship from other types of professional mentoring such as that available to new attorneys through a bar association.

56. As a New York Times obituary noted, “Strikingly, Mr. Campbell’s advisory role was often unpaid, at his insistence; he said he wanted to pay back what he felt was a debt to the nation’s technology region.” John Markoff, *Bill Campbell, Coach of Silicon Valley Stars, Dies at 75*, N.Y. TIMES (Apr. 18, 2016), http://www.nytimes.com/2016/04/19/business/bill-campbell-coach-of-silicon-valley-stars-dies-at-75.html?_r=0 [https://perma.cc/NQ99-3TBE].

57. WALTER ISAACSON, *STEVE JOBS* 75–78 (2011).

58. *Id.* Markkula was ultimately rewarded with a significant equity stake and an early role with Apple.

59. *About CONNECT*, CONNECT, <http://www.connect.org/about-connect> [https://perma.cc/2J5Z-926M] (last visited Jun. 5, 2017) (emphasis added). Founded in 1985, CONNECT is rooted in efforts to bolster the San Diego regional economy. Academic leaders at UC San Diego teamed with Qualcomm founder Irwin Jacobs and other community leaders to establish a program to provide access for startups to key experts and outside resources. CONNECT remains active thirty years later. *Id.*

60. *Id.*

61. Mary L. Walshok, et al., *Building Regional Innovation Capacity: The San Diego Experience*, 16 *INDUSTRY & HIGHER EDUC.* 27 (2002).

in the aggregate, expands the number of entrepreneurs with access to expert resources.⁶² Of interest is that the MDIA organizational strategy to assemble volunteer experts did not organically emerge worldwide. Instead the leading industry association, the Global Accelerator Network (“GAN”), crafted a MDIA playbook based primarily on the model of Techstars, a high prestige accelerator organization that originated in Boulder, Colorado.⁶³ The MDIA form of organization has now been replicated by over 100 accelerator programs across disparate locations.⁶⁴ MDIAs operate in large cities such as New York City; international locales such as Cairo, Egypt; and even locations with limited numbers of experienced technology entrepreneurs.⁶⁵ Vast differences in accelerator reputation, business cultures, technology capabilities, and background norms of behaviors exist across these locations.⁶⁶

MDIAs lead a broad trend in startup volunteerism. An increasingly common feature of the 21st Century startup world, even observable outside of MDIAs, is to assemble expert help in open information sharing environments.⁶⁷ In addition to MDIAs, other entrepreneurial support

62. A serial entrepreneur and investor in Colorado relayed to me that accelerators took something that was already happening in the startup community and “just made it bigger . . . a lot bigger.” Interview with Jim Franklin, in Boulder, Colo. (Sept. 17, 2015) (notes on file with author).

63. GAN is an organization that spun out of Techstars. As of July 2016, GAN has 122 accelerator members in its network, each of whom has a strong mentorship component. Interview with Patrick Riley, *supra* note 3.

64. *Id.*

65. *Id.*

66. A minor example: a managing director in Cairo, Egypt reported that his accelerator uses the informal mentor structure, however, there is not an equivalent translation for the “mentor” position in Arabic. So, he noted, they use the word “mentor.” Telephone Interview with Anonymous Accelerator Representative #16 (Apr. 7, 2015) (notes on file with author).

67. Efforts to spur innovation from the federal research laboratories, for example, lean heavily on individuals who do not charge for their services. *New Incubator Network to Help Clean-Energy Entrepreneurs*, NAT’L RENEWABLE ENERGY LABORATORY (Feb. 4, 2015), <http://www.nrel.gov/news/press/2015/16455> [<https://perma.cc/8HQ5-WGCG>].

institutions offer pre-assembled expert rosters available to assist biotechnology startups,⁶⁸ energy companies coming out of federal laboratories,⁶⁹ university spin outs,⁷⁰ corporate incumbents,⁷¹ and even companies that boast \$5-10 million in annual revenues.⁷² The ever-expanding roles played by volunteer experts in the startup economy is not yet well studied. It remains to be seen whether increasing institutionalization of volunteerism will prove sustainable over the long term.⁷³

68. LIFE SCIENCE TENN., <http://www.lifesciencetn.org/?page=LifeSciTnMentor> [<https://perma.cc/S34T-FKCG>] (last visited Jun. 5, 2017).

69. *New Incubator Network to Help Clean-Energy Entrepreneurs*, *supra* note 67.

70. *Finance 629*, U. OF MICH. CTR FOR ENTREPRENEURSHIP, <http://ipvid-eos.engin.umich.edu/resources/finance-629> [<https://perma.cc/L9WP-9UW4>] (last visited Jun. 5, 2017); *Innovation & Entrepreneurship New Venture Challenge*, U. COLO. BOULDER, <http://cunvc.org/> [<https://perma.cc/5BQ8-QT4G>] (last visited Jun. 5, 2017). University incubators and accelerators rely upon experts to assist startups moving off the campus. Hack-a-thons mingle expert volunteers who work alongside newcomers to an entrepreneurial community.

71. *Do or Do Not, There is No Try*, DISNEY ACCELERATOR, <http://disneyaccelerator.com/> [<https://perma.cc/F4PV-FKRE>] (last visited Jun. 5, 2017).

72. BLACKSTONE ENTREPRENEURS NETWORK, <http://www.bencolorado.org/> [<https://perma.cc/FLB7-W34B>] (last visited Jun. 5, 2017). Notably, free help is not limited to new startups. The Blackstone Entrepreneurs Network, for example, specializes in arranging tailored volunteer help from experts to so-called Gazelle companies that already have \$5-10M in annual revenues. Healthbox, a healthcare IA, previously used a fixed-structure that attracted pre-seed startups. Responding to the needs of their partner corporations, the program now focuses on startups that are ready to put technology into hospitals and may already have customers and are generating revenue. Telephone Interview by Malea McKeown with Anonymous Accelerator Representative #24 (June 8, 2016) (notes on file with author).

73. During the course of this research, one accelerator principal asked me “when will the shakeout occur?” By shakeout the principal meant the closing or consolidation of accelerators. The likely answer is that a shakeout or consolidation will occur around the time in which the first accelerator funds need to (or should be) returned to LPs. At that point, MDIA investors will have visibility about (i) individual program accelerator investment performance, and (ii) accelerator investments as an asset class. Separate from private investment accelerators, Europe has aggressively followed Startup Chile in the government sponsored accelerator model as an economic development strategy. In those circumstances, continuation of government funding becomes a political question, with some ties to economic impact. On European accelerators and governmental involvement, *see, e.g.,* Bruce Brown, *Europe accelerates startup accelerators, while US remains on cruise control*, DIGITAL TRENDS (June 15, 2016, 3:04 AM), <http://www.digitaltrends.com/cool-tech/europe-us-canada-startup-accelerators/#ixzz4ckKGRDto> [<https://perma.cc/EPM5-YA4M>] (noting government involvement such that a “significant part of the European Commission’s \$900 million annual budget for startups goes to accelerators”).

B. MDIAs Help Startups Harness Voluntary Mentor Contributions

Semi structured interviews were conducted to study and better understand how accelerators organize mentor networks and, further, how startup and mentors interact. This Article is informed by sixty-four interviews from 2015–16. Interviews spanned three types of accelerator participants: (i) sixteen interviews were with entrepreneurs;⁷⁴ (ii) seventeen interviews were with mentors;⁷⁵ and (iii) thirty-one interviews were with accelerator representatives.⁷⁶ Interviewees were promised anonymity in order to promote candid feedback.

Interviews reveal the institutional details about MDIA mentor involvement. This subsection highlights three dimensions of mentor networks: (1) experts voluntarily opt into a shared mentor pool; (2) mentor and startups often self-select one another; and (3) four different types of mentors participate. Each dimension is described in detail below.

1. MDIAs organize experts into a mentor network.

An accelerator has three alternatives in how engage experts, as shown in Figure 1.⁷⁷ Each of these models are presented in a stylized fashion, however, in practice they may be used in combination and are not mutually exclusive.

74. Fourteen of these entrepreneurs led startups that participated in a MDIA. Anonymous Entrepreneurs #4 and #10 did not participate in a mentor drive accelerator.

75. All but one of these mentors were involved in a MDIA. Anonymous Mentor #6 did not participate in a mentor driven accelerator.

76. All but one of these accelerator representatives were involved in a MDIA. Anonymous Accelerator Representative # 31 led an accelerator that is not mentor-driven. Further, Anonymous Accelerator Representative # 17 led an accelerator that relied upon mentors who were compensated with equity.

77. See Bernthal, *supra* note 1, at 144–45. Strategic organizational decisions about how to procure expert assistance may occur at the accelerator level or at the firm level of the startup.

Figure 1: Alternative Ways to Organize Expert Help⁷⁸

| | Employee (Make) | Contract (Buy) | Volunteer (Network) |
|--|---|--|--|
| Accelerator / Expert Arrangement | Accelerator hires expert full time (e.g., as Managing Director or Entrepreneur-in-Resident); expert works with multiple portfolio companies | Accelerator and expert enter into an agreement where expert offers help in consideration for payment (often an equity interest in the accelerator cohort) | Accelerator assembles a pool of experts, known as mentors, who are available to help portfolio companies in a cohort |
| Portfolio Co / Expert Arrangement | Portfolio company hires expert full time "in-house" as an employee, board director, and/or C-level officer | Portfolio company engages expert through a contract for part-time assistance, such as an advisory board role, a consultant arrangement, or a professional service provider | Portfolio company and expert informally meet; expert offers assistance |

The mentor-driven accelerator model is the most widespread among IAs overall as well as among highly ranked IAs.⁷⁹ Under the mentor-

78. *Id.* at 155.

79. Numerically speaking, "The [mentor-driven] Boulder model has won." Telephone Interview with Anonymous Mentor #8, (Apr. 15, 2015) (notes on file with author). This mentor is closely involved in both Y-Combinator and Techstars programs. One estimate is that about 80% of investment accelerators world-wide are mentor driven. Interview with Patrick Riley, *supra* note 3. The Global Accelerator Network, led by Riley, has 122 members, each of whom uses the MDIA model. 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 Bernthal, *supra* note 1, at 153

driven model, experts do not usually secure direct compensation for their efforts.⁸⁰ MDIA mentor contributions have the legal status of a gift.⁸¹ Portfolio companies operate in knowledge intensive enterprises and a mentor's contribution to a startup is information oriented.⁸² Unlike physical products and tangible resources, "information doesn't get used up even when it is consumed."⁸³ The non-rival character of information means that a mentor's contribution is not fully given away: what is contributed in the way of an information-based insight may well be used again by the mentor.⁸⁴

The aggregate of mentors' contributions is central to a MDIA's value proposition. A startup finds significant value in an accelerator's financial investment, reputational signals associated with accelerator participation, and provision of work space.⁸⁵ IAs often contend, however, that their most important value to a portfolio company is the information exchanges facilitated between startups and experts outside the startup firm.⁸⁶ Expertise and access to a mentor's social capital are central features of an accelerator's value to portfolio companies.⁸⁷

n.65.

80. The term "coach" is common to accelerator nomenclature to refer to an individual who is paid for sharing entrepreneurial expertise with a portfolio company. Interview with Patrick Riley, *supra* note 3.

81. The term "gift" describes something done or promised gratuitously outside of a contract. Consideration, an essential element of a contract, is "something of value given in return for a performance or promise of performance that is bargained for; consideration is what distinguishes a contract from a gift." *Deli v. Hasselmo*, 542 N.W.2d 649, 656 (Minn. Ct. App. 1996) (citing *Baehr v. Penn-O-Tex Oil Corp.*, 104 N.W.2d 661, 665 (1960)). Tax law defines a gift as "a voluntary transfer of property by a donor to a donee, without full consideration." J. MARTIN BURKE ET AL., *LEXIS EXPLANATION IRC SEC. 2511(A)*, Lexis (database updated 2016). The main focus in the tax practice area is the proper valuation and reporting of the donated services to non-profits. A noncash "gift-in-kind" includes a category for services of volunteer workers. See D. Edward Martin, *ATTORNEY'S HANDBOOK OF ACCOUNTING, AUDITING AND FINANCIAL REPORTING*, § 9.02, 6 (Matthew Bender ed., 4th ed. 2015).

82. To date accelerators have largely focused upon internet, mobile and software industries where information and novel ideas are crucial inputs.

83. Information production, whether a startup idea or an open source software effort, involves "quirky" attributes that distinguish the character of knowledge inputs from tangible resources. Benkler, *Coase's Penguin*, *supra* note 41, at 404.

84. "[C]reative works are non-rival in their consumption in as much as consumption by one person does not mean there is any less—of a book, for instance—to be consumed by another person." Hetcher, *Hume's Penguin*, *supra* note 41, at 975.

85. See Bernthal, *supra* note 1, at 157–58.

86. Harris, *supra* note 45.

87. *Id.* at 3 (observing that "accelerators sell social capital, and startup entrepreneurs buy it").

An accelerator cohort commonly includes ten startups at a time.⁸⁸ A MDIA expert network achieves critical mass at an 8:1 ratio of mentors to startups.⁸⁹ A mentor commonly works with a startup company two to four hours per week.⁹⁰ A portfolio company in turn collects multiple mentors' contributions. For startups the aggregate of these inputs totals around five to six hours per week. For accelerators a conservative estimate is that a single MDIA program attracts over \$1 million in volunteer expert contributions over a three to four month program.⁹¹

MDIA pooling of experts benefits startups. In the absence of accelerator (or similar) participation, a startup must seek out and engage experts on an ad hoc basis for assistance.⁹² Four benefits are provided by a mentor pool over *ad hoc* interactions. *One*, a MDIA lowers search and contracting costs, at least relative to alternative strategies to reach experts, such as community networking or formal engagement of advisors at the company's outset.⁹³ The MDIA provides a portfolio company access to a pool of pre-screened mentors with certified areas of relevant expertise.⁹⁴ This reduces search costs. Further, the mentor pool side-steps contracting costs early in a startup's lifecycle, a time of high uncertainty when value of an expert's contributions would be difficult to delineate and quantify *ex ante*. Meanwhile, acceptance into the accelerator indicates that a portfolio company has been vetted and likely to get attention to from mentors who might not otherwise meet with them.⁹⁵ Relatedly, a startup business often shifts strategy quickly, an event

88. See Bernthal, *supra* note 1, at 148.

89. A range of 8:1 to 10:1 expert to startup ratio appears to be the prevailing MDIA norm to date. Interview with Patrick Riley, *supra* note 3.

90. Research conducted for this Article found that an individual mentor averaged one to two hours per week. Surveys by GAN find that active mentors give 3.3 hours per week. Interview with Patrick Riley, *supra* note 3.

91. This estimate is based on average mentor participation across MDIAs. It assigns the value of mentor advising a rate of \$300 per hour. This number is conservative as it is considerably lower than rates that VCs and CEOs would command as expert witnesses, consultants, or other roles. Assumptions: eighty mentors actively involved in a cohort, fourteen-week program, each mentor averages three hours per week, \$300 per hour. With these assumptions, the value of volunteer contributions exceeds \$1 million.

92. See Bernthal, *supra* note 1, at 168-70, 182.

93. See *id.* at 146-48.

94. Portfolio companies trust mentors introduced through the curated accelerator network. "When you meet someone through someone else, that relationship evolves faster than" if not. Telephone Interview with Anonymous Entrepreneur #2, (Apr. 06, 2015) (notes on file with author).

95. See Bernthal, *supra* note 1, at 183-84.

widely known as a “pivot.”⁹⁶ When a startup alters its business model, access to new information and connections is frequently required. A critical mass of preassembled mentors with a range of capacities may include the new expertise needed by the startup, enabling a shift without incurring the search costs of assembling a new roster of experts.

Two, a technology-oriented startup faces the daunting task of tracking relevant technological and market changes with its limited resources.⁹⁷ Missing out on emerging tools risks missing out on cost savings and value creation that are shifting in exponential – not linear – ways.⁹⁸ Information is disaggregated across dispersed pockets and, from any single perspective, “information gaps” exist.⁹⁹ Information exchange between a portfolio company and multiple mentors allows a startup to better mitigate information gaps by assembling information provided by multiple mentors.

Three, pooling facilitates iterative exchanges among mentors.¹⁰⁰ Interaction with more individuals facilitates emergent ideas where one idea builds upon another.¹⁰¹ This benefit can be facilitated when a portfolio company hosts bi-weekly dinners so that its mentors interact and

96. See *id.* at 185.

97. See, e.g., W. Daniel Hillis, *The Dawn of Entanglement, essay in 2010: How is the Internet Changing the Way You Think?*, EDGE, <http://edge.org/response-detail/10707> [<https://perma.cc/7GCJ-GYKJ>] (last visited Jun. 5, 2017). See Bernthal, *supra* note 1, at 148 n.38.

98. Complexity in interconnected technology systems is such that no one person or entity can track all developments. For example, “The Entanglement” observes that technology is at once more interconnected yet less comprehensible. See, e.g., Hillis, *supra* note 97; *The Coming Entanglement: Bill Joy and Danny Hillis*, SCIENTIFIC AMERICAN: SCIENCE TALK (Feb. 15, 2012), <http://www.scientificamerican.com/podcast/episode/the-coming-entanglement-bill-joy-an-12-02-15/> [<https://perma.cc/992N-HFUN>]. Erik Brynjolfsson & Andrew McAfee highlight the difficulty most people have in grasping that technology is improving at an exponential – not linear – rate. This makes the speed of advances seem surprising. For example, software increasingly handles unstructured tasks not predicted as recently as 2004, such as effectively driving cars. ERIK BRYNJOLFSSON & ANDREW MCAFFEE, RACE AGAINST THE MACHINE 19 (2011). “This is the world we live in now. It’s one where computers improve so quickly that their capabilities pass from the realm of science fiction into the everyday world not over the course of a human lifetime, or even within the span of a professional’s career, but instead in just a few years.” *Id.* at 14.

99. Kathryn Judge, *Information Gaps and Shadow Banking*, 103 VA L. REV. (forthcoming 2017).

100. DON TAPSCOTT & ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGES EVERYTHING 44 (2006).

101. Emergence is “the creation of attributes, structures, and capabilities that are not inherent to any single node in the network.” *Id.* Erik Brynjolfsson & Andrew McAfee observe how complementary innovations expand the ability to “combine and recombine” ideas,

build on one another's ideas.¹⁰² Along these lines, in 2016, Techstars Boulder began placing multiple mentors into the same meeting with startups at the outset of the program. In this way, the addition of mentors who contribute to a portfolio company expand the "possible ways in which cooperating individuals can make each other creative in different ways than they otherwise would have been."¹⁰³ *Four*, accelerators also act as a buffer to protect startups against opportunism in their early outside interactions.¹⁰⁴ One example of this is that most MDIAs prohibit mentors from taking a paid advisory role during a startup's time in a program.¹⁰⁵

2. Mentors self-select and help through three types of interactions

An intense period where startups meet multiple mentors is common at the outset of an accelerator program. The high frequency of meetings that a portfolio company takes early in the program is often cast in terms of psychological affliction (such as "mentor madness"¹⁰⁶ and an "insane"¹⁰⁷ number of meetings) or mating metaphors ("speed dating" is common¹⁰⁸). Centralized commands that a mentor and a startup work together within a MDIA are atypical. Instead MDIA experts and port-

which cascades and accelerates into combinatorial explosions. BRYNJOLFSSON & MCAFFEE, *supra* note 98, at 20–21. They point out that with fifty-two cards, there are 52! ways to arrange the cards. This illustrates the "increasing returns to the scale of the pool of individuals, resources, and projects to which they can be applied." Benkler, *Coase's Penguin*, *supra* note 41, at 415.

102. Telephone Interview with Anonymous Entrepreneur #7 (Apr. 9, 2015) (notes on file with author).

103. Benkler, *Coase's Penguin*, *supra* note 41, at 417; see also Shun-Ling Chen, *Wikipedia: A Republic of Science Democratized*, 20 ALB. L.J. SCI. & TECH 247, 259 (2010). ("[T]he whole community gradually enriches the protected software commons with everyone's contributions.").

104. Bernthal, *supra* note 1, at 143–44, 165.

105. *Id.* at 186–87.

106. Telephone Interview with Anonymous Accelerator Representative #1 (Feb. 24, 2015) (notes on file with author).

107. Telephone interview with Anonymous Entrepreneur #3 (Apr. 8, 2015) (notes on file with author).

108. Telephone Interview with Anonymous Entrepreneur #2, *supra* note 94; Telephone Interview with Anonymous Entrepreneur #7, *supra* note 102; Telephone Interview with Anonymous Mentor #9 (Apr. 15, 2015) (notes on file with author). One CEO highlighted that "'Would you be my mentor?' . . . is kind of like asking someone out for a date." Similarly, "you can usually tell in the first couple minutes as to whether there is chemistry between people." Telephone Interview with Anonymous Entrepreneur #5 (Apr. 8, 2015) (notes on file with author).

folio companies commonly choose one another. An accelerator provides scaffolding early during a cohort's cycle where mentors and portfolio companies quickly meet in person and self-select into mentor / mentee relationships.¹⁰⁹ Other activities, such as advising in portfolio company pitch practices, invite mentors to sign up on an as available basis. Self-selection, which allows for maximum flexibility amid conditions of high uncertainty, may provide more efficient organization of creative contributions than alternatives such as contracts or vertical firm integration.¹¹⁰

The frequency of meetings during the mentor matching phase is such that certain dimensions of company operations may be limited or even stalled.¹¹¹ One managing director described the mentor matching phase "like digging for diamonds. You have to move a lot of mud. [It is] worth it when it works."¹¹² At an extreme, one accelerator had its

109. Benjamin Hallen, Christopher Bingham, & Susan Cohen, *Do Accelerators Accelerate? The Role of Indirect Learning in New Venture Development* 6 (July 2016) (unpublished manuscript), <http://ssrn.com/abstract=2719810> [<https://perma.cc/S4VT-ZW3Y>].

110. Governance structures organize how resources are allocated. Structures send signals concerning the relative value of different "courses of action" that an agent may take toward production. Benkler, *Coase's Penguin*, *supra* note 41, at 408. Human creativity in information production is difficult to standardize as an input for production. *Id.* at 414. When the objective of a collaborative effort is to produce a creative output where a desired product or service does not yet exist, unique problems attend contracting. James Bessen, *Open Source Software: Free Provision of Complex Public Goods*, in *THE ECONOMICS OF OPEN SOURCE SOFTWARE DEVELOPMENT* 57, 61, 67 (Jurgen Bitzer & Philipp J.H. Schroder eds., 2006) (noting that when "innovation is ex ante indescribable" market-based contracting may be socially inefficient). Gilson *et. al.* observe that Knightian uncertainty makes it difficult to contract efficiently *ex ante* in transaction specific investments, a fact that makes flexibility in agreements important. Gilson *et al.*, *Contracting for Innovation*, *supra* note 27, at 434, 451-52, 455.

111. LUKE DEERING ET AL., *ACCELERATE: FOUNDER INSIGHTS INTO ACCELERATOR PROGRAMS* 110 (2014) (near term "operations suffered" at startups during intensive mentor meetings at Springboard London program where each company had eighty meetings with mentors over two weeks). A concern about accelerators is that "founders may waste time meeting with too many mentors and resolving conflicting feedback instead of working on their products." Sandy Yu, *The Impact of Accelerators on High-Technology Ventures* 2 (May 2014) (unpublished thesis, New York University Stern School of Business) (on file with author).

112. Interview with Anonymous Accelerator Representative #2 (Mar. 6, 2015) (notes on file with author). Interestingly, early scholarship about accelerators suggests that portfolio company entrepreneurs with prior startup experience get significant value from accelerator participation. Hallen *et. al.* found that accelerator companies with more experienced teams, when compared to similarly experienced teams with companies that did not participate in an accelerator, benefit from accelerator involvement. Hallen *et al.*, *supra* note 109, at 33. This may be because entrepreneurs with prior experience are able to more effectively identify worthwhile mentor advice. Consistent with this, Y-Combinator anecdotally has "a number

startups begin with 110 mentor meetings during the program's first thirty days.¹¹³ More common is a portfolio company conducting forty to eighty mentor meetings during the first month of a program.¹¹⁴ Managing directors in less established accelerator programs supplement self-selection through more active matching of mentors and companies, perhaps because mentors are less motivated to proactively engage without a prompt.¹¹⁵ Overall, the tripartite purpose of the high volume of early mentor meetings is to (i) help a company and mentors to identify promising collaboration through on-going relationships during the program; (ii) orient a portfolio company to aspects of its business that require immediate attention;¹¹⁶ and (iii) teach entrepreneurs to communicate effectively about their startup.¹¹⁷

Mentors provide the benefit of their expertise through three types of

of returnees who wanted to go through YC again with a new startup idea." STROSS, *supra* note 4, at 31–32.

113. Telephone interview with Anonymous Entrepreneur #3, *supra* note 107.

114. See, e.g., Telephone Interview with Anonymous Accelerator Representative #1, *supra* note 106. Even at forty meetings, a participant described the initial experience as "pretty overwhelming." Concerns about whether time allocated to mentor meetings is worthwhile led one entrepreneur to conduct an experiment. You "run the risk of 40 coffees / week and get nothing done. So . . . I tested this." Using the digital assistant service Fancy Hands, the entrepreneur checked every meeting over past two months, and assigned a zero or one depending on the answer to "did the meeting lead to progress for the company?" The CEO found that 96% of meetings had in some way contributed to her company's growth. Telephone Interview with Anonymous Entrepreneur #10 (Apr. 13, 2015) (notes on file with author).

115. Telephone interview with Anonymous Mentor #7 (Apr. 15, 2015) (notes on file with author) (mentor in high reputation and new accelerator, comparing approaches); Telephone Interview with Anonymous Accelerator Representative #11 (Mar. 25, 2015) (notes on file with author). 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 said that he felt arbitrarily forced to have "senior [company] mentor." However, after being assigned a "very senior" individual, the company met the mentor every three weeks, "his advice was fantastic," and the company maintained a relationship with the mentor post program. Telephone Interview with Anonymous Entrepreneur #7, *supra* note 102.

116. Mentor feedback early in a program is often exhausting and emotional for entrepreneurs. Entrepreneur #1 noted that she was "crushed" "emotional" and "so unhappy those first few days." The harsh probing from mentors showed weaknesses that "take away everything you think you know." Over the course of the accelerator program, however, things improved. "Now feeling like I'm being rebuilt . . . we have a new forecast. New partners. [We are] rebuilding everything about the business." Telephone Interview with Anonymous Entrepreneur #1 (Apr. 6, 2015) (notes on file with author).

117. One CEO highlighted the value of having to "explain [his company] in a 100 different ways from a 100 different perspectives." Telephone Interview with Anonymous Entrepreneur #9 (Apr. 10, 2015) (notes on file with author).

interactions: (i) close engagement where lead mentors work directly with mentee startups, (ii) network extension where a mentor introduces a startup to an individual outside the accelerator network, and (iii) post-accelerator involvement.¹¹⁸ Each is explained below.

After mentors and startups self-select one another, portfolio companies are encouraged to identify a handful of “lead mentors” with whom they will regularly meet for the duration of the program. Similarly, mentors are encouraged to select and work closely with a single company. Mentors engage with startups to perform a wide variety of tasks. For example, mentors may help a team test its hypotheses about the startup’s prospects, validate company ideas, and “pivot” through strategic changes in direction.¹¹⁹ In addition, portfolio companies report that modeling—such as how mentors frame and approach problems—is valuable in mentor interactions.¹²⁰ Less common, mentors occasionally execute concrete tasks on behalf of a company.¹²¹

A second type of startup / mentor interaction is network extension. Portfolio companies highlight the value of network extension whereby mentors introduce a startup to individuals who are outside the MDIA network. One experienced entrepreneur said his initial mentors “were only one to two steps away from a mentor that I wanted to meet with.”¹²² That is, the initial mentors provided by the MDIA could make warm professional introductions to others outside the MDIA with on-point expertise valued by the entrepreneur. Further, portfolio companies in accelerators located in geographic areas that lack startup depth highlight that network extension is often the best way to acquire needed outside resources.¹²³ Accelerator Representative #16 noted that his accelerator asks startups “what mentors do you want to invite? [This is] especially important in that [the MDIA’s] portfolio now has companies

118. See Bernthal, *Investment Accelerators*, *supra* note 1, at 165.

119. Interview with Anonymous Entrepreneurs #1, 7, and 8. Telephone Interview with Anonymous Entrepreneur #1 *supra* note 116; Telephone Interview with Anonymous Entrepreneur #7, *supra* note 102; Telephone Interview with Anonymous Entrepreneur #8 (Apr. 9 2015) (notes on file with author).

120. Telephone Interview with Anonymous Mentor #5, *supra* note 17.

121. One mentor helped a portfolio company hire people by doing diligence calls on prospective employees and, additionally, conducted a code review for another company.

122. *Id.*

123. Telephone Interview with Anonymous Entrepreneur #6, (Apr. 9, 2015) (notes on file with author); Telephone Interview with Anonymous Entrepreneur #10, *supra* note 114.

in sectors that we are not experts in.”¹²⁴

Post accelerator involvement is the final phase of mentor – portfolio company interactions. The three to four month accelerator program timeframe provides a natural expiration for mentor – portfolio company relationships.¹²⁵ The end of a three to four month MDIA program is marked by a “Demo Day” where portfolio companies present their startup to a public audience.¹²⁶ Many relationships go forward after the graduation-type Demo Day event. Among portfolio companies interviewed, each reported that at least one mentor relationship continued after the accelerator.¹²⁷ Finally, interviews revealed that it is not unusual, as one company phrased it, that the accelerator “turned us onto the idea” of mentors.¹²⁸ In these instances, entrepreneurs indicated that learning to work with mentors becomes a habit that they take forward after the end of the accelerator program.¹²⁹

3. Four types of experts participate in MDIAs

Interviews identified four categories of MDIA mentors: experienced entrepreneurs, functional specialists, investors, and community members. A majority of mentors do not have formal ties to the MDIA, however, some mentors invest in the MDIA itself.¹³⁰ Each type of mentor is described in the bullets below.

- *Experienced entrepreneurs* are the prized “athletes” of the

124. Telephone Interview with Anonymous Accelerator Representative #16, *supra* note 66.

125. Telephone Interview with Anonymous Entrepreneur #1, *supra* note 117.

126. *Id.*

127. Sometimes post accelerator interaction is formalized. GAN CEO Patrick Riley estimates that less than 10% of active mentors directly invest in a mentee company. Interview with Patrick Riley, *supra* note 3. A mentor may join a mentee’s board of directors. Portfolio company #7; Entrepreneur #1 (still in a program during the interview, planned to ask one to two mentors to join as Board member or Advisory Board member). Telephone Interview with Anonymous Entrepreneur #1, *supra* note 116. Others engage as advisory board members. Telephone Interview with Anonymous Entrepreneur #2, *supra* note 94. Mentors occasionally join a portfolio company in full time capacity. Telephone Interview with Anonymous Mentor #9, *supra* note 108. Many relationships simply go forward on an informal basis. Telephone Interview with Anonymous Entrepreneur #5, *supra* note 108.

128. Telephone Interview with Anonymous Entrepreneur #2, *supra* note 94.

129. *Id.*

130. Anecdotally, discussions with accelerator representatives suggest that a minority – likely less than 10% – of mentors invest in the MDIA fund. But reliable data across MDIAs is not currently available about the percentage of mentors who invest in MDIAs. Interview with Patrick Riley, *supra* note 3.

MDIA mentor network.¹³¹ A serial entrepreneur is an individual who has been involved in the early stages of multiple startups. One managing director screens for entrepreneurs with at least two startup companies in their background.¹³² Experienced entrepreneurs are attractive to portfolio companies because of their tacit knowledge,¹³³ reputational benefits, and strategic expertise. They also have bursts of time availability that benefit MDIAs.¹³⁴

- *Functional specialists* are individuals that possess expertise in a specific functional area important to companies such as finance, legal, technology, and marketing.¹³⁵ Pre-seed startups rarely have the capacity to hire such specialists full-time, so functional specialist mentors provide outside assistance within their area of expertise.
- *Investors* bundle help to portfolio companies with the possibility of a desirable future financial relationship.¹³⁶ VCs and

131. Telephone Interview with Anonymous Accelerator Representative #2, *supra* note 112.

132. Interview with Anonymous Accelerator Representative #1, *supra* note 106. Most “coaches” that are compensated have leadership (i.e., C-level) experience in multiple emerging companies. Accelerator #17, which has a select group of mentors that are given equity once they cross a certain level of accelerator involvement, looks for mentors that have (i) built business valued at \$100 million or more, and (ii) received positive mentoring feedback from portfolio companies. Likewise, Accelerator #20’s “lead mentors” are business executives that worked for Fortune 500 companies or have built and sold venture backed companies. While Accelerator #20’s lead mentors are not directly compensated, about one-third invest in the accelerator and therefore receive compensation on “the back-end.” Telephone Interview by Malea McKeown with Anonymous Accelerator Representative #18 (June 2, 2016) (notes on file with author); E-mail from Anonymous Accelerator Representative #20, to Malea McKeown (June 23, 2016, 09:26 MST) (on file with author).

133. “‘Tacit knowledge’ is the skill or expertise, as opposed to easily codifiable information, that employees acquire through experience.” See 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, 577 n.10 (1999).

134. MDIAs report that entrepreneurs in between jobs sometimes spend tens of hours per week working with portfolio companies. Telephone Interview with Anonymous Mentor #9, *supra* note 108. When in between companies, such as after an exit or wind down, an entrepreneur may have extended time availability that permits spending one day per week or more with the accelerator. *Id.*

135. Telephone Interview with Anonymous Accelerator Representative #1, *supra* note 106 (looks for individuals who were “CFO, CTO or growth hackers”); Telephone Interview with Anonymous Mentor #17 (Sept. 17, 2015) (notes on file with author).

136. Anticipation of future interaction sometimes complicates interactions. A company may posture for future investment. An investor mentor may also advise with this possibility

angels are commonly mentors within MDIAs.¹³⁷ Corporate accelerators also include “prospective partner” mentors who could help create business opportunities with incumbent companies.¹³⁸ Like an investor, prospective partners present a source of possible future financial help.¹³⁹

- *Community members* are a fourth and smaller mentor category. This includes well-connected individuals and/or academics. Such individuals are often valuable for their ability to connect portfolio companies to resources in geographic areas beyond the mentor network.

III. A MDIA CREATES A GENERALIZED EXCHANGE SYSTEM WHERE INDIRECT BENEFITS AND A MUTUAL OPTION SUBSTITUTE FOR LEGAL CONSIDERATION

Why and how does mentor volunteerism coexist alongside the profit motives of a MDIA and its portfolio companies? Subsection A explains that legal scholarship does not provide a satisfying answer. Subsection B then sets forth the Article’s main thesis – viz., a successful MDIA brokers indirect yet economically significant trades between participants in a generalized exchange system. The viability of a MDIA’s strategy to attract high caliber mentors hinges on whether the promise of indirect benefits, unknown *ex ante* to a mentor, combined with volunteerism motivations and a mutual option for post accelerator engagement, are attractive enough to substitute for legal consideration and induce mentor participation.¹⁴⁰

in mind. Telephone Interview with Anonymous Entrepreneur #8, *supra* note 79.

137. Roles blend together. For example, experienced entrepreneurs and functional specialists also have the option – and are in fact encouraged – to also be an investor in the MDIA as well as portfolio companies.

138. Telephone Interview with Anonymous Accelerator Representative #13 (Apr. 29, 2015) (notes on file with author).

139. A larger company may “partner” with a portfolio company in a deal after an accelerator program concludes. In mentor/prospective partner interactions, a portfolio company is often “pitching them as a possible partner.” Telephone Interview with Anonymous Entrepreneur #8, *supra* note 119 (describing corporate accelerators). Accelerator Representative #13 reported that eight out of ten portfolio companies in a cohort entered into a business relationship agreement with the corporate sponsor after the accelerator ended. Telephone Interview with Anonymous Accelerator Representative #13 (Apr. 29, 2015) (notes on file with author).

140. Volunteerism motivation is further discussed in Section V.B of this Article.

A. *Legal Scholarship Does Not Resolve the Mentor Conundrum*

At least three legal scholarship threads bear upon but fail to resolve the mentorship conundrum. One, scholars examine conditions—like MDIAs—where high uncertainty and information asymmetry present challenges to commercial relationships.¹⁴¹ Two, “order without law” studies community norms that govern behavior in lieu of formal legal tools.¹⁴² Three, peer production examines large scale digital projects that aggregate fragmented volunteer contributions. Each is considered in turn.

Mentor / startup relationships exist in uncertain environments attended by asymmetric information between parties. Uncertainty is high because much is unknown about an early stage startup.¹⁴³ To the extent information is knowable, entrepreneurs possess far more information than individuals outside the startup about their startup’s capabilities, operations, and competitive landscape.¹⁴⁴ Uncertainty and information asymmetry create unique organizational challenges for collaboration.

Incomplete contracts literature theorizes why uncertain conditions lead parties to risk *ex post* contractual disputes in order to save on *ex ante* contracting costs.¹⁴⁵ Braiding literature documents procedural frameworks used to build trust even as particulars of yet-unknown innovations are left underspecified.¹⁴⁶ But incomplete contracts and braiding study formal arrangements that specify a benefit—i.e., consideration—

141. See, e.g., Darian Ibrahim, *The New Exit in Venture Capital*, 65 VAND. L. REV. 1 (2012) at 4. On issues of uncertainty in entrepreneurship, see FRANK KNIGHT, RISK, UNCERTAINTY, AND PROFIT 231 (1921).

142. Robert Ellickson, *A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry*, 5 J. LAW, ECON. & ORG. 83, 83–84 (1989). See Bernstein, *supra* note 21, at 157; Ellickson, *Of Coase and Cattle*, *supra* note 21, at 627; Hadfield, *supra* note 21, at 8; Macaulay, *supra* note 21, at 55.

143. KNIGHT, *supra* note 140, at 231 (defining uncertainty as instances in which “an objectively measurable probability or chance is simply inapplicable”). Gompers & Lerner define uncertainty as “a measure of the array of potential outcomes for a company or project.” PAUL GOMPERS & JOSH LERNER, *THE VENTURE CAPITAL CYCLE* 6–7, 157 (2004).

144. See Darian M. Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 VAND. L. REV. 1405, 1412 (2008) (many unknowns of a startup’s early stages “provides entrepreneurs with significant informational advantages over venture capitalists and increases agency costs by making it more difficult for venture capitalists to sort between good and bad entrepreneurs”).

145. Parties willing to trade lower front end transactional costs for higher potential back end enforcement costs enter into incomplete contracts. See, e.g., Scott & Triantis, *Incomplete Contracts*, *supra* note 25, at 190–91.

146. Gilson et al., *Braiding*, *supra* note 25, at 1383–84.

that induces a party's participation.¹⁴⁷ Neither incomplete contracts nor braiding explains why an expert participates in a MDIA without the inducement of direct consideration.¹⁴⁸

Preliminary agreements, like mentor / startup MDIA relationships, do not involve formal contracts. Examinations of preliminary agreements analyze instances where parties "have discussed a deal" but postpone formal contracting until asymmetric information is reduced and uncertainties are resolved.¹⁴⁹ An important difference between preliminary contracts and mentor startup relationships, however, concerns the structure of exchange. Preliminary contracts, as with incomplete contracts and braiding, primarily contemplate two-party exchanges. But a mentor does not anticipate a two-party exchange with proportional benefits.¹⁵⁰ Instead, a MDIA mentor unilaterally helps a portfolio company that is not expected to directly reciprocate.¹⁵¹

Norm-based "order without law" studies behaviors, like mentor activities, that are not governed by legal tools. "Order without law" investigates how social norms direct behaviors in tight knit communities,

147. *Id.*

148. Free riding is the flip side of this coin. When resources are freely available, a party may take benefits without a return contribution. Takahashi, *supra* note 30, at 1105 ("[T]he existence of a generalized exchange is a puzzle because any member of the exchange system can free ride. There is no guarantee of reciprocity.") Formal contracts mitigate free rider problems by prescribing obligations to be borne in exchange for receiving a benefit.

149. Alan Schwartz & Robert E. Scott, *Precontractual Liability and Preliminary Agreement*, 120 HARV. L. REV. 661, 664-66 (2007) (preliminary agreements are commonly "exploratory . . . [as] a necessary condition for parties to pursue an efficient project later"). Preliminary contracts organize a relationship so that, if a deal makes sense once uncertainty is resolved, a participant receives direct consideration. *Id.* at 662-63. ("[I]f the transaction turns out to be profitable after uncertainty is resolved, the parties will make their agreement more concrete and then conduct the transaction. But if the transaction turns out to be unprofitable, the parties will abandon the project.")

150. As we will return to below, relational contract theory considers relevant social factors outside of a formal agreement. A relational contract is not viewed seen as "an independent system" but rather as "integral parts of a much larger system" with "countless other goals." Macneil, *supra* note 37, at 888. Relational contracts are further discussed in Part III of this Article.

151. As explained in Part IV, a mentor expects to realize benefits from others in a network.

such as Nineteenth Century whalers,¹⁵² Twentieth Century cattle ranchers,¹⁵³ and modern day diamond traders.¹⁵⁴ This line of literature focuses primarily on *de facto* property rights and net economic efficiency.¹⁵⁵ “Order without law” has less to say, however, about a party’s motivation to volunteer outside contexts of reciprocal consideration.¹⁵⁶

Finally, legal scholarship on peer production organization bears resemblance to MDIA mentor activity. Peer production, used to create collective digital projects such as Wikipedia, Bitcoin, and open source software, involves “production systems that depend on individual action that is self-selected and decentralized, rather than hierarchically assigned.”¹⁵⁷ Peer production describes collaborative efforts where a mass of individuals voluntarily contributes to create a good or service.¹⁵⁸ MDIAs co-opt four prominent peer production organizational strategies: (i) a group of individuals contributes to a project; (ii) important mentor contributions are voluntary; (iii) expert participants self-select where and how to contribute; and (iv) fragmented information-based contributions are aggregated.¹⁵⁹

But peer production, as described in legal scholarship, differs in two important ways from mentor / portfolio company interactions.¹⁶⁰ First,

152. Robert Ellickson, *A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry*, 5 J. LAW, ECON. & ORG. 83 (1989).

153. Ellickson, *Of Coase and Cattle*, *supra* note 21, at 624.

154. Bernstein, *supra* note 21, at 115.

155. See Ellickson, *supra* note 153, at 84 (1989) (“when people are situated in a close-knit group, they will tend to develop for the ordinary run of problems norms that are wealth-maximizing”). “A norm is ‘wealth-maximizing’ when it operates to minimize the members’ objective sum of (1) transaction costs, and (2) deadweight losses arising from failure to exploit potential gains from trade.” *Id.*

156. In particular, order without law accounts fail to describe how *benefits* induce collaborator participation in instances where a beneficiary is not obligated to directly reciprocate a benefactor.

157. See YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* 62 (2006).

158. See *id.*

159. Scholars who examine peer production, such as Yochai Benkler, describe how certain volunteers ultimately reap economic benefits. For example, a company may volunteer to create and improve open source software, but in turn make money by selling services related to the software. This is further discussed as Indirect External Benefits, in Section IV.B.

160. Legal scholars observe peer production across several digital domains, including production of complex software and operating systems (e.g., GNU / Linux, Apache, and Android), creation and assembly of content for digital repositories (e.g., Wikipedia, Slashdot, and legal Wikis), and other digital realms where the decentralized production of the crowd is leveraged through technology (e.g., mapping Mars craters, production of multi-player

legal scholars seldom consider peer production projects that occur within a for-profit setting. This is significant because volunteer behavior often wanes where contributors become aware that private actors capture outsized commercial gains from their free contributions.¹⁶¹ Unlike peer production in a non-profit setting, mentors assist creation of goods and services from which a portfolio company and MDIA owners will directly profit, giving rise to a “sucker’s award” problem.¹⁶² Second, digital peer production goods often produce goods that are open to the public, as opposed to goods that are proprietary to a for-profit company.¹⁶³ Unlike with a collectively created public good, accelerator mentors help produce a club good where startups may exclude public access to its product or service.¹⁶⁴

games). Benkler, *Coase’s Penguin*, *supra* note 41, at 408, 439–43; Hetcher, *Hume’s Penguin*, *supra* note 41, at 976–77; George Triantis, *Improving Contract Quality: Modularity, Technology, and Innovation In Contract Design*, 18 STAN. J.L. BUS. & FIN. 177, 203 (2013); Chen, *supra* note 103, at 259 (The Free Software Movement “showed that pecuniary incentive may not be indispensable to the development of high-quality software . . .”).

161. See Benkler, *Coase’s Penguin*, *supra* note 41, at 440 (noting that volunteer AOL discussion moderators quit when they realized that the company was making money from their efforts; however, also noting counterexample of free software where some “contributors have made billions, while some of the leaders of major projects have earned nothing but honor”). Along these lines, some large-scale peer production has proven sustainable in digital collective endeavors. User generated content, such as customer reviews on Amazon, Yelp, and Trip Advisor, are a form of volunteerism that benefits companies in for-profit commercial settings. Other studies document economically significant innovation generated by individuals who do not fully capture wealth created by the innovation. See generally VON HIPPEL, *supra* note 38 (documenting and explaining user based innovation); Powell, *supra* note 6, at 322.

162. Where an individual creates a good owned by others, the individual event faces the “sucker’s award” of having to pay for the good at a later time. See Benkler, *Coase’s Penguin*, *supra* note 41, at 440. Benkler discusses an academic permutation of this problem where contributors are barred from using the end product they helped create, such as academics’ free contribution to journals’ content, whose institutions must then buy back the journals. *Id.* at 441.

163. A fundamental difference between a MDIA and digital peer production concerns the private vs. public benefits of what is produced. In particular, the free contributions of MDIA experts benefit for-profit companies that may limit public access to their products, a significant departure from the publicly accessible character of peer produced goods. To the extent that restrictions are placed upon a peer produced good, in contrast, the restriction aims to ensure that public benefit is safeguarded for the future. See Benkler, *Coase’s Penguin*, *supra* note 41, at 440–41 (puzzling over circumstances where contributors are barred from using the end product they helped create, such as academics’ free contribution to journals’ content, whose institutions must then buy back the journals).

164. In an accelerator, information production yields a club good that has non-rival characteristics, even where exclusion is possible. Patrick McNutt, *Public Goods and Club Goods*, in 1 ENCYCLOPEDIA OF LAW AND ECONOMICS: THE HISTORY AND METHODOLOGY OF

B. MDIAs Sweep Entrepreneurial Interactions Into a System of Generalized Exchange

In 1963, Stewart Macaulay published his classic study of Wisconsin businesspeople in the *American Sociological Review*.¹⁶⁵ Sociological tools are foundational to the field of relational contracts.¹⁶⁶ Relational contract scholars highlight that exchanges occur in a social context.¹⁶⁷ Certain transactions are more relational than others. The purchase of gas for a car, for example, is a relatively “discrete” transaction—that is, relational elements are minimal.¹⁶⁸ Other transactions, more sensitive to social context, are highly relational. Empirical support for the theoretical propositions of relational scholars is now found in a stream of social science research that underscores how “relational contract behaviors are economic contract behaviors.”¹⁶⁹

Legal scholarship has largely ignored another branch of sociology research relevant to understanding collaboration: generalized exchange.¹⁷⁰ Sociologists broadly identify two types of systems that structure exchanges: direct (i.e., bilateral) and generalized.¹⁷¹ Studies emphasize the importance of exchange structure. In particular, empirical

LAW AND ECONOMICS 927 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000). The ability to exclude underscores an important distinction between *production* of a good versus *access* to a good. Jonathan Barnett, *The Illusion of the Commons*, 25 BERKELEY TECH L.J. 1751, 1753 (2010). Other differences exist between MDIAs and digital peer production as well. Notably, there is a sizable numeric difference between volunteers in digital peer production and MDIA volunteers. “Peer production relies on making an unbounded set of resources available to an unbounded set of agents, who can apply themselves toward and unbounded set of projects.” Benkler, *Coase’s Penguin*, *supra* note 41, at 415. In contrast, MDIA mentor networks are dramatically smaller than the seeming “unbounded” critical mass—often numbering tens of thousands or more contributors—attracted to popular digital production projects. A reason for disparity in numbers is that MDIAs have higher barriers to participation than digital peer production projects. MDIAs are not open to just anyone, only to MDIA invitees.

165. Macaulay, *supra* note 21, at 55.

166. Cimino, *supra* note 32, at 96 (relational contract theory “is not grounded in law at all. Instead it is an interdisciplinary theory grounded in sociology”).

167. See Ian Macneil, *Values in Contract: Internal and External*, 73 NW. U. L. REV. 340, 344 (1983).

168. But not irrelevant. See *id.* at 344 (discussing relational elements in purchase of gasoline).

169. Cimino, *supra* note 32, at 95 (discussing business social science research and empirical evidence showing that “relational norms and social context have instrumental, quantifiable effects on exchange”).

170. But see Healy & Krawiec, *supra* note 40.

171. Willer et al., *supra* note 11, at 121–22 (“Unlike generalized exchange, direct exchange refers to the transfer of resources within a dyad. Researchers have identified two

research shows that structure strongly affects (i) socio-economic motivation of actors; (ii) how participants view the source of value provided from collaboration,¹⁷² and (iii) the character of collaboration's outputs.¹⁷³ Direct exchange – viz., I give you this, you give me that – is well known within legal scholarship. In direct exchanges “two actors exchange resources with each other.”¹⁷⁴ In contrast, “[g]eneralized exchange refers to the indirect giving and receiving of benefits among three or more people who belong to the same group, organization, or network.”¹⁷⁵ Generalized exchange has much to say about how MDIA systems – and, potentially, how other parts of the entrepreneurial community are organized. Figure 2 highlights the differences between direct and generalized exchange.

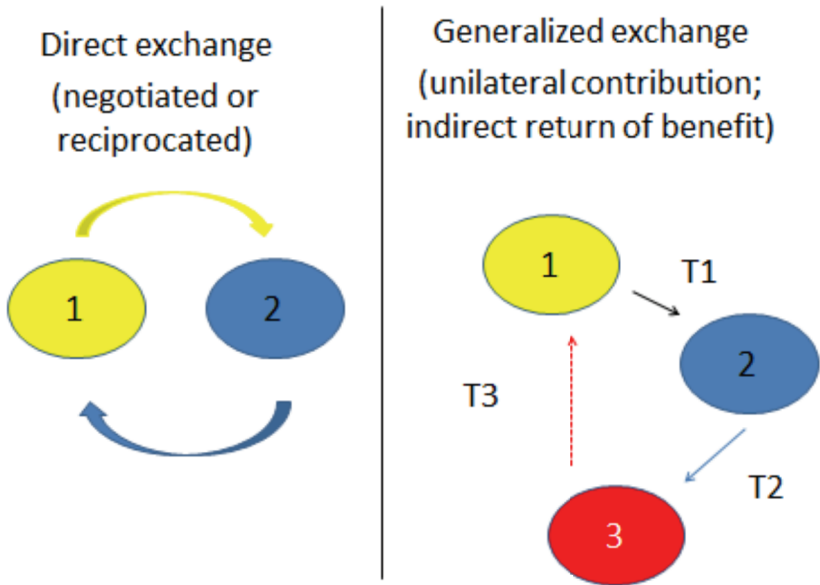
distinct structures of direct exchange: negotiated and reciprocal. In negotiated exchange, the transfer of resources between actors is simultaneous. In reciprocal exchange, some delay occurs between unilateral transfers of resources between members of a dyad, thereby requiring direct reciprocity. Examples of direct exchanges are more typical than examples of generalized exchange, including purchasing an item, trading goods, turn-taking, and various forms of dyadic favor-trading.”). See also Healy & Krawiec, *supra* note 33, at 646 (describing the “division between two modes of exchange: a customary type rooted in reciprocity and a formal type built on contract”).

172. Willer et al., *supra* note 11, at 120 (“Benefits received through generalized exchange have a stronger impact on individuals’ views of and feelings toward the group than direct exchange in which individuals or dyads are more likely to be seen as the source of benefits.”).

173. See, e.g., TERESA AMABILE, *CREATIVITY IN CONTEXT* (1996); Edward L. Deci et al., *A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation*, 125 *PSYCHOLOGICAL BULLETIN*, 627, 627–28 (1999).

174. Takahashi, *supra* note 30, at 1106.

175. Willer et al., *supra* note 11, at 121. See also Takahashi, *supra* note 30, at 1106 (explaining that social exchange theory’s roots are in sociology, psychology and anthropology); Linda D. Molm et al., *Building Solidarity through Generalized Exchange*, 113 *AM. J. SOC.* 205, 207 (2007) (“All forms of social exchange occur within structures of mutual dependence, that is, structures in which actors are mutually, or reciprocally, dependent on one another for valued outcomes.”).

Figure 2: Direct exchange versus generalized exchange

In its pure form, generalized exchange stands in contradistinction to a direct exchange.¹⁷⁶ The left side of Figure 2 shows a straightforward direct exchange: collaborator 1 gives to collaborator 2; collaborator 2 gives directly back to collaborator 1. The bilateral trade could be spelled out in a formal agreement (i.e., “negotiated”) or could be left to informal mechanisms (i.e., “reciprocated”).¹⁷⁷ In contrast, as shown on the right of Figure 2, generalized exchange has two notable characteristics: (1) unilateral giving, and (2) indirect return of benefits.¹⁷⁸ Unilateral giving is observed where a contributor does not expect consideration in return from the group member who directly benefits from the contributor’s help. In Figure 2, at time 1 (T1), collaborator 1 provides help to collaborator 2. Unlike in direct exchange, collaborator 2 is not obligated to

176. Takahashi, *supra* note 30, at 1106.

177. Molm et. al., *supra* note 176, at 207–08 (describing two forms of direct exchange: negotiated and reciprocated). Negotiated exchange involves up front determination concerning the details of an agreement. *Id.* Reciprocated exchange leaves the terms of an agreement open, however, it is expected that the benefit will be directly returned by the beneficiary. *Id.*

178. Takahashi, *supra* note 30, at 1105–06.

directly return commensurate value to collaborator 1. Rather, collaborator 1 trusts that benefits will return indirectly from another collaborator in the system. In Figure 2, the benefit arrives at time 3 (T3) from collaborator 3. In this way, a generalized giving system is not oriented around bilateral reciprocity. Instead, a generalized giving system is “characterized by unilateral resource giving because one’s giving is not reciprocated by the recipient, but by a third party.”¹⁷⁹ Sociologists over the last decade have observed generalized exchange within digital peer production environments as well as networks that blend digital and analog features.¹⁸⁰

Participation in a generalized exchange system is riskier than direct exchange with respect to compensation.¹⁸¹ Generalized exchange, unlike a guarantee secured through a formal contract, lacks the promise of direct consideration. Trust and risk attend generalized exchange since a participant seldom knows exactly when, or in what form, or from whom a benefit will return (or even if a benefit will accrue).¹⁸² If a participant in a generalized exchange system does not receive a benefit, there is little recourse (i.e., she cannot sue for breach of contract). More fundamentally, generalized exchange involves the structure of a social dilemma.¹⁸³ In the absence of a legal obligation that binds a participant’s contribution, generalized exchange invites individuals to take benefits

179. *Id.* at 1105.

180. Willer et al., *supra* note 11, at 121 (“Everyday examples of generalized exchange in modern organizations are common and often spontaneously emerge, including online file sharing, open-source software programming, peer-to-peer mentoring, and so on.”). Kollock observes that an interesting feature of internet-based peer production, where the “setting is one of bits rather than atoms” is that those who enjoy the fruits of the project are often unknown and anonymous, at least from the perspective of peer production contributors. Such contributions are more to “group as a whole.” Kollock, *supra* note 31, at 223, 228.

181. Takahashi, *supra* note 30, at 1107.

182. *Id.* (“[F]orming a generalized exchange system is very risky because unilateral resource giving is an invitation to exploitation (e.g., Bearman 1997; Gillmore 1987; Yamagishi & Cook 1993). This feature of generalized exchange coincides with the problem that is prevalent in another research area: the free rider problem of social dilemmas.”). A generalized exchange “system of sharing is both more generous and riskier than traditional gift exchange.” Kollock, *supra* note 31, at 233. When generalized exchange participants realize benefits, then the participant has greater feelings of solidarity and group identification than with a direct exchange system. In this way, the structure of exchange affects how participants feel about the network. The significance of this is elaborated upon in Part V of this Article.

183. Generalized exchange “has the structure of a *social dilemma*—individually reasonable behavior (gathering but not offering information) leads to collective disaster.” Kollock, *supra* note 31, at 222. Contracts resolve a social dilemma by promising a benefit—i.e., consideration—to prompt a party’s participation.

from a MDIA without making adequate contributions to the system.¹⁸⁴

MDIA mentors are said to be “willing to help without expecting anything in return.”¹⁸⁵ This norm of mentorship does not reflect pure altruism, rather, it highlights that mentors participate in generalized exchange where “benefits are indirectly repaid.”¹⁸⁶ Mentor #8, an investor, observed that it “takes a lot of convincing for people who are not used to it,” but the accelerator system is “not [one of] reciprocity.”¹⁸⁷ Language portending deserved good fortune back to a contributor, such as a “business karmic loop,” is used to describe rewards for a mentor’s MDIA participation the absence of a specified return.¹⁸⁸ Yet viewing the MDIA as a generalized giving system shows that, far from luck, mentors participate in a system where economic benefits redound, even if the exact form of benefit is uncertain at the time of a contribution.

Direct exchange obligations within a MDIA are not prescribed *ex ante* between a mentor and a portfolio company. Indeed a mentee portfolio company is not obligated to return benefits to a mentor. But neither does a MDIA foreclose instrumental benefits associated with direct mentor / mentee interactions. In this respect, the accelerator is not a

184. Accountability mechanisms, such as making participants’ conduct visible to others, may mitigate some free rider problems. Accountability measures encourage desirable contributions and discipline unwanted conduct. Kollock, *supra* note 31 at 233. The social dilemma involved in MDIAs echoes of “team production” problems in venture capital explored by Gordon Smith. In particular, Smith examines the “incentive to shirk” in connection with startup activities, stemming from the “inability to monitor team members perfectly and compensate them based on productivity.” D. Gordon Smith, *Team Production in Venture Capital Investing*, 24 J. CORP. L. 949, 961 (1999).

185. Observations of Isaac Saldana, Tim Jenkins, and Jose Lopez, Founders of SendGrid, in LUKE DEERING, *ACCELERATE: FOUNDER INSIGHTS INTO ACCELERATOR PROGRAMS* 111 (2014).

186. Willer et al., *supra* note 11, at 121.

187. Mentor #8, a professional investor, provided an example of how actors that insist upon direct reciprocity get left out of the accelerator system. Mentor #8 said he worked with an accounting firm for many years. He helped an accelerator portfolio company that had an accounting-related application. The startup needed introductions to other accountants. Mentor #8 asked for help on the startup’s behalf. Mentor #8’s accounting firm responded, “who is their accountant?” – implying that the firm would help the startup if the startup reciprocated by engaging the accountant firm. Unhappy with this tit for tat approach, Mentor #8 immediately moved onto a new accounting firm. If “[the firm] said ‘of course’ . . . then I would still be with them, and they’d also have a new client. Instead I moved on to a new firm.” Telephone Interview with Anonymous Mentor #8, *supra* note 79.

188. Interviewees invoke the word “karma” to describe the uncertain way an accelerator system works. Telephone Interview with Anonymous Mentor #8, *supra* note 79; Telephone Interview with Anonymous Mentor #7, *supra* note 102 (“business karmic loop has paid off for me”); PC #10.

pure system of generalized exchange.¹⁸⁹ Bilateral relations between a mentor and a mentee during an accelerator program take on the character of an implied mutual option.¹⁹⁰ The duration of the accelerator program acts as a probationary period. After the conclusion of a MDIA program, the mutual option may be jointly exercised by a mentor and mentee with respect to at least three types of relationships: (i) investment by a mentor into a mentee portfolio company;¹⁹¹ (ii) a full-time job opportunity for a mentor with a mentee portfolio company;¹⁹² and (iii) formal advising roles for a mentor with a portfolio company, such as Board of Director or Advisory Board member.¹⁹³ The socially integrated governance structure of accelerators, in sum, situates mentor / mentee interactions amid generalized exchange while preserving a mutual option that mentors and mentees may exercise in the future.

Figure 3 situates economic transactions along two axes: social importance and structure of exchange.

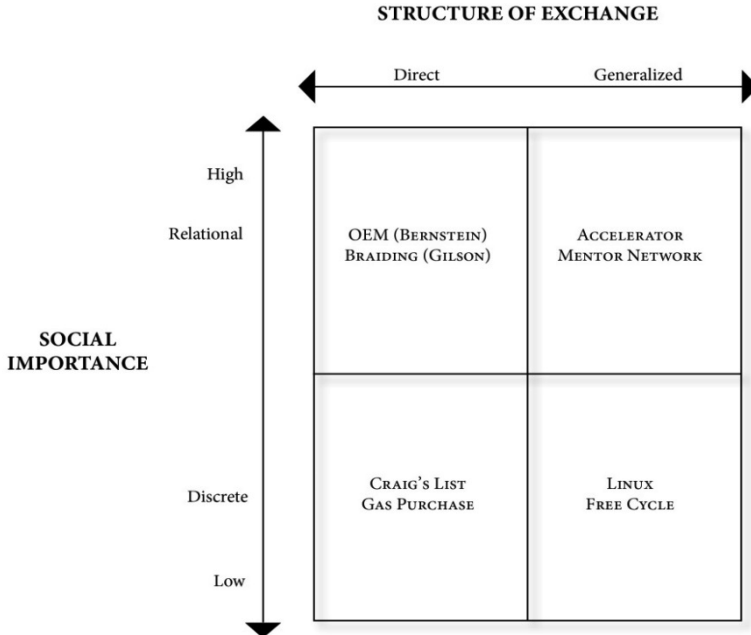
189. Mixed environments are common in the real world. Healy & Krawiec, *supra* note 33; see also Kollock, *supra* note 31 (discussing mixed gift and commodity economic elements of blood donations). Contrast the accelerator's mixed exchange with the Freecycle system, as described by Willer *et. al.* Freecycle has a "strict requirement" against a *quid pro quo* arrangement of exchange. See Willer *et al.*, *supra* note 11, at 121.

190. An option is a contract where a party may elect a future relationship. A mutual option exists where both parties may elect a future relationship.

191. This is reflected in Mentor #8's comment that "I don't expect anything from companies that I'm mentoring *other than opportunity to invest.*" Telephone Interview with Anonymous Mentor #8, *supra* note 79 (emphasis added).

192. Serial entrepreneur Tim Enwall, for example, mentored Revolv in the 2014 Techstars class. After the program, Enwall assumed a CEO role with the company.

193. Telephone Interview with Anonymous Mentor #8, *supra* note 79.

Figure 3: Social importance and the structure of exchange

Relational aspects of a transaction may be of low importance (i.e., “discrete” transactions). Purchasing tickets on Craig’s List as well as the purchase of gasoline from a convenience store are examples of discrete transactions.¹⁹⁴ Relational dimensions are central to a transaction on the other end of the spectrum. Long term relationships with close working partners, such as those described by Bernstein between original equipment manufacturers and suppliers in the Midwest, are highly relational transactional environments.¹⁹⁵

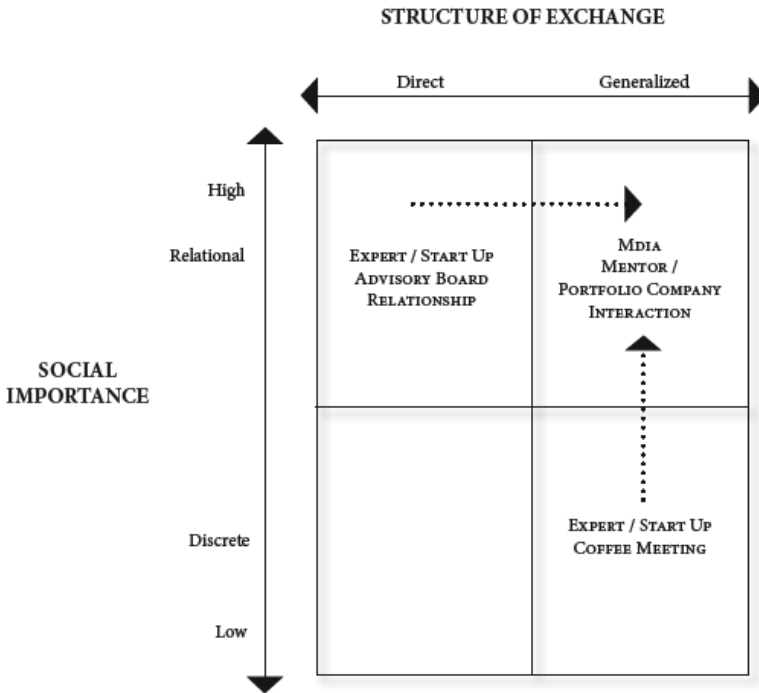
The other axis of Figure 3 highlights the structural spectrum of exchange, ranging from direct to generalized. As depicted in the upper

194. Willer et al., *supra* note 11, at 140–44.

195. See Lisa Bernstein, *Beyond Relational Contracts: Social Capital and Network Governance in Procurement Contracts 2* (Coase-Sandor Working Paper Series in Law & Econ., Working Paper No. 742, 2016), http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2425&context=law_and_economics [<https://perma.cc/CME3-NW4M>].

left quadrant, a braided agreement that structures innovation efforts between a large pharmaceutical company and a biotechnology startup, as detailed by Gilson *et. al.*, occurs within a highly relational and direct exchange environment.¹⁹⁶ As depicted in the lower right quadrant, generalized exchange may also be relatively discrete, such as a contribution of a volunteer who serves in relative anonymity helping analyze photos of the Mars mapping project, or a bicycle given away by a member of Free Cycle in the absence of a personal relationship.¹⁹⁷

Figure 4: MDIA impact on the structure of entrepreneurial exchange



Investigation shows that MDIAs push entrepreneurial collaboration into environments that are more relational and have the structure of

196. Gilson et al., *Braiding*, *supra* note 25, at 1405.

197. Willer et al., *supra* note 11, at 140–44.

generalized exchange. Figure 4 shows how MDIAs move two types of exchanges into the upper right quadrant (highly relational and generalized). First, consider an advisory board relationship between an experienced entrepreneur and a startup. This exchange is highly relational and direct in the absence of a MDIA. An expert advisory board member would trade advice, often on a prescribed time frame and cadence of interaction, in exchange for company equity.¹⁹⁸ MDIAs move this type of substantive collaboration into a generalized exchange structure. Substantive collaboration between the expert and portfolio company is functionally similar within the MDIA as it is outside of it, however, no terms of direct reciprocity are specified in the MDIA setting.¹⁹⁹ Second, consider an instance in which an expert is willing to conduct an *ad hoc*, one time meeting over coffee with a startup. This one-off exchange is discrete yet part of a startup scene's generalized system. On the relational scale, it is discrete because the meeting is a one-off information exchange where relational aspects are not nurtured. On the structural scale, it is generalized insofar as an expert gives into a community pool of goodwill without securing a direct return benefit. MDIAs heighten the relational dimension of this transaction by introducing a mechanism for repeat and regular interactions between the expert and the portfolio company that extend beyond a single coffee discussion. Moreover, the MDIA makes the contribution of the expert to the portfolio company more visible to others, which also expands relational aspects of involvement to a wider group of people.

Generalized exchange best resolves the mentorship conundrum. This body of literature also holds promise for other legal scholarly investigations. For example, sociologists consider ways in which peer production, which Benkler and others have examined, works as a type of generalized exchange.²⁰⁰ Further, recent scholarship about "negative legal spaces" analyze commercial environments, such as fashion and magician communities, that minimize use of available legal tools.²⁰¹

198. Bernthal, *supra* note 1, at 186 n.260.

199. *See id.* at 186.

200. *See, e.g.,* Willer, et al., *supra* note 11, at 121 ("Everyday examples of generalized exchange in modern organizations are common and often spontaneously emerge, including online file sharing, open-source software programming, peer-to-peer mentoring, and so on."). Kollock also consider peer production activity. Peter Kollock & Marc A. Smith, *Communities in Cyberspace*, in *COMMUNITIES IN CYBERSPACE 3-4* (Marc A. Smith & Peter Kollock eds., 1999).

201. *See* Raustiala & Sprigman, *supra* note 24, at 1762-64; Jacob Loshin, *Secrets Revealed*:

Generalized exchange may enhance insight into how multilateral benefits circulate in these communities. Finally, legal scholars such as Lynn Stout question assumptions that actors in commercial contexts are selfish and rational.²⁰² Such assumptions led to inaccurate predictions about behavior that Stout observed in corporations.²⁰³ Generalized exchange tools may be useful in furthering analyses such as pro-social behavior in corporate settings and solutions to team production dilemmas.²⁰⁴

IV. INTERNAL AND EXTERNAL INDIRECT BENEFITS ARE AVAILABLE TO MDIA MENTORS

MDIA collaborations between mentors and mentees occur primarily within a generalized exchange environment.²⁰⁵ A mentor enjoys feelings of volunteerism in the absence of guaranteed compensation.²⁰⁶ Yet,

How Magicians Protect Intellectual Property Without Law 1 (2007) (working draft), http://papers.ssrn.com/sol3/papers2.cfm?abstract_id=1005564 [<https://perma.cc/NZ3U-G6UQ>]; Rosenblatt, *supra* note 24, at 318–19; John Quiggin & Dan Hunter, *Money Ruins Everything*, 30 HASTINGS COMM'NS AND ENTMT'L J. 203, 213–14 (2008). A “negative legal space” describes an industry sector or a community of practice where parties largely forego legal mechanisms, such as intellectual property protections or contracts to protect human capital, in order to promote information sharing and new idea creation. See Rosenblatt, *supra* note 24, at 318–19. Relatedly, Orly Lobel chronicles how experts and new companies interact in a variety of contexts that eschew formal intellectual property protection measures, bypass human capital controls, and minimize formal contracts. See LOBEL, *supra* note 24, at 7.

202. Stout critiques conventional economic wisdom that most “people act like members of the species *homo economicus*: they act selfishly and rationally. ‘Economic Man’ does not worry about morality, ethics, or other people. He worries only about himself, calculatingly and opportunistically pursuing the course of action that brings him the greatest material advantage.” STOUT, *supra* note 39, at 4.

203. *Id.* at 8.

204. For an overview of organizational behavior literature about pro-social behavior, see GRANT, *supra* note 39 (explaining why generous individuals who use “other-ish” strategies perform better than selfish actors in corporate contexts). Team production refers to contexts, such as cooperation between venture capitalists and entrepreneurs, in which: “(1) several types of resources are used; (2) the product is not the sum of separate outputs of each cooperating resource; and (3) not all resources used in team production belong to one person.” Smith, *supra* note 183, at 950 n.5 (distilling definition of Alchian and Demsetz). Collaborative aspects of team production give rise to moral hazard and shirking problems. *Id.*

205. Mentors and mentees have a mutual option for direct exchange that may be exercised at a later time. See *supra* Sections III.A, III.B.

206. See DAN ARIELY, PREDICTABLY IRRATIONAL 67, 77–102 (2010) (summarizing behavioral economics research that explains why “we are happy to do things, but not when we are paid to do them”). Ariely argues there is a crucial distinction between a world of “social exchanges” versus a world of “market exchanges.” *Id.* at 84–85. Payment moves an activity out of the domain of social exchange and into the market domain. This is consistent with

a mentor realizes two kinds of economic rewards: (i) internal indirect benefits—i.e., gains from others within the MDIA network; and (ii) external indirect benefits—i.e., gains from third parties outside of the MDIA network. Each is described in turn.

A. *Four categories of internal indirect benefits are visible within MDIAs*

The range of participants in a MDIA composition creates a variety of possible ways to reward a participant's unilateral contribution.²⁰⁷ Interviews with members of an accelerator's exchange system show how internal indirect benefits ("IIBs") circulate. Four categories of economically significant IIBs are observed within a MDIA: (i) learning, (ii) social capital, (iii) entrepreneurial finance, and (iv) job prospects.

Learning benefits are one type of IIB.²⁰⁸ MDIA participation enables pattern recognition associated with exposure to multiple companies. The opportunity to see ten (or so) new companies within a MDIA cohort exposes a mentor to non-public information, including multiple new business ideas, emerging technologies, and investor trends.²⁰⁹ Experts value non-public information that they can use to identify under-valued opportunities and exploit asymmetric information environments.²¹⁰

empirical work in psychology which suggests that tangible direct rewards adversely affects intrinsic motivation for otherwise interesting tasks. Edward L. Deci et al., *A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation*, 125 PSYCHOL. BULL. 627, 653 (1999). Deci et al., *supra* note 174, at 653 (analyzing data over 128 studies).

207. *Id.*

208. Scholars document the economic value of learning available to individuals and companies through monitoring and active engagement. For example, banks compete at below market prices for the business of new clients because of the information advantages that flow from such relationships and prove valuable over time. Steven A. Sharpe, *Asymmetric information, bank lending and implicit contracts: a stylized model of customer relationships*, J. FINANCE 45, 1069–87 (1990); see also Brian Broughman and Jesse Fried, *Do VCs use inside rounds to dilute founders? Some evidence from Silicon Valley*, 18 J. CORP. FIN. 1104, 1105 (2012) (discussing asymmetric advantages associated with informational lock-in). On learning and monitoring broadly, see generally Charles Sabel, *Learning by Monitoring: The Institutions of Economic Development*, in THE HANDBOOK OF ECONOMIC SOCIOLOGY 37–65 (Neil J. Smelser & Richard Swedberg eds., 1st ed. 1994).

209. As a mentor in accelerators told me, "I'm not looking for my mentees to add value back to me (although they sometimes do). I expect that the value of networking with other mentors, access to a 'first look' at a range of ideas and the additional credibility on my LinkedIn profile will be the compensation I receive for my contributions." Email from Peter Bell to author (July 14, 2016, 06:44 PM) (on file with author).

210. See Sharpe, *supra* note 177; see also JOSH LERNER, YALE UNIVERSITY INVESTMENTS OFFICE: JUNE 2003 4 (2003) (discussing information gaps in private markets that may be profitably exploited by experts).

Some aspects of MDIA learning are reciprocal insofar as a mentor gets insight by working directly with a mentee portfolio company. But other significant learning benefits are indirect and flow from peripheral interactions with other companies as well as other mentors in the system.²¹¹ Mentor #1 highlighted the learning value associated with hearing other mentors comment on a portfolio company.²¹² Similarly, Mentor #10 highlighted the value of exposure to “cutting edge things and smart people.”²¹³ MDIA mentors gain insight about emerging tools, techniques, and industry trends. Mentor #2 underscored that a MDIA reveals “what is emerging.”²¹⁴

Corporate accelerators, where incumbent companies sponsor a MDIA, bet that accelerators provide learning benefits for managers and executives that participate as mentors. The corporate accelerator is a notable trend that some believe represents the future of the accelerator industry.²¹⁵ Corporate accelerators include Europe’s Startup Bootcamp, Techstars’ corporate branded accelerators (known as “Powered by Techstars”), the Nike Girl Effect Accelerator, and even a legal startup accelerator offered by LexisNexis.²¹⁶ Corporate accelerators facilitate interaction between startups and an incumbent sponsor’s management and employees, who provide free mentorship to startups that frequently

211. For example, mentor #5 highlighted the value of working with other mentors in helping a portfolio company. Telephone Interview with Anonymous Mentor #5, *supra* note 17.

212. Telephone Interview with Anonymous Mentor #1 (Apr. 6, 2015) (notes on file with author).

213. Telephone Interview with Anonymous Mentor #10 (Apr. 16, 2015) (notes on file with author).

214. Telephone Interview with Anonymous Mentor #2 (Apr. 6, 2015) (notes on file with author).

215. See Interview with Accelerator Rep #14 (June 23, 2014) (notes on file with author); Interview with Accelerator Rep #29 (June 22, 2016) (notes on file with author). For general overview of corporate accelerators, see Hochberg, *supra* note 44, at 16, 44; *What Corporate Incubators and Accelerators Can Mean for Your Business*, ENTREPRENEUR (Feb. 15, 2017), <https://www.entrepreneur.com/article/287495> [<https://perma.cc/6AUF-24MV>].

216. *Startupbootcamp is a global family of industry-focused startup accelerators*, STARTUPBOOTCAMP, <https://www.startupbootcamp.org/about-us/> [<https://perma.cc/5Q3V-SALJ>] (last visited Jun. 5, 2017); *The Sprint Accelerator is a Hub for Corporate Innovation & Entrepreneurial Engagement*, SPRINT ACCELERATOR, <http://sprintaccel.com> [<https://perma.cc/9DLS-SR6B>] (last visited Jun. 5, 2017); THE GIRL EFFECT ACCELERATOR, <http://girleffectaccelerator.com/> [<https://perma.cc/BWG2-RNX6>] (last visited Jun. 5, 2017). LexisNexis Launches New Legal Tech Accelerator in Silicon Valley, LEX MACHINA, <https://lexmachina.com/media/press/lexisnexis-launches-new-legal-tech-accelerator-in-silicon-valley/> [<https://perma.cc/7XLS-6MKP>].

aim to upend their industry.²¹⁷ Other industry specialists, who are not part of incumbent company sponsors, join the corporate accelerator mentor pool as well.²¹⁸ The corporate accelerator promises the incumbent access to new talent and ideas. Startups participate, in turn, in order to get access to industry knowledge and professional connections.

A second IIB available to MDIA mentors is social capital. Social capital is an “advantage created by a person’s location in a structure of relationships.”²¹⁹ Accelerators amplify network benefits through activities and tools designed to broker useful connections. An event that convenes mentors in a common setting, such as a mentor-only dinner, is typical at the outset of accelerator programs.²²⁰ Mentors also interact with one another while advising portfolio companies contemporaneously, such as a pitch practice or a group mentor meeting.²²¹ Physical proximity between mentors, moreover, is augmented by technology tools. For example, the application *Conspire* offered a dedicated Techstars network that promised to inform a mentor “exactly how to get the best introduction to whoever you want to meet – a customer, employer or investor and as a mentor.”²²² Mentor #9 observed, “I don’t know how much it would have cost to organize [this network for] myself.”²²³ This reflects an assessment that the mentor’s unilateral contributions toward a portfolio company were, in turn, rewarded by high value connections to others in the accelerator network.

A third type of IIB relates to entrepreneurial finance. For angel investors, the opportunity to interact with other MDIA mentors expands an individual’s “deal flow” – i.e., leads to opportunities to invest in

217. See Hochberg, *supra* note 44, at 1.

218. Incumbent companies may also realize outsource research and development gains.

219. See RONALD BURT, *BROKERAGE AND CLOSURE: AN INTRODUCTION TO SOCIAL CAPITAL* 4 (2005).

220. For example, Techstars program kicks off with a mentor dinner where mentors dine together, new mentors are introduced, and a sneak peek at the incoming cohort is revealed.

221. METRICK, *supra* note 4, at 3.

222. Techstars Mentor Newsletter Q1, Mar. 10, 2015 (on file with author). The message notes that the “network size as of January 2015, is 936 members, which connect to 736,952 first-degree contacts and 3,233,818 second-degree contacts. TS network members have sent each other 1.5 million messages to date.” In August 2016, FullContact announced that it acquired *Conspire*. See Bart Lorang, *FullContact Acquires Conspire*, FULLCONTACT BLOG (Aug. 17, 2016), <https://www.fullcontact.com/blog/fullcontact-acquires-conspire/> [<https://perma.cc/YV4N-UA8C>].

223. Telephone Interview with Anonymous Mentor #9, *supra* note 108.

other companies.²²⁴ For entrepreneurs, the opportunity to interact with other MDIA mentors may lead to financing of their own ventures.²²⁵ The experience of Matt Van Horn provides an example of how generalized exchange rewards MDIA participation in the absence of contract.²²⁶ Van Horn was an experienced entrepreneur, having co-founded Zimride (now known as Lyft).²²⁷ Van Horn became involved with Techstars.²²⁸ Van Horn gave a unilateral contribution: a day of help mentoring portfolio companies in the Boulder program.²²⁹ An indirect benefit subsequently circulated back to Van Horn through a relationship with an investor. Through mentoring Van Horn met another Techstars mentor, Brad Feld, a managing director with venture capital fund Foundry Group.²³⁰ When Van Horn went to found his next venture, June Life, the connection with Foundry Group was already in place. Foundry Group funded June Life in April 2014.²³¹

Finally, a fourth type of IIB involves future employment opportunities. Functional specialist mentors—such as lawyers, finance experts, and marketers—know that MDIA portfolio companies operate with limited resources.²³² While a MDIA portfolio company might engage a functional specialist after a program concludes, a more likely benefit for a functional specialist is that another mentor engages the specialist or recommends the specialist to others.²³³

B. *External indirect benefits include reputation gains*

Participation in generalized giving systems also gives rise to rewards, defined here as external indirect benefits (“EIBs”) that are captured from interactions outside the system itself. Pecuniary gains are found through interactions with third parties who are not part of the MDIA network. Figure 5 diagrams how MDIA participants capture EIBs

224. MANGUM, *supra* note 53, at 28.

225. Telephone Interview with Anonymous Mentor #9, *supra* note 108.

226. Telephone Interview with Anonymous Mentor #14 (June 21, 2014) (notes on file with author).

227. *Id.*

228. *Id.*

229. *Id.*

230. *Id.*

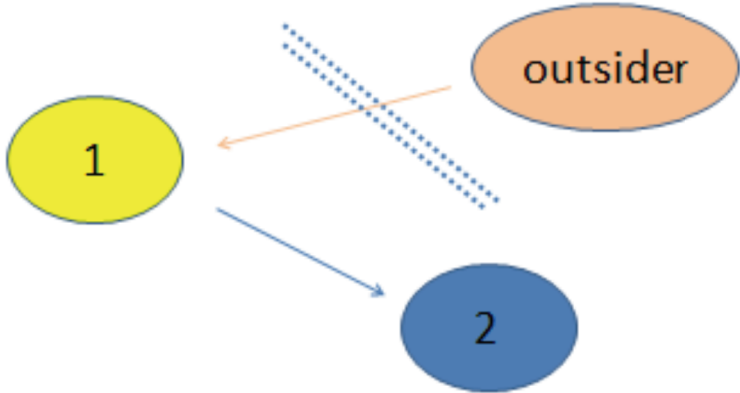
231. *Id.*

232. Telephone Interview with Anonymous Mentor #17, *supra* note 134.

233. Functional specialists, such as legal providers, also feel compelled to sponsor accelerators so that they are visible and present. *Id.*

from third parties outside of a generalized system. Collaborator 1 unilaterally helps collaborator 2. Collaborator 1 is later rewarded in a transaction with a third party outsider who is not part of the MDIA network.

Figure 5: External indirect benefits realized by a generalized system participant



Investigation shows two common types of EIBs: (i) exploitation of learning benefits; and (ii) reputation gains. Learning benefits, as discussed in Section IV.A *supra*, present a type of IIB available to mentors. The value of learning benefits is often realized through external interactions. Peer production contexts show how learning benefits may be realized vis-à-vis third parties.²³⁴ Open source software, for example, illustrates how EIBs present economic benefits that flow from learning benefits associated with generalized exchange participation.²³⁵ Open source software is collectively created through fragmented voluntary contributions and, subject to license terms, then given away for free to the public.²³⁶ Contributors to open source projects often do not secure

234. Benkler labels this “indirect appropriation.” See Benkler, *Coase’s Penguin*, *supra* note 41, 405 n.76 (“appropriation of the value of one’s effort by means other than reliance on the excludability of the product of the effort”).

235. *Id.* at 371 n.2, 386.

236. It is estimated that over half of the developers in open source projects are employees with for-profit or non-profit entities. Barnett, *supra* note 165, at 1805, 1809, 1811 (“sponsor firms can accrue premia on proprietary applications . . . that run on that base”).

direct compensation.²³⁷ But contributing firms and individuals, who become familiar with the open source software through their involvement in its creation, then sell complementary services and goods to third parties.²³⁸ The magnitude of gains from EIB strategies can be significant.²³⁹ IBM reported that it earned \$2 billion in server sales revenue from a \$1 billion open source investment.²⁴⁰

Mentors similarly appropriate reputational benefits through third party interactions with parties outside the accelerator system. Reputation serves as a shortcut to identify wealth creation opportunities and mitigate opportunistic behavior amid conditions of high information asymmetry and uncertainty. Private entrepreneurial ventures exhibit high variance in outcomes.²⁴¹ As discussed in Section III.A *supra*, information asymmetries exist between what entrepreneurs know about their companies versus what others know about their companies.²⁴² Much information about entrepreneurial skills and capabilities are difficult to obtain in private company settings. The accelerator imprimatur signals to those outside an accelerator that the mentor “know[s] things,” a reputational enhancement captured in pecuniary terms through third party interactions.²⁴³ Reputation established through MDIA participation may also serve as a bond. Where a mentor misbehaves vis-à-vis a third party, a network capable of administering reputational sanctions

237. *Id.* at 1809 n.128.

238. *Id.* at 1805, 1809, 1811 (“sponsor firms can accrue premia on proprietary applications . . . that run on that base”).

239. IBM alone invested over \$200 million annually to Linux development, and other companies such as Intel, HP and Novell pursue similar strategies. See, e.g., Don Clark, *IBM Again Pledges \$1 Billion to a Linux Effort*, WALL ST. J. BLOG (Sept. 16, 2013, 5:57 PM), <http://blogs.wsj.com/digits/2013/09/16/ibm-again-pledges-1-billion-to-a-linux-effort/> [<https://perma.cc/UFR2-PMDJ>]; TAPSCOTT & WILLIAMS, *supra* note 100, at 70; Bessen, *supra* note 110, at 1.

240. Stephen Shankland, *IBM's Linux Revenue: Services to Overtake Servers*, CNET (Aug. 2, 2014, 5:44 PM), <http://www.cnet.com/news/ibms-linux-revenue-services-to-overtake-servers/> [<https://perma.cc/6XXQ-XFRA>]. In this way, open source software may be understood as a form of generalized exchange: a participant's unilateral contributions to a project results in rewards latently captured through indirect interactions with others.

241. JOSH LERNER, *supra* note 213, at 4 (citing high variance in performance at twenty-five and seventy-five percentiles in private equity).

242. In terms of past performance, information can be hard to access and reliable data points can be difficult to surface about how an individual's performance affected the outcome of a startup (e.g., did market conditions and timing create a(n) (un)lucky outcome?).

243. Telephone Interview with Anonymous Mentor #1, *supra* note 211. Accelerators highlight mentors in myriad ways, as discussed in Part IV, that burnish reputations to those outside of the MDIA network.

for misbehavior is available.²⁴⁴

Investigation shows ways that mentors vis-a-vis third party interactions capture reputational benefits. Mentor #13 reported that accelerator engagement promoted her fractional work as a CFO outside the accelerator.²⁴⁵ Mentor #7 reported reputational benefits that helped his digital marketing work with outside parties,²⁴⁶ and Mentor #6 said that the accelerator powerfully affected his PR business.²⁴⁷ Reputational benefits are such that one individual, who was in between jobs, reported that a recruiter advised him to try and join an accelerator network as a mentor.²⁴⁸

Investors similarly benefit from reputation gains associated with mentorship. Mentor #8, for example, is an angel investor who began MDIA mentoring in accelerators in 2009.²⁴⁹ He initially viewed accelerators as a direct pipeline for investment opportunities.²⁵⁰ Over time, however, the investment pipeline shifted. Today over 50% of Mentor #8's investment deals, while outside of the MDIA networks, come referred by individuals that were once helped by Mentor #8 within an accelerator.²⁵¹ The expanded deal flow pipeline complements other academic research about the economic value of reputation in venture capital. David Hsu found that entrepreneurs are more likely to accept offers from high reputation VCs and, moreover, are willing to take a significant discount in an VC deal in order to work with higher reputation VCs.²⁵² An investor that provides help to portfolio companies in an accelerator, to the extent such help is visible to third parties, sends a

244. See Bernthal, *supra* note 1, at 146, 178-79.

245. Telephone Interview with Anonymous Mentor #13 (Apr. 29, 2015) (notes on file with author).

246. Telephone Interview with Anonymous Mentor #7 (Apr. 15, 2015) (notes on file with author).

247. Telephone Interview with Anonymous Mentor #6 (Apr. 9, 2015) (notes on file with author).

248. Discussion with former student who recently left a "unicorn" startup and was looking for next position.

249. Telephone Interview with Anonymous Mentor #8, *supra* note 79.

250. *Id.*

251. *Id.*

252. "Offers made by VCs with a high reputation are three times more likely to be accepted, and high-reputation VCs acquire start-up equity at a 10-14% discount." Hsu explains that high reputation VCs provide a startup greater "certification value." This helps explain why a startup would accept what appears to be lesser deal terms from a high reputation VC rather than work with a lesser known VC. See David Hsu, *What Do Entrepreneurs Pay for Venture Capital Affiliation?*, 59 J. FIN. 1805, 1805-06 (2004).

signal to the market that the investor is active in the community and is entrepreneur friendly.²⁵³ Such activity burnishes an investor's reputation. To the extent that reputation is enhanced, this makes it more likely that the investor will secure desirable deals on better terms in the future.

V. WHO NEEDS A CONTRACT? CONDITIONS WHERE MDIA VOLUNTEERISM SUCCEEDS OR FAILS

This Section identifies conditions where informal tools substitute for contract to induce mentor contributions. A range of tools promote mentor volunteerism.²⁵⁴ MDIA strategies to attract mentors function in similar ways to contractual provisions insofar as they incentivize and shape behavior of participants. Effective generalized exchange systems generate economic benefits for participants when a virtuous cycle promotes unilateral giving and deters free riding.²⁵⁵ Sustaining volunteer mentor participation is a necessary, if not sufficient part, of a viable MDIA system.²⁵⁶

The insight that MDIAs are a generalized exchange system points up the utility of prior studies that examine conditions where generalized exchange succeeds and fails. This Section distills academic work

253. On the competitive importance that an investor is viewed as "friendly" to a startup and its management team, see Ben Marcus, *What Makes a Founder-Friendly Investor? One founder's perspective*, MEDIUM BLOG (Apr. 10, 2016), <https://medium.com/@FlyingBenji/what-makes-a-founder-friendly-investor-6573b770cf18> [<https://perma.cc/ST5T-MCUB>] (noting that investors "strive to set themselves apart by building a 'founder-friendly' reputation.").

254. These tools are detailed in Section V.A–C below.

255. Willer et al., *supra* note 11, at 145 ("critical mass of contributions can be harnessed, it may spark a sort of 'virtuous cycle' that leads groups featuring generalized exchange to achieve productivity and maintain group members' giving . . . At the same time, generalized exchange systems that are unable to overcome this 'start-up' problem are likely to crumble, as their low productivity will fail to produce pro-group sentiments that are uniquely critical to the maintenance of giving in such systems. This stands in stark contrast to direct exchange systems, which should not require solidarity to function. Such systems can survive on self-interest").

256. This observation is tautological insofar as the "mentor driven" part of a MDIA relies upon volunteers. Beyond the tautology, however, the interesting question surrounds how expertise will be organized within accelerators over the long term. In order to prove an enduring institutional form, private MDIAs must provide sufficient return on capital to investors after fees and costs are paid to accelerator intermediaries. To accomplish this, MDIAs must provide value to startups that justifies an entrepreneur's decision to exchange startup equity as well as accept the opportunity costs associated with three to four months of MDIA participation. Mentors provide the expertise required to help MDIAs create more valuable portfolio companies. If high caliber experts refuse to volunteer for a MDIA, then another organizational approach will be required to mobilize expert inputs.

on generalized exchange and combines it with evidence collected through interviews with individuals active within MDIAs. Figure 6 highlights three types of motivation (“Classes of Motivation”) that best account for willingness to participate in generalized exchange.²⁵⁷

Figure 6: Classes of Motivation For Participation

Classes of Motivation

Instrumental: economic benefits in exchange for mentor participation

Volunteerism: feelings associated with mentor involvement

Norms: expected behavior within a MDIA environment

For each Class of Motivation, this Section identifies factors that determine whether a MDIA facilitates the Class at high or low levels. These factors, called the “Viability Factors,” are determinants of where volunteerism is viable over time. Where Viability Factors are present at high levels across each Class, a MDIA enjoys a collaborative environment that facilitates generalized exchange. Where the Viability Factors are low, in contrast, it should be expected that alternative methods—such as formal legal tools with direct compensation—are required to structure collaboration between experts and startups. Subsections A–C below examines each of the Classes of Motivation and their respective Viability Factors in turn.

A. *Instrumental Motivations*

Instrumental motivations refer to economic benefits available to MDIA participants. As set forth in Figure 7, three Viability Factors drive whether generalized exchange is economically attractive: (i) system quality, (ii) cost of mentor / mentee agreements, and (iii) circulation of indirect internal benefits (IIBs) and external indirect benefits (EIBs).

257. Divining the motivation behind behavior is not easy. Motivation varies across individuals. Individual mentors, moreover, self-report a mix of different motivations. Finally, self-reporting of motives is not fully reliable, making it difficult to accurately know the motivation behind a behavior.

Figure 7: Summary of Instrumental Class of Motivation

| Motivation Class | Viability Factors | MDIA Strategies to Promote Generalized Exchange |
|--|---|---|
| <i>Instrumental</i> : economic benefits in exchange for mentor participation | High System Quality | Selectivity in mentor and portfolio company admission |
| | High Cost of Mentor / Mentee Agreements | Recruit mentors who do not need direct compensation |
| | Free Circulation of IIBs and EIBs | Boost mentor-mentor interactions; heighten public profiles of mentors |

System quality is determined by the skill level of individuals involved in a MDIA combined with a MDIA's external reputation. In economic terms, a risk discount is involved in generalized exchange due to the fact that direct compensation is neither specified nor secured via contract. Participants must bear the risk that general exchange will fail and that benefits will not circulate back. High system quality enhances the likelihood of valuable indirect benefits. For example, learning benefits — a type of IIB described in Section IV.A *supra* — are more promising where a MDIA attracts high functioning entrepreneurs mentored by highly skilled mentors. Moreover, when a MDIA has a high reputation vis-à-vis third parties outside of the MDIA, mentor engagement can reliably be expected to generate EIBs. Finally, recall that mentors and mentees have a mutual option for post accelerator engagement. Where portfolio companies are led by entrepreneurs with exceptional potential, the possibility of a future relationship is more attractive. The importance of system quality underscores why successful MDIAs “don't take donkeys to the Kentucky Derby.”²⁵⁸ MDIA strategies associated with selectivity

258. Legendary Tennessee basketball coach Pat Summit highlighted this advice from her father about the importance of recruiting talented, high caliber players. Following a loss,

and recruitment of mentors and portfolio companies are powerful determinants as to whether generalized exchange will succeed. Toward this end, accelerator promoters often try to engage high profile individuals, such as well-known venture capitalists and entrepreneurs, capable of recruiting others into the network.²⁵⁹ The importance of system quality also suggests caution for efforts to sustain the MDIA model in locations lacking a critical mass of high caliber mentors and entrepreneurs. Accelerators outside of entrepreneurial geographies are more likely to struggle to generate economically valuable indirect benefits that rebound to mentors.

Cost of mentor / mentee agreements refers to the challenges and transaction costs involved in crafting formal contracts *ex ante* between experts and portfolio companies. The value of flexibility in expert / startup relationship afforded by the MDIA may exceed the benefits of a stable and well defined expert relationship. One mentor, for example, highlighted that early stage company advisory board relationships are largely ineffective.²⁶⁰ A startup has difficulty defining the scope of its needs and, even once defined, rapid changes to a startup's business model render needs obsolete.²⁶¹ Early stage startups face similar challenges in formalizing director roles and consulting relationships. The informality of the MDIA mentor relationship prevents lock in at a time of rapid changes to the company.

Meanwhile, while perhaps counterintuitive, investigation shows that certain desirable mentors — such as VCs and some CEOs — are more attracted to MDIAs if they serve as volunteers rather than as compensated professionals.²⁶² One reason is that the costs and frictions for certain experts to enter into formal agreement exceed the expected benefits. For example, professional investors such as venture capitalists typically

Summit's dad admonished her that she should go get some racehorses if she wanted to succeed as a collegiate coach. KEN COLEMAN, ONE QUESTION: LIFE-CHANGING ANSWERS FROM TODAY'S LEADING VOICES 67 (2013).

259. Accelerators are sometimes nested within or affiliated with a larger venture capital firm or have a national venture capital arm that has the option to invest in subsequent rounds of funding. One example of this model is exercised by Dreamit. See *Frequently Asked Questions*, DREAMIT, <http://www.dreamit.com/faq-1/#faq> [<https://perma.cc/UJ7T-LEXG>] (last visited Jun. 5, 2017).

260. Telephone Interview with Anonymous Mentor #8, *supra* note 79.

261. Bernthal, *supra* note 1, at 147–49, 185.

262. People are sometimes willing to work for free but not for compensation. See ARIELY, *supra* note 207, at 71 (citing instances in which lawyers refused to work for AARP at a discounted rate, however, attorneys were willing to do free work for AARP).

have restrictive covenants in their fund agreements with limited partners. A common restrictive covenant prohibits VCs from entering into separate agreements for direct compensation outside of their “day job” as a venture capitalist.²⁶³ Waivers of a restrictive covenant could be obtained from limited partners. But the cost, time and hassle associated with securing waivers would chill MDIA participation. Duty of loyalty is another factor that, similarly, makes it easier for a MDIA not to pay an expert. One mentor—a CEO—said that he would refuse cash compensation for his mentor work due to “a conflict of interest with my existing business.”²⁶⁴ In short, for certain mentors, the MDIA strategy to informally organize experts lowers the frictions associated with mentorship.

MDIAs recruit mentors who do not need direct compensation and, more specifically, can internalize the value of IIBs and EIBs. For example, consider an angel investor who through MDIA mentorship (i) learns difficult to obtain information about an emerging industry sector that a MDIA portfolio company is involved in, and (ii) becomes well known in a geographic area as an entrepreneur friendly expert. These indirect benefits are economically significant for the angel. The angel internalizes value when she uses industry-specific information to evaluate an investment opportunity in the sector. And she internalizes reputational benefits when a desirable startup accepts her money into a competitive deal because she is regarded as “smart money.” In contrast, the same indirect benefits would be economically irrelevant to a dentist with no interest in private investing or startups.

Circulation of IIBs and EIBs describes the rewards realized among participants within the MDIA generalized exchange. The description of IIBs and EIBs in Section IV shows how economic benefits are significant even in the absence of direct compensation. It should be emphasized, moreover, that the “costs” of mentor participation involve the contribution of information goods.²⁶⁵ The nature of MDIA mentorship is information oriented—i.e., a mentor shares her tacit knowledge, creative ideas, and other forms of know-how. Where mentors co-create and

263. Bernthal, *supra* note 1, at 169. A common covenant limits the startup activity a general partner can engage in outside of a VC fund. GOMPERS & LERNER, *supra* note 144, at 78–79.

264. “It is not a written business agreement. But I would view it as a conflict.” Interview with Anonymous Mentor #2, *supra* note 23.

265. Information goods contributed by a mentor, unlike physical inputs, are non-exhaustible: a mentor keeps a copy of ideas generated through help to a startup.

share ideas, mentorship is comparatively less costly – and even beneficial – in an information environment where giving away ideas involves keeping a copy of the idea, too.²⁶⁶

B. *Volunteerism Motivation*

The Class of Volunteerism refers to non-economic motives that arise from a mentor's feelings about MDIA involvement.²⁶⁷ Simplified models of human behavior, particularly models that assume economic maximizing goals and rationality, overlook other factors that animate collaboration.²⁶⁸ MDIAs function best when they preserve feelings of mentor volunteerism such that market norms do not dominate interactions, even amid economically valuable exchanges.²⁶⁹ Figure 8 shows three Viability Factors that most powerfully affect mentor feelings of volunteerism: (i) visibility of mentor conduct, (ii) conditions of generosity, and (iii) fun.

266. Coye Cheshire, *Selective Incentives and Generalized Information Exchange* 70 SOC. PSYCHOL. Q. 82, 82–83 (2007). This also suggests that MDIAs may have a built in safe guard against free riding. Meaningful mentor participation with portfolio companies is necessary to gather learning benefits and reputation gains among those involved in the accelerator.

267. Whether motivation is intrinsic to an individual or externally imposed separates the Volunteerism Class of motivations from the Norms Class, discussed in Section V.C. Norms are externally imposed expectations of behavior. Volunteerism speaks to behaviors driven an individual's internal motivations.

268. See Cimino, *supra* note 32, at 128 (noting that transaction cost economics assumes a normative goal of efficiency, "yet behaviorists and other economists are exploring the possibility that economic exchange could be motivated in part by other values"); GRANT, *supra* note 39, at 169. See generally STOUT, *supra* note 39. For survey of research about how cognitive biases systematically frustrates rational decision-making, see DANIEL KAHNEMAN, THINKING FAST AND SLOW (2011).

269. Successful generalized exchange systems create a "veil of altruism" around participant behavior." See Willer et al., *supra* note 11, at 148. Ariely provides a clear illustration of how mixing social and transactional realms can be problematic. As a Thanksgiving dinner guest at the in-laws, it would be appropriate to bring a gift—say, a fine bottle of wine worth \$50. It would be inappropriate to start dinner by offering your host \$50 in cash. The wine gift keeps the exchange in the realm of social norms. The cash gift moves the exchange into the realm of transactional market norms. See ARIELY, *supra* note 207, at 67–68, 76, 79.

Figure 8: Summary of Volunteerism Class of Motivation

| Motivation Class | Generalized Exchange Viability Factors | MDIA Strategies to Promote Generalized Exchange |
|---|--|---|
| | Visibility of Mentor Actions | Selective incentives |
| <i>Volunteerism</i> : feelings associated with mentor involvement | Generosity | Group identity; greater purpose; efficacy |
| | Fun | Self-selection; enjoyable tasks |

Visibility of mentor conduct underscores that, even in the absence of contract, accountability tools are available within a generalized exchange system.²⁷⁰ Mechanisms that make participants' behavior visible to others may be used to deter free riding,²⁷¹ encourage desirable contributions,²⁷² and discipline unwanted conduct.²⁷³ Transparency about the behavior of generalized exchange participants "offer additional motivations that make cooperation rational even when the initial conditions of the social dilemma make cooperation irrational."²⁷⁴ For example, enhanced visibility of behavior provides others the ability to "shun those who never give or conversely make an effort to help those who have

270. Accountability mechanisms are known as "selective incentives" in the parlance of psychology and sociology. Cheshire, *supra* note 265, at 82; Takahashi, *supra* note 30, at 1116.

271. Generalized giving systems were generally believed to suffer where many participants free ride while only a small minority contribute. Scholars have increasingly observed digital contexts, however, that defy this prediction. Cheshire notes peer to peer settings where generalized exchange persists despite large discrepancies between participants who contribute and participants who only free ride. The nature of information goods makes free riding less problematic in information-based generalized exchange. See Cheshire, *supra* note 265, at 83.

272. See *id.* at 85 ("In generalized information exchange, removing some degree of anonymity between individuals can help to make social psychological processes act as selective incentives.").

273. "Research on social dilemmas and public goods has demonstrated that people are more likely to cooperate if their actions are public." Kollock, *supra* note 31, at 233. For example, as part of "NetDay 1996" – a state-wide effort to wire California schools on March 9, 1996 – organizers drove high levels of involvement by listings rankings of corporations' volunteer contributions based on how many people from a company participated.

274. See Cheshire, *supra* note 265, at 85.

contributed in the past.”²⁷⁵ Moreover, feedback to a participant about her own conduct, whether the feedback reflects high or low levels of social approval, also positively affects cooperative behavior associated with generalized exchange.²⁷⁶ Finally, a possibility for future research is to analyze whether visibility of conduct develops a mentor’s self-identity as an expert.²⁷⁷

MDIA strategies make mentor behavior visible to others within and outside of the accelerator. Internally, mentors are specially recognized for contributions in weekly email updates from the managing director to a mentor network.²⁷⁸ A MDIA’s email missives can recognize a mentor who made a special contribution to a portfolio company or engaged in other types of desirable behavior. Portfolio company feedback to mentors, where a mentor receives direct approval and critique from mentee companies, is used by certain accelerators.²⁷⁹ Mentor contributions are visible to those outside the accelerator. MDIA mentor names and photos are typically featured on a MDIA’s public-facing website.²⁸⁰ Mentors include accelerator involvement in their social media listings such as LinkedIn.²⁸¹ Mentee portfolio companies prominently list “lead

275. Kollock, *supra* note 31, at 227; *see also* Takahashi, *supra* note 30, at 1116, citing Olson (“[O]ne of the main solutions to the free rider problem is to impose a penalty on defectors or to give a reward to cooperators. These are called selective incentives (Olson 1965).”).

276. *See* Cheshire, *supra* note 265, at 82.

277. “Identity theory, based in symbolic interactionism, follows the dictum that ‘society shapes self shapes social behavior.’ From this perspective, identities are broadly recognized and meaningful categories that people apply to themselves and others as role players (e.g., doctor, lawyer, parent), group members (e.g., Asian, Catholic) and individuals (e.g., moral, powerful). Tyler Wry and Jeffrey G. York, *An Identity-Based Approach to Social Enterprise*, *Academy of Management Review*, at 6. In press, doi: 10.5465/amr.2013.0506 (citation omitted).

278. *See, e.g., Techstars Boulder Mentor Update – Week 6 and 7, 2017*, including a “Shoutouts and Gratitudes” section that highlighted special mentor and other expert contributions to portfolio companies during the time period (email from managing director Natty Zola, Mar. 14, 2017) (on file with author).

279. Telephone Interview with Anonymous Accelerator Representative #1 (Feb. 24, 2015) (notes on file with author).

280. *See, e.g.,* <http://straightshot.co/mentors/>; *Mentors*, THE BRANDERY, <http://brandery.org/mentors> [<https://perma.cc/ZNN2-VABX>] (last visited Jun. 5, 2017); *Mentors*, TECHSTARS, <http://www.techstars.com/mentors/> [<https://perma.cc/JS3P-XD3P>] (last visited Jun. 5, 2017).

281. *See, e.g.,* LinkedIn profiles of Howard Diamond (<https://www.linkedin.com/in/hdiamond/>), Sue Heilbronner (<https://www.linkedin.com/in/sueheilbronner/>) and Morris Wheeler (<https://www.linkedin.com/in/mowheeler/>) (last visited May 1, 2017).

mentors” who provide significant assistance in pitch decks that are presented to investors and others.²⁸² The Techstars franchise has a series of short videos that highlight individual mentors.²⁸³ At the public Demo Day, which marks the end of an accelerator session, mentors usually stand and receive recognition. Additionally, it is a special honor for a mentor to introduce a portfolio company at the public Demo Day.

Feeling of generosity refers to a MDIA’s ability to create conditions that makes participants feel generous. Unilateral contributions do not flourish in settings perceived as tit for tat.²⁸⁴ Generosity is enhanced where individuals: (i) believe others are likely to be generous, and (ii) have a sense of a greater purpose associated with involvement. Managing directors screen out would be mentors that seek *quid pro quo* reciprocal benefits and, where mentors aggressively seek direct gain, take steps to deter and punish such behavior.²⁸⁵ MDIAs promote generosity by emphasizing non-pecuniary objectives advanced by mentor volunteerism, such as helping the next generation of entrepreneurs, community economic development, or a mission to assist groups and causes that are underrepresented in the entrepreneurial community.²⁸⁶ A feeling of efficacy—“a sense that she has some effect on this environment”²⁸⁷—further fosters volunteerism motivation. Early stage startup companies, where mentor impact can significantly affect the trajectory of strategy and outcomes, likely foster feelings of efficacy better than larger companies that are less able to change course.

Exchange structure affects feelings of generosity. Direct exchange

282. TECHSTARS, *supra* note 279.

283. See Mentor Spotlight videos, available at Posts in Category “Mentor Spotlight”, TECHSTARS BLOG, <http://www.techstars.com/content/category/mentorspotlight/> [<https://perma.cc/M9GD-9DD2>] (last visited Jun. 5, 2017).

284. See Cheshire, *supra* note 265, at 86. One aspect of this is reactive behavior “wherein individuals tend to orient themselves towards the average behavior of other group members.” *Id.* Relatedly, research on willingness to contribute to public goods shows that individuals cooperate based on how they believe others will behave. *Id.* at 86–87.

285. Bernthal, *supra* note 1, at 188.

286. In this respect, an accelerator’s appeals to mentors bear similarity to the appeals of a National Public Radio fundraising drive, insofar as (i) an appeal highlights the social benefit of contribution, combined with (ii) a contributor’s trust that the system helps deliver that social benefit. This highlights the role of shared values in promoting feelings of generosity. Thanks to Eva Yao for this observation.

287. Kollock, *supra* note 31, at 220, 228.

makes self-interest prominent.²⁸⁸ In direct exchange, a participant believes that benefits primarily flow from her own abilities or the nature of the bilateral exchange relationship.²⁸⁹ In contrast, a generalized exchange participant believes that benefits flow from the system itself.²⁹⁰ Generosity is enhanced where participants experience “group identification” and credit the generalized system – rather than oneself – as the source of gains associated with exchange related to the system.²⁹¹ Informal structures dampen feelings of transactional calculation and, instead, facilitate cooperation and a norm of giving into a system.²⁹² MDIAs facilitate mentor generosity and encourage the unilateral contributions that are the *sina qua non* of generalized exchange. Interviews showed that the informal governance promotes feelings of volunteerism because, as Mentor #9 observed, payment for mentor work “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.”²⁹³ A mentor, who has worked in MDIAs as well as in accelerators where mentors are compensated, noted that the volunteer aspects of MDIAs make participants feel generous.²⁹⁴ In contrast, this mentor said that offers of direct compensation “chased away” desirable

288. Direct “exchanges, and especially negotiated transactions, seem to emphasize self-interest rather than altruism. It is hard to create or maintain the impression that one party cares about the other when haggling over the terms of a contractual obligation.” Willer et al., *supra* note 11, at 148.

289. Benefits are “attributed more to one’s skill in negotiation or the properties of a single dyadic relationship.” Willer et al., *supra* note 11, at 125.

290. “[T]he repeated sending of unilateral gifts among various group members should lead participants to attribute the source of benefit to the entire collective.” Willer et al., *supra* note 11, at 125.

291. Willer et al. explain that individual members within a generalized exchange system experience feelings of group identification. Where group identification is enhanced, this promotes group solidarity – i.e., “a positive perception of the group and its members as structurally interdependent, united, and cohesive.” Where solidarity is enhanced, this elicits more valuable contributions from a member and, moreover, lowers the likelihood of freeriding on the system. Willer et al., *supra* note 11, at 125–28.

292. Mentor #7 said an accelerator creates a cooperative feeling that he described as, “We are going to try to win together. You don’t need to lose for me to win.” Interview with Anonymous Mentor #7 (Apr. 15, 2015) (on file with author.)

293. Telephone Interview with Anonymous Mentor #9, *supra* note 108. This is consistent with empirical work in psychology which suggests that tangible direct rewards significantly adversely affects intrinsic motivation for otherwise interesting tasks. See Deci et. al, *supra* note 174, at 653 (analyzing data over 128 studies).

294. Telephone Interview with Anonymous Mentor #9, *supra* note 108.

mentors.²⁹⁵

Fun refers to inherent pleasure that a mentor takes in a MDIA task. Fun is tied to intrinsic motivation where participation is “interesting” to volunteers.²⁹⁶ From the perspective of a participant, interesting and fun projects are less costly and taxing than mundane or tedious tasks. Volunteer interest is piqued where there are opportunities to interact with other individuals that a collaborator wants to associate with.²⁹⁷ Self-selection within generalized exchange, where volunteers choose where to offer assistance, plays an important role in fostering intrinsic motivation. A mentor’s self-selection of where she will help portfolio companies allow her to identify desirable ways to participate.

Many MDIAs appear to inspire mentor volunteerism, even amid valuable exchanges in a market-oriented, for-profit, and entrepreneurial environment. Further research would be helpful to closely examine how MDIAs blend social and market norms and, over time, whether these strategies succeed.²⁹⁸ It remains to be seen whether instrumental benefits and other market factors will undercut volunteerism over time. But interviews suggest that, so far, instrumental motivations typically do not crowd out mentors’ intrinsic motivation.²⁹⁹ MDIA mentors report that they are invigorated by the “energy,” “urgency,” “electric[ity],” “pace,” and “controlled chaos” surrounding portfolio company entrepreneurs.³⁰⁰ Mentor #1 said that he feels “fueled” and

295. Interview with Jim Franklin, *supra* note 62.

296. See Deci et. al, *supra* note 174, at 653. Deci and others observe that “material rewards for a pleasant activity may decrease the intrinsic motivation to perform . . .” an activity or task.

297. Kollock, *supra* note 31, at 231 (“the intrinsic interest and challenge of the project can be important”).

298. Most MDIAs are relatively new entities. The oldest MDIAs are a decade old and the majority started in recent years. See Hochberg, *supra* note 44, at 2 (charting growth of accelerators).

299. See Healy & Krawiec, *supra* note 33, at 666 (“The crowding-out framework usefully elaborates the intuition that the introduction of incentives can cause people to switch their interpretation of an exchange, with unwanted results. There are two relevant parts to the insight. First, a price or other monetary incentive may change motives, as already discussed. Second, a fine or an award of money damages may act as a price. Hence, one might be tempted to argue that a contract in which money damages are potentially available could inadvertently encourage a deliberately strategic kind of participation, with the result being a rise in reneging.”); see also Scott, *Self-Enforcing Agreements*, *supra* note 25, at 1690–93 (arguing that explicit incentives and judicial intervention may ‘crowd out’ behavior based on reciprocal fairness).

300. Telephone Interview with Anonymous Accelerator Representative #13 (Mar. 6,

“enlivened” by interactions.³⁰¹ Mentor #4 commented that he got involved because the accelerator is “where all the cool shit is happening.”³⁰² Mentor #9, an experienced entrepreneur who had been out of the startup environment for two years, said that accelerator involvement is “how I got my mojo back” in the world of entrepreneurship.³⁰³ The compressed time period of the accelerator program ratchets up the energy from which mentors feed.³⁰⁴ Mentors like the opportunity to live vicariously through youthful portfolio company founders.³⁰⁵ Several interviewees noted that mentorship offers the fun of entrepreneurship without the unceasing burdens associated with founding and running a company.³⁰⁶

C. Norms

Norms are a third Class of motivation in generalized exchange. “A norm is a social rule that does not depend on government for either promulgation or enforcement.”³⁰⁷ People are expected to behave in a

2015) (notes on file with author). (“I kept hearing the word ‘energy’ from mentors”); Telephone Interview with Anonymous Mentor #9, *supra* note 108; Telephone Interview with Anonymous Mentor #3 (Apr. 6, 2015) (notes on file with author) (“Entrepreneurial instincts carry a sense of urgency . . . I love the pace.”); Telephone Interview with Anonymous Mentor #12 (Apr. 29, 2015) (notes on file with author) (founders are “super excited” and being around them “is electrifying”); Telephone Interview with Anonymous Mentor #3 (Apr. 6, 2015) (notes on file with author).

301. Telephone Interview with Anonymous Mentor #1 (Apr. 6, 2015) (on file with author); similarly, “I just think it is neat to talk to others who are doing interesting and exciting things.” Telephone Interview with Anonymous Mentor #2 (Apr. 6, 2015) (on file with author).

302. Telephone Interview with Anonymous Mentor #4 (Apr. 6, 2015) (on file with author).

303. Telephone Interview with Anonymous Mentor #9, *supra* note 108 (“You’ve got this big room, young brains, firing on all cylinders, staying up all night, on a mission.”)

304. The accelerator is a “boot camp” where there is “no time to think, you gotta move.” *Id.*

305. Telephone Interview with Anonymous Mentor #3 (Apr. 6, 2015) (on file with author) (“In some vicarious way I get to live through the startup process. I get to think. I get to contribute . . . it is all great fun. There is nothing like starting a business.” Energizing. “I’m 68 years old. It keeps me involved.”) One accelerator’s managing director observed that working “around all these dynamic 20 somethings keeps you young.” Telephone Interview with Anonymous Accelerator Representative #11 (Mar. 10, 2015) (notes on file with author).

306. “Get the rush, get the excitement. But don’t have to do the hard work. But get to bask in the glory when it works out.”; Interview with Anonymous Mentor #12 (Apr. 29, 2015) (on file with author) (“There is a little bit of a wash the hands thing.”). Great place to “refuel.” Telephone Interview with Anonymous Accelerator Representative #13 (Feb. 23, 2015) (notes on file with author).

307. Richard A. Posner & Eric B. Rasmusen, *Creating and Enforcing Norms, with Special*

manner set forth by external rules that are socially determined.³⁰⁸ An MDIA can affect internal norms more than it can alter external norms. Norms external to the MDIA have social and cultural elements that are difficult to change. Norms internal to the accelerator set forth expected behavior within the MDIA environment.

MDIAs aggressively promote aspirational norms of unilateral giving. A mantra of the Techstars network, for example, is “give before you get” (or, in a version more succinctly tailored for Twitter, #givefirst).³⁰⁹ The #givefirst expectation is widely disseminated by the Global Accelerator Network.³¹⁰ One Managing Director observed that the “give first” mentality within accelerators creates a “much more creative and collaborative space” in his accelerator.³¹¹ The norm of #givefirst serves as a bulwark against restricted exchange expectations that would chill unilateral contributions to the accelerator system. Expectations of direct reciprocity and transactional calculations would reduce feelings of volunteerism and intrinsic motivation. This would risk “crowding out” the unilateral contributions that make a MDIA work.³¹² The norm of giving into an accelerator system, on faith that the system will ultimately return the favor, is the lynchpin of how successful accelerator systems operate. As Mentor #8 observed, accelerator participation is “not about retention, is about circulation If you try to hold

Reference to Sanctions, 19 INT’L REV. L. & ECON. 369, 369–70 (1999).

308. *Id.* at 369–70 (“examples range from table manners and the rules of grammar to country club regulations and standard business practice Often a norm will result from (and crystallize) the gradual emergence of a consensus.”).

309. “[#givefirst] is not altruistic – you do expect to get things in return – but you don’t set up the relationship to be a transactional one.” See *Give Before You Get*, FELDTHOUGHTS, (Jan. 1, 2013), <http://www.feld.com/archives/2013/01/give-before-you-get.html> [https://perma.cc/T758-TLCP] (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 (last searched May 23, 2015).

310. See, e.g., comments of a managing director who runs a non-Techstars accelerator in the Midwest, nothing that they try to “mirror the Techstars ethos” and seek people “who give before they get.” Telephone Interview with Anonymous Accelerator Representative #4 (Mar. 17, 2015) (notes on file with author).

311. Interview with Accelerator Representative #9 (Mar. 10, 2015) (on file with author).

312. Along these lines, one managing director noted that formal arrangements become “more about the money, more about what are you going to get.” Telephone Interview with Anonymous Accelerator Representative #6 (Mar. 13, 2015) (notes on file with author).

Mentor #11 said that payment would crowd out a feeling of mission. “Then it becomes commerce. We have a vision that [a mentor] likes.” Telephone Interview with Anonymous Mentor #11 (Apr. 20, 2015) (on file with author).

onto the economic benefit for yourself, it is not as powerful as when it circulates and comes back."³¹³

In summary, Figure 9 shows the three Classes of motivation, which promote generalized exchange, as well as MDIA strategies that affect participant motivation.

313. Telephone Interview with Anonymous Mentor #8, *supra* note 79.

Figure 9: Conditions for MDIA Sustainability, Based on Classes of Motivation, Viability Factors, and MDIA Strategies to Promote Generalized Exchange

| Classes of Motivation | Generalized Exchange Viability Factors | MDIA Strategies to Promote Generalized Exchange |
|---|---|---|
| <i>Instrumental:</i> economic benefits in exchange for mentor participation | High System Quality | Selectivity in mentor and portfolio company admission |
| | High Cost of Mentor / Mentee Agreements | Recruit mentors who do not need direct compensation |
| | Free Circulation of IIBs and EIBs | Boost mentor-mentor interactions; heighten public profiles of mentors |
| <i>Volunteerism:</i> feelings associated with mentor involvement | Visibility of Mentor Actions | Selective incentives |
| | Generosity | Group identity; greater purpose |
| | Fun | Self-selection; efficacy |
| <i>Norms:</i> expected behavior with MDIA environment | Internal norms support unilateral contributions | Mentor manifesto |
| | External norms support unilateral contributions | Broader community engagement |

VI. CONCLUSION

Those who architect entrepreneurial relationships must make decisions about how to best organize resources. Legal tools, informal mechanisms, or a mix thereof are available to organize collaboration. MDIAs

highlight a surprising step zero decision to rely upon social norms—instead of contracts—within an entrepreneurial, market-based environment. MDIAs induce experts to participate as volunteers rather than as contractual counterparties. Informal MDIA strategies substitute for contract insofar they incentivize mentor participation and shape participant behavior. This Article contributes to understanding of motivation in the absence of direct consideration.

Generalized exchange explains why, under certain conditions, experts are willing to volunteer within for profit MDIA information-sharing environments. MDIAs expand entrepreneurs' access to experts. In so doing, MDIAs make entrepreneur / expert interactions more relational and generalized by pulling them into a common network. Generalized exchange also identifies strategies necessary to sustain volunteerism. The secret to a MDIA's efficacy—and its long term viability—is to architect a system where contributors *indirectly* benefit in material ways from (1) others in the group, and (2) third parties outside of the group. The MDIA case study furthers understanding of conditions where volunteerism co-exists with for-profit, entrepreneurial environments.

This Article is the first to observe the connection between generalized exchange and MDIAs. This invites future empirical analysis. The claim that MDIAs are a generalized giving system is based on original qualitative research. Yet MDIAs are not systems of pure generalized exchange. MDIAs mix elements of direct exchange, including the mutual option that mentors and mentees may be exercise at a later time.³¹⁴ Empirical analysis could test whether MDIA participants feel like they are part of a generalized—as opposed to a direct exchange—system. Measurement tools are available, such as those used by Willer *et. al.* in comparing the feelings of FreeCycle and Craig's List users.³¹⁵ Another empirical opportunity would test the model developed in Section V. The viability of mentor activity within MDIA accelerators is observable across geographic locations. Accelerators operate similarly across geographies, each with different pre-existing cultural and professional norms, which presents a natural experiment about how informal MDIA organization interacts with external environments. Finally, there is reason to suspect that mentors benefit differently with respect to their ability to capture instrumental economic gains associated with IIBs and

314. See *supra* Part III.

315. Willer *et al.*, *supra* note 11, at 131–33.

EIBs. Analysis of which mentors benefit most and least within generalized exchange systems would be valuable.

This Article is the first to bridge generalized exchange with law and entrepreneurship. Legal scholars can extend this work in at least two ways. One, the intersection of generalized exchange practices and public law invites future inquiries into the “the relation between private norms and public laws.”³¹⁶ As noted in Section II.A *supra*, MDIAs lead a broad trend in startup volunteerism. Other entrepreneurial support institutions, in addition to MDIAs, assemble expert rosters. These experts work in open information sharing environments to provide help to new startups. If volunteerism and informal collaboration are a permanent part of 21st Century innovation processes, how does this new reality square with public laws in areas that assume a more competitive and less cooperative commercial environment? This presents intriguing questions in employment, corporations, and intellectual property law.

Two, generalized exchange literature promises to deepen understanding of pro-social behaviors in market and corporate environments. Legal scholars observe pro-social conduct in examinations of negative legal spaces, peer production, and other commercial contexts. Generalized exchange invites a more nuanced examination of human and corporate behavior. It suggests that the structure of exchange—e.g., how a transaction is organized—has consequences beyond higher or lower transaction costs. MDIAs underscore that those who architect collaboration should consider how the structure of exchange affect participants’ socio-economic motivation as well as the character of collaboration’s outputs.

316. Posner & Rasmusen, *supra* note 306, at 369–70 n.1.

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