

## Reputational Information: A Research Agenda

Eric Goldman\*

### INTRODUCTION

This essay considers the role of reputational information in our marketplace. The essay explains how well-functioning marketplaces depend on the vibrant flow of accurate reputational information, and how misdirected regulation of reputational information could harm marketplace mechanisms. The essay then raises a series of questions and puzzles about existing regulation of reputational information and the possible configuration of regulatory solutions going forward.

This essay is not intended to resolve those questions. Instead, this essay sketches out some topics I hope to research as part of my long-term project entitled “The Economics of Reputational Information.” As a result, this essay previews the project and invites your input.

### I. REPUTATIONAL INFORMATION DEFINED

Definitions of “reputation” typically focus on third party cognitive perceptions of a person.<sup>1</sup> For example, *Black’s Law Dictionary* defines reputation as the “esteem in which a person is held by others.”<sup>2</sup> Bryan Garner’s *A Dictionary of Modern Legal Usage* defines reputation as “what one is thought by others to be.”<sup>3</sup> The Federal Rules of Evidence reflects this perception-centric view of “reputation.”<sup>4</sup>

Although this definition is useful so far as it goes, I am much more interested in the ways that information drives prospective decision-making.<sup>5</sup> As a result, for this paper, I define “reputational information” as “information about an actor’s past performance that helps predict the actor’s future ability to perform or to satisfy the decision-maker’s preferences.” The idea is that actors create a pool of data (both subjective and objective) through their conduct; this pool of data—the reputational information—can provide insights into the actor’s likely future behavior.

### II. REPUTATIONAL SYSTEMS

“Reputational systems” aggregate and disseminate reputational information to consumers of that information. Reputational systems can be mediated or unmediated.

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\* Associate Professor and Director, High Tech Law Institute, Santa Clara University School of Law. Email: [egoldman@gmail.com](mailto:egoldman@gmail.com). Website: <http://www.ericgoldman.org>. In addition to a stint as General Counsel of Epinions.com, a consumer review website now part of the eBay enterprise, I have provided legal or consulting advice to other companies mentioned in this essay.

<sup>1</sup> As one commentator explained:

Through one’s actions, one relates to others and makes impressions on them. These impressions, taken as a whole, constitute an individual’s reputation—that is, what other people think of you, to the extent that their thoughts arise from what they know about you, or think they know about you.

Elizabeth D. De Armond, *Frothy Chaos: Modern Data Warehousing and Old-Fashioned Defamation*, 41 VAL. U.L. REV. 1061, 1065 (2007)

<sup>2</sup> BLACK’S LAW DICTIONARY (8th ed. 2004).

<sup>3</sup> BRYAN A. GARNER, A DICTIONARY OF MODERN LEGAL USAGE (1990).

<sup>4</sup> See, e.g., FED. R. EVID. 803(19), 803(21).

<sup>5</sup> Luis M.B. Cabral, *The Economics of Trust and Reputation: A Primer* (June 2005 draft), [http://pages.stern.nyu.edu/~lcabral/reputation/Reputation\\_June05.pdf](http://pages.stern.nyu.edu/~lcabral/reputation/Reputation_June05.pdf) (treating information about reputation as inputs into Bayesian calculations).

In unmediated reputational systems, the producers and consumers of reputational information communicate directly. Examples of unmediated reputational systems are oral word of mouth, letters of recommendation and job references.

In mediated reputational systems, the conversation between producers and consumers is mediated by a third party. Examples of mediated reputational systems include credit reports/scores, investment ratings (such as Morningstar mutual fund ratings and Moody bond ratings), and consumer review sites.

The Internet has led to a proliferation of mediated reputational systems, and in particular consumer review sites.<sup>6</sup> Consumers can now review just about anything, and new consumer review sites are coming online all the time. Examples include:

- eBay's feedback forum,<sup>7</sup> which allows eBay's buyers and sellers to rate each other
- Amazon's product reviews, which allows consumers to rate and review millions of marketplace products
- Yelp,<sup>8</sup> which allows consumers to review local businesses
- TripAdvisor,<sup>9</sup> which allows consumers to review hotels and other travel attractions
- RealSelf.com,<sup>10</sup> which allows consumers to review cosmetic surgery treatments
- Avvo,<sup>11</sup> which allows consumers to rate and review attorneys
- Glassdoor.com,<sup>12</sup> a site that allows employees to share salary information and critique the working conditions at their employers
- Rate My Professor,<sup>13</sup> where students can publicly rate and review their professors
- DontDateHimGirl.com, which allows people to write and "find profiles of men who are alleged cheaters."<sup>14</sup>
- The Erotic Review,<sup>15</sup> a site allowing johns to rank prostitutes.<sup>16</sup>

### III. WHY REPUTATIONAL INFORMATION MATTERS

The marketplace theoretically works through an "invisible hand," which occurs when consumers and producers make individual and autonomous decisions that, without any centralized coordination, collectively determine the price and quantity of goods and services. When it works properly, the invisible hand mechanism maximizes social welfare by allocating goods and services to those consumers who value them the most.

The invisible hand also rewards good producers and punishes poor ones. Consumers allocating their scarce dollars in a competitive market will transact with producers who provide better cost or quality options than other producers. Over time, uncompetitive producers should

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<sup>6</sup> Indeed, this has spurred the formation of a new industry association, the Rating and Review Professional Association. <http://www.rarpa.org/>.

<sup>7</sup> <http://pages.ebay.com/services/forum/feedback.html>.

<sup>8</sup> <http://www.yelp.com>.

<sup>9</sup> <http://www.tripadvisor.com>.

<sup>10</sup> <http://www.realself.com>.

<sup>11</sup> <http://www.avvo.com>.

<sup>12</sup> <http://www.glassdoor.com/>.

<sup>13</sup> <http://www.ratemyprofessors.com>.

<sup>14</sup> <http://www.dontdatehimgirl.com>. PlayerBlock was a similar service, tracking undesirable dating prospects by their cellphone number. See Leslie Katz, *Is Your Date a Player? Send a Text and Find Out*, CNET News.com, Oct. 22, 2007, [http://news.cnet.com/8301-10784\\_3-9802025-7.html](http://news.cnet.com/8301-10784_3-9802025-7.html).

<sup>15</sup> <http://www.theeroticreview.com/>.

<sup>16</sup> See Matt Richtel, *Sex Trade Monitors a Key Figure's Woes*, N.Y. TIMES, June 17, 2008.

be drummed out of the industry by the aggregate but uncoordinated choices of rational and informed consumers.

However, in the presence of transaction costs, the invisible hand can be subject to distortions. In particular, where information about producers is costly to obtain, the invisible hand may not have its expected effect on producers. Consumers may not be able to easily compare producers or their price/quality offerings, in which case good producers may not be rewarded and bad producers may not be punished.

When information is costly, reputational information helps improve the operation of the invisible hand. In this sense, reputational information acts like an invisible hand of the invisible hand (an effect I call the “secondary invisible hand”), because reputational information can guide consumers to make marketplace choices that, in aggregate, effectuate the invisible hand effects. Thus, in an information economy with transaction costs, reputational information can play an essential role in rewarding good producers and punishing poor ones.

Given this crucial role in marketplace mechanisms, any distortions in reputational information may effectively distort the marketplace itself. In effect, it may cause the secondary invisible hand to push the invisible hand in the wrong direction. To avoid this unwanted consequence, any regulation of reputational information needs to be carefully considered to ensure it is improving, not distorting, marketplace mechanisms.

Note that the secondary invisible hand is, itself, subject to transaction costs. It is costly for consumers to find, and assess the credibility of, reputational information. Therefore, reputational systems themselves need to establish their own reputation. I describe the reputation of reputational systems as a “tertiary” invisible hand—it is the invisible hand that guides reputational information (the secondary invisible hand) to guide the invisible hand of individual uncoordinated decisions by marketplace actors. Thus, the tertiary invisible hand allows the reputational system to earn marketplace recognition as a credible source (such as the Wall Street Journal, the New York Times or Consumer Reports) or to be drummed out of the market for lack of credibility (such as the now-defunct anonymous gossip website JuicyCampus).<sup>17</sup>

#### **IV. RESEARCH AREAS**

Some of the research questions about reputational information and reputational systems that I hope to explore:

##### **A. Regulatory Heterogeneity**

There are divergent regulatory approaches to reputational systems, such as the regulatory schemes governing job references, credit reporting databases and consumer review websites. Job references are subject to a mix of statutory (primarily state law) and common law tort regulation. Credit reporting databases are statutorily micromanaged through an extensive scheme of “command-and-control” provisions in the Fair Credit Reporting Act.<sup>18</sup> In contrast, consumer review websites are virtually unregulated, and many potential regulations of consumer review websites (such as defamation) are preempted by 47 U.S.C. §230.

These different regulatory structures raise some related questions. Are there meaningful distinctions between reputational systems that support heterogeneous regulation? And are there lessons we can learn from the effects of these regulatory approaches that we can “transplant” between different regulatory systems?

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<sup>17</sup> Posting of Matt Ivester to Official JuicyCampus Blog, *A Juicy Shutdown*, <http://juicycampus.blogspot.com/2009/02/juicy-shutdown.html> (Feb. 4, 2009).

<sup>18</sup> 15 U.S.C. § 1681-81x.

These questions are important because regulatory schemes can significantly affect the efficacy of reputational systems. As an example, consider the differences between the job reference and online consumer review markets.

A former employer giving a job reference can face significant liability whether the reference is positive or negative.<sup>19</sup> Giving unfavorable references of former employees can lead to defamation or related claims,<sup>20</sup> and there may be liability for giving an incomplete positive reference for a former employee.<sup>21</sup>

Given this potentially no-win liability regime, it should not be surprising that the job reference market has effectively collapsed.<sup>22</sup> Most knowledgeable employers now refuse to give any subjective recommendations, positive or negative.<sup>23</sup> (Employers may be legally required to provide certain objective information about the former employee).<sup>24</sup>

To revitalize the job reference market, many states have enacted immunization statutes that protect employers from lawsuits over job references.<sup>25</sup> However, the immunization statutes are too weak and have been ineffective.<sup>26</sup> As a result, the job reference market fails to provide reliable reputational information due to its (mis)regulation.

In contrast, the online consumer review system is one of the most robust reputational systems ever. Millions of consumers freely share their subjective opinions about marketplace goods and services, and online consumer review websites keep proliferating.

There are a number of possible reasons why online consumer review websites might succeed where other analogous offline efforts might fail, but 47 U.S.C. §230 could be a causal factor. §230 permits websites to generate and organize individual consumer reviews without worrying about crippling legal liability (which, as we have seen, has been fatal to the job reference market). As a result, mediating websites can configure their systems to provide maximum utility for consumers, provide incentives for consumers to share their opinions, and provide a platform for the wide-scale publication of those opinions, in all cases driven by marketplace mechanisms (i.e., the tertiary invisible hand) instead of legal fear.

The success of online consumer review websites is especially noteworthy given that the individual review contributors face some of the same legal risks that former employers face with job references, such as the risk of personal liability for publishing negative reputational information. Indeed, numerous individuals have been sued for posting negative online

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<sup>19</sup> See Tresa Baldas, *A Rash of Problems over Job References*, NAT'L L.J., Mar. 10, 2008 ("Employers are finding that they are being sued no matter what course they take; whether they give a bad reference, a good reference or stay entirely silent.").

<sup>20</sup> 1-2 EMPLOYMENT SCREENING § 2.05 (Matthew Bender & Co. 2008).

<sup>21</sup> *Randi W. v. Muroc Joint Unified Sch. Dist.*, 14 Cal. 4th 1066 (1997).

<sup>22</sup> See, e.g., Matthew W. Finkin & Kenneth G. Dau-Schmidt, *Solving the Employee Reference Problem*, 57 AM. J. COMP. L. 387 (2009).

<sup>23</sup> See Tresa Baldas, *A Rash of Problems over Job References*, NAT'L L.J., Mar. 10, 2008.

<sup>24</sup> These laws are called "service letter statutes." See 1-2 EMPLOYMENT SCREENING § 2.05 (Matthew Bender & Co. 2008). Germany has a mandatory reference law requiring employers to furnish job references, but in response German employers have developed an elaborate system for coding the references. Matthew W. Finkin & Kenneth G. Dau-Schmidt, *Solving the Employee Reference Problem*, 57 AM. J. COMP. L. 387 (2009).

<sup>25</sup> The immunizations protect employer statements made in good faith. 1-2 EMPLOYMENT SCREENING § 2.05 (Matthew Bender & Co. 2008).

<sup>26</sup> See Matthew W. Finkin & Kenneth G. Dau-Schmidt, *Solving the Employee Reference Problem*, 57 AM. J. COMP. L. 387 (2009).

reviews.<sup>27</sup> As a result, rational actors should find it imprudent to submit negative reviews; yet, millions of such reviews are online. One possible reason for this dichotomous outcome is that mediating websites, emboldened by their own liability immunization, have generated reputational information that otherwise would be foregone due to legal liability concerns.

What lessons can we draw from this comparison? One possible lesson is that reputational systems are too important to be left to the market. In other words, the tertiary invisible hand may not ensure accurate and useful information, or the costs of inaccurate information (such as denying a job to a qualified candidate) are excessive. If so, extensive regulatory intervention of reputational systems may improve the marketplace.

An alternative conclusion is that the tertiary invisible hand, aided by a powerful immunization statute like §230, works better than regulatory intervention. If so, we may get better results by deregulating regulatory systems.

At minimum, I hope to determine which reputational systems need regulatory oversight and which need immunization protection—and why.

## **B. Regulatory Configurations**

Consistent with the inquiry into regulatory heterogeneity, I wonder if there is an “ideal” regulatory framework for reputational systems. Regulators have a variety of tools for reputational system configuration, such as:

*Anti-Gaming.* An evaluated party may have financial incentives to manage the flow of reputational information about it. Reputational gaming can take many forms, including disseminating false positive reports about the evaluated party,<sup>28</sup> disseminating false negative reports about the evaluated party’s competitors, or manipulating an intermediary’s sorting or weighting algorithm to get more credit for positive reports or reduce credit for negative reports. Another sort of gaming can occur when users flood a reputation system with negative reports to protest the target or the reputation system.<sup>29</sup> Do regulators need to curb this gaming behavior, or will the tertiary invisible hand be sufficient to encourage adequate “police” against gaming by the reputational system?

*Right of Reply.* The evaluated party may wish to publicly respond to reputational information published about it in an immediately adjacent fashion. Many consumer review websites allow parties to comment or otherwise reply, but not all do. For example, Yelp initially drew significant criticism from business owners who could not effectively reply to negative consumer reviews on Yelp,<sup>30</sup> but Yelp relented and voluntarily changed its policy.<sup>31</sup> As another example, Google permitted quoted sources to reply to news articles appearing in Google News as

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<sup>27</sup> See Wendy Davis, *Yelp Reviews Spawn At Least Five Lawsuits*, MediaPost Online Media Daily, Jan. 21, 2009, [http://www.mediapost.com/publications/?fa=Articles.printFriendly&art\\_aid=98778](http://www.mediapost.com/publications/?fa=Articles.printFriendly&art_aid=98778).

<sup>28</sup> Lifestyle Lift Holding, Inc. v. RealSelf Inc., 2:08-cv-10089-PJD-RSW (answer/counterclaims filed March 3, 2008), <http://www.realself.com/files/Answer.pdf> (alleging that Lifestyle Lift posted fake positive reviews about its own business to a reputational system).

<sup>29</sup> For example, consumers protesting the digital rights management (DRM) in EA’s Spore game flooded Amazon’s review site with one-star reviews, even though many of them actually enjoyed the game. See Austin Modine, *Amazon Flash Mob Mauls Spore DRM*, The Register, Sept. 10, 2008, [http://www.theregister.co.uk/2008/09/10/spore\\_drm\\_amazon\\_effect/](http://www.theregister.co.uk/2008/09/10/spore_drm_amazon_effect/). A similar protest hit Intuit’s TurboTax 2008 over its increased prices. See Steven Musil, *Amazon Reviewers Slam TurboTax Fee Changes*, CNET News.com, Dec. 7, 2008, [http://news.cnet.com/8301-1001\\_3-10117323-92.html](http://news.cnet.com/8301-1001_3-10117323-92.html).

<sup>30</sup> See Claire Cain Miller, *The Review Site Yelp Draws Some Outcries of Its Own*, N.Y. TIMES, Mar. 3, 2009.

<sup>31</sup> See Claire Cain Miller, *Yelp Will Let Businesses Respond to Web Reviews*, N.Y. TIMES, Apr. 10, 2009.

a way to “correct the record.”<sup>32</sup> Regulators could require consumer review websites and other reputational systems to permit an adjacent response from the evaluated party.<sup>33</sup> Or, the tertiary invisible hand may cause reputational systems to choose to provide a reply option (as Yelp and Google did) when they think the additional information is useful to consumers.

### **C. Undersupply of Reputational Information**

#### *Inadequate Production Incentives*

A lot of reputational information starts out as non-public (i.e., “private”) information in the form of a customer’s subjective mental impressions about his/her interactions with the vendor. To the extent this information remains non-public, it does not help other consumers make marketplace decisions. In that sense, the collective mental impressions represents a vital but potentially underperforming social resource.

At the same time, relatively small amounts of publicly disclosed reputational information might be enough to steer the invisible hand. As an illustration, the first consumer review of a product in a reputational system adds a lot to subsequent consumers, but the 1000th consumer review of the same product may have very little additional value. I hope to determine how much non-public reputational information needs to become public for the secondary invisible hand to work properly.

The non-public information locked in consumers’ heads could represent a marketplace failure. If social benefit from public reputational information exceeds the private benefit from making it public, then presumptively there will be an undersupply public reputational information. If so, the government may need to correct this failure by encouraging the production of reputational information. I hope to examine if there is a reputational information undersupply problem because not enough non-public reputational information becomes public and, if so, how it could be corrected.

#### *Vendor Suppression of Reputational Information*

Vendors are not shy about trying to suppress unwanted reviews from consumers ex post,<sup>34</sup> but some vendors try to suppress such reviews ex ante. For example, one café owner grew so tired of negative Yelp reviews that he put a “No Yelpers” sign in café windows.<sup>35</sup>

That sign probably had no legal effect, but consider the system offered by Medical Justice, which helps doctors use preemptive contracts to suppress reviews by their patients. Medical Justice provides doctors with a form agreement that gets patients to waive their rights to post online reviews of the doctor.<sup>36</sup> Further, to bypass 47 U.S.C. §230’s protective immunization for online reputational systems that might republish such patient reviews, the Medical Justice form

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<sup>32</sup> See Posting of Dan Meredith and Andy Golding to Google News Blog, Perspectives About the News from People in the News, <http://googlenewsblog.blogspot.com/2007/08/perspectives-about-news-from-people-in.html> (Aug. 7, 2007).

<sup>33</sup> See Frank A. Pasquale, *Rankings, Reductionism, and Responsibility*, 54 CLEV. ST. L. REV. 115 (2006); Frank A. Pasquale, *Asterisk Revisited: Debating a Right of Reply on Search Results*, 3 J. BUS. & TECH. L. 61 (2008).

<sup>34</sup> See Eric Goldman, *Online Word of Mouth and Its Implications for Trademark Law*, in TRADEMARK LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH 404 (Graeme B. Dinwoodie and Mark D. Janis eds.) (Edward Elgar Press, 2008) (discussing lopsided databases where all negative reviews are removed, leaving only positive reviews).

<sup>35</sup> Stefanie Olsen, *No Dogs, Yelpers Allowed*, CNET News.com, Aug. 14, 2007, [http://news.cnet.com/8301-10784\\_3-9759933-7.html](http://news.cnet.com/8301-10784_3-9759933-7.html).

<sup>36</sup> Lindsey Tanner, *Doctors Seek Gag Orders to Stop Patients' Online Reviews*, Associated Press, Mar. 3, 2009, [http://www.usatoday.com/news/health/2009-03-05-doctor-reviews\\_N.htm](http://www.usatoday.com/news/health/2009-03-05-doctor-reviews_N.htm).

prospectively takes copyright ownership of any patient reviews.<sup>37</sup> This effectively allows doctors (or their designees) to get reputational systems to remove any unwanted patient reviews simply by sending a DMCA takedown notice.<sup>38</sup>

Contractual customer gag orders may be impermissible. In the early 2000s, the New York Attorney General challenged software manufacturer Network Associates' end user license agreement, which said "The customer will not publish reviews of this product without prior consent from Network Associates, Inc." In response, the New York Supreme Court enjoined Network Associates from restricting user reviews in its end user license agreement.<sup>39</sup> Accordingly, programs like Medical Justice may be legally problematic.

From a policy standpoint, contractual customer gag orders pose serious threats to the invisible hand. If they work as intended, they starve reputational systems of the public information necessary to facilitate the marketplace. Accordingly, I want to research what steps, if any, we need to take to prevent contractual customer gag orders from wreaking havoc on marketplace mechanisms.

#### **D. Distorted Decision-Making from Reputational Information**

Reputational information generally improves decision-making, but not always. Most obviously, reputational information relies on the accuracy of past information in predicting future behavior, but this predictive power is not perfect.

First, evaluated parties are constantly changing and evolving, so past behavior may not predict future performance. For example, a person with historically bad credit may obtain a well-paying job that puts him or her on good financial footing. Or, in the corporate example, a business may sell to a new owner with different management practices. In these situations, the predictive accuracy of past information is reduced.<sup>40</sup>

Second, some past behavior can be so distracting that information consumers might overlook the more accurate predictive power of other information. For example, a past crime or bankruptcy can overwhelm the predictive information in an otherwise-unblemished track record of good performance.

Ultimately, a consumer of information must make smart choices about what information to consult and how much predictive weight to assign to that information. However, perhaps regulation can improve the marketplace's operation by shaping the information that consumers consider. For example, if some information is so highly prejudicial that it will probably distort consumer decision-making, the marketplace might work better if we suppress that information from the decision-maker.<sup>41</sup>

## **V. CONCLUSION**

Although "reputation" has been extensively studied in a variety of social science disciplines, I think there remains significant work to be done exploring the reputation/regulation interface. Understanding these dynamics would be especially valuable in light of the proliferation of Internet-mediated reputational systems and the likelihood that the regulatory impulse will

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<sup>37</sup> Michael E. Carbine, *Physicians Use Copyright Infringement Threat to Block Patient Ratings on the Web*, AIS's Health Business Daily, Mar. 30, 2009, <http://www.aishealth.com/Bnow/hbd033009.html>.

<sup>38</sup> 17 U.S.C. §512(c)(3).

<sup>39</sup> *People v. Network Associates, Inc.*, 758 N.Y.S.2d 466 (N.Y. Sup. Ct. 2003).

<sup>40</sup> *Cf. Note, Badwill*, 116 HARV. L. REV. 1845 (2003) (describing how companies can mask a track record of bad performance through corporate renaming).

<sup>41</sup> *Cf. FED. R. EVID.* 403 ("Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury...").

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overtake novel and innovative reputational systems. I hope The Economics of Reputational Information project will help inform new regulatory initiatives and perhaps improve the operation of the invisible hands. I invite your comments and feedback.