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TRUST AND SOCIAL COMMERCE

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ARTICLES

TRUST AND SOCIAL COMMERCE

Julia Y. Lee*

ABSTRACT

Internet commerce has transformed the marketing of goods and services. The separation between point of sale and seller, and the presence of geographically dispersed sellers who do not engage in repeated transactions with the same customers challenge traditional mechanisms for building the trust required for commercial exchanges. In this changing environment, legal rules and institutions play a diminished role in building trust. Instead, new systems and methods are emerging to foster trust in one-shot commercial transactions in cyberspace.

The Article focuses on the rise of “social commerce,” a socio-economic phenomenon centered on the use of social media and other modes of social connection in electronic commerce. It identifies three mechanisms that are central to the development of trust in social commerce: communication and voluntary disclosure; barriers to entry; and community policing. These mechanisms simulate the characteristics of closely-knit environments, creating conditions conducive to trust. The Article describes these mechanisms in four new commercial settings: the sharing economy; next generation electronic commerce; online escort services; and online black markets in credit cards and controlled substances.

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INTRODUCTION

Many forms of commercial exchange require some degree of trust, as the Prisoner's Dilemma underlies most commercial transactions. The parties hope to mutually benefit from entering into the transaction, but each fears that the other side will cheat.¹ In a one-shot game, the buyer would have the highest payoff from taking the goods or services without paying for them. The seller would have the highest payoff from taking the money, but delivering worthless goods.² Rational choice theory predicts that in one-shot exchanges, the parties will either defect (cheat) or refrain from entering into the transaction.³

Numerous formal and informal mechanisms alter the payoffs such that cooperation becomes the optimal strategy. Contracts allow parties to promise to perform and submit to penalties in the event of nonperformance. Laws impose civil and criminal liability for defection. Norms—informal rules that are not issued by courts or legislatures, nor enforced by legal sanctions—constrain self-interested behavior through social sanctions such as gossip and ostracism.⁴ Repeated interactions between the same parties perform a similar function.⁵ In what Robert Axelrod dubbed the “shadow of the future,” each player cooperates with the other, knowing that defection will be retaliated in kind in a future game.⁶

¹ Douglas G. Baird, *Self-Interest and Cooperation in Long-Term Contracts*, 19 J. LEGAL STUD. 583, 583 (1990).

² See *id.* at 583–84; see also Susan Block-Lieb, *e-Reputation: Building Trust in Electronic Commerce*, 62 LA. L. REV. 1199, 1202 (2002).

³ Richard H. McAdams, *Beyond the Prisoner's Dilemma: Coordination, Game Theory, and the Law*, 82 S. CAL. L. REV. 209, 229 n.65 (2009); see also Janet T. Landa, *A Theory of the Ethnically Homogeneous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. LEGAL STUD. 349, 351 (1981); Elinor Ostrom, *Toward a Behavioral Theory Linking Trust, Reciprocity, and Reputation*, in TRUST AND RECIPROCITY: INTERDISCIPLINARY LESSONS FROM EXPERIMENTAL RESEARCH 19, 55 (Elinor Ostrom & James Walker eds., 2003).

⁴ Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 55 (1963); Richard A. Posner, *Social Norms and the Law: An Economic Approach*, 87 AM. ECON. REV. (PAPERS & PROC.) 365, 365 (1997).

⁵ See Peter H. Huang & Ho-Mou Wu, *More Order Without More Law: A Theory of Social Norms and Organizational Cultures*, 10 J.L. ECON. & ORG. 390, 393 (1994).

⁶ ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* 176 (1984); see also W. Bradley Wendel, *Mixed Signals: Rational-Choice Theories of Social Norms and the Pragmatics of Explanation*, 77 IND. L.J. 1, 10 (2002).

In addition, if the two players trust one another, they may overcome the dilemma. The amount of trust required may vary based on the product, market, geographical proximity of the parties, and course of dealing, among other factors. On one end of the spectrum, low-value, low-risk transactions require low levels of trust. For instance, purchasers of rice may easily and quickly determine its quality by rubbing a few grains together between blocks of wood.⁷ Hence, rice has been historically sold among strangers in open air markets.

By contrast, high-value, high-risk transactions where quality cannot be readily ascertained require greater levels of trust. For instance, “experience goods” are characterized by the inability to assess quality through simple examination—knowledge of quality can only be gained through experience.⁸ Raw rubber is a high-risk product because its quality is not apparent at the point of sale—its quality can be known only after it has been processed.⁹ As a consequence, producers fastidiously guard their reputations and sell rubber through trusted brokers with whom they share a long-term relationship.¹⁰

In conditions of high uncertainty, the need for trust is greater,¹¹ but the willingness to trust depends on individual past experiences and the presence of risk-reducing contextual and structural variables. These can include institutional protections such as formal law or extra-legal mechanisms such as reputation and social norms. Other variables can include ethnic or religious homogeneity, face-to-face contact, and group size. For instance, small, tightly-knit communities are more conducive to trust formation than impersonal, loosely-knit groups.

While often low-value, commercial transactions in cyberspace can be high-risk. Transactions tend to be impersonal, heterogeneous, one-shot, and non-face-to-face. Transaction amounts often are very small and parties are located in distant jurisdictions. This can render legal recourse either impractical or unavailable.¹²

⁷ Peter Kollock, *The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust*, 100 AM. J. SOC. 313, 315 (1994).

⁸ Phillip Nelson, *Information and Consumer Behavior*, 78 J. POL. ECON. 311, 312 (1970); see also DIEGO GAMBETTA, *CODES OF THE UNDERWORLD: HOW CRIMINALS COMMUNICATE* 197 (2009).

⁹ Toshio Yamagishi & Midori Yamagishi, *Trust and Commitment in the United States and Japan*, 18 MOTIVATION & EMOTION 129, 134 (1994).

¹⁰ *Id.*

¹¹ See Kollock, *supra* note 7, at 336–37.

¹² Clayton P. Gillette, *Reputation and Intermediaries in Electronic Commerce*, 62 LA. L. REV. 1165–66, 1165 (2002).

Social norms have not readily emerged, given the impersonal, geographically dispersed nature of most transactions. Nor have parties sought security through traditional means such as transacting only with known counterparties or limiting their transactions to members of their own ethnic or religious groups. Ironically, however, the non-face-to-face, non-iterated, impersonal, and sequential nature of exchange relationships in cyberspace—conditions that seem to inhibit trust formation—also increase the *potential* for trust.

Despite conditions seemingly inimical to the production of trust, commercial internet transactions have continued to expand and flourish. Technology has enabled innovative forms of exchange to emerge, spanning an ever-broader range of products and services. These new modalities of commerce challenge traditional organizational and market frameworks. This Article studies the emergence of trust in “social commerce,” a phenomenon that has heretofore received scant attention in academic literature. By social commerce, I refer to a form of electronic commerce that utilizes user-generated content, social media, and other modes of social connection to facilitate commercial transactions in cyberspace.¹³ I use the term broadly to encompass not only social media, but also any form of collaborative social communication that implicates the fusion of social and commercial networks. This could take the form of product recommendations and wish-lists from friends,¹⁴ collaborative networks among sellers¹⁵ or buyers, or online forums and communities centered on a product or service.

By trust, I refer to the economic notion of calculative or cognitive trust—that is, trust that the other party will not shirk or otherwise take advantage of one’s vulnerability in the exchange.¹⁶ It is the calculated decision to transact with another based on an assessment that the gains from trusting the other person outweigh the risk that that person will cheat. This differs from affective or personal trust, which

¹³ Stephen Guo et al., *The Role of Social Networks in Online Shopping: Information Passing, Price of Trust, and Consumer Choice*, 12 ASS’N FOR COMPUTING MACHINERY 157, 157 (2011), available at <http://nlp.stanford.edu/pubs/wang-ec11.pdf> (defining “social commerce” as the use of personal social networks to gather information and make purchasing decisions).

¹⁴ David Beisel, *The Beginnings of Social Commerce*, GENUINEVC (Dec. 6, 2005), <http://genuinevc.com/archives/2005/12/06/the-beginnings-of-social-commerce.html>.

¹⁵ Andrew T. Stephen & Olivier Toubia, *Deriving Value from Social Commerce Networks*, 47 J. MARKETING RES. 215, 215 (2010) (defining social commerce as “an emerging trend in which sellers are connected in online social networks and sellers are individuals instead of firms”).

¹⁶ Oliver E. Williamson, *Calculativeness, Trust and Economic Organization*, 36 J.L. & ECON. 453, 483–84 (1993).

refers to a general attitude of optimism about the goodwill of others.¹⁷ Affective trust underlies most lay conceptions of trust; it is predicated on the existence of personal relationships—ties of kinship, friendship, and past experience cultivated over time.¹⁸

Most studies of calculative trust in commercial internet transactions focus on the role of reputation and reputation-based sanctions in deterring fraud and inducing parties to cooperate. Commenters have cited limitations on verifying the accuracy of reputation information as a structural constraint of the reputation-based model.¹⁹ Others have bemoaned the loss of trust in online interactions more generally.²⁰ With the vast proliferation of networked personal information that characterizes social commerce, these concerns have become less compelling. In contrast to the initial wave of Web 1.0 electronic commerce companies in the late 1990s and early 2000s, social commerce represents a marked movement away from anonymity and impersonality toward transparency and disclosure. Although it, too, is driven primarily by the reputation-based model, social commerce centers on the personalization and socialization of one-shot commercial transactions using Web 2.0 technologies.²¹

Beyond the obvious point that one is more likely to trust a product or service that is recommended by a friend rather than a stranger, the trust dynamics of social commerce involve a complex interplay of different factors. This Article identifies several mechanisms that are conducive to the formation of trust in social commerce: (1) information disclosure via public and private communications; (2) pre-play or post-play barriers to entry; and (3) community policing as a substitute for centralized monitoring. These mechanisms interact to mimic the

¹⁷ Frank B. Cross, *Law and Trust*, 93 GEO. L.J. 1457, 1464 (2005).

¹⁸ See Williamson, *supra* note 16, at 483–84.

¹⁹ See, e.g., Gillette, *supra* note 12, at 1168.

²⁰ E.g., Justin (Gus) Hurwitz, *Trust and Online Interaction*, 161 U. PA. L. REV. 1579 (2013).

²¹ Web 2.0 refers to internet sites that feature user-generated content, bi-directional communication, online collaboration, sharing, and interoperability. See Graham Cormode & Balachander Krishnamurthy, *Key Differences Between Web 1.0 & Web 2.0*, FIRST MONDAY (June 2, 2008), <http://firstmonday.org/article/view/2125/1972>. This differs from Web 1.0, where the vast majority of users do not create content, but are simply consumers of content. *Id.* Some have begun referring to Web 3.0, a third generation of the Web, characterized by use of semantic web technologies, natural language processing, machine learning, and artificial intelligence technologies. See Nova Spivack, *Web 3.0: The Third Generation Web is Coming*, LIFEBOAT FOUNDATION, <http://lifeboat.com/ex/web.3.0> (last visited Oct. 30, 2015).

characteristics of closely-knit environments, creating conditions conducive to trust formation. I study these factors in the context of four social commerce settings: (1) individuals and businesses in the so-called “sharing economy”; (2) next generation electronic commerce companies; (3) online escort services; and (4) online black markets in credit cards and controlled substances. The private ordering systems that have emerged in these online markets rely in large part on counteracting the information asymmetry and accountability problems inherent in any impersonal, loosely-knit setting.

This Article attempts to answer several questions. First, how does trust emerge in one-shot interactions of dispersed, non-face-to-face, sometimes non-identifiable strangers in social commerce? Second, what roles do information, anonymity, and identifiability play, and what is their relationship to trust? Third, what impact does law have on the decentralized extralegal systems that have emerged in these markets?

Part I defines social commerce and trust, and provides an overview of the major typologies of social commerce. Part II discusses the trust-enhancing mechanisms discussed above in the context of the sharing economy, next generation electronic commerce companies, online escort services, and the online credit card and drug black markets. Part III discusses the role played by information, anonymity, and identifiability. Part IV analyzes the interrelationship of law and trust in these online markets.

I. DEFINITIONS

A. *Social Commerce Defined*

Numerous definitions of “social commerce” exist. Yahoo first used the term in 2005 to describe communities of shoppers using Pick Lists and user ratings to provide product information and advice to other users.²² It has since been defined as “advertising . . . generated by a friend . . . to provide consumers with rich social context and relevancy to the purchases which they are making”;²³ “[a] strategy of connecting customers to customers online and leveraging those connections for

²² David Beach & Vivek Gupta, *Social Commerce via the Shoppisphere & Pick Lists*, YAHOO! (Nov. 14, 2005, 9:33 PM), <http://www.ysearchblog.com/2005/11/14/social-commerce-via-the-shoppisphere-pick-lists/>.

²³ Beisel, *supra* note 14.

commercial purpose”;²⁴ “enabling consumers to browse, view, and add products to a shopping cart, within the context of a social site, like Facebook or a blog”;²⁵ and “working with or using your social graph, which is defined as your followers or your friends, and allowing them to help you make buying decisions.”²⁶ Some academics have limited the term to collaborative networks of online sellers, as opposed to networks of online buyers. Andrew Stephen and Olivier Toubia have defined it as “an emerging trend in which sellers are connected in online social networks and sellers are individuals instead of firms.”²⁷ Others have defined it more generally as “an Internet-based commercial application, leveraging social media and Web 2.0 technologies which support social interaction and user generated content in order to assist consumers in their decision making and acquisition of products and services within online marketplaces and communities.”²⁸

The different definitions of social commerce may be classified into two broad groups: (1) e-commerce that grows out of existing social media sites such as Facebook and Twitter; and (2) social networks that grow out of existing e-commerce sites such as Amazon or eBay. The former definition is narrower, with social media as a condition requisite for the social commerce designation. Examples include “Buy” buttons that allow consumers to make purchases directly from their Facebook or Twitter accounts. The latter definition is broader, encompassing any form of community or social connection surrounding a product or service. These can include user forums, ratings, reviews, and referrals designed to exchange advice, opinions, and experiences.

This Article adopts the latter, broader definition of social commerce. I do not limit the term to electronic commerce that occurs on social media sites; rather, I use the term to refer to a type of electronic commerce that allows individuals to

²⁴ Sam Decker, *The Big Idea Behind Social Commerce*, IMEDIA CONNECTION (June 14, 2007), <http://www.imediaconnection.com/content/15372.imc>.

²⁵ Fumi Matsumoto, *Social Commerce: Strategies for Extending Online Shopping Beyond the E-Commerce Site*, DIRECT MARKETING NEWS (Nov. 10, 2009), <http://www.dmnews.com/digital-marketing/social-commerce-strategies-for-extending-online-shopping-beyond-the-e-commerce-site/article/157433/>.

²⁶ Paul Dunay, *The Future of Social Shopping*, EMARKETER (Oct. 2, 2009), <http://www.emarketer.com/Article.aspx?R=1007302>.

²⁷ Stephen & Toubia, *supra* note 15, at 215.

²⁸ Zhao Huang & Morad Benyoucef, *From E-Commerce to Social Commerce: A Close Look at Design Features*, 12 ELECTRONIC COMM. RES. & APPLICATIONS 246, 247 (2012).

generate content and connect socially with others interested in the same products or services. These others need not be friends, but can be verified strangers. I also do not distinguish between “social commerce” and “social shopping.”²⁹ Social commerce as used in this Article refers to communities of not only sellers, but also buyers, lenders, borrowers, and other groups. Social commerce is also not limited to legal markets, but can extend to quasi-legal and illegal markets as well.

B. *Typologies of Social Commerce*

Many different forms of social commerce have emerged in recent years. This section identifies five typologies of social commerce: (1) social network platform sales; (2) group buying and gifting; (3) participatory commerce; (4) person-to-person or peer-to-peer (“P2P”) and business-to-consumer (“B2C”) sales; and (5) the sharing economy.³⁰ This Article will focus on the latter two categories.

By social network platform sales, I refer to sales that are driven by social networking sites such as Facebook, Twitter, YouTube, and Pinterest.³¹ These can include “Buy” buttons that appear on ads and posts from businesses, many of which allow users to purchase products without ever having to leave the social networking site. Additionally, many businesses have their own Facebook pages, and when a user “Likes” a particular product or brand, she becomes part of a community of buyers who are then offered special promotions, early access to new products, etc.³² The user’s friends and family are also made aware of her “Likes” or purchases, spurring further sales.

In group buying, websites such as Groupon or Living Social offer discounted products and services conditioned on sale to a threshold number of purchasers.³³ Large groups of dispersed individuals purchase goods collectively at wholesale

²⁹ Some have limited the term “social commerce” to collaborative networks of online sellers and “social shopping” to networks of online shoppers. See Stephen & Toubia, *supra* note 15, at 215.

³⁰ Lauren Indvik, *The 7 Species of Social Commerce*, MASHABLE (May 10, 2013), <http://mashable.com/2013/05/10/social-commerce-definition/>.

³¹ *Id.*

³² Matt Anderson et al., *Turning “Like” to “Buy” Social Media Emerges as a Commerce Channel*, BOOZ & COMPANY, INC. 7 (2011), available at http://www.strategyand.pwc.com/media/file/BaC-Turning_Like_to_Buy.pdf.

³³ For an examination of Groupon in the context of the Assurance Game, see Julia Y. Lee, *Gaining Assurances*, 2012 WIS. L. REV. 1137 (2012).

prices, coordinated by a central intermediary. On group gifting websites such as eDivvy.com, individuals act collectively to contribute a gift for a target recipient.³⁴

In participatory commerce, consumers become active participants in the production process, working collaboratively to design products. For instance, Nike now allows consumers to design their own shoes, and ModCloth allows shoppers to vote on what designs are carried in stores.³⁵

In P2P product sales, individuals sell products or services directly to other individuals using P2P sales platforms. Examples include eBay, Etsy, and Amazon Marketplace, which provide a forum for individuals to communicate and buy and sell products to one another.³⁶ In B2C product sales, businesses sell products to consumers with the aid of user ratings and reviews. I include within this category next generation electronic commerce companies such as Alibaba, which provides B2C and business-to-business sales through web portals that connect manufacturers and businesses to buyers worldwide.³⁷ I discuss Alibaba in more detail in Part III below.

Finally, the sharing economy refers to a socio-economic system built around extracting value from, and sharing access to, existing goods and services.³⁸ Also known as the “peer-to-peer economy,” the “collaborative economy,” or “collaborative consumption,” sharing economy platforms allow individuals to exchange goods and services directly. In the standard usage of the phrase, owners rent out personal assets that they are not using, including cars, housing, and household items. Access substitutes for ownership: via the internet, owners of underused assets connect to those willing to pay to use them.³⁹ The model works especially well for expensive goods that are not widely or consistently used, such as cars, boats, and bicycles.

³⁴ Anderson et al., *supra* note 32, at 7.

³⁵ Indvik, *supra* note 30.

³⁶ *Id.*

³⁷ See *About Alibaba.com*, ALIBABA.COM, <http://activities.alibaba.com/alibaba/following-about-alibaba.php> (last visited Oct. 30, 2015); see also *Alibaba Group*, WIKIPEDIA.ORG, https://en.wikipedia.org/wiki/Alibaba_Group (last visited Oct. 30, 2015).

³⁸ Benita Matofska, *What Is the Sharing Economy?*, PEOPLE WHO SHARE, <http://www.thepeoplewho share.com/blog/what-is-the-sharing-economy/> (last visited Oct. 30, 2015).

³⁹ *All Eyes on the Sharing Economy*, ECONOMIST, Mar. 9, 2013, at 13.

The sharing economy may be conceptualized into three broad categories: (1) product service systems; (2) redistribution markets; and (3) collaborative lifestyles.⁴⁰ In product service systems, individuals and companies rent goods as services, rather than selling them as products (e.g., renting out a power drill). In redistribution markets, preowned goods are swapped, given away, or sold (e.g., swapping of used children's clothing). In collaborative lifestyles, individuals share their time, space, skills, and money. Examples include renting rooms, apartments, homes, and work spaces; ride-sharing; P2P lending (LendingClub, Prosper); and outsourcing of errands and odd jobs (TaskRabbit, HouseCall). Car-sharing arrangements consist of car-rental services where individuals pay to borrow someone else's car (Buzzcar, Getaround, RelayRides, Wheelz, WhipCar) or taxi services in which individuals drive passengers in their own cars (Lyft, Uber, SideCar).⁴¹ With accommodation rentals, individuals may rent anything from a spare bed or couch to an entire house (Airbnb, Roomorama).⁴² The vast majority of these markets do not involve sharing in the traditional sense, but the exchange of goods or money for profit.

The sharing economy shares several characteristics with social network platforms, group buying and gifting, participatory commerce, and P2P and B2C sales. In all of these forms of social commerce, sales and commercial activity are socially driven. Technology has allowed geographically dispersed groups of family, friends, or strangers to connect with one another, coordinate their actions, and communicate about the same products and services. This relational connection forms the core of social commerce. Although the desire to sell products and services ultimately drives social commerce platforms, they try to achieve this goal through the cultivation of community, trust, and social relationships. As I argue below, community is a key component of the central dynamic of social commerce—the formation of trust.

C. *Trust Defined*

Trust is an elusive concept that has defied a uniform or consistent definition. It has been referred to as an essential social glue that increases efficiency, lowers transaction costs, reduces complexity, renders cooperation possible, and contributes

⁴⁰ RACHEL BOTSMAN & ROO ROGERS, WHAT'S MINE IS YOURS: THE RISE OF COLLABORATIVE CONSUMPTION 71–73 (2010).

⁴¹ *All Eyes on the Sharing Economy*, *supra* note 39, at 13.

⁴² *Id.*

to the maintenance of social order.⁴³ It is “a simplifying strategy” that enables individuals to cope with an uncertain, complex, and uncontrollable future.⁴⁴ Economist Fred Hirsch defined it as a “public good” that is crucial to the success of many economic transactions.⁴⁵ Similarly, Kenneth Arrow noted the presence of trust in nearly every economic transaction and found that higher levels of trust correlated with higher rates of investment and growth.⁴⁶

Many definitions describe trust as a subclass of risk.⁴⁷ In economic exchange, the terms of exchange are explicit, but the obligations carry the risk of opportunism. When there is risk of opportunism, trust comes into play.⁴⁸ The greater the level of risk, the greater is the potential for trust or distrust.⁴⁹ Sociologist James Coleman has noted, “[s]ituations involving trust constitute a subclass of those involving risk. They are situations in which the risk one takes depends on the performance of another actor.”⁵⁰ Similarly, Diego Gambetta has theorized, “[f]or trust to be relevant, there must be the possibility of *exit*, betrayal, defection” by the trusted.⁵¹

⁴³ KENNETH J. ARROW, *THE LIMITS OF ORGANIZATION* 23 (1974); *see also* PETER M. BLAU, *EXCHANGE & POWER IN SOCIAL LIFE* 64 (1964); FRANCIS FUKUYAMA, *TRUST: THE SOCIAL VIRTUES & THE CREATION OF PROSPERITY* 151–52 (1995); NIKLAS LUHMANN, *TRUST & POWER* (1979); TALCOTT PARSONS, *THE SOCIAL SYSTEM* (Bryan S. Turner ed., 1991).

⁴⁴ PIOTR SZTOMPKA, *TRUST: A SOCIOLOGICAL THEORY* 25 (1999) (quoting T. EARLE & G.T. CVETKOVICH, *SOCIAL TRUST: TOWARD A COSMOPOLITAN SOCIETY* 38 (1995)).

⁴⁵ BERNARD BARBER, *THE LOGIC AND LIMITS OF TRUST* 8 (1983).

⁴⁶ *See* ARROW, *supra* note 43; Elinor Ostrom & James Walker, *Introduction*, in *TRUST & RECIPROCITY: INTERDISCIPLINARY LESSONS FROM EXPERIMENTAL RESEARCH*, *supra* note 3, at 3, 6.

⁴⁷ I refer to risk as unsystematic risk—i.e., risk that can be reduced through diversification of investment. Systematic risk cannot be reduced through diversification. *See* Charles K. Whitehead, *Destructive Coordination*, 96 *CORNELL L. REV.* 323, 339 (2011).

⁴⁸ Karen Schweers Cook, *Networks, Norms, and Trust: The Social Psychology of Social Capital*, 68 *SOC. PSYCHOL. Q.* 4, 9 (2004).

⁴⁹ Mark A. Hall, *Law, Medicine, and Trust*, 55 *STAN. L. REV.* 463, 474 (2002). Oliver Williamson takes issue with the use of trust to describe situations where the risk one takes depends on others' performance. *See* Williamson, *supra* note 16, at 463 (quoting JAMES S. COLEMAN, *FOUNDATIONS OF SOCIAL THEORY* 91 (1990)).

⁵⁰ COLEMAN, *supra* note 49.

⁵¹ Diego Gambetta, *Can We Trust Trust?*, in *TRUST: MAKING AND BREAKING COOPERATIVE RELATIONS* 213, 218–19 (Diego Gambetta ed., 1988).

Numerous definitions of trust exist. Part of the difficulty with defining trust is that it has been studied across diverse intellectual disciplines, with each discipline applying its own analytical lens. For instance, psychologists have analyzed the personality side of trust, sociologists the social structural side, and economists the rational choice side.⁵² Further complicating the definition, trust carries a multitude of meanings in everyday usage.⁵³ I will discuss the definitions of trust most relevant to my analysis—cognitive v. affective trust, generalized v. particularized trust, and primary v. secondary trust.

This Article focuses on cognitive, particularized, secondary trust. Cognitive or calculative trust refers to the decision by one party, A, to make itself vulnerable to another, B, based on the belief that B will not act opportunistically.⁵⁴ Particularized or relational trust refers to the type of specific trust that develops between two individuals within a particular context.⁵⁵ Secondary trust refers to trust based on the experience of others, rather than personal experience. I discuss each in more detail below.

Cognitive trust involves a calculated assessment of whether the benefit from trusting another outweighs the risks involved. It is an economic concept rooted in cost-benefit analysis. Saying that A trusts B means that A believes that there is a reasonably high probability that B will not try to take advantage of A.⁵⁶ Trust implies that A is confident, but not necessarily certain, that B will behave in the expected way.⁵⁷ In one variant—Russell Hardin’s “trust as encapsulated interest”—an individual, A, trusts another individual, B, because it is in B’s interest to fulfill A’s trust.⁵⁸ A trusts B because B’s interest encapsulates A’s interests.⁵⁹

⁵² D. Harrison McKnight & Norman L. Chervany, *Trust and Distrust Definitions: One Bite at a Time*, in *TRUST IN CYBER-SOCIETIES: INTEGRATING THE HUMAN & ARTIFICIAL PERSPECTIVES* 28, 29 (Rino Falcone et al. eds., 2001).

⁵³ *Id.* at 29–30.

⁵⁴ Margaret M. Blair & Lynn A. Stout, *Trust, Trustworthiness, and the Behavioral Foundations of Corporate Law*, 149 U. PA. L. REV. 1735, 1739–40 (2001); see also Gambetta, *supra* note 51, at 217 (“When we say we trust someone or that someone is trustworthy, we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of cooperation with him.”).

⁵⁵ Cook, *supra* note 48, at 9.

⁵⁶ Avner Ben-Ner & Louis Putterman, *Trusting & Trustworthiness*, 81 B.U. L. REV. 523, 527 (2001).

⁵⁷ Susan Rose-Ackerman, *Trust, Honesty, & Corruption: Reflection on the State-Building Process*, 42 EUR. J. SOC. 526, 526 (2001).

⁵⁸ RUSSELL HARDIN, *TRUST & TRUSTWORTHINESS* 3 (2002).

Trustworthiness refers to B's objective qualities: if B is trustworthy, he is the type of person who would not try to exploit A's vulnerability even if it is advantageous to do so.⁶⁰ Trust depends on an assessment of the trustworthiness of the other party. If A has reason to think B will be trustworthy, then A trusts B.⁶¹ Distrust, on the other hand, involves an attitude of suspicion or pessimism about the motives of others.⁶²

Cognitive trust differs from affective trust in several ways. Affective trust—otherwise known as internalized, personal, or emotive trust—is emotional and irrational; cognitive or calculative trust is reasoned and strategic.⁶³ Affective trust has been referred to as “real” or “true” trust, as opposed to calculative trust, which is more strategic. An individual with high affective trust has a propensity to believe in the trustworthiness of humans in general.⁶⁴ This type of trust, which can be described as more of a feeling than a thought,⁶⁵ focuses on the internal mental state of the trusting actor and is characterized by an absence of monitoring.⁶⁶ It reflects a baseline psychological attitude, rather than trust in individuals to do specific things.⁶⁷ In this sense, it is similar to generalized trust.

Generalized trust refers to a general predisposition to trust others.⁶⁸ It is an individual trait characterized by a “default” belief in the “benign nature of humans

⁵⁹ *Id.*

⁶⁰ Ben-Ner & Putterman, *supra* note 56, at 527; Blair & Stout, *supra* note 54, at 1740. Honesty, which involves truth-telling and responsible behavior, is not identical to trustworthiness. See Rose-Ackerman, *supra* note 57, at 526 (“A person may be honest but incompetent and so not worthy of trust.”).

⁶¹ Russell Hardin, *Gaming Trust*, in TRUST AND RECIPROCITY: INTERDISCIPLINARY LESSONS FROM EXPERIMENTAL RESEARCH, *supra* note 3, at 80, 83.

⁶² Hall, *supra* note 49, at 474.

⁶³ Cross, *supra* note 17, at 1459.

⁶⁴ Cook, *supra* note 48, at 9.

⁶⁵ Hall, *supra* note 49, at 483; see also Cross, *supra* note 17, at 1465.

⁶⁶ Richard Craswell, *On the Uses of “Trust”: Comment on Williamson*, “Calculativeness, Trust and Economic Organization,” 36 J.L. & ECON. 487 (1993); Williamson, *supra* note 16, at 483–84.

⁶⁷ Rose-Ackerman, *supra* note 57, at 529.

⁶⁸ Generalized trust is similar to “social trust,” which refers to individuals’ views about the trustworthiness of others. See ROBERT PUTNAM, BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY 136–38 (2000). Social trust grows out of social bonds and group identity. See Tom R. Tyler, *Why Do People Rely on Others? Social Identity and the Social Aspects of Trust*, in TRUST IN SOCIETY 285, 286 (Karen S. Cook ed., 2001).

in general.”⁶⁹ It has been described as a “standing decision” “to give most people—even those whom one does not know from direct experience—the benefit of the doubt.”⁷⁰ Generalized trust arises when individuals internalize a set of moral values that predispose them to expectations of honest behavior in others.⁷¹ An individual with low generalized trust will trust no one unless given proof of trustworthiness.⁷² Generalized trust extends to individuals we do not know personally. Individuals with high levels of generalized trust may trust others in one context, but not others.⁷³ An individual’s level of generalized trust is partly a product of a person’s past experiences.⁷⁴

By contrast, particularized trust—otherwise known as relational or interpersonal trust—refers to interrelationships between people, specifically an individual’s trust in a particular person with respect to a particular situation.⁷⁵ I conceive of two types of particularized trust: primary trust and secondary trust. Primary trust stems from repeat interactions and direct personal experience; secondary trust from the experience of others. Traditionally, particularized trust has been conceived of as primary trust—that is, trust that arises through face-to-face transactions between individuals who know one another. Putnam termed this type of trust “thick trust,” which he defined as trust grounded in strong and frequent personal relationships.⁷⁶ Thick trust tends to arise in small, closely-knit, homogeneous societies and most commonly between family members and close friends.⁷⁷ However, as I posit in this Article, particularized trust may also arise in non-face-to-face transactions between individuals who do not personally know one another, but only know *of* one other. In other words, particularized, secondary trust may arise between two people based on reputation and institutional controls.

⁶⁹ Cook, *supra* note 48, at 9.

⁷⁰ Wendy M. Rahn & John E. Transue, *Social Trust & Value Change: The Decline of Social Capital in American Youth, 1976-1995*, 19 POL. PSYCHOL. 545, 545 (1998), *quoted in* PUTNAM, *supra* note 68, at 136.

⁷¹ FUKUYAMA, *supra* note 43, at 153.

⁷² Cook, *supra* note 48, at 9.

⁷³ *Id.*

⁷⁴ Rose-Ackerman, *supra* note 57, at 539.

⁷⁵ *Id.* at 538–39.

⁷⁶ PUTNAM, *supra* note 68, at 136.

⁷⁷ *See id.*; *see also* Edna Ullmann-Margalit, *Trust, Distrust, and in Between*, in *DISTRUST* 60, 65–66 (Russell Hardin ed., 2004); Rebecca M. Bratspies, *Regulatory Trust*, 51 ARIZ. L. REV. 575, 591 (2009).

Often, an individual's level of trust cannot be neatly characterized as affective or cognitive, or generalized v. particularized, but is a combination of both.⁷⁸ Certain types of social commerce—in particular, those that involve trading of services that culminate in repeat, face-to-face meetings with the same individual—may implicate both affective and cognitive trust.

While this Article focuses on cognitive and particularized trust, it does not deny the importance of affective or generalized trust. Just as every individual has a different tolerance for risk, an individual's willingness to trust depends on a complex interplay of affective trust and situation-specific factors that are determinative of cognitive trust. While the former is a product of direct, personal experiences and individual-specific attributes, the latter may vary from situation to situation. Affective trust may be viewed as an initial baseline that varies according to the individual's internalized proclivity to trust. The baseline is the starting point from which an individual makes the decision to trust in any one context. From that point, there are alternative gateways to cognitive trust: (1) primary, particularized trust grounded in repeated interactions and personal experience; and (2) secondary, particularized trust based on the experience of others. Again, my focus is on the latter. Secondary trust operates as the main gateway to trust in the type of loosely-knit, geographically dispersed settings that characterize social commerce. This gateway constricts or expands according to the presence of certain structural and contextual conditions that I discuss in the next Part. Hence, although the Article acknowledges that there may be internalized, emotional motivations to trust in any one context, it focuses on the external social and economic incentives that impact an individual's rational, calculated decision to transact with another.

II. TRUST IN SOCIAL COMMERCE

How does trust emerge in one-shot commercial transactions between non-face-to-face, geographically dispersed strangers in social commerce? Much of the literature on trust in cyberspace focuses primarily on the role of reputation.⁷⁹ In this Part, I detail a multi-layered, private system of incentives and controls that extend beyond reputation. If one imagines trust as the spoke of a wheel, reputation comprises only one of the rods. The other components include information,

⁷⁸ Cross, *supra* note 17, at 1471.

⁷⁹ See, e.g., Ben-Ner & Putterman, *supra* note 56, at 527, 542. For general literature on the role of reputation, see THE REPUTATION SOCIETY 51–53 (Hassan Masum & Mark Tovey eds., 2011) and Lior Strahilevitz, *Reputation Nation: Law in an Era of Ubiquitous Personal Information*, 102 NW. U. L. REV. 1667 (2008).

visibility, familiarity, and accountability, which are all key elements in the formation of community.

Community—that is, a network of social relationships—lies at the heart of social commerce. These communities may range from small, micro-communities of indignant buyers or sellers swindled by the same miscreant to expansive communities of all buyers of a company’s products. The formation of community makes trust possible, for community membership creates a commitment to continuity in relationships, generates pressure to cooperate from multiple sources, and affords community members multiple channels for pursuing violators of trust.⁸⁰ Although the communities in social commerce are virtual, the personalization of exchange relations and culture of transparency that characterize social commerce operate as close substitutes for traditional, closely-knit, physical communities. The degree of personalization and transparency varies depending on the legal, quasi-legal, and illegal nature of the marketplace.

Below I study the emergence of trust in four sectors of social commerce: the sharing economy, next generation electronic commerce companies, online escort services, and the online credit card and drug black markets. I identify three common elements that bind each of these markets: (1) voluntary disclosure of information via public and private communications; (2) pre-play or post-play barriers to entry; and (3) community policing.

A. *Voluntary Disclosure of Information*

The characteristic features that have defined cyberspace—anonymity, impersonality, and heterogeneity—also are least conducive to trust formation. One of the central mechanisms for increasing the willingness to trust is transparency. Anonymity and secretiveness breed distrust; conversely, personalization and transparency generate trust.⁸¹ Information is said to be the lifeblood of exchange markets. Information on the interests and disposition of the other party forms the basis of assessments of trustworthiness.⁸² In many social commerce markets, we are seeing a trend away from impersonal, anonymous transactions toward individuated, non-anonymous ones. Market actors voluntarily disclose a wealth of

⁸⁰ Carol Heimer, *Solving the Problem of Trust*, in TRUST IN SOCIETY, *supra* note 68, at 40, 55; Mark Granovetter, *Economic Action & Social Structure: The Problem of Embeddedness*, 91 AM. J. SOC. 481, 491 (1985).

⁸¹ See SZTOMPKA, *supra* note 44, at 123–24.

⁸² Heather Hamill & Diego Gambetta, *Who Do Taxi Drivers Trust?*, 5 CONTEXTS no. 3, 2006, at 29, 30.

personal information about themselves to signal their trustworthiness. Open lines of communication connect buyer and seller. These communications consist of both public self-disclosure and private, one-on-one communication via email or instant messaging.

The ease of obtaining and exchanging information results in a free flow of information that simulates a fundamental feature of closely-knit communities. Traders have strong incentives to disclose information—with no disclosure, they will have difficulty finding exchange partners. Imagine an Airbnb host profile with no name, photos, reviews, personal information, or details of the rental location. Such a host would have difficulty finding renters. Sellers who disclose less information would sustain a price discount to compensate buyers for the increased risk. The market would drive out traders who failed to disclose a competitive amount of information.

Experimental studies have consistently found that repeated pre-play communication substantially increases levels of cooperation and trust.⁸³ Without communication, cooperation among individuals in the Prisoner's Dilemma tends to decrease over trials.⁸⁴ Pre-play communication has marked effects on generating trust.⁸⁵ Face-to-face communication generates the most consistent results, with audio-visual communication providing a close substitute.⁸⁶ Communication creates a form of personal relationship, however fleeting, creating a reluctance to cheat.⁸⁷ Direct communication, combined with high visibility and a culture of openness, also generate a sense of familiarity. As Giddens has noted, “‘familiarity’ is the keynote to trust.”⁸⁸ Even when counterparties are strangers, a sense of familiarity

⁸³ Ostrom, *supra* note 3, at 29; Ben-Ner & Putterman, *supra* note 56, at 545; Mark Isaac & James Walker, *Communication and Free-Riding Behavior: The Voluntary Contribution Mechanism*, 26 ECON. INQUIRY 585, 592 (1988).

⁸⁴ Karen S. Cook & Robin M. Cooper, *Experimental Studies of Cooperation, Trust, and Social Exchange*, in TRUST AND RECIPROcity: INTERDISCIPLINARY LESSONS FROM EXPERIMENTAL RESEARCH, *supra* note 3, at 209, 228.

⁸⁵ *Id.*; see also John O. Ledyard, *Public Goods: A Survey of Experimental Research*, in THE HANDBOOK OF EXPERIMENTAL ECONOMICS 111, 156–68 (John H. Kagel & Alvin E. Roth eds., 1995); Elinor Ostrom, *Collective Action & the Evolution of Social Norms*, 14 J. ECON. PERSP. 137, 146 (2000).

⁸⁶ Ostrom, *supra* note 3, at 29.

⁸⁷ Thomas S. Ulen, *Review: Rational Choice and the Economic Analysis of Law*, 19 L. & SOC. INQUIRY 487, 495 (1994).

⁸⁸ Anthony Giddens, *Living in a Post-Traditional Society*, in REFLEXIVE MODERNIZATION 56, 81 (Ulrich Beck, Anthony Giddens & Scott Lash eds., 1994).

may result from a commonality of interests, acquaintances, etc. The cultivation of transparency and familiarity is perhaps best exemplified by the emerging sharing economy.

1. The Sharing Economy

Many sharing economy platforms provide a forum for parties to share information and communicate directly with one another, often with personal photos and other identifying information. Feastly, an online marketplace that connects diners to home cooks, includes photos and personal biographies of every chef.⁸⁹ On Airbnb, nearly all hosts post photos and a short description of themselves. Many list their education, work, hobbies, interests, Facebook, Twitter, and LinkedIn profiles, as well as other personal information. The voluntary disclosure of personal information runs both ways. Guests must create profiles before they can book reservations, and many also post personal photos and information about themselves. Airbnb provides two modes of communication between guests and hosts: email and private messaging. Before booking, guests may contact hosts using an online messaging system. After a reservation has been accepted, email addresses, phone numbers, and listing addresses are shared.⁹⁰

Similarly, on Kiva.org, a P2P lending platform, individual lenders may browse profiles of borrowers from around the world. Borrower profiles include the borrower's name, photo, personal story, and future aspirations, as well as the intended use of the funds. Borrowers seek loans for a variety of purposes, from growing their business, to paying for tuition, to moving to safer and cleaner forms of energy.⁹¹ Lenders also have profiles that disclose their name, occupation, location, and lending activity, often accompanied by a personal photo.⁹² On KivaZip.org, lenders and borrowers can communicate directly with one another via email or instant messaging. Borrower profiles include public discussion boards where lenders and borrowers can post messages to one another and to the public.⁹³

⁸⁹ See *About*, FEASTLY, <https://eatfeastly.com/info/about/> (last visited Oct. 30, 2015).

⁹⁰ See *Why Can't I Call or Email a Guest or Host Before Booking?*, AIRBNB, <https://www.airbnb.com/help/article/44> (last visited Oct. 30, 2015).

⁹¹ See *About Us*, KIVA, <http://www.kiva.org/about> (last visited Oct. 30, 2015); *How Kiva Works*, KIVA, <http://www.kiva.org/about/how> (last visited Oct. 30, 2015).

⁹² See *Kiva Lender Paul-Alexander*, KIVA, http://www.kiva.org/lender/paulalexander4385?super_graphs=1 (last visited Oct. 30, 2015).

⁹³ See *Caitlin, Plough in the Stars Farm*, KIVA ZIP, <https://zip.kiva.org/loans/10837> (last visited Oct. 30, 2015).

The sharing economy's facilitation of direct communication and transparency also fosters an atmosphere of familiarity, safety, and security. With the availability of a wealth of information about exchange partners, individuals may forum shop for like-minded or similarly-situated individuals. Many drivers use ride-sharing platforms to give rides only in the direction of their commute to work or school.⁹⁴ For instance, Sidecar allows passengers to choose a particular driver from a list of nearby available cars, allowing female passengers to choose female drivers.⁹⁵ KivaZip.org creates security in numbers by providing the total number, identity, and profiles of other lenders making similar loans to that particular borrower.⁹⁶ On Airbnb and other platforms, the linkage of accounts to Facebook profiles injects some modicum of familiarity into interactions with strangers. I may be more willing to transact with you, even if we have never met if, for instance, one of my friends is a friend of your friend.

Contrast this with the trust dynamics of traditional taxi drivers and their passengers. Passengers enter cabs with no information about their drivers, relying instead on the integrity of municipal licensing requirements and the company's interest in maintaining a positive reputation. Drivers are in an even more vulnerable position; they must make split-second decisions about the trustworthiness of their passengers. Picking up the wrong customer can have dire consequences. In the United States, taxi drivers are sixty times more likely to be murdered on the job than the average worker and are the victims of more violent assaults than any occupation other than police and security guards.⁹⁷ In dealing with strangers in situations where there is a significant probability of being attacked or cheated, drivers resort to relying on heuristics—age, sex, and race—in the absence of other information.

Diego Gambetta and Heather Hamill have theorized that in conditions of high uncertainty, taxi drivers approach trust decisions through cues that are costless for those who truly possess them, but costly for others to mimic.⁹⁸ Drivers prefer older,

⁹⁴ Carolyn Said, *Why Do Women Like Driving for Lyft, Sidecar and Uber?*, S.F. GATE (Oct. 17, 2014), <http://www.sfgate.com/business/article/Why-do-women-like-driving-for-Lyft-Sidecar-and-5830862.php>.

⁹⁵ See *Sidecar Now Lets You Choose Women Drivers*, SFIST (Dec. 19, 2014, 11:40 AM), http://sfist.com/2014/12/19/sidecar_now_lets_you_choose_women_d.php.

⁹⁶ See Caitlin, *Plough in the Stars Farm*, *supra* note 93.

⁹⁷ Hamill & Gambetta, *supra* note 82, at 29.

⁹⁸ *Id.* at 30.

female, and white passengers over passengers who are younger, male, and black, presumably because these characteristics are difficult to simulate.⁹⁹ This results in the notorious difficulties faced by black male passengers in hailing cabs, particularly in large cities. Sharing economy ridesharing platforms, by virtue of the wealth of information made available to both passengers and drivers, displace reliance on heuristics to assess the trustworthiness of exchange partners.¹⁰⁰

2. Next Generation Electronic Commerce

Next generation B2C companies, such as Alibaba, utilize similar strategies to promote transparency. Alibaba, the world's largest online and mobile commerce company, provides a platform through which buyers and sellers can chat with one another before entering into a transaction. When necessary, the website handles the English-Chinese translation. Customers negotiate, communicate, and build relationships with suppliers through instant messaging and email, rather than through traditional face-to-face meetings. To further facilitate communication, Alibaba hosts a discussion forum for buyers and suppliers. Company profiles with links to the supplier's website provide information on location; factory size; total revenue; main markets; export percentage; number of product lines and staff; trade, production, and research and development capacity; year of establishment; and trademarks and patents. The websites often include multiple photographs of the factories, workers, and products.¹⁰¹ Contacts are identified by full name and job title, rather than a pseudonymous username. Some suppliers provide a personal photo and cell phone number in addition to their business address and fax number.¹⁰²

Social commerce B2C companies attempt to humanize their corporate images by personalizing content and simulating the behavior of individuals. Many companies now have Facebook and Twitter pages, where customers can "Like" the company and its products, submit complaints and concerns, and become part of a community of customers. The companies converse with their customers on social media platforms such as Instagram, Pinterest, or Tumblr. Many solicit user-

⁹⁹ *Id.* at 31–32.

¹⁰⁰ Lior Strahilevitz has made a similar argument, though not in the context of the sharing economy. *See* Strahilevitz, *supra* note 79, at 1674.

¹⁰¹ *See, e.g., Chongqing Bright Source Electronics Co., Ltd.*, ALIBABA.COM, <http://powercy.en.alibaba.com/> (last visited Oct. 30, 2015).

¹⁰² *See, e.g., Ananta Cooperation Ltd.*, ALIBABA.COM, <http://th106697808.fm.alibaba.com/contactinfo.html> (last visited Oct. 30, 2015).

generated content using social media.¹⁰³ Company websites disclose personal information about the company and its founders, including the company's "story," workers, and animating philosophy.

Etsy, a P2P electronic commerce website, seeks to create the unique shopping experience of boutiques, craft fairs, and flea markets by offering handmade items, vintage goods, and personalized craft supplies.¹⁰⁴ Sellers connect directly with buyers via personal storefronts where they share their personal stories, perpetuating the sense that one is transacting with a real person, rather than a company.¹⁰⁵ The site features "community tastemakers" who publicize their favorite products from different storefronts and have their own group of followers. Etsy's mission statement, to build "a human, authentic and community-centric global and local marketplace" where consumers can discover unique goods and "build relationships with the people who make and sell them," encapsulates social commerce.

3. Online Escort and Prostitution Services

The transparency, individuation, and personalization that have characterized the sharing economy and next generation B2C and P2P companies extend into the quasi-legal and illegal realms of online escort and prostitution services.¹⁰⁶ Much like the ridesharing platforms, Lyft and Uber, specialist websites and apps connect escorts and clients with a mere click or swipe. Slixia, a localized directory of escorts and erotic masseuses, allows customers to browse profiles of local escorts by city. Competitive pressures encourage the disclosure of large amounts of personal information. Each escort maintains a personalized profile page complete with autobiographical information, photographs, prices, and rules of behavior.¹⁰⁷ The site publicly discloses escorts' email addresses and phone numbers, allowing them

¹⁰³ Naveen Jain, *Brand Yourself for a Better Life*, FORBES (Nov. 24, 2013, 12:56 PM), <http://www.forbes.com/sites/naveenjain/2013/11/24/brand-toursel/>.

¹⁰⁴ See, e.g., *About Etsy*, ETSY, <https://www.etsy.com/about/?ref=ifr> (last visited Oct. 30, 2015).

¹⁰⁵ See *id.*; see also Om Malik, *Meet the Man Behind New York's Other Billion Dollar Internet Company. This One Makes Money*, GIGAOM (Aug. 23, 2013, 1:03 PM), <https://gigaom.com/2013/08/23/meet-the-man-behind-new-yorks-other-billion-dollar-internetcompany-this-one-makes-money>.

¹⁰⁶ Unlike prostitution, which is illegal in all states except Nevada, escort services are generally legal. See *US Federal and State Prostitution Laws and Related Punishments*, PROCON.ORG (2015), <http://prostitution.procon.org/view.resource.php?resourceID=000119#2>. However, because escort services are frequently a front for prostitution, I categorize them as quasi-legal.

¹⁰⁷ Dylan Love, *This Startup Has Created a Facebook for Escorts*, BUS. INSIDER (July 23, 2013, 8:31 PM), <http://www.businessinsider.com/slixia-hire-an-escort-online-2013-7>.

to be contacted by anyone browsing the website. Users may register to follow their favorite escorts' status updates.¹⁰⁸ In addition to purchasing personal profile pages, escorts may pay premiums for additional exposure on a given city's webpage or for site-wide exposure.¹⁰⁹

Pepr, a new app, allows individuals to type in a location and immediately view a list of the closest prostitutes complete with photos and prices.¹¹⁰ Information flows easily between buyer and seller: escorts and prostitutes provide detailed profiles and personal web pages, including information on age, bust or dress size, ethnicity, location, sexual orientation, range of services, rates, schedule, and requirements.¹¹¹ Although many use pseudonyms, nearly all post personal—and often intimate—photos. Many include other personal details such as personality, hobbies, and passions. The platforms allow buyer and seller to communicate directly with one another via email or instant messaging.

4. The Online Black Market: Credit Cards and Drugs

Unlike legal and quasi-legal exchange markets, illegal online markets in drugs and stolen credit cards naturally do not generate the same levels of voluntary disclosure. Secrecy and anonymity prevail, as avoiding detection by law enforcement remains the overarching imperative. Even so, sellers voluntarily disclose a surprising amount of information about themselves. Criminals, just as other commercial actors, have an interest in communicating, identifying one another accurately, advertising their products, and signaling their trustworthiness.¹¹² Vendors maintain their own profiles and links to their personal webpages, including a short description, contact details, and detailed terms and conditions of proper behavior on their sites.¹¹³

Because competition among vendors is fierce, customer service takes precedence. Websites devoted to the sale of illegal drugs provide photographs of

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *More Bang For Your Buck: How New Technology is Shaking Up the Oldest Business*, ECONOMIST, Aug. 9–15, 2014, at 16, 16.

¹¹¹ *Id.*

¹¹² GAMBETTA, *supra* note 8, at xii.

¹¹³ JAMIE BARTLETT, THE DARK NET: INSIDE THE DIGITAL UNDERWORLD 137 (2014); *see also Inside the Credit Card Black Market*, NPR (Jan. 10, 2014), <http://www.npr.org/blogs/money/2014/01/10/261404520/episode-282-inside-the-credit-card-black-market>.

products and prominent links to customer service complaints.¹¹⁴ Personal vendor websites post frequently asked questions and provide incentives such as discounts for repeat customers and bulk orders.¹¹⁵ Others post refund policies to engender trust. On the black market site 2pac, site operators warrant that they will replace “bad dumps” (i.e., invalid credit card numbers) “within 12 hours after purchase” and replace “bad CC(CVV2)” security codes “within 3 minutes after purchase.”¹¹⁶ Replacements involve a “full refund of item cost to account balance.”¹¹⁷

Just as in legal and quasi-legal markets, the platforms allow for direct communication between buyer and seller, though messages are encrypted and automatically deleted.¹¹⁸ Secure forums and discussion boards facilitate communication between users of the site and create an online community of users.¹¹⁹ Users frequently share advice, tips, and tricks of the trade. For instance, bulletin board sites where users buy and sell stolen data offer entry-level tutorials on how to get started in the credit card fraud business.¹²⁰ Even in impersonal, anonymous black markets, open lines of communication increase transparency, thereby facilitating trust.

B. Barriers to Entry

Both pre-play and post-play barriers to entry are another component in the generation of trust. I distinguish between two types of barriers to entry: (1) anticompetitive barriers to entry—that is, barriers to entry designed to keep out rivals; and (2) defensive barriers to entry—that is, barriers to entry that seek to keep out the untrustworthy.¹²¹ I focus on the latter. Overall, the internet has

¹¹⁴ *Inside the Credit Card Black Market*, *supra* note 113.

¹¹⁵ *Id.*

¹¹⁶ Aaron Sankin, *Inside the Black Market for Your Stolen Credit Cards*, KERNEL (Sept. 28, 2014), <http://kernelmag.dailydot.com/issue-sections/features-issue-sections/10362/inside-the-black-markets-for-your-stolen-credit-cards/>.

¹¹⁷ *Id.*

¹¹⁸ BARTLETT, *supra* note 113, at 138.

¹¹⁹ *See id.* at 136–37.

¹²⁰ Sankin, *supra* note 116.

¹²¹ Anticompetitive barriers to entry are discussed in George Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971). Under the interest group perspective, legislation is the product of rent-seeking by interest groups. Incumbents utilize the coercive powers of the state to control entry by new rivals. Licensure serves as a tool to artificially inflate prices within the licensed group and raise rivals' costs, stifling competition and innovation. Under this view, regulations to protect

dramatically lowered anticompetitive barriers to entry by making it easier for outsiders to enter the relevant market. As I discuss below, the private ordering system that has emerged relies on defensive barriers to entry to generate trust.

Barriers to entry have been a tool for counteracting transactional uncertainty for centuries. Historically, this has taken the form of trading within “natural groups,” such as clans or tribes, or within ethnically homogenous trading groups.¹²² Examples include the East Indians of East Africa, the Syrians of West Africa, the Lebanese of North Africa, the Chinese of Southeast Asia, and the Jews of medieval Europe, all of whom tended to trade exclusively among themselves.¹²³ Geographic proximity, ethnic homogeneity, and repeat dealing facilitate the formation of informal communication networks and reputation bonds that reduce the risks of transacting.¹²⁴ Avner Greif has shown that eleventh-century Maghribi traders overcame problems associated with the use of overseas agents by relying primarily on membership in religious-ethnic coalitions. The coalitions served as information transmission vehicles and reputation mechanisms for ensuring proper conduct. As coalition membership depended on proper conduct in the past, it effectively created a linkage between past conduct and future income.¹²⁵ Lisa Bernstein has shown a similar dynamic at work among Jewish traders in the diamond markets in the 1980s and 1990s.¹²⁶

In geographically concentrated, homogenous groups, information travels through word-of-mouth, repeat dealing, and personal contacts.¹²⁷ With online trading, internet technology has reduced the costs of collecting and disseminating information cheaply to a large number of counterparties.¹²⁸ Barriers to entry do not

the public interest are rarely simply such; in a significant proportion of cases, the rubric of public interest is simply a guise to protect entrenched interests.

¹²² See Avner Greif, *Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders*, 49 J. ECON. HIST. 857, 858 (1989); see generally Landa, *supra* note 3.

¹²³ Jack L. Carr & Janet T. Landa, *The Economics of Symbols, Clan Names, & Religion*, 12 J. LEGAL STUD. 135, 135 (1983).

¹²⁴ See Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEGAL STUD. 115, 140 (1992); Landa, *supra* note 3, at 358–61.

¹²⁵ Greif, *supra* note 122, at 862–63.

¹²⁶ Bernstein, *supra* note 124, at 116.

¹²⁷ *Id.* at 140–41.

¹²⁸ See David Charny, *Nonlegal Sanctions in Commercial Relationships*, 104 HARV. L. REV. 375, 419 (1990).

serve their traditional function of information and reputation transmission mechanisms; rather, they serve to filter out untrustworthy actors from the relevant market. In this sense, they function like state licensing requirements. By placing controls on group membership, barriers to entry serve to create a sense of security and community. Pre-play barriers to entry operate as a screening device and may take the form of certifications, references, and background checks. Post-play barriers to entry operate as a sanctioning mechanism, excluding individuals for past bad behavior. I discuss each in turn.

1. Pre-Play Barriers to Entry

a. The Verified Non-Criminal

Legal and quasi-legal markets utilize both pre-play and post-play barriers to entry as a mechanism for generating trust. By screening and excluding the untrustworthy, barriers to entry create a sense of exclusivity, perpetuating a sense of group identity. In the sharing economy, before sellers of goods and services can transact on the relevant site, they must register and pass screening checks. Ride-sharing services such as Uber and Lyft require drivers to undergo criminal background checks and ongoing reviews of motor vehicle records. The safety features go both ways. Drivers have access to passengers' identities, photos, and credit-card numbers before they are picked up, reducing the risks that a rider will rob or assault the driver. On Lyft, passengers must link their account to their Facebook profile before they can use the platform. Drivers rate their passengers, allowing drivers to avoid or effectively ban problematic passengers.¹²⁹

Airbnb requires verification of the identity of guests and hosts through the scanning of identification documents and linkage to social network sites such as Facebook. All hosts must upload a profile photo, and guests are asked to upload a photo before making their first reservation.¹³⁰ TaskRabbit, a mobile marketplace for hiring people to do odd jobs and tasks, requires all "rabbits" to be interviewed and have their backgrounds checked before advertising on the system.¹³¹ DogVacay, an online platform connecting pet owners with pet sitters, requests that

¹²⁹ Jason Tanz, *How Airbnb & Lyft Finally Got Americans to Trust Each Other*, WIRE (Apr. 23, 2014, 6:30 AM), <http://www.wired.com/2014/04/trust-in-the-share-economy/>.

¹³⁰ *Why do I need to have an Airbnb profile or profile photo?*, AIRBNB, <https://www.airbnb.com/help/article/67> (last visited Oct. 30, 2015).

¹³¹ *See Airbnb, Snapgoods and 12 More Pioneers of the 'Share Economy,'* FORBES, <http://www.forbes.com/pictures/eaji45emgkh/taskrabbit/> (last visited Oct. 30, 2015).

sitters undergo a clearance process, including training videos, quizzes, and a telephone interview in order to earn their pet-sitting badges and credentials.¹³²

Similarly, escorts and prostitutes generally require clients to submit names, references, employment verification, background and health checks, telephone numbers, and email addresses prior to the transaction. An entire industry that tailors to these demands has burgeoned.¹³³ Roomservice 2000 provides background checks that clients can present to sex workers. Apps such as Healthvana provide a means for workers and clients to share verified sexual-health test results.¹³⁴ In Britain, prostitutes may use the database Ugly Mugs to verify punters' names and telephone numbers.¹³⁵

For these mechanisms to serve their intended purpose, the barriers to entry must be rigorously implemented and enforced. Consider the effects of inadequately policed barriers to entry. Alibaba relies on an authentication and verification process for sellers called Gold Suppliers, a premium membership for suppliers wishing to maximize their exposure to potential customers. Gold Supplier members pay membership fees and demonstrate their authenticity by either passing an onsite check for Chinese suppliers or an Authentication & Verification ("A&V") check for other sellers. During the onsite check, Alibaba employees check the supplier's premises to ensure that onsite operations exist and confirm the supplier's legal status and other information through a third-party verification agency. The A&V check for non-Chinese suppliers consists of verifying the supplier's business license and contacts, but does not involve onsite inspection.¹³⁶

In 2011, Alibaba uncovered a massive fraud involving its own workforce. Its salespeople knowingly granted Gold Supplier certification to more than 2,300 fraudulent suppliers who accepted payments, but never delivered the promised

¹³² See Doreen Cantor, *DogVacay Says Dogs Deserve Vacations Too*, ZIPTOPIA, <http://www.zipcar.com/ziptopia/future-metropolis/dog-vacay> (last visited Nov. 1, 2015); see also *How to Obtain Each DogVacay Badge*, DOGVACAY/BLOG, <https://dogvacay.com/blog/how-to-obtain-each-dogvacay-badge/> (last visited Nov. 1, 2015).

¹³³ For a broader discussion of the technology-enabled sex market, see Scott R. Peppet, *Prostitution 3.0?*, 98 IOWA L. REV. 1989, 1992 (2013).

¹³⁴ *More Bang for Your Buck: How New Technology Is Shaking up the Oldest Business*, *supra* note 110, at 19.

¹³⁵ *Id.*

¹³⁶ *Alibaba.com's Supplier Verification Services*, ALIBABA.COM, http://www.alibaba.com/help/safety_security/products/verification_services.html (last visited Oct. 30, 2015).

goods. The scandal rocked Alibaba—critics faulted the company for certifying Gold Suppliers without a rigorous verification process, letting its online marketplace grow faster than it could handle.¹³⁷ Although the damage was relatively small (approximately \$2 million), about 100 salespeople and top management were fired, and the CEO and COO resigned.¹³⁸ Alibaba's response did much to contain the damage, but nevertheless raised the specter of a systemic loss of trust and confidence in the integrity of its verification systems.

b. The Verified Criminal

Online black markets rely on reverse barriers to entry—keeping out the non-criminal. A fascinating web of safeguards and controls interact to winnow the universe of traders to the paradoxical “trustworthy” criminal. Mechanisms vary depending on the type of market. Illegal drug markets generally operate on the Tor anonymizing network, an encrypted browser that shields the identity of users and browsing activity. Much of the trading in illegal goods occurs on websites that can only be accessed via Tor. For instance, the now-defunct website Silk Road, one of the most successful multibillion dollar online drug bazaars, could not be viewed without Tor.¹³⁹

Alternatively, some black markets operate on the standard internet but erect barriers to entry through an intricate web of usernames, passwords, and third-party verifiers. In the credit card black market, vendors must undergo at least two layers of screening before they can sell their product. First, they must pass a preliminary screening process to establish their criminality. Prospective sellers and purchasers cannot see or enter the site without a username and password. In order to obtain the username and password, prospective users must convince two references who are already in the site to write to the forum moderators and vouch for their criminality.¹⁴⁰ Only then may they view the site. Once they have established their criminal credentials, they must then establish their trustworthiness. In order to prove that they are capable of doing business honestly, prospective sellers submit a set of sample credit card numbers to designated reviewers. After testing the cards,

¹³⁷ Gady Epstein, *Alibaba's Jack Ma Fights to Win Back Trust*, FORBES (Mar. 23, 2011, 6:00 PM), <http://www.forbes.com/forbes/2011/0411/features-jack-ma-alibaba-e-commerce-scandal-face-of-china.html>.

¹³⁸ *Id.*

¹³⁹ Sankin, *supra* note 116.

¹⁴⁰ *See Inside the Credit Card Black Market*, *supra* note 113.

reviewers submit reviews and vouch for the seller to become a vendor on the site.¹⁴¹ The practice of submitting sample stolen credit card numbers signals two things: (1) that the prospective seller has committed a crime and therefore is less likely to be an undercover agent; and (2) that he or she is a *bona fide* seller.

Many markets utilize a combination of Tor and the referral screening process. On Agora Marketplace, formerly one of the largest online drug markets on the dark net operating as a Tor hidden service, both buyers and sellers were required to use a referral link called an Agora Invite to gain access to the site and register as a user.¹⁴² Similarly, the stolen data black market site Lampeduza Republic utilizes a system where reviewers verify a prospective vendor's services or products. Prospective sellers may become verified by submitting a \$25,000 good faith deposit with the site's administrators, providing evidence of at least 500 functional credit card records, or if they are selling distributed denial-of-service (DDoS) attacks, bringing an entire website down for an agreed-upon period of time.¹⁴³ Referrals and product testing simultaneously signal criminality and trustworthiness.

2. Post-Play Barriers to Entry

Post-play barriers to entry serve a different function—to ostracize and punish traders who have demonstrated their untrustworthiness. Because most parties wish to conduct more than one transaction, fear of exclusion plays a vital role. The prospect of foreclosing on future mutually beneficial exchanges operates as a check on advantage-taking behavior. In a well-publicized case in 2011, an Airbnb host named EJ returned home to find her San Francisco apartment trashed by a renter. The guest, along with some friends, had smashed a hole through a locked closet door and stolen the host's passport, cash, credit card, camera, laptop, and grandmother's jewelry.¹⁴⁴ Airbnb responded by working with law enforcement to apprehend the suspect and permanently banned the guest from the site. They also instituted insurance of up to \$1 million for hosts and established a 24/7 customer-

¹⁴¹ *Id.*

¹⁴² See Updated: List of Dark Net Markets (Tor & I2P), DEEP.DOT.WEB (Oct. 28, 2013), <http://www.deepdotweb.com/2013/10/28/updated-list-of-hidden-marketplaces-tor-i2p/>; see also Andy Greenberg, *Agora, the Dark Web's Biggest Drug Market, Is Going Offline*, WIRED (Aug. 26, 2015, 11:45 AM), <http://www.wired.com/2015/08/agora-dark-webs-biggest-drug-market-going-offline/>.

¹⁴³ Sankin, *supra* note 116. DDoS attacks involve “an attempt to make an online service unavailable by overwhelming it with traffic from multiple sources.” *What is a DDoS Attack?*, DIGITAL ATTACK MAP, <http://www.digitalattackmap.com/understanding-ddos/> (last visited Oct. 30, 2015).

¹⁴⁴ Frances Romero, *Airbnb Renter Wrecks Woman's San Francisco Home*, TIME (July 29, 2011), <http://newsfeed.time.com/2011/07/29/airbnb-renter-wrecks-womans-san-francisco-home/>.

service hotline, among other safeguards.¹⁴⁵ Airbnb's website informs guests that their accounts may be deactivated or canceled, their passwords disabled, and access to the site blocked at any time, with or without notice.¹⁴⁶

Similarly, the threat of termination and exclusion operates as a restraint on bad behavior by providers. Alibaba implements an elaborate fraud and dispute procedure. If a customer files a fraud complaint, Alibaba collects evidence from the buyer and allows the supplier to submit counter-evidence. If, after investigation, Alibaba determines that fraud has occurred, it suspends the supplier's account for fifteen days. If the complaint is not resolved within the suspension period, Alibaba terminates the supplier's account and blacklists the supplier.¹⁴⁷ In effect, ostracism substitutes for money damages as a deterrence mechanism.

Uber and Lyft also retain the right to fire drivers at will. They both have a policy of firing drivers accused of assaulting or harassing passengers, and have an informal policy of cutting drivers with user ratings below a 4.5 or 4.6.¹⁴⁸ The requirement that both parties register and upload profile photos reduces the likelihood that banned individuals will be able to simply change their identities and re-enter the site. Although this is less true in online black markets, where users continue to remain at least partially anonymous, these markets have proven remarkably adept at identifying and banning scammers.

C. *Community Policing*

While barriers to entry serve a screening and deterrence function, community policing contributes to trust by performing an information transmission, verification, and monitoring function. In closely-knit groups, trust forms through repeated interactions developed over time, and reputation spreads through word-of-mouth, rumors, and gossip.¹⁴⁹ Traders cooperate with one another because they

¹⁴⁵ Tanz, *supra* note 129.

¹⁴⁶ *Terms of Service*, AIRBNB, <https://www.airbnb.com/terms> (last updated July 6, 2015).

¹⁴⁷ *What is the procedure for Alibaba.com to process disputes?*, ALIBABA.COM, http://service.alibaba.com/buyer/faq_detail/13719239.htm (last visited Oct. 30, 2015).

¹⁴⁸ Ellen Huet, *How Uber's Shady Firing Policy Could Backfire On The Company*, FORBES (Oct. 30, 2014, 10:00 AM), <http://www.forbes.com/sites/ellenhuet/2014/10/30/uber-driver-firing-policy/>.

¹⁴⁹ Paul Resnick et al., *Reputation Systems: Facilitating Trust in Internet Interactions*, COMM. ACM, Dec. 2000, at 45, 46.

expect either reciprocity or retaliation in future interactions with the other party.¹⁵⁰ In other words, the “shadow of the future” restrains behavior in the present.¹⁵¹

In many legal, quasi-legal, and illegal markets, online user reviews supplant past personal experience and P2P gossip. Online intermediaries aggregate and distribute feedback on past behavior such that isolated, one-shot interactions take on the characteristics of long-term relationships.¹⁵² Positive reputations function as personal assets, as traders painstakingly build a record of positive reviews over time. The task of monitoring for good behavior rests in the hands of a vast, disaggregated community of users. Rather than relying on one centralized entity to ensure that traders are making accurate representations and performing their end of the bargain, the system relies on all users.

In addition, the online ratings system perpetuates the perception that most individuals are trustworthy. If a large number of people are or appear to be trustworthy and honest, this encourages others to be honest.¹⁵³ If one expects the other party to be trustworthy, one is more likely to behave in a trustworthy manner.¹⁵⁴ In effect, the online review system allows individuals to observe others trusting and acting trustworthily, encouraging the feeling that one’s own trust is not misplaced.¹⁵⁵

Nevertheless, the system suffers from numerous weaknesses. First, Resnick and Zeckhauser have shown that the overwhelming majority of reviews are positive, suggesting that users either fear retaliatory negative reviews or simply seek to avoid unpleasant interactions.¹⁵⁶ Second, users can create fraudulent reviews that either artificially inflate their ratings or lower the ratings of

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.* at 47.

¹⁵³ Rose-Ackerman, *supra* note 57, at 538.

¹⁵⁴ *Id.*

¹⁵⁵ David M. Messick & Roderick M. Kramer, *Trust as a Form of Shallow Morality*, in *TRUST IN SOCIETY*, *supra* note 68, at 114.

¹⁵⁶ See Resnick et al., *supra* note 149, at 47; see also Paul Resnick & Richard Zeckhauser, *Trust Among Strangers in Internet Transactions: Empirical Analysis of eBay’s Reputation System*, 11 *THE ECON. OF THE INTERNET & E-COMMERCE* 127, 141 (2002) (“Of feedback provided by buyers, 0.6% of comments were negative, 0.3% were neutral, and 99.1% were positive.”).

competitors.¹⁵⁷ Third, users can all too easily change their identities, allowing negative reputations to be erased.¹⁵⁸ However, the growing trend toward personalization and individuation of exchange markets may counteract these risks. Moreover, the combination of preemptive monitoring by information intermediaries and the enlistment of an army of monitors and evaluators functions as a check on advantage-taking. In effect, community policing generates trust by spreading the costs of verification and creating a regime of hyper-accountability.

1. The Sharing Economy

Most sharing economy platforms rely on active intermediation, user reviews, and online forums to police bad behavior. Airbnb proactively monitors user activity for potential risks. Its computer analytics system assigns each reservation a “trust score,” with low scores automatically flagged for further investigation. Red flags include large groups, first-time renters or hosts, repeated bookings between the same parties, and use of the words “Western Union,” among others. For instance, if a host and guest repeatedly book rooms with one another, this raises a red flag that the transaction could be a scheme to generate false positive reviews.¹⁵⁹ In addition, Airbnb maintains a staff of investigative agents to track down guests who have not left rentals in an appropriate condition.¹⁶⁰

To deal with the problem of user aversion to writing negative reviews, Airbnb transitioned to publishing reviews only after both the host and guest had submitted their respective reviews. Under the former system, where reviews were published as soon as they were submitted, if one person left a negative review, the

¹⁵⁷ Resnick et al., *supra* note 149, at 47. As Frank Pasquale has noted, individuals have little incentive to eliminate incorrect positive information about themselves. See Frank Pasquale, *Reputation Regulation: Disclosure & the Challenge of Clandestinely Commensurating Computing*, in *THE OFFENSIVE INTERNET: PRIVACY, SPEECH, AND REPUTATION* 114–15 (Saul Levmore & Martha C. Nussbaum eds., 2010).

¹⁵⁸ See Toshio Yamagishi & Masafumi Matsuda, *Improving the Lemons Market with a Reputation System: An Experimental Study of Internet Auctioning* (May 2002) (unpublished manuscript) (on file with Hokkaido University), available at http://joi.ito.com/archives/papers/Yamagishi_ASQ1.pdf.

¹⁵⁹ Tanz, *supra* note 129.

¹⁶⁰ Jim Edwards, *Check Out the Extreme Lengths Airbnb Will Go to in Order to Please Customers*, *BUS. INSIDER* (Aug. 14, 2013, 9:38 PM), <http://www.businessinsider.com/insane-lengths-airbnb-will-go-to-in-order-to-please-customers-2013-8>.

counterparty could retaliate with a negative review of her own.¹⁶¹ The new system provides incentives for both parties to write honest evaluations.

Advances in technology have empowered users to perform their own verification functions. Ride-sharing services such as Lyft and Uber provide the technological means to immediately verify that the driver is legitimate and trustworthy. When passengers request a ride, they receive a text confirmation that includes the driver's name, photo, car, license plate number, and make, model, and color of the car. They can track their driver's arrival via GPS and instantly check to see whether their driver has taken the shortest route.¹⁶²

2. Escort and Prostitution Markets

Community policing also characterizes trading between buyers and sellers in the escort and prostitution markets. Profiles contain reviews of the prostitutes customers have visited, including descriptions of their experiences, the services provided, prices paid, and quality of the premises. Sites such as TheEroticReview.com allow clients to review sex workers whom they have encountered, including the accuracy of representations made on the workers' profiles.¹⁶³ Similarly, escorts and prostitutes use online forums and services to warn one another of violent or unsafe clients. These online forums allow escorts and prostitutes to identify and connect with one another, creating a sense of community. Websites such as the National Blacklist aggregate complaints, allowing women to report clients who are abusive or fail to pay.¹⁶⁴

3. Credit Card and Drug Black Markets

Like in legal markets, both the illegal drug and credit card black markets rely heavily on a reputation system based on user reviews.¹⁶⁵ Users rate products on a scale of one to five based on shipping time, product quality, and customer

¹⁶¹ Seth Porges, *The Strange Game Theory of Airbnb Reviews*, FORBES (Oct. 17, 2014, 2:21 PM), <http://www.forbes.com/sites/sethporges/2014/10/17/the-strange-game-theory-of-airbnb-reviews/>.

¹⁶² See generally Tanz, *supra* note 129 (discussing accountability of Lyft drivers).

¹⁶³ Meredith Dank et al., *Estimating the Size and Structure of the Underground Commercial Sex Economy in Eight Major U.S. Cities*, URBAN INST. 237 (2014), available at <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413047-Estimating-the-Size-and-Structure-of-the-Underground-Commercial-Sex-Economy-in-Eight-Major-US-Cities.PDF>.

¹⁶⁴ *More Bang for Your Buck: How New Technology Is Shaking up the Oldest Business*, *supra* note 110, at 19.

¹⁶⁵ See BARTLETT, *supra* note 113, at 148.

service.¹⁶⁶ Sellers who are not found to be reliable or trustworthy face immediate negative feedback.¹⁶⁷ If a user has a record of negative feedback, site moderators reserve the right to flag that user with a “ripper” tag, permanently labeling that user as one who cannot be trusted.¹⁶⁸

Across different Tor hidden service forums and surface net forums, a community of users continuously monitors the market, both for security vulnerabilities and for scammers.¹⁶⁹ Forums alert users to scam sites and vendors. Deepdotweb.com maintains a list of “dead/scam markets.” For instance, it warns users to avoid “Drugmarket,” noting, “Scam site—AVOID Or your money will be lost.”¹⁷⁰ On “Flomarket,” it warns, “Market was hacked and the admin lost all funds—read our exclusive interview with Flole—the market admin for all the details regarding the shutdown.”¹⁷¹ User-generated blogs and specialist forums research different marketplaces, collect user experiences, and assess security features.¹⁷²

The community of users also guards against vendors who try to game the review system.¹⁷³ These include using fake accounts, paying others to generate positive reviews, and posting negative reviews of competitors.¹⁷⁴ On The Rumour Mill, one of the most popular forums for drug sites like the now-defunct Silk Road, reputations and products are vetted, and scammers are systematically exposed.¹⁷⁵ For instance, on one occasion, a group of buyers came together to expose a vendor named “theDrugKing” who was writing his own feedback.¹⁷⁶ A group of users scrutinized all of his posts, gathered evidence, and reported him to the site

¹⁶⁶ *Id.*

¹⁶⁷ *See id.* at 151–53.

¹⁶⁸ *See* Sankin, *supra* note 116.

¹⁶⁹ BARTLETT, *supra* note 113, at 137.

¹⁷⁰ *See Updated: List of Dark Net Markets (Tor & I2P)*, *supra* note 142.

¹⁷¹ *See id.*

¹⁷² BARTLETT, *supra* note 113, at 143.

¹⁷³ *See id.* at 151–53.

¹⁷⁴ *Id.* at 151.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

administrators.¹⁷⁷ Despite the widespread use of pseudonyms, users have managed, at least to a certain extent, to weed out and punish the untrustworthy.¹⁷⁸

III. INFORMATION, IDENTIFIABILITY, AND ANONYMITY

What, then, is the role of identifiability and anonymity in generating trust? This Article has argued that social commerce represents a larger trend toward identifiability, transparency, and the personalization of exchange relations. Are these necessary elements for the development of trust? I discuss the interrelationship of information, identifiability, and anonymity and their relation to trust below.

A. Information

Information is central to the development of trust. Information reduces uncertainty, allowing individuals to evaluate the trustworthiness or competence of the other party.¹⁷⁹ It may range from personal information, including the individual's name, birth date, residence, work, and hobbies, to reputational information—that is, “information about the actor's past performance that helps predict the actor's future ability to perform”¹⁸⁰ One may conceive of information as a spectrum ranging from no disclosure on one end to full disclosure on the other. The greater the level of disclosure, the more likely it is for trust to develop.

The level of disclosure varies depending on the legal, quasi-legal, or illegal nature of the marketplace. The sharing economy and other legal social commerce markets fall to the right of the spectrum, illegal online markets fall to the left, and quasi-legal market fall somewhere in the middle. Legal social commerce platforms enjoy the greatest level of disclosure, with parties voluntarily disclosing vast amounts of information about themselves and their product. In legal and quasi-legal markets, market participants make themselves visible, accessible, and familiar by posting personal profiles, photos, and the identities of their friends and acquaintances. As discussed above, even in illegal markets, participants disclose a surprising amount of information about themselves and their product.

¹⁷⁷ *Id.* at 151–52.

¹⁷⁸ *See id.*

¹⁷⁹ Heimer, *supra* note 80, at 54.

¹⁸⁰ *See* Eric Goldman, *Regulating Reputation*, in *THE REPUTATION SOCIETY*, *supra* note 79, at 51.

In illegal markets, although market participants disclose less information, what is disclosed takes on greater significance. The exchange of compromising information not only signals trustworthiness, but also serves a hostage-taking function, partly offsetting the partial anonymity and lack of transparency of these markets. In an illegal market, *any* disclosure of information, including the very act of participating in the illegal marketplace, grants the other side leverage.¹⁸¹ For example, possession of stolen credit card numbers is, itself, incriminating, allowing the counterparty to take that information hostage. Granted, in an illegal marketplace, both parties are culprit; the mutual exchange of negative information, however, binds both parties, contributing to the formation of trust.¹⁸²

B. Identifiability

With enough disclosure of information, identification can result. Identification can result from disclosure of a person's name, social security number, physical characteristics, address, signature, fingerprint, or other indicia of identity, such as "likes, dislikes, habits, opinions, and preferences."¹⁸³ Identifiability turns on the nature and amount of information disclosed and the person making the identification. Being identifiable to one person does not mean that one is identifiable to others. In addition, different types of information increase identifiability to different types of individuals. A social security number or fingerprint to a lay person means something different than a social security number or fingerprint to a law enforcement agent.

The ability to identify the communicator can be valuable in that it enhances accountability and the reliability of the communication.¹⁸⁴ A user who is tempted to leave a false negative or positive review may be deterred from doing so if her name is attached to the review. Hence, identification can protect the accuracy of available information. Moreover, identifiability protects the integrity of barriers to entry and facilitates community policing, both of which are critical components in generating trust. Although a requirement of identifiability runs the risk of chilling communications, many social commerce platforms have successfully implemented

¹⁸¹ See GAMBETTA, *supra* note 8, at 59.

¹⁸² *Id.* As discussed in Part III.B and C, although the true identities of the parties are hidden, they maintain pseudo-identities upon which reputations are built.

¹⁸³ Chris Nicoll, *Concealing and Revealing Identity on the Internet*, in DIGITAL ANONYMITY AND THE LAW 99 (C. Nicoll et al. eds., 2003).

¹⁸⁴ Saul Levmore, *The Anonymity Tool*, 144 U. PA. L. REV. 2191, 2193 (1996).

such a requirement. Airbnb, Lyft, Uber, and other information intermediaries require verification of identity as a prerequisite to becoming users of their sites. Many also require use of profile pictures and other identifying information.

But does trust *require* identifiability? The prevalent use of pseudonyms and usernames in quasi-legal and illegal markets suggests not. Trust does not require the disclosure of one's true identity: reputation and trust may be built on stable pseudo-identities and the disclosure of enough information to establish one's credibility and trustworthiness. If most or all users of a site use pseudonyms, the use of a pseudonym, itself, does not signal lack of trustworthiness. For instance, escorts and prostitutes may wish to shield their true identities not because they intend to shirk or defraud, but because they do not want their friends, families, or coworkers to learn of their activities. Moreover, although identification serves as a useful tool for locating other community members, stable pseudonyms and the disclosure of adequate information can accomplish the same purpose.

C. Anonymity

Anonymity may be viewed as the flip side of identifiability. It is the condition of not being identifiable—i.e., having one's true identity withheld or obscured.¹⁸⁵ Anonymity is not a binary concept, but one of degree.¹⁸⁶ I distinguish between partial anonymity (pseudonymity) and complete anonymity. One of the contentions of this Article is that social commerce represents a shift away from anonymity toward the personalization of exchange relations. Even in quasi-legal and illegal markets, complete anonymity does not exist. Market pressures result in the disclosure of different indicia of identity, such as a seller's personal idiosyncrasies and preferences. Escorts post profile pictures and intimate personal information in order to attract clients and distinguish themselves from others. The near-universal use of pseudonyms serves the function of obscuring true identity, and stable pseudonyms allow for the development of reputation and trust.¹⁸⁷

Anonymity, whether partial or complete, encourages communication and disclosure.¹⁸⁸ But anonymity may also undermine trust by obstructing access to

¹⁸⁵ Nicoll, *supra* note 183, at 99.

¹⁸⁶ *Id.*

¹⁸⁷ See Indira Carr, *Anonymity, the Internet and Criminal Law Issues*, in DIGITAL ANONYMITY AND THE LAW, *supra* note 183, at 161, 189 (explaining that anonymity and pseudonymity are related concepts, as pseudonyms can be used to mask an individual's true identity).

¹⁸⁸ Levmore, *supra* note 184, at 2192–93.

relevant information, reducing accountability, and making judgments of trustworthiness more difficult.¹⁸⁹ Anonymity also facilitates the ability to change one's online identity, allowing individuals with negative reputations to simply assume new identities.¹⁹⁰ Notably, anonymity in illegal online markets functions less to encourage communication than to prevent identification by law enforcement. This suggests that at least in the context of social commerce, anonymity may be less deserving of protection than in other contexts.

Nevertheless, the ability of trust to emerge in illegal markets demonstrates that partial anonymity and trust are not mutually exclusive. Of course, one might say that illegal online markets do not involve trust, but merely represent instances of cooperation without trust. However, if trust is defined as a belief that the other party will not try to take advantage of one's vulnerabilities, one may conclude that trust can emerge even in the face of partial anonymity.

IV. LAW AND TRUST

The synergies in the private ordering systems that have emerged in these markets raise the question of what role, if any, law plays. Much of the legal literature on trust tends to converge on the question of whether law facilitates or impedes trust. Proponents of the former view contend that law reduces the risks of transacting, enabling parties to overcome mutual suspicion.¹⁹¹ At one extreme is the traditional Hobbesian view that a powerful system of legal rules is necessary to facilitate cooperative interactions.¹⁹² Without a centralized external authority to impose and enforce sanctions, problems of distrust would frustrate otherwise beneficial exchanges. By assigning entitlements and providing remedies in the event of breach, law induces individuals to honor their bargains.¹⁹³

Contract law provides the classic solution to the problem of uncertainty and distrust. If I wish to transact with you, but I neither know nor trust you, I may insist on a lengthy, detailed contract to protect me in the event you turn out to be untrustworthy. The protection runs both ways. If either party fails to perform, the

¹⁸⁹ See SZTOMPKA, *supra* note 44.

¹⁹⁰ See Yamagishi & Matsuda, *supra* note 158.

¹⁹¹ See, e.g., Baird, *supra* note 1, at 583–84; Cross, *supra* note 17, at 1483 n.170.

¹⁹² KAREN S. COOK ET AL., COOPERATION WITHOUT TRUST? 63 (2005).

¹⁹³ See Baird, *supra* note 1, at 584; Gillette, *supra* note 12, at 1165; Stewart Macaulay, *An Empirical View of Contract*, 1985 WIS. L. REV. 465, 467 (1985).

non-breaching party may employ the coercive powers of the state to punish the breacher.¹⁹⁴ Contract law reduces the risk of defection by providing remedies in the event of nonperformance¹⁹⁵ and providing assurances that the other party will be held accountable.¹⁹⁶ In this way, contract law counters mutual suspicion between the parties, allowing transactions that would otherwise be hampered by distrust to go forward.¹⁹⁷ Contracts can enhance trust by reducing risk associated with a transaction,¹⁹⁸ clarifying the understanding between the parties,¹⁹⁹ reducing the chances of betrayal,²⁰⁰ and establishing norms of behavior.²⁰¹

Many scholars dispute these claims, arguing that law, by its nature, undermines trust.²⁰² Some argue that contract law threatens trust, while regulation increases it;²⁰³ others argue the converse.²⁰⁴ Still others reject the salutary effect of law altogether.²⁰⁵ These scholars contend that law crowds out true, affective trust

¹⁹⁴ Anthony T. Kronman, *Contract Law and the State of Nature*, 1 J.L. ECON. & ORG. 5, 5 (1985).

¹⁹⁵ G. Richard Shell, *Opportunism and Trust in the Negotiation of Commercial Contracts: Toward a New Cause of Action*, 44 VAND. L. REV. 221, 222 (1991).

¹⁹⁶ See Baird, *supra* note 1, at 584.

¹⁹⁷ *Id.*

¹⁹⁸ Cross, *supra* note 17, at 1500.

¹⁹⁹ *Id.* at 1501.

²⁰⁰ *Id.* at 1508.

²⁰¹ *Id.* at 1544.

²⁰² See, e.g., ROBERT A. KAGAN, *ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW* (2001); FUKUYAMA, *supra* note 43, at 314; MARY ANN GLENDON, *A NATION UNDER LAWYERS: HOW THE CRISIS IN THE LEGAL PROFESSION IS TRANSFORMING AMERICAN SOCIETY* (1994); MARY ANN GLENDON, *RIGHTS TALK: THE IMPOVERISHMENT OF SOCIAL DISCOURSE* (1991).

²⁰³ Cf. Blair & Stout, *supra* note 54, at 1743, 1786 (arguing that “allow[ing] [corporate officers and directors] to opt out of their fiduciary duties through bylaws, charter provisions, or employment agreements” may be counterproductive to developing trust behavior).

²⁰⁴ Larry E. Ribstein, *Law v. Trust*, 81 B.U. L. REV. 553, 555 n.6 (2001).

²⁰⁵ See, e.g., MARY ANN GLENDON, *RIGHTS TALK: THE IMPOVERISHMENT OF POLITICAL DISCOURSE* (1991); ROBERT A. KAGAN, *ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW* (2001); MICHAEL TAYLOR, *THE POSSIBILITY OF COOPERATION* (Jon Elster & Gudmund Hernes eds., 1987); Ernest Gellner, *Trust, Cohesion, and the Social Order*, in *TRUST: MAKING AND BREAKING COOPERATIVE RELATIONS*, *supra* note 51, at 142, 143; Deepak Malhotra & J. Keith Murnighan, *The Effects of Contracts on Interpersonal Trust*, 47 ADMIN. SCI. Q. 534, 547 (2002).

grounded in “reciprocity, moral obligation, and fellow-feeling.”²⁰⁶ Relational contract theorists point to the marginal importance of contracts in business relationships, arguing that detailed contracts could actually dissipate trust between the parties.²⁰⁷ For instance, Stewart Macaulay found that Wisconsin businessmen often preferred to conduct business on a handshake rather than through detailed contracts, despite exposure to significant risks.²⁰⁸ Macaulay showed that meticulous planning and legal sanctions played a very small role in many business exchanges.²⁰⁹

However, the findings of relational contract theory are most relevant to individuals and businesses in long-term relationships. The common assumption has been that when strangers deal with one another in one-shot commercial transactions, clear legal rules and contracts play a critical role in overcoming distrust.²¹⁰ This may indeed be the case in high-value, high-stakes, business-to-business transactions. However, law plays a limited role in engendering trust in social commerce transactions, many of which involve relatively low-value, geographically dispersed, P2P or B2C transactions. This is most apparent in illegal markets, where legal recourse is nonexistent. Instead, extra-legal mechanisms have evolved for eliciting the trust required for commercial exchange.

What insights can be drawn from the commonality of mechanisms across legal, quasi-legal, and illegal boundaries? I frame my discussion in terms of mechanisms that operate within and outside the shadow of the law, borrowing from the metaphor first coined by Martin Shapiro and made famous through the works of Marc Galanter, Robert Mnookin, and Lewis Kornhauser.²¹¹

²⁰⁶ See Marc Galanter, *The Faces of Mistrust: The Image of Lawyers in Public Opinion, Jokes, and Political Discourse*, 66 U. CIN. L. REV. 805, 806–07 (1998).

²⁰⁷ See, e.g., Macaulay, *supra* note 4, at 64.

²⁰⁸ *Id.* at 58.

²⁰⁹ *Id.* at 62.

²¹⁰ Carol M. Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577, 601–02 (1988).

²¹¹ Barak D. Richman, *Norms and Law: Putting the Horse Before the Cart*, 62 DUKE L.J. 739, 739 (2012); see also Marc Galanter, *Justice in Many Rooms: Courts, Private Ordering, and Indigenous Law*, 19 J. LEGAL PLURALISM 1, 27–34 (1981); Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 950 (1979); Martin Shapiro, *Courts*, in 5 HANDBOOK OF POLITICAL SCIENCE: GOVERNMENTAL INSTITUTIONS AND PROCESSES 321, 328–29 (Fred I. Greenstein & Nelson W. Polsby eds., 1975).

A. *Trust in the Shadow of the Law*

Although formal law is seldom invoked in social commerce transactions, it does not follow that it plays no role in the generation of trust. Legal and quasi-legal markets may be said to operate within the shadow of the law—that is, the extra-legal mechanisms discussed above have force because they are ultimately backed by state coercion.²¹² In addition to directly governing behavior, law “provid[es] a background of norms and procedures against which private negotiations and [interactions] take place.”²¹³ In their seminal work on divorce settlements, Mnookin and Kornhauser argued that the primary function of the law of divorce was to provide a framework under which divorcing couples could bargain for rights and responsibilities outside of the courtroom.²¹⁴ Law performs a similar coordinating function in legal and quasi-legal markets.²¹⁵

In devising mechanisms to induce trust between exchange partners, information intermediaries have borrowed traditional legal tools and structured their markets to track legal requirements. For instance, Airbnb offers insurance coverage of up to \$1 million for Airbnb hosts if a guest is accidentally injured anywhere in the host’s building or property during a stay.²¹⁶ Most sites also offer escrow services and detailed dispute resolution procedures.²¹⁷ Alibaba’s fraud and dispute resolution procedure is strikingly similar to error resolution procedures set out in the Truth in Lending Act²¹⁸ and the Electronic Fund Transfers Act.²¹⁹ Certification requirements and background checks closely track state and municipal licensing requirements.

²¹² Richman, *supra* note 211, at 742. However, this is not true of illegal markets. *See infra* Part IV.B.

²¹³ *Id.* at 744.

²¹⁴ Mnookin & Kornhauser, *supra* note 211, at 950.

²¹⁵ *See generally* RICHARD H. MCADAMS, *THE EXPRESSIVE POWERS OF LAW: THEORIES AND LIMITS* 260 (2015) (explaining how law expressively coordinates behavior by creating focal points and providing information).

²¹⁶ *What Is Host Protection Insurance?*, AIRBNB, <https://www.airbnb.com/help/article/937> (last visited Oct. 30, 2015).

²¹⁷ *Trade Dispute Rules (“Rules”)*, ALIBABA.COM, <http://rule.alibaba.com/rule/detail/2055.htm> (last visited Oct. 30, 2015).

²¹⁸ *See* 15 U.S.C. § 1666 (2012).

²¹⁹ *See id.* § 1693f.

Information intermediaries perform a gatekeeping function similar to that performed by self-regulatory organizations.²²⁰ By collecting and disseminating information and reviews, they increase transparency and reduce information asymmetries. By independently verifying information, they increase the level of accurate information in the marketplace. The screening and monitoring functions performed by online intermediaries, such as Airbnb, Lyft, and Alibaba, have been detailed above. In addition, by routinizing and standardizing disclosure, they facilitate the comparative use of information. Finally, their ability to police barriers to entry operates as a sanctioning and deterrence mechanism.

However, their effectiveness turns on their ability to convince users of the objectivity and accuracy of the information provided. Although concern for their reputational capital operates as an effective quality-control mechanism,²²¹ vulnerabilities remain. First and foremost, information intermediaries are compensated by the very parties they are monitoring. Revenue derives from service fees from bookings, generally in the range of 3% to 15% of the price of the good or service.²²² This fee structure creates an incentive to increase the volume of transactions at the expense of quality. Second, although all information intermediaries are repeat players, reputational controls operate most effectively as a check on the very largest and nationally recognized, leaving the others susceptible to capture. Third, information intermediaries may be lax in their gatekeeping role, allowing inaccurate information and untrustworthy actors to enter the marketplace. Without robust institutional controls in place, high-quality goods and traders could be driven out of the market and displaced by “lemons,” or fraudulent commodities.²²³

Two forces incentivize information intermediaries to conscientiously execute their gatekeeping role: (1) reputational concerns; and (2) the desire to avoid direct regulation. Instances of property damage, theft, personal injury, or other complications, though relatively rare, are widely publicized. Opponents of the

²²⁰ Self-regulatory organizations are non-governmental organizations that exercise regulatory authority over an industry or profession. See THOMAS L. HAZEN, *SECURITIES REGULATION: CASES AND MATERIALS* 11 (8th ed. 2009).

²²¹ See Goldman, *supra* note 180, at 53 (describing the “tertiary invisible hand”).

²²² See, e.g., Trevir Nath, *How Airbnb Makes Money*, INVESTOPEDIA (Nov. 24, 2014), <http://www.investopedia.com/articles/investing/112414/how-airbnb-makes-money.asp>.

²²³ See George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q. J. ECON. 488 (1970); see also Yamagishi & Yamagishi, *supra* note 9.

sharing economy routinely cite public safety, health, and labor concerns, arguing that the public interest mandates direct government regulation.²²⁴ They point to the need to protect consumers from fraud, tax evasion, and unskilled or unsafe service providers. For example, P2P ride taxi services have been fined for operating without public liability and property damage insurance coverage and workers' compensation insurance.²²⁵ The threat of litigation and regulation has functioned as a catalyst, incentivizing information intermediaries to devise alternatives to legal rules and entitlements in an effort to demonstrate their redundancy.

B. *Trust Outside the Shadow of the Law*

Rather than operating within the shadow of the law, the online credit card and drug black markets, as with any illegal market, represent instances of order without law. In criminal economies, disputes cannot be settled in courts and contracts are unenforceable. The private ordering system that has emerged represents a categorical rejection of law. Extra-legal rules and enforcement mechanisms operate entirely outside the boundaries of the state.²²⁶ Fear of law enforcement drives the structural architecture of these markets—criminal (or at least non-law-enforcement) identification is a necessary precondition to trust. Barriers to entry and community policing serve a dual function of not only certifying and verifying the truthfulness of disclosed information, but also of erecting a first line of defense against law enforcement.

For illegal markets, any question of substantive regulation is overshadowed by the overarching public policy goal of uprooting criminal activity. After all, the prevention of theft is a core function of the state. Yet if the experience of Silk Road and Silk Road 2.0 is any indication, elimination of one market spurs multiple progeny in its place.²²⁷ How should the state respond to a situation where at least some negative externalities associated with the illegal good or service are reduced

²²⁴ See, e.g., Dean Baker, *Don't Buy the 'Sharing Economy' Hype: Airbnb and Uber Are Facilitating Rip-Offs*, GUARDIAN (May 27, 2014), <http://www.theguardian.com/commentisfree/2014/may/27/airbnb-uber-taxes-regulation>; Jeremiah Owyang, *The Dark Side to the Collaborative Economy*, WEB STRATEGY LLC (June 18, 2013), <http://www.web-strategist.com/blog/2013/06/18/the-dark-side-to-the-collaborative-economy/>.

²²⁵ *All Eyes on the Sharing Economy*, *supra* note 39.

²²⁶ See Richman, *supra* note 211, at 747.

²²⁷ After the FBI shut down Silk Road in 2013 and Silk Road 2.0 in 2014, other sites, such as Agora Marketplace and Silkroad Reloaded, quickly emerged to take their place. *Arrested Silk Road 2.0 Drug Dealer Could Face Jail*, SILK ROAD DRUGS, <http://silkroaddrugs.org/tag/silkroad-2-0/> (last visited Oct. 30, 2015).

by moving them online? On the one hand, these markets have emerged as safer, more convenient alternatives to traditional face-to-face dealing. Breaches of trust are met with online gossip and ostracism, rather than violence. One view is that the optimal regulatory response is to allow some violations to occur, as the overall costs of enforcement would exceed the costs of the violations.²²⁸ On the other hand, if these markets were to become too successful and profitable, they would generate significant negative externalities, including an increase in the number of market participants and the overall expansion of online crime.²²⁹

V. CONCLUSION

Rational choice theory predicts that in conditions of high transactional uncertainty, trust will not emerge absent externally imposed constraints such as law. The geographically dispersed, one-shot, non-face-to-face nature of transactions in social commerce creates a significant risk of opportunism. Yet these markets continue to grow and flourish. Existing scholarship has recognized the role of technological change in providing a low-cost means of disseminating reputational information. This Article has sought to add to that literature by situating reputation within the broader framework of trust. Reputation contributes to trust, but it represents only one aspect of a larger system. In economic exchange, a calculated decision to make oneself vulnerable to another is rooted in a complex interplay of personal risk tolerances, past experiences, and structural conditions such as repeat play and face-to-face contact. In loosely-knit, geographically dispersed groups, trust is not grounded in repeat interactions or personal experience, but in the experience of others. For trust to develop, reliable safeguards and controls must be in place.

In this Article, I have identified three mechanisms that are conducive to the formation of trust in social commerce: (1) communication and voluntary disclosure of information; (2) barriers to entry; and (3) community policing. These mechanisms interact to mimic the characteristics of closely-knit groups. In place of face-to-face contact, a culture of voluntary disclosure and direct communication has taken hold, part of a larger movement toward the personalization of exchange relations. Gossip occurs in online forums, rather than in neighbors' homes. Good behavior is monitored by dispersed communities of users, rather than village elders.

²²⁸ Cf. Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 678 (1984).

²²⁹ Marco Celentani et al., *Regulating the Organised Crime Sector*, in *THE ECONOMICS OF ORGANISED CRIME* 253, 253 (Gianluca Fiorentini & Sam Peltzman eds., 1995).

What is lost in homogeneity and cohesiveness is arguably made up in volume. Barriers to entry and community policing perform a screening, sanctioning, and monitoring function that imposes costs on opportunistic behavior. Collectively, these mechanisms represent an endogenously created, private response to the problem of accountability and asymmetric information. The commonality of mechanisms across legal, quasi-legal, and illegal markets suggests that these mechanisms do not depend on the legal system for their efficacy. They supplement the law in areas where it exists and substitute for law in areas where it does not exist. They are an alternative to, not an extension of, the law.