NOTE

INTERACTIVE CONTRACTING IN SOCIAL NETWORKS

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INTRODUCTION

The last five years have witnessed explosive growth in the use of online social-networking services.[1] These services, commonly known as social networks, provide people with a flexible medium through

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1 Jenise Uehara Henrikson, *The Growth of Social Media: An Infographic* (Aug. 30, 2011), SEARCH ENGINE J., http://www.searchenginejournal.com/the-growth-of-social-media-an-infographic/32788/.

which to communicate and interact with others.[2] People and businesses alike have discovered a plethora of ways in which to capitalize on this flexibility.[3] For example, many college students use social networks to organize events and share pictures,[4] some musicians use social networks to market and promote their albums,[5] and several businesses use social networks as public-relations tools.[6] Moreover, social networks have played prominent roles in both orchestrating[7] and combating revolutions and public protests.[8]

Due in part to the high transaction costs involved in negotiating separate contracts with every customer, most Internet services, including social networks, rely on standard-form, electronic contracts.[9] These standard-form contracts impose a fixed set of contractual terms upon each customer.[10] Social network providers prepare all of the terms in these contracts, and potential consumers must either accept the social network's contract as a whole or abstain from using the social network.[11] The consumers themselves have no opportunity to bargain or to negotiate over the terms of the contract.[12]

However, some vendors—social networks in particular—have discovered that standard-form contracts are ill equipped to accommodate the diverse interests and desires of their customers. Specifically, standard-form contracts are ill suited for situations in which some customers have interests that are mutually exclusive of other customers'

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2 *See* Ian Collins, *5 Common Uses for Social Networking and the Effect on Your Target Audience* (Feb. 2010), BLOGUSSION, http://www.blogussion.com/social-media/uses-social-networking.

3 *See, e.g.*, Tamar Weinberg, *How to Use Facebook for Business and Marketing* (May 5, 2010), TECHIPEDIA, http://www.techipedia.com/2010/how-to-use-facebook-for-business-and-marketing/.

4 *See* Mark Sullivan, *Is Facebook the New MySpace?* (July 24, 2007), PCWORLD, http://www.pcworld.com/article/134635/is_facebook_the_new_myspace.html.

5 *See, e.g.*, Madonna's Facebook Profile, FACEBOOK, http://www.facebook.com/madonna (last visited Aug. 8, 2012).

6 *See, e.g.*, BP America's Facebook Profile, FACEBOOK, http://www.facebook.com/BP America (last visited Aug. 8, 2012).

7 *See, e.g.*, Catharine Smith, *Egypt's Facebook Revolution: Wael Ghonim Thanks the Social Network*, HUFFINGTON POST (May 25, 2011, 7:30 PM), http://www.huffingtonpost.com/2011/02/11/egypt-facebook-revolution-wael-ghonim_n_822078.html.

8 *See* Brianna Lee, *Evgeny Morozov on the Era of Cyber-Pragmatism*, NEED TO KNOW ON PBS (Feb. 25, 2011), http://www.pbs.org/wnet/need-to-know/the-daily-need/evgeny-morozov-on-the-era-of-cyber-pragmatism/7592/.

9 *See* Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429, 467–68 (2002).

10 *See* Wayne Barnes, Social Media and the Rise in Consumer Bargaining Power 24–26 (Aug. 2011) (unpublished manuscript), *available at* http://works.bepress.com/cgi/viewcontent.cgi?article=1003&context=wayne_barnes.

11 *See id.* at 26.

12 *See* AEB & Assocs. Design Grp. v. Tonka Corp., 835 F. Supp. 724, 732 (S.D.N.Y. 1994).

interests.[13] For example, consider a situation in which Customer A desires "X" while Customer B desires "Y" from the same vendor. Neither Customer A nor Customer B can have both X and Y. If both customers could separately negotiate with the vendor, Customer A would simply contract for X and Customer B would contract for Y. However, because the vendor uses a standard-form contract for all of its sales, the vendor must either strike a balance between X and Y or offer only one of the two. This result will be undesirable to at least one of the users, if not both. Moreover, this result is also undesirable for the vendor, as it is not able to capitalize on its customers' unique interests.

This Note examines the development of more flexible standard-form contracts in the social network context and proposes the use of an interactive contract to address the problem of standard-form contracts' inability to accommodate mutually exclusive interests. An interactive contract is similar to a standard-form contract in all respects except that, with respect to certain terms, it contains several prewritten provisions, and the consumer has the ability to choose between those prewritten provisions.

As a basic example, imagine a data storage company that owns data-processing centers throughout the United States (such as Dropbox[14]). Because electronic discovery and data security laws vary across jurisdictions, different customers might have different preferences about where the company stores their data.[15] In particular, jurisdictional issues may become increasingly important as governments ramp up their efforts to combat cyber piracy.[16] Rather than having a standard-form contract specifying where each customer's uploaded data is stored, the contract could contain a provision reading, "Data uploaded by the User will be stored at . . . ." The provision then would have a pull-down menu through which the consumer could select from the following three options: (1) "at any one or more of the Pro-

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13 *See generally* Mark Zuckerberg, *On Facebook, People Own and Control Their Information*, FACEBOOK BLOG (Feb. 16, 2009, 2:09 PM), http://blog.facebook.com/blog.php?post=54434097130 (discussing some of the problems Facebook has in balancing the conflicting desires of its users).

14 *See Where Are My Files Stored?*, DROPBOX, https://www.dropbox.com/help/7 (last visited Aug. 8, 2012).

15 *See Rules and Statutes*, KROLL ONTRACK, http://www.krollontrack.com/resource-library/rules-and-statutes/ (last visited Aug. 8, 2012) (listing by state the rules regarding electronic discovery, computer forensics, and technology in litigation).

16 *See* Nick Perry, *Popular File-Sharing Website Megaupload Shut Down*, USA TODAY (Jan. 20, 2012, 1:00 PM), http://www.usatoday.com/tech/news/story/2012-01-19/megaupload-feds-shutdown/52678528/1 (explaining that Megaupload's storing of data on leased servers in Virginia exposed the Hong Kong-based company to prosecution in the United States). Although Megaupload's prosecution was targeted at the company itself, prosecutors might also target file sharers in later actions. A file sharer's exposure to liability may depend on the jurisdiction where that file-sharer's data is stored.

vider's data centers, depending on the Provider's available bandwidth and storage space," (2) "at any one or more of the Provider's data centers located in California," or (3) "at any one or more of the Provider's data centers located in Nevada." If the provider prefers the first option, it could either charge a fee for customers who want to select the other two options, or it could couple the other two options with additional terms that might be more favorable to the provider in other respects. Furthermore, the provider could set the first option as the default option, which would take effect if a customer does not interact with the pull-down menu.

This interactive arrangement allows different customers to better attain their interests and allows the provider to capitalize on the differing interests that some customers may have. Moreover, interactive contracts retain the same economies-of-scale benefits that standard-form contracts offer because the provider does not have to actively negotiate with any of its customers.

While the costs of implementing an interactive contract may seem high, the technology is already available. Social networks currently use a similar process to create flexible "settings-based contracts."[17] A social network's settings-based contract typically works as follows. When a user first signs up for a social network, the user is required to accept the network's terms of service.[18] At this point, the user has no control over any of the terms. However, once the user has created an account, the social network allows the user to specify certain preferences in the user's account-settings page.[19] For example, Facebook users can specify whether or not they want Facebook to use their names in advertisements.[20] These preferences are then incorporated into the social network's terms of service via an incorporation clause.[21]

To be sure, social networks' settings-based contracts differ from interactive contracts in several ways. Most importantly, settings-based contracts do not allow consumer interaction during the contracting process itself; instead, consumers can only interact with the terms of the contract after accepting the contract. Moreover, settings-based contracts require the existence of some sort of settings page, which presupposes an ongoing relationship between the consumer and ven-

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17 *See infra* Part III.

18 *See, e.g.*, FACEBOOK, www.facebook.com (last visited Aug. 8, 2012) (requiring user to click on the "Sign Up" button to create an account).

19 *See, e.g.*, *Privacy*, FACEBOOK HELP CENTER, www.facebook.com/help/privacy (last visited Aug. 8, 2012).

20 *See Social Ads*, FACEBOOK, http://www.facebook.com/fba_whatsthis (last visited Aug. 8, 2012).

21 *See Statement of Rights and Responsibilities*, FACEBOOK, ¶ 2, http://www.facebook.com/legal/terms (last updated Apr. 26, 2011).

dor. Many online transactions, however, do not involve an ongoing relationship. Nevertheless, this Note argues that the technology used by social networks to create settings-based contracts can be easily modified to create interactive contracts, which are more widely applicable than settings-based contracts and respond better to many of the criticisms levied against standard-form contracts.

This Note proceeds in four parts. Part I quickly summarizes some of the problems facing standard-form contracts and provides a brief overview of social networks. Part II begins the discussion of flexible contracting by describing how social networks must struggle with balancing two mutually exclusive interests: data security and data accessibility. Part III first examines how Facebook, one of the most popular social networks,[22] has developed a flexible settings-based contract to help balance these interests. It then analyzes some of the strengths and limitations of Facebook's settings-based contract. Finally, Part IV introduces the concept of an interactive contract and articulates how vendors may use interactive contracts to resolve some of the issues raised in Part III.

I
BACKGROUND

A. Standard-Form Contracts

The majority of online transactions are governed by standard-form contracts.[23] A standard-form contract, sometimes referred to as a contract of adhesion, "is a contract whose terms are dictated by one contracting party to another who has no voice in its formulation."[24] Standard-form contracts also govern a plethora of activities that a reasonable person might not consider to be transactional in nature. For example, the mere act of visiting YouTube constitutes an acceptance of YouTube's terms of service agreement.[25]

Standard-form contracts pose two salient enforceability problems. First, there is a legitimate question as to whether a consumer has assented to the terms of an electronic standard-form contract.[26] Sec-

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22 *See* LeeAnn Prescott, *54% of US Internet Users on Facebook, 27% on MySpace*, VENTUREBEAT (Feb. 10, 2010, 11:05 AM), http://venturebeat.com/2010/02/10/54-of-us-internet-users-on-facebook-27-on-myspace/.

23 *See* Hillman & Rachlinski, *supra* note 9, at 466.

24 *See* Kloss v. Edward D. Jones & Co., 54 P.3d 1, 7 (Mont. 2002) (citing ARTHUR L. CORBIN, 1-1 CORBIN ON CONTRACTS § 1.4, at 13 (1993)).

25 *See Terms of Service*, YOUTUBE (June 9, 2010), http://www.youtube.com/t/terms.

26 *See, e.g.*, Dawn Davidson, Comment, *Click and Commit: What Terms Are Users Bound to When They Enter Web Sites?*, 26 WM. MITCHELL L. REV. 1171, 1178–79 (2000) ("[I]t is uncertain whether there has been a true offer and acceptance [in online user agreements] and whether a manifestation of assent has occurred."); Woodrow Hartzog, *The New Price to Play: Are Passive Online Media Users Bound by Terms of Use?*, 15 COMM. L. & POL'Y 405, 408–09

ond, courts may apply the doctrine of unconscionability, which will likely result in more careful scrutiny of standard-form contracts.[27]

Specht v. Netscape Communications Corporation is the most influential case involving the issue of assent in Internet-based contracts.[28] In *Specht*, the defendant Netscape Communications Corporation (Netscape) offered various freeware programs, including Communicator and SmartDownload, on its website.[29] If a visitor attempted to install Communicator, the installation program would display Netscape's terms of service agreement on the visitor's computer screen.[30] The installation program would not continue unless the visitor then clicked a "Yes" button to indicate acceptance of all the terms of the agreement.[31] In contrast, if a visitor attempted to install SmartDownload, no terms of service agreement would appear on the screen.[32] Instead, the only way for visitors to see the SmartDownload terms of service agreement was to click on a hyperlink that was located at the bottom of the SmartDownload website.[33] The central issue of the case was whether the plaintiffs (who had downloaded either Communicator, SmartDownload, or both) had assented to Netscape's terms of service agreements.[34] To resolve the issue, the Court looked at whether the plaintiffs had constructive notice of the terms of service agreements.[35]

Because the plaintiffs in *Specht* admitted that they had assented to the Communicator terms of service agreement,[36] the Court focused on the enforceability of the SmartDownload agreement.[37] Ultimately, the Court determined that the SmartDownload program did not notify visitors of the existence of a terms of service agreement because a reasonably prudent person would not have scrolled to the bottom of the SmartDownlad website before installing the SmartDownload software.[38]

In reaching its decision, the *Specht* court differentiated between enforceable "clickwrap" contracts and what has commonly become

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(2010) (discussing the idea of the "passive media user" who does not engage in the sorts of activities that typically signal assent).

27 *See* Hillman & Rachlinski, *supra* note 9, at 492–93.

28 306 F.3d 17 (2d Cir. 2002); Robert Lee Dickens, *Finding Common Ground in the World of Electronic Contracts: The Consistency of Legal Reasoning in Clickwrap Cases*, 11 MARQ. INTELL. PROP. L. REV. 379, 385 (2007).

29 306 F.3d at 21.

30 *Id.* at 21–22.

31 *Id.* at 22.

32 *Id.* at 23.

33 *Id.*

34 *Id.* at 28–30.

35 *Id.*

36 *Id.* at 35.

37 *See id.* at 28.

38 *Id.* at 31–32.

known as "browsewrap" contracts.[39] A clickwrap contract is generally defined as an electronic agreement that a website automatically presents to a user and that requires the user to affirmatively click an "I agree" button to proceed.[40] In contrast, a browsewrap contract involves situations in which a vendor places a contract on its website that purports to bind a visitor whether the visitor actually sees the terms of the contract.[41] Thus, the distinction that *Specht* draws between browsewrap and clickwrap agreements is founded upon the concept of constructive notice.[42]

The doctrine of unconscionability, on the other hand, involves a two-step analysis of the circumstances surrounding the formation of the contract in question and the fairness of the contract's terms.[43] To invalidate all or part of a contract on unconscionability grounds, a plaintiff must prove that the contract was both procedurally and substantively unconscionable.[44]

A contract is procedurally unconscionable if the weaker party had a lack of meaningful choice.[45] In deciding whether a party has a meaningful choice, courts consider a wide host of factors, including whether that party could have reasonably obtained similar products or services from other vendors without submitting to similarly onerous terms,[46] and whether the terms comport with the parties' reasonable expectations.[47]

Standard-form contracts are, by their very nature, prone to be procedurally unconscionable as compared to bargained-for contracts.[48] This is because consumers who are presented with standard-form contracts often have no meaningful choice: they cannot bargain

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39 Dickens, *supra* note 28, at 386–87.

40 *Id.* at 387; *see Specht*, 306 F.3d at 22.

41 *See* Dickens, *supra* note 28, at 387.

42 *See id.*; *see also* Davidson, *supra* note 26, at 1187 (pointing out that courts impute knowledge of contractual terms on purchasers in shrinkwrap cases but not in cases involving online user agreements).

43 *See* Comb v. PayPal, Inc., 218 F. Supp. 2d 1165, 1172–73 (N.D. Cal. 2002).

44 *See id.*

45 *See, e.g.*, Leasing Serv. Corp. v. Broetje, 545 F. Supp. 362, 366 (S.D.N.Y. 1982) ("[A]n unconscionable agreement is one marked by an absence of meaningful choice on the part of one of the parties . . . ."); Tulowitzki v. Atl. Richfield Co., 396 A.2d 956, 960 (Del. 1978) ("[For a contract] to be unfair or unconscionable . . . there must be an absence of meaningful choice . . . .").

46 *See, e.g.*, Dean Witter Reynolds, Inc. v. Superior Court, 259 Cal. Rptr. 789, 794–95 (Cal. Ct. App. 1989).

47 *See* A & M Produce Co. v. FMC Corp., 186 Cal. Rptr. 114, 123–24 (Ct. App. 1982).

48 *See, e.g.*, *Comb*, 218 F. Supp. 2d at 1172 ("A contract or clause is procedurally unconscionable if it is a contract of adhesion." (citing Flores v. Transamerica HomeFirst, Inc., 113 Cal. Rptr. 2d 376, 381–82 (Ct. App. 2001))); Engalla v. Permanente Med. Grp., Inc., 938 P.2d 903, 924 (Cal. 1997) ("In determining whether a contract term is unconscionable, we first consider whether the contract . . . was one of adhesion.").

with the vendor and likely have few alternative choices because competing vendors often have similar contracts.[49]

With respect to substantive unconscionability, courts generally examine specific terms of the contract.[50] Commentators have described this aspect of the unconscionability doctrine as a means by which courts void contract clauses based on terms that they perceive to be unfair but that they cannot address using more formal policing doctrines.[51] Generally speaking, courts are likely to find a term substantively unconscionable if the term places an unreasonable burden on the weaker party.[52]

B. Social Networks: A Brief History

The term "social network," as used in this Note, refers to all online services that allow users to create and maintain online profiles, to define relationships with other users, and to interact with other users' profiles.[53] Social networks first arose in the late 1990s, with services such as SixDegrees.com that allowed users to create personal profiles and to browse other friends' profiles.[54] Many of these earlier social networks were designed with a specific use in mind.[55] For example, Classmates.com catered to people who wanted to find or contact their old classmates, and Match.com promoted itself as an online matchmaking service.[56] By 2000, however, the development of new social networking techniques allowed for a much greater level of interaction between users, and new social networks arose, offering their services to a much wider audience.[57] The discussion that follows will largely focus on the new generation of social networks, especially Facebook, which is currently one of the most popular social networks.[58]

Social networks are not identical services; the ability to maintain an online presence and to interact with others online presents a vast

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49 *See* Hillman & Rachlinski, *supra* note 9, at 438–39.

50 *Comb*, 218 F.Supp. 2d at 1173–74.

51 *See* Richard A. Epstein, *Unconscionability: A Critical Reappraisal*, 18 J.L. & ECON. 293, 305 (1975).

52 *See id.*

53 To the author's knowledge, there is no formal definition for the term "social network." However, this definition comports with many other attempts at defining this term. *See, e.g.*, Danah M. Boyd & Nicole B. Ellison, *Social Network Sites: Definition, History, and Scholarship*, 13 J. COMPUTER-MEDIATED COMM. (Oct. 2007), http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html ("We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.").

54 *See* Boyd & Ellison, *supra* note 53.

55 *See id.*

56 *See id.*

57 *See id.*

58 *See* Prescott, *supra* note 22.

array of possibilities. Accordingly, individuals and businesses have found myriad uses for social networks.[59] For example, while many college students create Facebook profiles merely to share pictures and banter with friends,[60] many businesses create Facebook profiles as a form of public relations,[61] and many musicians use Facebook to popularize and sell their music.[62]

Because different users create social network accounts for different reasons, different groups of users inevitably will want different things from a social network. For example, some users may want the freedom to export their social networking data or to access their profiles through third-party sites.[63] In contrast, other users like professional photographers might be concerned with protecting their intellectual property rights over the pictures that they place on their social network profile.[64]

II
Competing Interests: Data Accessibility and Data Security

Due to current (and foreseeable) technological limitations facing data security, a social network can only practicably and effectively secure a person's data to a limited extent without also limiting the accessibility of that data. In the past decade, many social networks have faced the problems that stem from these competing interests.[65] This Note uses the term "data" to describe the information that users upload to and store on social networks including pictures, biographical information, and credit card numbers.

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59 *See* Collins, *supra* note 2.

60 *See, e.g.*, Mark Allen Chen's Facebook Profile, Facebook, http://www.facebook.com/mark.a.chen (last visited Aug. 8, 2012).

61 *See, e.g.*, BP America's Facebook Profile, *supra* note 6.

62 *See, e.g.*, Madonna's Facebook Profile, *supra* note 5.

63 *See* Michael Arrington, *Give Us Our Data, Facebook*, TechCrunch (Nov. 9, 2010), http://techcrunch.com/2010/11/09/give-us-our-data-facebook/ ("For a good two years we've all been waiting for Facebook to let our data out.").

64 *See* Jon Stahl, *Photos on Facebook: Some Intellectual Property Concerns*, Jon Stahl's J. (Nov. 18, 2007), http://jstahl.org/archives/2007/11/18/photos-on-facebook-some-intellectual-property-concerns/. The author does not believe that Facebook's terms of service agreement actually operates as claimed in this article. Nevertheless, this article highlights user concerns over the issue of intellectual property rights.

65 *See, e.g.*, Jason Kincaid, *Another Security Hole Found on Yelp, Facebook Data Once Again Put at Risk*, TechCrunch (May 11, 2010), http://techcrunch.com/2010/05/11/another-security-hole-found-on-yelp-facebook-data-once-again-put-at-risk/ (discussing Facebook's decision to prevent users from accessing their Facebook data via Yelp, a third party website, due to Facebook's inability to secure user data once it leaves the Facebook servers); Andrew LaVallee, *Power.com Suit Against Facebook Is Dismissed*, Wall St. J. Digits Blog (Oct. 23, 2009, 2:56 PM), http://blogs.wsj.com/digits/2009/10/23/powercom-suit-against-facebook-is-dismissed/ (discussing a lawsuit against Facebook and Power.com over data security and data accessibility).

A. Data Accessibility

"Data accessibility" refers generally to a social-network user's ability to (1) access that user's social-network data through third-party websites, which this Note will refer to as social network portals (SNPs), (2) export that data to other mediums, and (3) share that data with others. Data accessibility is particularly important for people who maintain accounts with multiple social networks.[66]

SNPs allow social-network users to access multiple social networks simultaneously.[67] Thus, SNPs provide a convenience to those who maintain multiple social-network profiles by allowing those users to manage and update all of their social-network profiles and to interact with all of their social-network friends from one central location.[68] However, as will be discussed in the next section, the benefits of SNPs may come at the cost of data security.

As an initial matter, the following is an extremely simplified explanation of how data is stored and transferred between a social network, its users, and third parties.[69] Imagine that Alice wants to upload a picture from her computer to her Facebook account, which currently has zero pictures. Before the upload, the picture resides as data on Alice's computer. When Alice uploads the picture to Facebook, she sends a copy of that data over the Internet. Facebook then saves that data onto its computers (called "servers"). At this point, there are now two copies of the picture: one on Alice's computer, the other on Facebook's servers.

When Alice's friend, Bob, wants to view Alice's picture over Facebook, Bob logs into Facebook and browses Alice's photo album. Bob's computer then automatically downloads a copy of Alice's picture and displays that picture on his computer monitor. As a general matter, Bob's computer will temporarily store his copy of Alice's picture in a folder known as a cache. As Bob browses to other sites and views other images, his computer will delete old files in the cache folder to make room for new files. Through this process, Bob's com-

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66 *See* Chris Hogg, *Facebook Follows MySpace Lead, Allowing Members to Export Data to Other Sites*, DIGITAL J. (May 10, 2008), http://www.digitaljournal.com/article/254515; Claire Cain Miller, *Power.com: A One-Stop Shop for Social Networkers*, N.Y. TIMES BITS BLOG (Dec. 1, 2008, 12:00 AM), http://bits.blogs.nytimes.com/2008/12/01/brazilian-social-networking-start-up-arrives-stateside/.

67 *See* Miller, *supra* note 66.

68 *See id.*

69 *See generally* DAVID GOURLEY ET AL., HTTP: THE DEFINITIVE GUIDE 3–21 (2002) (providing an overview of data transfer over the Internet using HTTP, a common transfer protocol); ROY FIELDING ET AL., HYPERTEXT TRANSFER PROTOCOL—HTTP/1.1 § 1.4 (June 1999), http://tools.ietf.org/html/rfc2616#section-1.4 (providing a similar, but more in-depth, overview of data transfer over the Internet using HTTP).

puter will eventually delete Alice's picture (although Bob could always save the picture to another location to keep it permanently).

Now imagine that Alice maintains both a Facebook account and a MySpace account and that she wants to access both of these accounts simultaneously through an SNP. To do this, Alice will first go to the SNP's website. There, the SNP will ask Alice to input her username and password (her "login information") for her Facebook account and for her MySpace account.[70] The SNP will then use that login information to log into Alice's Facebook and MySpace accounts as if it were Alice.[71] Once the SNP logs into Alice's Facebook and MySpace accounts, it will download the data from the webpages that normally appear whenever Alice first logs onto Facebook and MySpace. The SNP will then send all of this data to Alice, allowing Alice to view these webpages on her browser as if she had visited Facebook and MySpace directly.[72] If Alice clicks on a particular link to visit a different webpage (say, Bob's Facebook profile), her computer sends a request for the SNP to browse that webpage. The SNP will then download that webpage's data and send it to Alice.

In addition to accessing their social network profiles through SNPs, some users also want the ability to export their data from one social-network profile so that they can create accounts at other social networks without having to manually input that data.[73] Users often export data by using some kind of program or script that downloads information from a user's profile, aggregates that information into a document (often some sort of spreadsheet), and then saves that document onto the user's computer. The user can then upload this document to another website or program, and the website or program will use that document to automatically fill out information. For example, users might export their friends' contact information from Facebook and import that information to their email accounts to automatically create email contact entries for their friends.

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70 *See, e.g.*, TAGGED, http://www.tagged.com/ (last visited Aug. 8, 2012) (allowing users to log in with their Facebook accounts).

71 *See e.g.*, Miller, *supra* note 66 ("Once a user enters his or her log-in information for a social network, [the SNP] accesses the site as if it was the user.").

72 *See, e.g.*, *id.* ("[T]he [SNP] displays the user's social networking pages without changing them."). Depending on how the SNP's programming works, the SNP may display a modified version of these websites. Some SNPs choose to display a social network's websites, including the social network's advertisements, without modification to avoid potential legal conflicts. *Cf. id.* (noting that SNPs "could potentially irritate" social networking sites by allowing users to interact with those sites without actually visiting them).

73 *See* Hogg, *supra* note 66.

B. Data Security

"Data security" refers to the process of protecting data from unauthorized use.[74] For example, social-network users might want to prevent strangers from accessing their profile pages to harvest their contact information. Musicians who stream songs on their social network profiles may want to prevent people from copying or downloading the songs. Users who conduct financial transactions over social networks likely want to secure their financial information.

There are ultimately two approaches to securing data.[75] The first approach is to encrypt the data.[76] The second approach is to limit access to that data.[77] In the context of social networking, a practical implementation of either of these approaches requires that the social network have control over the medium in which the data resides. As a result, data security often runs opposite to data accessibility.

1. *Data Encryption*

Data encryption refers to the process of transforming plain text into "cipher text" (or "coded text").[78] Cipher text is nonsensical and requires decryption to be understood.[79] For example, the message, "Meet me at 5," once encoded, may instead read "aielxk1." The aim of this approach is not to protect a message from interception or unauthorized access but instead to make the message useless to anyone but the intended recipients (who can decrypt the message to divine its meaning).[80] Thus, rather than protecting data from falling into the wrong hands, data encryption secures data by making the data useless to anyone who does not possess the means to decrypt it.[81]

A computer transforms plain text into cipher text according to a particular set of mathematical algorithms (different encryption methods use different algorithms).[82] A "key" determines the parameters of the algorithms.[83] In symmetric-key algorithm systems, the same key

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74 *See* BLACK'S LAW DICTIONARY 422 (8th ed. 2004) (defining data protection as "[a]ny method of securing information, esp. information stored on a computer, from being either physically lost or seen by an unauthorized person").

75 *See* CHRIS BRENTON, MASTERING NETWORK SECURITY 292 (1999).

76 *See id.*

77 *See id.*

78 *See id.* at 300. Hashing, a process similar to encryption, uses a one-way algorithm to translate plain text into an undecipherable string of characters (a "hash value"). *See* SHON HARRIS, CISSP ALL-IN-ONE EXAM GUIDE 721–22 (Timothy Green ed., 5th ed. 2010). Unlike cipher text, however, a hash value is never decrypted. Hashing is often used to secure passwords and to ensure the integrity of data. *See id.* at 69. The following discussion relating to the limitations of encryption also applies to hashing.

79 *See* SIMSON GARFINKEL, PGP: PRETTY GOOD PRIVACY 34 (1995).

80 *See* BRENTON, *supra* note 75, at 309.

81 *See id.*

82 *See id.* at 300.

83 *See id.*

encrypts and decrypts the data.[84] In asymmetric-key algorithm systems, the encryption algorithm uses two mathematically-related keys: a public key and a private key.[85] A message encrypted by the public key can only be decrypted by the private key and vice versa.[86] Today, most encryption methods involve the use of well-known encryption algorithms.[87] Thus, the security of an encryption method depends upon the secrecy of its key.[88]

With respect to social networks, there are three general approaches to securing data through encryption.[89] The first approach is to establish a system where users encrypt their own data and provide decryption keys to their friends.[90] Under this approach, the burden of encryption rests on the user. The social network itself neither encrypts nor decrypts the user's data. Instead, the social network merely receives, stores, and transfers encrypted data. As a result, the user's data is secure no matter where the data goes.

The second approach to securing data through encryption is known as network encryption.[91] This form of encryption protects data that is in transit to and from a social network.[92] When a party (such as a social-network user) seeks to send data to the social network, that party encrypts the data. When the social network receives the data, the social network then immediately decrypts that data. Similarly, when a party receives information from the social network, the social network will encrypt the data before sending it and the recipient will decrypt that data upon receiving it.

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84 *See* GARFINKEL, *supra* note 79, at 42.

85 *See id.* at 47–51.

86 *See* HARRIS, *supra* note 78, at 688.

87 *See id.*

88 *See id.* at 672.

89 *See generally* Christopher Soghoian, *Caught in the Cloud: Privacy, Encryption, and Government Back Doors in the Web 2.0 Era*, 8 J. ON TELECOMM. & HIGH TECH. L. 359, 392 (2010) (discussing network and disk encryption, and further subdividing disk encryption into two categories).

90 Soghoian divides disk encryption into two categories: one in which the service provider knows the decryption key, and one in which the service provider does not. *Id.* The first approach discussed in this Note refers to Soghoian's second category of disk encryption (one in which the service provider does not know the encryption key). Soghoian's second category of disk encryption, however, is more accurately categorized as its own system of encryption. Consider that data flows from the user to the service provider, and that the service provider then stores the data on its servers. *See supra* note 77 and accompanying text. If disk encryption is used, it makes little difference whether the service provider possesses the decryption key; the service provider will still have access to the unencrypted data at the first stage (when the user sends the data to the service provider). Instead, for this system of encryption to be effective, users must encrypt their data on their end and then send that encrypted data to the service provider for storage. *See, e.g.*, Randy Baden et al., *Persona: An Online Social Network with User-Defined Privacy*, COMPUTER COMM. REV., Oct. 2009, at 135, 135–37 (delineating one implementation of a full-encryption system).

91 *See* Soghoian, *supra* note 89.

92 *See id.*

The third approach to securing data is by using disk encryption.[93] Under this approach, the social network encrypts all the data that is stored on its servers. However, all the data that the social network displays on its users' profiles remains unencrypted—otherwise users would not be able to view each other's data. This approach protects data from physical attack, such as the theft of a computer server, but it does not protect data from a network attack, such as the unauthorized interception of data that a user sends to a social network.

2. *Encryption and Accessibility*

The first approach to encryption does not require that a user sacrifice data accessibility. However, for reasons that will be discussed later in this section, social networks have no economic incentive to adopt this approach. The second and third approaches to encryption are economically feasible, but they are only applicable to data that is being sent to and from the social network itself and not to data that resides on the social network's servers.

The first approach allows users to secure data without impacting accessibility because the data remains encrypted until it arrives at its final destination. However, a number of problems render this approach impractical for social networks. First, and perhaps most importantly, companies do not have an incentive to offer free social-networking services that use this form of encryption. Social networks primarily rely upon data mining and targeted advertising to generate income.[94] That is, social networks constantly gather demographic information from their users based on the personal information that users upload to their profiles.[95] This information is then either sold to marketers or used to help deliver targeted advertisements.[96] In a full encryption system, however, the social network would be unable to collect any such information because all of the user's data would be encrypted and the social network would lack the means to decrypt it. The social network would therefore be without a means to generate income from its services. As a result, this type of system would only be feasible if the social network were to charge its users for its services.

Another problem with the full-encryption approach is that, as with any encryption system, its effectiveness depends upon the confidentiality of the decryption keys. Given that some social-network users have upwards of 1,000 friends, ensuring the security of each friend's key would impose even greater costs upon a social-network user.

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93 *See id.*
94 *See id.* at 395–96.
95 *Id.*
96 *Id.*

The second and third approaches to encryption do not encounter these problems. In both approaches, the social network is able to decrypt the data and thereby mine it. Furthermore, these approaches require only a maximum of two sets of keys—one for the user and one for the social network—meaning that the social network does not need an expensive key-management system. The network-encryption approach, however, can only secure data transmitted to and from the social network. Similarly, the disk-encryption approach only allows a social network to encrypt data that resides on its own servers or on servers over which it has control. Thus, both of these approaches run counter to data accessibility.

3. *Limiting Access to Data*

In contrast to data encryption, a social network may also secure data by limiting access to it.[97] If one were to analogize securing data to keeping a confidential diary, encryption would involve writing the diary in a secret code, while access control would involve locking the diary in a safe. One generally limits access to data by setting up software controls that prevent parties from accessing certain files without proper authentication.[98] For example, most social networks require users to log in with their username and password to access certain pages.[99]

As with the second and third approaches to data encryption, a social network can only limit access to data that resides on a medium over which it has control. For example, if a social network seeks to limit access to a user's profile page, but that profile page is also stored on a freely accessible, third-party website, then other parties can simply access the profile page via the third-party website regardless of the social network's access controls. Thus, this form of data security also runs counter to the data-accessibility interest.

III
Balancing Accessibility and Security: Facebook's Settings-Based Approach

Many social networks have addressed the competing interests of data security and accessibility by developing a terms of service contract that incorporates some sort of "account settings" page.[100] These account-settings pages give users some measure of control over the se-

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97 *See* Harris, *supra* note 78, at 153–56; *see also* William R. Cheswick et al., Firewalls and Internet Security: Repelling the Wily Hacker 173 (2d ed. 2003).

98 *See* Harris, *supra* note 78, at 166.

99 *See, e.g.*, Facebook, *supra* note 18 (asking for a user's email and password to log in).

100 *See, e.g.*, *Privacy Policy*, Myspace, http://www.myspace.com/Help/Privacy?pm_cmp=ed_footer (last updated Dec. 7, 2010); *Statement of Rights and Responsibilities*, *supra* note 21.

curity and accessibility of their data. This settings-based approach allows a social network's users to effectively control the terms of a contract by changing their account settings, thus allowing the social network to cater to each of its users' unique preferences. The following discussion will focus on Facebook's use of a settings-based contract because Facebook is one of the most popular social networks and because Facebook has created one of the more robust settings-based contracts.

Facebook presents its Terms of Use to a new user via browsewrap when the user first presses the "Sign Up" button on Facebook's home page. The Terms of Use consists of seven documents: the Statement of Rights and Responsibilities, the Privacy Policy, the Facebook Platform Policy, the Payments Terms, the Advertising Guidelines, the Promotions Guidelines, and the Pages Terms.[101] The first two documents are binding on all Facebook users.[102] The third document is only binding on third-party services (including SNPs) that access or integrate themselves with Facebook.[103] The first three documents together outline the bulk of Facebook's policy toward data security and accessibility. The remaining documents deal with more specialized uses of Facebook's servers and are not discussed in this Note.

Facebook's Statement of Rights places several obligations on its users to maintain the security of their own accounts.[104] Furthermore, the Statement of Rights provides that Facebook will secure a user's data in accordance with that user's privacy and application-settings pages.[105]

Facebook's Privacy Policy states that it stores user data on a secured server, behind a firewall, and that it encrypts users' credit card information.[106] The privacy policy also indicates that users can control the accessibility of their data via their privacy-settings page.[107]

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101 *See Data Use Policy*, FACEBOOK, http://www.facebook.com/full_data_use_policy (last updated Sept. 23, 2011); *Facebook Advertising Guidelines*, FACEBOOK, http://www.facebook.com/ad_guidelines.php (last updated Mar. 20, 2012); *Facebook Pages Terms*, FACEBOOK, http://www.facebook.com/terms_pages.php (last updated Feb. 29, 2012); *Facebook Platform Policies*, FACEBOOK DEVELOPERS, http://developers.facebook.com/policy/ (last updated Mar. 6, 2012); *Payments Terms*, FACEBOOK, http://www.facebook.com/payments_terms/ (last updated Mar. 27, 2012); *Promotions Guidelines*, FACEBOOK, http://www.facebook.com/promotions_guidelines.php (last updated May 11, 2011); *Statement of Rights and Responsibilities*, *supra* note 21.

102 *See Privacy Policy*, MYSPACE, *supra* note 100; *Statement of Rights and Responsibilities*, *supra* note 21.

103 *See Facebook Platform Policies*, *supra* note 101.

104 *See Statement of Rights and Responsibilities*, *supra* note 21, ¶ 3–4.

105 *Id.* ¶ 2.

106 *See Data Use Policy*, *supra* note 101, ¶ 8.

107 *See Sharing and Finding You on Facebook*, FACEBOOK, http://www.facebook.com/about/privacy/your-info-on-fb#controlprofile (last visited Aug. 8, 2012).

Facebook has a separate standard-form contract, the Facebook Platform Policies, which applies to third-party services—including both applications and websites—that interact with Facebook.[108] The Platform Policies contract places numerous restrictions on third-party websites that seek to access a Facebook user's data.[109] One of these restrictions is that a third-party service may not collect or request a user's Facebook login information or implement any feature that would have the effect of collecting or requesting a user's login information.[110] Presumably, the purpose of this restriction is to force third-party websites to use Facebook Connect, an application designed by Facebook that controls the flow of information between Facebook and the third-party service.[111]

As discussed above, the Statement of Rights and Privacy Policy incorporate a user's privacy-settings and application-settings pages.[112] The privacy-settings page allows a user to control which people have access to that user's data.[113] Thus, users could set up their privacy settings such that the public at large could view their list of favorite movies but only their personal friends could see their photo album.[114] The application-settings page allows users to link their Facebook profiles to various other social networks, thereby addressing the SNP interest.[115]

As demonstrated above, Facebook's incorporation of a user-configurable settings page into its Terms of Use allows for a measure of contractual flexibility that is otherwise unavailable with most standard-form contracts. Nevertheless, settings-based contracts do little to address the oft-cited criticism that users typically consent to standard-form contracts without having read those contracts.[116] Additionally, settings-based contracts have two significant limitations that render them impracticable in many other contexts.

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108 *See Facebook Platform Policies*, *supra* note 101.

109 *See id.* ¶¶ 1–2.

110 *See id.* ¶ 1.

111 *See* Dave Morin, *Announcing Facebook Connect*, FACEBOOK DEVELOPERS (May 9, 2008, 12:32 PM), http://developers.facebook.com/blog/post/108.

112 *See supra* notes 104–07 and accompanying text.

113 *See Choose Who You Share with*, FACEBOOK HELP CENTER, http://www.facebook.com/help/privacy/sharing-choices (last visited Aug. 8, 2012).

114 *See id.*

115 *See Linked Accounts*, FACEBOOK HELP CENTER, http://www.facebook.com/help/?page=223140837711535 (last visited Aug. 8, 2012). To be sure, Facebook limits the SNPs to which a user can link a profile. Power.com, for example, is not one of the available options. *See General Account Settings*, FACEBOOK, https://www.facebook.com/settings?ref=mb (log in with a Facebook account; then click on "Linked Accounts") (last visited Aug. 8, 2012).

116 *See* Hillman & Rachlinski, *supra* note 9, at 434–37 (summarizing some of the common problems with standard-form contracts).

The first significant limitation to the use of settings-based contracts is that they require an ongoing relationship between the vendor and consumer that relates to the transaction at hand.[117] Without such a relationship, it is impracticable to incorporate a user-specific settings page into the terms of that transaction.[118] Many online transactions do not involve ongoing relationships between vendors and consumers.[119] For example, many websites allow consumers to purchase products without creating a long-term relationship.[120] Other vendors might encourage consumers to create customer accounts,[121] but these accounts do not relate to any specific transaction.[122] For example, consumers who create an Amazon.com customer account can use their account-settings page to control whether Amazon.com sends them promotional offers, but they cannot use that page to separately customize the terms of each individual purchase.[123]

The second limitation is that a settings-based contract is only feasible in situations in which a vendor faces negligible transaction costs when its consumers change their preferences. Under a settings-based contract, consumers are free to change their account settings on a whim. For example, a Facebook user might decide to make a photo album available to everyone on Monday morning, to make the album private on Monday evening, and then to share the album with friends on Tuesday morning. Thus, a settings-based contract can become very expensive for a vendor to maintain if the vendor must expend resources to accommodate changes in its users' preferences. It might be impracticable, for example, for a data-storage company to allow its

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117 *See supra* notes 17–21 and accompanying text.

118 *See id.*

119 *See id.*

120 *See Account Optional*, PAYPAL, https://www.paypal.com/uk/cgi-bin/webscr?cmd=xpt/cps/general/OptionalAccount-outside (last visited Aug. 8, 2012) (discussing the advantages of allowing users to purchase goods and services without having to create an account); *see, e.g.*, *Pay Securely Online*, NUTMEG HOUSE, http://www.thenutmeghouse.com/rooms_and_rates/pay_securely_online_with_paypal-_no_paypal_account_necessary (last visited Aug. 8, 2012) (using PayPal's "Account Optional" service to sell room reservations to customers without prompting customers to create an account).

121 *See, e.g.*, *Select Checkout Method*, BEST BUY, https://www-ssl.bestbuy.com/site/olspage.jsp?id=pcat17002&type=page&_requestid=226820 (last visited Aug. 8, 2012) (encouraging purchasers to create an account before placing an order).

122 *See, e.g.*, *Create a BestBuy.com Account*, BEST BUY, https://www-ssl.bestbuy.com/site/olspage.jsp;jsessionid=C9A7F5417DBB15D32A96FEC3D2982BDE.bbolsp-app01-05?id=pcat17001&type=page (last visited Aug. 8, 2012) (allowing users to sign up for accounts without requiring any specific purchase).

123 *See Conditions of Use*, AMAZON, http://www.amazon.com/gp/help/customer/display.html/ref=hp_551434_conditions?nodeId=508088 (last updated Aug. 19, 2011) ("If you visit or shop at Amazon.com, you accept these conditions.").

customers to frequently change their data-storage location preferences.[124]

To be sure, a vendor might implement some system to limit the frequency in which its consumers can change their account settings. However, this approach would entail monitoring costs as well and might substantially increase the complexity of a settings page. Additionally, savvy users could bypass many frequency controls by simply setting up multiple accounts with the same vendor.

In addition to its limited applicability, the settings-based contract suffers from many of the same problems that plague standard-form contracts. Namely, a settings-based contract does not encourage consumers to read the terms of the contract, and it does not truly give consumers any more bargaining power. This problem arises because consumers do not customize their account settings as part of the contracting process. Instead, users must first create an account—which requires that they agree to the vendor's terms of use—before they can access their account settings.[125] Moreover, the fact that consumers can change their terms after accepting the contract further reduces the need for consumers to read the contract in the first place.

Furthermore, a settings-based contract gives vendors the ability to add or remove customization options from its customers' account-settings pages. Facebook, for example, has removed a number of customization options from its privacy-settings and application-settings pages.[126] By retaining the ability to add or remove customization options, a vendor reduces the extent to which its customers can rely on its contract. This would presumably reduce the amount of additional consideration that a vendor can extract from its customers in return for presenting its customers with a customizable contract.

IV
INTERACTIVE CONTRACTS

To resolve the issues described above, I suggest that vendors use interactive contracts. An interactive contract takes the form of a standard-form contract except that, for certain parts of the contract, a user can select between several different clauses, each of which has been predrafted by the vendor. This Part begins by describing the process of drafting and executing an interactive contract and then

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124 Transferring data over the Internet requires bandwidth, which costs money. *See, e.g.*, Joseph Scott, *How Much Does One Terabyte of Bandwidth Cost?*, JOSEPH SCOTT (Jan. 22, 2009), http://josephscott.org/archives/2009/01/how-much-does-one-terabyte-of-bandwidth-cost/ (surveying the cost of transferring one terabyte of bandwidth per month).

125 *See supra* notes 18–21 and accompanying text.

126 *See Dig into the Details*, FACEBOOK, https://www.facebook.com/about/details/ (last visited Aug. 8, 2012).

compares the interactive contract to the settings-based contract and typical standard-form contract. Finally, this Part examines some of the costs and problems associated with interactive contracts.

A. The Interactive-Contracting Process

At the drafting stage, a vendor must first determine which terms it wants to make customizable. A website-hosting company might, for example, want to let consumers specify what operating system they want their websites hosted on, where they want the company to store their data, and what security provisions they want to apply to their data. The vendor may then decide whether to make such customization free for the consumer or to extract some additional consideration. For example, a vendor might decide to allow consumers to select a different venue in a choice-of-venue clause but to require that the consumer pay an additional amount or consent to a shorter warranty period. The vendor then needs to decide what its "default" should be for each of the customizable terms in case a consumer does not select a term. After making these decisions, a vendor must draft each of these terms and decide on a way to present these terms to consumers in a way that invites consumer interaction.

The way in which a vendor presents these customizable terms will likely affect how consumers (and courts) treat the contract. A vendor might choose to place all the customizable terms at the beginning of the contract to maximize user interaction, similar to the way social networks place customizable terms in a user-settings page. Such an approach would not encourage consumers to read the rest of the contract, however. As a result, this approach would likely subject the interactive contract to the same judicial criticism suffered by typical standard-form contracts.

Alternatively, a vendor could place the customizable terms in the body of the contract. For example, the "litigation" section of the contract could present a choice-of-venue clause that would allow consumers to select between several venues. This approach would encourage consumers to read the entire contract, but it may result in consumers simply ignoring the customizable terms if the entire contract is too long or confusing. A middle-ground approach would be to place the customizable terms within the body of the contract but to create a separate "summary of customizable terms" that links consumers to the parts of the contract containing the customizable terms. Presumably, the second approach would be ideal for short and simple contracts while the middle-ground approach would be ideal for longer contracts.

When a consumer wants to purchase a product from a vendor, the vendor will present the consumer with its interactive contract and

alert the consumer that some of the terms are customizable. At this point, each of the customizable terms will be set to the vendor's default option. The consumer, however, can click on any of the default options and select one of the vendor's other pre-drafted options. Using the choice-of-venue example, the default term might read, "All disputes shall be resolved by a court of competent jurisdiction in the State of [New York]." The consumer could then click on the New York text (which would create a pull-down menu) and then select "[New Jersey]". If the vendor wants to extract additional consideration from this choice, the vendor would place that additional consideration next to the "New Jersey" option. After the consumer finishes customizing the contract, the consumer would click the "I accept" button. At this point, the terms of the contract would become fixed and neither party could modify them unless the contract indicates otherwise.

B. Comparing Interactive Contracts to Standard-Form Contracts and Settings-Based Contracts

Unlike a settings-based contract, an interactive contract invites input from consumers throughout the contracting process. Moreover, because the terms of an interactive contract are fixed once the consumer clicks "I accept," both consumers and vendors can better rely on the contract. As a result, vendors can use interactive contracts in many situations to avoid the limitations that relate to settings-based contracts and to help alleviate some of the problems that standard-form contracts face.

Both interactive contracts and settings-based contracts (together, "flexible contracts") retain the same scales of economy as typical standard-form contracts. Like standard-form contracts, flexible contracts do not involve an actual bargaining process between the vendor and each of its consumers. To be sure, flexible contracts are likely more expensive to prepare than standard-form contracts. However, as with a standard-form contract, a vendor need only prepare a flexible contract once; afterward, the vendor can use the contract as many times as it wants.

Moreover, the use of a flexible contract allows both vendors and consumers to avoid some of the efficiency losses that result when a consumer is willing to pay more for a specific contractual term but is unable to do so due to the lack of a negotiation process. With an interactive contract, a vendor can bundle terms that are more desirable to consumers with either a monetary fee or some other term that may be more desirable to the vendor.

As compared to both standard-form and settings-based contracts, interactive contracts may provide consumers with a greater incentive

to actually read the contract. Some users may not bother to read standard-form contracts because they know that, even if they disagree with some of the terms of the contract, they are not able to vary or remove those terms.[127] As discussed in Part III, settings-based contracts do not address this concern. Interactive contracts, however, alleviate this problem by giving users some control over the terms of the contract that they accept, and, importantly, the users only retain this control prior to accepting the contract.

In light of the above, courts should be more willing to enforce interactive contracts than standard-form, or even settings-based, contracts. Based on the language in *Specht*, a user's act of selecting a particular provision would likely constitute an "unambiguous manifestation of assent,"[128] at least with respect to that provision. Arguably, the act of selecting a particular contractual provision and then clicking an "I accept" button constitutes a greater act of assent than merely clicking an "I accept" button.

This is not to say that interactive contracts are categorically superior to settings-based contracts. A settings-based contract is likely superior in situations in which a vendor wants to give consumers the chance to change terms frequently and to preserve its right to control the terms that its consumers can customize. Nevertheless, a vendor can use interactive contracts in many contexts where a settings-based contract would otherwise be inapt.

C. Potential Barriers to Interactive Contracting

Perhaps the most significant barrier to implementing interactive contracts is that these contracts will be more expensive to draft. Attorneys must consider all the different variations in provisions and how these provisions will interact with each other when combined in various ways. While the cost of preparing an interactive contract will only be a one-time expenditure, this initial expense may still present a significant barrier to implementation.

This increase in cost may also act as an effective and beneficial check against vendors making their contracts too interactive. While consumers may benefit from having the ability to customize parts of their contracts, one can easily conceive of a contract that contains so many variations that consumers become overwhelmed by choice. Such a contract would likely be prohibitively expensive to prepare, while a contract that offers only one or two customizable terms should be comparatively cheap.

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127 *See* Hillman & Rachlinski, *supra* note 9, at 432–33.

128 *Cf.* Specht v. Netscape Commc'ns Corp., 306 F.3d 17, 29, 31 (2d Cir. 2002) (finding that clicking a "download" button does not manifest assent to contract terms where the offeror has not made clear that clicking the "download" button signifies assent).

Another potential problem with interactive contracting is that all of the benefits of interactivity depend upon consumers actually interacting with the contract and choosing between terms. The extent of this problem will depend to a large extent on how a vendor presents the customizable terms. A vendor can maximize the chance of interaction by placing all of its customizable terms in a separate, prominent location. However, such a placement would disincentivize consumers from reading the rest of the contract. This disincentive, in turn, might undermine the enforceability of the contract. On the other hand, a vendor can incentivize consumers to read the entire contract by placing its customizable terms within the body of the contract. This approach, of course, would reduce the likelihood that consumers will interact with those terms.

Another factor that may influence the degree to which consumers interact with a vendor's contract is the degree to which a vendor's consumers interact with each other. Social networks, for example, allow users to easily communicate with each other. Thus, the few users who bother to read their terms of service can easily contact their friends to express their thoughts about the terms.[129] These friends, in turn, may then be interested enough to actually look at the terms.[130]

Other vendors can foster interaction between their consumers by placing community forums on their websites to allow users to interact with each other. Many retail websites already provide such a service, albeit for product reviews.[131]

Conclusion

With modern Internet technology, vendors today can now replace the aging standard-form contract with a more robust, user-customizable contract. Social networks have already seized upon this technology to design standard-form contracts that incorporate account-settings pages, thereby giving users some measure of control over the terms of these contracts.[132] Settings-based contracts can be difficult to implement in other industries, however, as they require that the vendor maintain some sort of ongoing relationship with the consumer. Without such a relationship, consumers do not have an

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129 There are several examples of this phenomena occurring. *See, e.g.*, *People Against the New Terms of Service (TOS)*, Facebook, http://www.facebook.com/group.php?gid=77069107432 (last visited Aug. 8, 2012) (log in with a Facebook account).

130 *See* Danah Boyd & Eszter Hargittai, *Facebook Privacy Settings: Who Cares?*, 15 First Monday (Aug. 2, 2010), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3086/2589.

131 *See, e.g.*, *Customer Reviews of Spore*, Amazon, http://www.amazon.com/Spore-Mac/product-reviews/B000FKBCX4 (last visited Aug. 8, 2012) (displaying users' comments about the simulation game Spore).

132 *See supra* text accompanying notes 17–21.

account-settings page through which they can control the terms of their contracts.

Moreover, settings-based contracts may give vendors and consumers too much flexibility. These contracts typically give vendors discretion to add or remove customization options from their customers' account-settings pages, thereby reducing the extent to which their customers can rely on the contract. On the other hand, consumers are free to adjust their account settings on a whim, and a vendor may find itself struggling to continually accommodate each users' change in preferences.

The same technology that social networks employ to create settings-based contracts can be modified to create interactive contracts. Unlike a settings-based contract, an interactive contract invites feedback from consumers during the contracting process. Both vendors and consumers can benefit from this form of contracting. Vendors benefit because interactive contracts may be more likely to withstand judicial scrutiny than standard-form or settings-based contracts. Interactive contracting also allows vendors to extract additional consideration from consumers who may be willing to pay a premium for certain terms. On the other end, consumers benefit from interactive contracting because they have more control over the terms of their contracts. While the classic bargained-for contract still remains largely impractical in the online mass-consumer culture, interactive contracting brings both vendors and consumers one step closer to a virtual bargaining table.