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**Open Legislation Development**

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# Open Legislation Development

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¶1 The federal legislative process was designed to give “ample opportunity to all sides to be heard and make their views known.”<sup>1</sup> But one-sided political agendas and special interests have increasingly dominated the development of legislation and opposing interests are being shut out of the process.<sup>2</sup> Unfortunately, this “closed legislation development” is likely to continue. External pressures to change how legislation is developed do not exist, and the caution and conservatism of the system resists internal innovation.<sup>3</sup>

¶2 The software industry has traditionally used a similar closed development process where one-sided interests dominate the agenda. But unlike the legislation development arena, the software development industry allows itself to be reinvented through continuous innovation in various areas. The specific innovation of interest to this paper is a process of developing software that is “open,” encourages all sides to be heard, and thrives on diverse participation. This innovation—labeled open source, or the open software development model—has been successfully used on software projects of different sizes and has even been applied to projects outside the software industry. This paper proposes that legislation can be developed using this open development model, which will encourage views and participation from all sides.

¶3 The first section of this paper describes the traditional—or closed—software development model that dominated the software industry for the majority of its existence and is still used today. The participants, their respective roles, and the community structure of the closed software development project are similar to those in the current legislation development process. Because of these similarities, this paper posits by analogy that a legislation development project that adopts the open model for its participants, community structure, and development methodology will realize benefits similar to those seen in an open software development project.

¶4 Part II introduces the open development model, specifically in the software context, and describes how the principles of the model can be applied to the development of legislation. The open development model uses the Internet to facilitate broad participation, relies on the resulting community to structure and monitor itself, decentralizes and modularizes the development, and opens up the entire process and development details to the public. The “open” label not only applies to the open participation, but also to the publicly-accessible internal information.

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<sup>1</sup> CHARLES W. JOHNSON, HOW OUR LAWS ARE MADE, H.R. DOC. NO. 108-93, at 1 (23rd ed. 2003).

<sup>2</sup> WILLIAM J. KEEFE & MORRIS S. OGUL, THE AMERICAN LEGISLATIVE PROCESS: CONGRESS AND THE STATES 2, 4–5 (10th ed. 2001). If opposing interests do not participate in the development of legislation, they can have, at best, minimal influence over the “political, economic, and social advantages” that are doled out by the legislative process. *Id.* at 3.

<sup>3</sup> *Id.* at 7.

¶5 Part III describes the current legislation development process and then narrows the scope of this paper in two ways. First, this paper only attempts to apply the open development model to the federal legislation development process that occurs before the legislation is introduced into Congress. Second, this paper assumes that only Members of Congress and their staff will utilize this open development model, although other legislation initiators may find it beneficial. Part III then shows the steps a Member of Congress can take in order to implement the open development model.

¶6 Part IV points out the similarities between software and legislation development and uses these similarities to show why the open development model will be successful when applied to the development of legislation. Part IV also describes some aspects of the community and development environment that will form around an open legislation development project.

¶7 The open development of legislation can have implications that extend far beyond the actual legislation development process. Part V considers what may happen in Congress and the courts when they confront a piece of openly developed legislation. It then expands the discussion of open legislation development to the direct democracy process (i.e. referendums and initiatives).

¶8 Part VI sets forth several examples where aspects of this proposal have been successfully implemented and well-received. However, since none of the examples have gone as far as this paper proposes, many of the benefits described herein have not yet been realized.

## I. THE CLOSED SOFTWARE DEVELOPMENT MODEL

¶9 The software industry has traditionally developed software using a model that is analogous to a standard business model—an employer hires employees, pays them a salary, tells them what to work on, and then sells the product that results from their work. The company’s organizational structure is well-defined and the projects are controlled by a few high-level employees. In the software industry, this organization is structured into managers, architects, and implementers.<sup>4</sup> The manager sets project goals and defines the tasks and roles based on those goals.<sup>5</sup> These tasks and roles can be defined at the start of the project because the project resources (monetary, physical, and human) are often known in advance and remain static throughout the project’s development cycle.<sup>6</sup> The architects determine the project requirements and create a detailed system design from the project goals.<sup>7</sup> Any changes or additions to the project go through the architects

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<sup>4</sup> Gregorio Robles, *A Software Engineering Approach to Libre Software*, 2004 OPEN SOURCE JAHRBUCH 193, 195, available at [http://www.opensourcejahrbuch.de/download/jb2004/chapter\\_03/III-3-Robles.pdf](http://www.opensourcejahrbuch.de/download/jb2004/chapter_03/III-3-Robles.pdf).

<sup>5</sup> *Id.* at 194.

<sup>6</sup> *See id.* at 199 (“The traditional development model . . . knows anytime the human resources which it has for the accomplishment of tasks . . .”).

<sup>7</sup> Charles B. Weinstock & Scott A. Hissam, *Making Lightning Strike Twice*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 143, 149 (Joseph Feller et al. eds., 2005). And in order to maintain the architectural integrity of a system, the system design is done by as few architects as possible. FREDERICK P. BROOKS, JR., THE MYTHICAL MAN MONTH: ESSAYS ON SOFTWARE ENGINEERING 44 (Anniversary ed. 1995).

before being accepted and implemented.<sup>8</sup> The implementers then create a solution based on the design of the architects.<sup>9</sup>

¶10 The “closed” label of this development model stems from the fact that the participants (e.g. employees) inside the development community (e.g. company) are closed off from those outside the development community. The internal participants may choose to solicit information and ideas from outside the community, but an external person can not unilaterally contribute to the project.<sup>10</sup> The closed development model excludes external participation for two reasons. First, closed development projects often have limited resources to compensate participants for their work<sup>11</sup>—a project can only include a certain number of paid participants and must exclude everyone else. Second, the company developing the product may want to prevent external access to its internal data and implementation details—to protect the product’s sale value (if selling the product), prevent its competitors from gaining access to the product (if using the product internally), or for some other reason.<sup>12</sup> The exclusive access to the internal data also contributes to the “closed” label of this development model.

## II. THE OPEN SOFTWARE DEVELOPMENT MODEL

¶11 In 1991, Linus Torvalds created the first version of the Linux operating system and released its source code onto the Internet for comments, ideas, and collaborative changes.<sup>13</sup> This act sparked the open software development model by allowing anyone with an Internet connection to contribute to the final product.<sup>14</sup> Since then, many products using this open software development model have become more successful than their proprietary software counterpart.<sup>15</sup> One reason for the success of the open development model is the quality of the products that it produces. For example, 12 years after Linux was first released, it contained 5.7 million lines of code and had around

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<sup>8</sup> Audris Mockus et al., *Two Case Studies of Open Source Software Development: Apache and Mozilla*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 163, 170 (Joseph Feller et al. eds., 2005).

<sup>9</sup> Weinstock & Hissam, *supra* note 7, at 149.

<sup>10</sup> See BROOKS, *supra* note 7, at 54 (noting that the architect usually only works with one contractor—the internal implementers).

<sup>11</sup> *See id.*

<sup>12</sup> See ERIC S. RAYMOND, *The Magic Cauldron*, in THE CATHEDRAL AND THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY 113, 128–29 (rev. ed. 2001), available at <http://www.catb.org/~esr/writings/cathedral-bazaar/magic-cauldron>.

<sup>13</sup> ERIC S. RAYMOND, *A Brief History of Hacking*, in THE CATHEDRAL AND THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY 3, 15–16 (rev. ed. 2001), available at <http://www.catb.org/~esr/writings/cathedral-bazaar/hacker-history>.

<sup>14</sup> *Id.* at 16. The idea of free and open source software has been around since the 1950s, predating proprietary software. Robles, *supra* note 4, at 193 n.2. However, the groundwork for the open development model was not laid until the proliferation of the Internet. *Id.* at 193.

<sup>15</sup> *E.g.*, September 2008 Web Server Survey, [http://news.netcraft.com/archives/2008/09/30/september\\_2008\\_web\\_server\\_survey.html](http://news.netcraft.com/archives/2008/09/30/september_2008_web_server_survey.html) (last visited Oct. 11, 2008) (a survey of 181,277,835 websites show that the open source Apache Web Server is used more often than the closed source Microsoft IIS Web Server); Josh Lerner & Jean Tirole, *Economic Perspectives on Open Source*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 47, 49 (Joseph Feller et al. eds., 2005) (the open source Sendmail application “[h]andles ~80 percent of [I]nternet e-mail traffic,” significantly more than the closed source Microsoft Exchange Server).

25,000 fewer errors per million lines of code than software developed using the traditional model.<sup>16</sup>

¶12 The open development model has also expanded to areas other than software, such as publishing, music, and science.<sup>17</sup> Wikipedia, as one example, uses an open development model (albeit slightly different than the one described here<sup>18</sup>) to create a free encyclopedia that attracts at least 684 million visitors per year.<sup>19</sup> The Wikipedia project contains “more than 10,000,000 articles in more than 250 languages” with more than 75,000 people actively participating by creating, aggregating, and editing content.<sup>20</sup> In the science industry, The Synaptic Leap provides the tools to foster an “open, collaborative research community” and allows the participants to create any medical research project that they want.<sup>21</sup> Finally, in the music context, Opsound encourages participants to “download, share, remix, and reimagine” the music of other participants.<sup>22</sup>

#### A. Organization of the Development Community

¶13 On its surface, the participants of an open development project might appear to be structured in a similar manner as participants in a closed development community. Both communities have project leaders who direct the process, experts who design the product, and workers who implement the design. But it is in the creation and maintenance of the community where the advantages of the open development structure become apparent. An open development community organically forms and continuously evolves by allowing the community as a whole to select its leaders, choose the best designs, and determine the direction of the project.<sup>23</sup> Community members also play a large part in determining their own role.<sup>24</sup> This self-selection of roles maximizes each member’s contribution by ensuring the person’s interest, experience, and skills are optimally assigned.<sup>25</sup>

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<sup>16</sup> Coverity’s Kernel Code Quality Study (Dec. 14, 2004), <http://lwn.net/Articles/115530/> (citing research that shows the Linux kernel, as of version 2.6, had 985 bugs in 5.7 million lines of code, whereas commercial software typically has 20 to 30 bugs per every 1000 lines of code); Jim Wagner, Linux 2.6 Unleashed (Dec. 18, 2003), <http://www.internetnews.com/dev-news/article.php/3290841> (announcing the release of version 2.6 of the Linux kernel).

<sup>17</sup> And following this trend, this paper proposes expanding the open development model to another area—legislation development.

<sup>18</sup> Wikipedia allows anyone from around the world to contribute to the final product, which is “factual, notable, verifiable with external sources, and neutrally presented, with external sources cited.” Wikipedia, Wikipedia: About, <http://en.wikipedia.org/wiki/Wikipedia:About> (last visited Oct. 18, 2008) (the cited page is the version last edited on Oct. 16, 2008 at 18:34 UTC). The “community is largely self-organising,” where roles are chosen by the participants and approved by their peers. *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> The Synaptic Leap, Welcome, <http://www.thesynapticleap.org> (last visited Oct. 18, 2008).

<sup>22</sup> Opsound: Free Love, Free Music, <http://www.opsound.org> (last visited Oct. 18, 2008).

<sup>23</sup> Robles, *supra* note 4, at 195.

<sup>24</sup> Ko Kuwabara, *Linux: A Bazaar at the Edge of Chaos*, FIRST MONDAY, Mar. 2000, [http://firstmonday.org/issues/issue5\\_3/kuwabara/index.html](http://firstmonday.org/issues/issue5_3/kuwabara/index.html). (“[I]t is up to the individual [] to ‘figure out what needs doing, and what [they] want to do, and then just do it.’”) (internal citation omitted).

<sup>25</sup> ERIC S. RAYMOND, *The Cathedral and the Bazaar*, in THE CATHEDRAL AND THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY 19, 31–32 (rev. ed. 2001), available at <http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar>; Kuwabara, *supra* note 24.

## 1. Leadership

¶14 Open development projects often start when a person encounters a problem and is motivated to fix it.<sup>26</sup> The person first develops a working prototype<sup>27</sup> of the program to show that the idea has potential and to structure the discussion by narrowing the topic.<sup>28</sup> The prototype is then released to the public and can be used to gauge interest in solving the problem.<sup>29</sup> This initial developer acts as the project leader,<sup>30</sup> but the leader can abdicate the position at any time or the community can elect a different leader—simply by transferring its attention to a different person.

¶15 In the open development model, a leader has no formal authority, but constructive authority is given if the community values the leader’s vision and recommendations.<sup>31</sup> The leader’s most important attribute is the commitment to the open development model and the trust that the participants have in the leader.<sup>32</sup> Not surprisingly then, the actual leadership structure is less important and can vary widely—from a single person<sup>33</sup> to an entire group.<sup>34</sup>

## 2. Core Group

¶16 Although many people participate in open development projects, only a small number are actually responsible for the majority of what is produced. Studies have shown that the open development model follows the Pareto Law: twenty percent of the participants produce eighty percent of the product.<sup>35</sup> The other eighty percent may also substantively contribute to the product, but they are mainly active in proposing ideas, discussing and researching solutions, maintaining infrastructure, and performing other non-core tasks.<sup>36</sup>

¶17 When changes are proposed to an open development product, they move up through the discussion chain to the core group that adjudicates the change process within the community.<sup>37</sup> However, it is still the community as a whole that determines the

<sup>26</sup> Lerner & Tirole, *supra* note 15, at 61; RAYMOND, *supra* note 13, at 23–24.

<sup>27</sup> The prototype is often a “runnable and testable” skeleton of the product’s requirements. Lerner & Tirole, *supra* note 15, at 61. However, the prototype can be more complete and can be released by more than one person. Several successful open development projects have started when a company decides to take a mature closed development project and make it open. *Id.* at 67–68.

<sup>28</sup> *Id.* at 63.

<sup>29</sup> Weinstock & Hissam, *supra* note 7, at 149, 156.

<sup>30</sup> Lerner & Tirole, *supra* note 15, at 63.

<sup>31</sup> *Id.* at 64 (“[A] leader’s ‘recommendations,’ broadly viewed, tend to be followed by the vast majority of programmers working on the project.”).

<sup>32</sup> *Id.* at 65.

<sup>33</sup> *E.g.*, Linus Torvalds Biography, <http://www.linfo.org/linus.html> (last visited Sept. 28, 2008) (“[Linus Torvalds] makes the final decisions regarding which of the many proposed modifications and additions will be incorporated into [the Linux kernel].”).

<sup>34</sup> *E.g.*, Mockus et al., *supra* note 8, at 171–172 (“The Apache Group (AG), the informal organization of people responsible for guiding the development of the Apache HTTP Server Project . . .”).

<sup>35</sup> Robles, *supra* note 4, at 200.

<sup>36</sup> Stefan Koch & Jesus M. Gonzalez-Barahona, *Open Source Software Engineering—The State of Research*, FIRST MONDAY (SPECIAL ISSUE #2: OPEN SOURCE), Oct. 2005, [http://firstmonday.org/issues/special10\\_10/koch/index.html](http://firstmonday.org/issues/special10_10/koch/index.html).

<sup>37</sup> Robert L. Glass, *Standing in Front of the Open Source Steamroller*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 81, 87 (Joseph Feller et al. eds., 2005).

future direction of the product.<sup>38</sup> The community does this by proposing additional requirements or new features and working on the areas of the product that personally interest them. A product requirement or feature that moves the product in a direction that the community does not like will not attract any workers and therefore will not be implemented.

### B. Constituency of the Development Community

¶18 The community of an open development project is composed of people with similar interests or goals who join together to solve the specific problem addressed by the project. The community is non-exclusive, which means that anyone may join any project at any time, just as anyone may start a new project at any time. The two factors that keep closed development projects exclusive—limited resources and competition—do not exist in the open development model. The first factor for exclusivity—limited resources—does not exist because open development projects do not inherently have any financial resources. Every participant is a volunteer and the volunteers use their own resources.<sup>39</sup> The second factor for exclusivity—competition—does not exist (or does not matter) because people will choose to participate in the project that best solves the problem, leaving the competitor with no participants.<sup>40</sup> The participants are mainly concerned about solving a problem, not about sales, market share, or any of the competitive issues present with closed development products.

¶19 The non-exclusive nature of the development community gives open development projects the potential for a constituency that is larger and more diverse than a closed development project could ever achieve.

#### 1. Mass Participation

¶20 The open development model “has the inherent ability to quickly gather a large number of users”<sup>41</sup> as shown by open development projects with as many as 40,000 participants.<sup>42</sup> As the number of participants in an open development project increases,

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<sup>38</sup> See Weinstock & Hissam, *supra* note 7, at 149.

<sup>39</sup> Although every participant is a volunteer, many participants are paid by companies to work on open development projects. In fact, 40% of all open software development project participants are either paid to specifically work on them or work on the projects as part of their normal job function. Karim R. Lakhani & Robert G. Wolf, *Why Hackers Do What They Do*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 3, 19 (Joseph Feller et al. eds., 2005). Companies pay these volunteers because the company either uses the open software internally or they provide solutions based on the software and want specific improvements or additions to the software. *Id.* at 6. For an explanation of why these people volunteer their time and resources, see Part IV.A.2.

<sup>40</sup> See discussion on “forking” *infra* note 73.

<sup>41</sup> Posting of Juergen Brendel to SnapLogic, Constructing the Bazaar: Taking Advantage of the Open-Source Development Model in Your Project, <http://blog.snaplogic.org/?cat=38> (Nov. 5, 2007).

<sup>42</sup> As of January 21, 2008, there are over 500,000 open software development projects available on the major open software repositories. Doc Searls, *What Open Code Developers Can Teach PR*, LINUX JOURNAL, Jan. 21, 2008, available at <http://www.linuxjournal.com/node/1006100>. This does not include the many open software development projects that are available on minor open software repositories or individual websites. *Id.* Some open development projects only have a single developer, but most of the projects have multiple developers. *Id.* In fact, one open software development project has involved more than 40,000 active participants. Kuwabara, *supra* note 24.

the benefits of the open development model become more apparent.<sup>43</sup> For example, more problems with a product will be discovered as more people participate because each person thinks about and uses the product differently.<sup>44</sup> Finding the source of a problem also becomes easier because a problem can manifest itself differently to different users.<sup>45</sup> Given enough participants, every problem will be characterized quickly and the fix will be obvious to someone.<sup>46</sup>

## 2. Decentralized and Diverse Participants

¶21 Having a large number of people participate in an open development project does not achieve the maximum benefit if all the participants have similar views and use the product in similar ways. A diverse group of participants in an open development project is thus essential to the success of the project because it leads to many different points of view and ways of using the product. The quality, reliability, and stability of an open development product is highly dependent on the different ways the product is analyzed and critiqued.<sup>47</sup>

¶22 The decentralized nature of open development projects leads to a diverse group of participants in part because the participants do not have to live in the same region. As long as an individual has access to a computer and the Internet, that person can contribute to any open development project. This decentralized structure allows open development projects to efficiently utilize the varied human resources located throughout the world.<sup>48</sup>

¶23 Research shows that the distribution of natural intelligence does not correspond to the richest companies or richest countries.<sup>49</sup> Closed development projects are typically centralized and exclusive, so they are not able to take advantage of resources outside of their physical or topical areas.<sup>50</sup> Open development projects successfully bridge the gap between the distribution of ability and the distribution of opportunity.<sup>51</sup>

### C. Properties of Openly Developed Products

¶24 Software products developed using the open development model have certain inherent properties. At least two of these properties—publicly accessible internal information and modular design—also appear in the end-product of openly developed legislation.

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<sup>43</sup> Kuwabara, *supra* note 24.

<sup>44</sup> RAYMOND, *supra* note 25, at 32 (“[A]dding more users adds more different ways of stressing the program.”).

<sup>45</sup> *Id.* at 36.

<sup>46</sup> *Id.* at 30–31, 36.

<sup>47</sup> Glass, *supra* note 37, at 81, 87.

<sup>48</sup> Kuwabara, *supra* note 24 (“[T]hrough decentralization, the rich and varied human resources of the community are allocated much more efficiently.”).

<sup>49</sup> David A. Wheeler, *Why Open Source Software / Free Software (OSS/FS, FLOSS, or FOSS)? Look at the Numbers!*, Apr. 16, 2007, [http://www.dwheeler.com/oss\\_fs\\_why.html](http://www.dwheeler.com/oss_fs_why.html).

<sup>50</sup> Even multinational corporations that can be found in almost all countries concentrate their activities and investment in the wealthiest ten countries. ANCA METIU & BRUCE KOGUT, *DISTRIBUTED KNOWLEDGE AND THE GLOBAL ORGANIZATION OF SOFTWARE DEVELOPMENT 2* (Feb. 2001), *available at* <http://opensource.mit.edu/papers/kogut1.pdf>.

<sup>51</sup> Wheeler, *supra* note 49.

## 1. Publicly Accessible Internal Information

¶25 Since open development projects are not concerned with competition,<sup>52</sup> the internal project and product information can be opened to the public. This is usually done by making the implementation details available on the Internet and holding discussions in an open forum (e.g. on a listserv or a wiki) with an archived history of the discussions. The open and available information gives would-be competitors the opportunity to improve the existing product instead of creating a competing product.<sup>53</sup>

¶26 In open development projects, every asset associated with the product's design and development is available to the public: documentation, modules, models, patterns, discussions, implementation details, et cetera.<sup>54</sup> This allows participants and the public to not only access the implementation details of a product, it gives them access to the reasons and rationales that support a specific implementation as well.

¶27 Open development projects receive two benefits from opening up the internal project and product information that are not available to their closed development counterparts. First, every asset in an open development project can be copied and reused by a different project, which allows open development projects to avoid "reinventing the wheel." Instead, developers focus on the problems that are unique to their project. Second, the availability of information created by open development encourages complete and in-depth empirical research.<sup>55</sup> This research allows the community to learn what works, what does not work, and how future projects and processes can be improved.<sup>56</sup>

## 2. Modular Design

¶28 Some argue that increasing the number of participants slows down the development of a product.<sup>57</sup> They show that communication overhead rises as more people participate.<sup>58</sup> This overhead decreases the stability of the product because errors tend to cluster at the interfaces of work done by different actors.<sup>59</sup>

¶29 The open development model overcomes this problem by inherently encouraging a modular product design. The distributed nature of the participants creates a natural limit on how many people can effectively communicate at one time. When the number of participants starts to limit productivity, the project will naturally split into smaller projects, called modules.<sup>60</sup>

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<sup>52</sup> See *supra* Part II.B.

<sup>53</sup> See discussion on "forking" *infra* note 71.

<sup>54</sup> Koch & Gonzalez-Barahona, *supra* note 36.

<sup>55</sup> *Id.*

<sup>56</sup> Lerner & Tirole, *supra* note 15, at 47, 60.

<sup>57</sup> BROOKS, *supra* note 7, at 25 (this observation is often referred to as "Brooks's Law"—"Adding manpower to a late software project makes it later").

<sup>58</sup> *Id.* at 17–18.

<sup>59</sup> RAYMOND, *supra* note 25, at 34. The number of communication interfaces to actors can be described using the mathematical formula  $N*(N-1)/2$  where N is the number of actors. *Id.* at 35.

<sup>60</sup> Brendel, *supra* note 41 ("[M]ost module teams are smaller than six individuals. Whenever a group gets too big, it naturally tends to split in order to reduce the complexity and communication overheads again.").

¶30 One benefit of modular development is that it gives new participants the opportunity to contribute to complex projects.<sup>61</sup> The participant only needs to understand a single module and not the complexity of the entire project. The participant can then learn each module individually, eventually becoming familiar with the entire project.

### III. LEGISLATION DEVELOPMENT

¶31 The current process for developing federal legislation can be divided into two stages. The latter stage—the “official”<sup>62</sup> legislation development process—starts when a Member of Congress introduces a piece of legislation into the House of Representatives or Senate by dropping it into the hopper.<sup>63</sup> The “unofficial” legislation development process begins when someone has an idea for legislation and ends when the “official” process begins.

¶32 The “unofficial” legislation development process can easily adopt the open development model because there are no special rules or regulations governing this stage of the process. Once the “official” legislation development process begins, however, the rules that are well-documented in every American government textbook tightly control who is allowed to participate and the interactions between those privileged participants.<sup>64</sup> Attempting to apply the open development model to the “official” legislation development process would require changes to the rules and traditions that have governed the House of Representatives and the Senate for hundreds of years.<sup>65</sup> Therefore, this paper only considers and analyses the application of the open development model to the “unofficial” legislation development process.

#### A. Initiating Unofficial Legislation Development

¶33 Unlike the “official” legislation development process, the details of the “unofficial” legislation development process are not well known. The research, consensus building, political maneuvering, and drafting are all done behind closed doors with no one watching or reporting.<sup>66</sup> The one certainty in the “unofficial” legislation development process is that all proposed legislation has to funnel through a Member of Congress.<sup>67</sup> If an external entity develops legislation, that entity must find a Member of Congress who

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<sup>61</sup> Brian Fitzgerald, *Has Open Source a Future?*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 93, 98 (Joseph Feller et al. eds., 2005).

<sup>62</sup> The “official” and “unofficial” designations are only for the purpose of this paper.

<sup>63</sup> The “hopper” is a wooden box provided for the introduction of legislation and is located on the side of the rostrum in the House Chamber. CHARLES W. JOHNSON, HOW OUR LAWS ARE MADE, H.R. DOC. NO. 108-93, at 1 (23rd ed. 2003).

<sup>64</sup> KEEFE & OGUL, *supra* note 2, at 8. The rules make it “baffling to follow the course of a bill through the legislative labyrinths.” *Id.*

<sup>65</sup> The basic set of rules used by Congress is *Jefferson’s Manual of Parliamentary Practice*, written in 1801, and the rules are rarely changed. KEEFE & OGUL, *supra* note 2, at 65; see New Edition of Jefferson Parliamentary Manual Published, May 23, 1993, <http://www.loc.gov/today/pr/1993/93-078.html>.

<sup>66</sup> Posting of Mitch Kapor to Of By and For: The Future of the Republic, What’s Wrong with Politics and Can Technology Do Anything to Fix It?, <http://www.ofbyandfor.org/node/view/610> (Oct. 7, 2004) (archived at [http://www.databasesystemscorp.com/tech-dialer\\_political\\_04.htm](http://www.databasesystemscorp.com/tech-dialer_political_04.htm), on file with Northwestern Journal of Technology and Intellectual Property).

<sup>67</sup> WILLIAM N. ESKRIDGE ET AL., CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY 24–26 (3rd ed. 2001).

is interested in solving the problem in the same or a similar way as the legislation proposes.

¶34 Although the majority of legislation is conceptualized and developed by Members of Congress, other parties send legislation to Members of Congress in hopes that it will be introduced into Congress.<sup>68</sup> The executive branch is considered a chief law-initiator as the President's cabinet and administrative agencies often send proposed legislation to the Speaker of the House of Representatives and the President of the Senate.<sup>69</sup> Individuals, organizations, and interest groups may also petition a Member of Congress and propose ideas for legislation or submit drafts of legislation.<sup>70</sup>

¶35 External parties are less likely to create an open legislation development project because they are looking for a solution that favors their interests. Interested parties take a larger risk when opening a solution up to the community. If the community finds a different solution that goes against the proposing party's interest, the proposing party cannot withdraw, stop, or redirect the project. An attempt to do so will spawn a copy that will evolve independently of the original project.<sup>71</sup> The community will migrate to this new project and select its own leadership and direction. The resulting legislation will then compete with the legislation from the interested party. Therefore, the remainder of this paper focuses on the scenario where a Member of Congress initiates the open legislation development project.

### B. *The Unofficial Legislation Development Process*

¶36 A Member of Congress typically develops legislation in the "unofficial" phase by using a process that resembles the traditional closed development process in the software industry. In this process, internal actors dominate the design and development of the legislation, and external actors cannot unilaterally contribute to the legislation.<sup>72</sup>

¶37 Once the Congressperson has an idea for legislation, the work of developing the legislation is delegated to a member of the Congressperson's staff. This can be a

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<sup>68</sup> The Constitution empowers the legislature to make laws but is silent as to where ideas for those laws originate. KEEFE & OGUL, *supra* note 2, at 22.

<sup>69</sup> ESKRIDGE ET AL., *supra* note 67, at 26; KEEFE & OGUL, *supra* note 2, at 22, 388; CHARLES W. JOHNSON, HOW OUR LAWS ARE MADE, H.R. DOC. NO. 108-93, at 4-5 (23rd ed. 2003). Article II, Section 3 of the Constitution obligates the President to make recommendations to the Congress on measures that are "necessary and expedient." H.R. DOC. NO. 108-93, at 4.

<sup>70</sup> H.R. DOC. NO. 108-93, at 4. The right to petition is guaranteed by the First Amendment. *Id.* However, the First Amendment does not require the Congressperson to respond or to even read the petition. Posting of Julie P. Samuels to First Amendment Center, Petition, <http://www.firstamendmentcenter.org/petition/news.aspx?id=18636> (June 6, 2007).

<sup>71</sup> In software, the process of creating a competing copy is called "forking" and is analogous to a "vote of no confidence." Wheeler, *supra* note 49. The open development community requires a very strong reason to create a fork because it weakens the community and deprives each product of desirable changes and modifications made to the competing product. *Id.*; Glass, *supra* note 37, at 88. Most attempts to create a fork fail. Wheeler, *supra* note 49.

<sup>72</sup> There are exceptions, of course. Industry actors and well-organized special interest groups can easily stop legislation from being passed, which de facto inserts them into the process. For example, labor management legislation is dominated by labor and business organizations, copyright legislation can not be proposed without approval from the industry actors, and agricultural policy is dominated by farmers' organizations. KEEFE & OGUL, *supra* note 2, at 4-5; JESSICA LITMAN, DIGITAL COPYRIGHT: PROTECTING INTELLECTUAL PROPERTY ON THE INTERNET 23 (2000), available at <http://www.msen.com/~litman/digital-copyright/ch2.html>.

daunting task for the staff member who may have little or no knowledge of the issues behind the legislation.<sup>73</sup> The staff member must become familiar with the nature of the problem, the issues that frame the problem, the scope and scale of the problem, current laws in the same topical area, and previously proposed legislation that did not pass.<sup>74</sup> To assist with these tasks, the staff member solicits research and drafting help from other staff members, lobbyists, experts, and other interested parties.<sup>75</sup> These sources, chosen by the staff member, often hold the same views and opinions of the staff member.<sup>76</sup> Sources with other views often remain unsolicited.<sup>77</sup>

¶38 Some Members of Congress have attempted to develop legislation using an open model by presenting the legislation in a series of open town hall meetings. For example, one Congressman would often present potential legislation at 20–25 town hall meetings.<sup>78</sup> He pitched the legislation idea to his constituents, received their feedback, and incorporated the responses into the legislation before introducing it into Congress.<sup>79</sup>

¶39 Town hall meetings are separate from the system of open development proposed by this paper, and both can be done for the same piece of legislation. Because some Americans do not have access to the Internet, town hall meetings compliment the process of open legislation development proposed in this paper.

### C. Changing to an Open Development Process

¶40 Changing the current process of developing legislation from the closed model to an open system requires little additional effort on the part of the Congressperson's staff member. Once the staff member receives the problem and parameters from the Congressperson, the staff member can place a prototype of the legislation on the Internet.<sup>80</sup> Once released on the Internet, the staff member can assume the role of the project leader, guiding the community and ensuring adherence to the open development model. The staff member can also participate in the design and development of the legislation.

¶41 The problem with changing the current process of developing legislation to an open system is that the Congressperson, staff members, and selected interested parties give up control of the process. The solution that the community creates might not serve the best

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<sup>73</sup> *E.g.*, AMY E. BLACK, FROM INSPIRATION TO LEGISLATION: HOW AN IDEA BECOMES A BILL 12 (2007) (“I [, a staff member for Congresswoman Hart,] had read an occasional newspaper story . . . but I knew nothing about legislative efforts to address the problem. . . . I was charged to learn about the issue, make suggestions to the congresswoman for potential federal legislation, and then write a bill she could introduce and promote.”).

<sup>74</sup> *E.g.*, *id.* at 13, 15, 17.

<sup>75</sup> *E.g.*, *id.* at 20, 65.

<sup>76</sup> *E.g.*, *id.* at 32.

<sup>77</sup> *E.g.*, *id.* (“If an interest group is fundamentally opposed to a policy idea, it rarely makes sense to solicit that group’s assistance.”).

<sup>78</sup> Email from Mark Neumann, U.S. Congressman from Jan. 3, 1995 to Jan. 3, 1999, to Jacob Ewerdt (Feb. 7, 2008, 18:17 CST) (on file with author).

<sup>79</sup> *Id.*

<sup>80</sup> Many Internet technologies are currently available that allow community members to edit and comment on content. For example, Wikipedia, Wikispaces, and Politicopia are websites that utilize such technologies. An optimal framework for the open development of legislation does not yet exist, but the requirements of such a framework are detailed in Part VI, *infra*. The technical details of developing and implementing the framework are beyond the scope of this paper.

interest of those parties. Although the community's solution is likely to be the best solution for the affected parties and therefore the best solution for America,<sup>81</sup> this argument does not always work in politics.<sup>82</sup> However, the solution that favors a small group of people over the whole is usually not optimal, so the chance of it passing by Congress and the President is slim.<sup>83</sup>

#### IV. IMPLEMENTING OPEN LEGISLATION DEVELOPMENT

¶42 When a prototype of legislation is placed on the Internet and made public, a sufficient development environment must exist to ensure that the benefits of the open development model can be realized. In order to meet the "publicly accessible internal information" requirement of the open development model,<sup>84</sup> the environment must track all proposed and accepted changes to the legislation and all discussions, research, and rationales behind each change. That information must be available to the public to read, analyze, and re-use. Additionally, the environment should authenticate<sup>85</sup> each participant to ensure accountability and create recognition within the community.

¶43 A successful open legislation development project must also have a large and diverse development community with qualified people in appropriate roles—an easily-met requirement. At a minimum, an open legislation development project will have the same people who would be involved in the closed legislation development process, as the open development model does not inhibit their participation.<sup>86</sup> From that base, everyone who was previously excluded from the process will have the opportunity to participate in developing the legislation.

##### A. Necessary Preconditions for Open Development

¶44 The open development model was successful in the software industry for many reasons.<sup>87</sup> At least two of the reasons, modular product structure and motivation for participants, are also present in legislation development. The similar modular structure of software code and legislation, and the similar motivations for people to participate in the development of legislation affirm that the open development model can be successful in the legislation industry.

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<sup>81</sup> See *infra* Part IV.D.

<sup>82</sup> A pessimistic, but popular, view of politics is that the principal goal of legislators is to stay in office. KEEFE & OGUL, *supra* note 2, at 10–11.

<sup>83</sup> See *infra* Part VI.A (setting forth the problems that Representative Steve Urquhart's legislation had in the Utah State legislature before employing an open development method).

<sup>84</sup> See *supra* Part II.C.1.

<sup>85</sup> See *infra* note 102 (discussing authentication).

<sup>86</sup> Some resources, such as the Congressional Research Service and the Office of Legislative Counsel, are only available to Members of Congress and their staff. See *infra* note 108, 109. This is another reason why having a Member of Congress initiate an open development project is preferred to any other entity.

<sup>87</sup> See Clay Shirky, *Epilogue: Open Source Outside the Domain of Software*, in PERSPECTIVES ON FREE AND OPEN SOURCE SOFTWARE 484 (Joseph Feller et al. eds., 2005).

## 1. Modular Product Structure

¶45 As shown in Part II.C.2, a product must be modular in order to accommodate the number of participants required for a successful open development project. Legislation is very modular, perhaps more so than software code. In fact, the modularity of legislation is enforced both by law and by standard drafting styles. Federal law requires that “a single proposal of enactment” must be contained in its own section.<sup>88</sup> Each section should first focus on a single idea, flesh out the idea, then yield to the next idea.<sup>89</sup> A piece of legislation will often have many sections that can be divided into subsections, subsections into paragraphs, paragraphs into subparagraphs, subparagraphs into clauses, and clauses into subclauses.<sup>90</sup> Each one of these divisions creates a module that can be independently developed.

## 2. Motivated Participants

¶46 When the open development model was becoming popular in the software industry, researchers began to notice an enigma. Hundreds of thousands of people throughout the world were working an average of 14 hours per week on open development projects with no foreseeable monetary benefit.<sup>91</sup> Some of the people were paid to participate, but most of the participants had a separate job and were contributing in their spare time.<sup>92</sup> Many studies have since been conducted on the reasons that people work on open software projects. As shown below, the same reasons also exist for people contributing to legislation development projects.

¶47 The most important motivation for volunteering time and resources was found to be the “personal sense of creativity” that a person has when working on open development projects.<sup>93</sup> Studies have shown that people place such a high value on creativity that it provides more motivation than monetary compensation.<sup>94</sup> What creates this sense of creativity is hard to explain,<sup>95</sup> but it stems from being passionate about a particular area and being able to create something new or better.<sup>96</sup> In this aspect, developing legislation is no different from developing software. The areas affected by potential legislation encompass many people who are passionate about the topic, have a real stake in the outcome, and are therefore incentivized to contribute to a new or better piece of legislation.

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<sup>88</sup> 1 U.S.C. § 104 (2000).

<sup>89</sup> TOBIAS A. DORSEY, LEGISLATIVE DRAFTER’S DESKBOOK: A PRACTICAL GUIDE 203 (2006).

<sup>90</sup> *Id.* at 207.

<sup>91</sup> Lakhani & Wolf, *supra* note 39, at 9, 19.

<sup>92</sup> *Id.* at 8–10.

<sup>93</sup> *Id.* at 18. The personal sense of creativity is maximized in open development projects because participants choose what to work on. When a person’s skill level matches the challenge of the task, the person enjoys the task more and feels more creative. *Id.* at 4–5.

<sup>94</sup> *See id.* at 18.

<sup>95</sup> Linus Torvalds explains: “If you were a software engineer you wouldn’t even ask that question. For an engineer, when you solve some technical problem, the hairs just stand up on the back of your neck, it’s so exhilarating. That feeling is what drives me.” DON TAPSCOTT & ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGES EVERYTHING 70 (2006).

<sup>96</sup> *Id.*; *see* BROOKS, *supra* note 7, at 7.

¶48 Another significant motivation for volunteering time and resources can be explained by an economic analysis of the participation.<sup>97</sup> People who work on open development projects in the software industry are usually employed within the same industry.<sup>98</sup> Working on these “fun and challenging” projects helps to improve personal knowledge and skills since the open development community actively participates in peer review and mentoring.<sup>99</sup> Participation also creates a “good reputation among one’s peers,” resulting in a higher status in the “exchange economy.”<sup>100</sup> One’s status in the open development community can be very valuable, as companies often look to open development projects to find qualified developers.<sup>101</sup> Because every topic is affected by legislation, every business, academic institution, and interest group can be considered part of the legislation development industry—so the potential pool of volunteers is much larger than the highly technical industry of software development. If participation in legislation development becomes open and available, more of these entities will become active in that industry. Volunteering with an open legislation development project will then have the same benefits for the participant as it does in the software industry. The participant will obtain more knowledge on the topic, be recognized for all contributions, and demonstrate competence for potential future employment.

### B. Development Environment

¶49 Open development projects require development environments that make all of the data available to the public to read, analyze, and reuse. Without this transparency, it is difficult, if not impossible, to realize many of the benefits of the open development model: low transaction costs for adding new participants, the recognition of current participants by outside observers, the dynamic adjustment of the community structure as participants join and leave, a solution that external users can trust, and the ability for other parties to analyze and reuse the product’s modules.

¶50 The vast amount of information that can be generated during an open legislation development project might initially appear overwhelming and unnecessary. However, when looking at a single module instead of the entire project, the implementation details, proposed solutions, research, and discussions consist of significantly less data. This information is necessary to convince people who are not familiar with the module that the problem has been solved in the best possible way.

¶51 The development environment should also authenticate<sup>102</sup> participants so they are accountable for their contributions to the product, discussions, research, and every aspect of the development.<sup>103</sup> This allows for a participant’s efforts and contributions to be

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<sup>97</sup> Lakhani & Wolf, *supra* note 39, at 12–14.

<sup>98</sup> TAPSCOTT & WILLIAMS, *supra* note 95, at 70.

<sup>99</sup> Lakhani & Wolf, *supra* note 39, at 7.

<sup>100</sup> ERIC S. RAYMOND, *Homesteading the Noosphere*, in *THE CATHEDRAL AND THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY* 65, 84 (rev. ed. 2001).

<sup>101</sup> Lakhani & Wolf, *supra* note 39, at 7.

<sup>102</sup> The development environment can make participants accountable for their contributions by implementing a variety of authentication and authorization schemes. These schemes can range from simple email verification to credit card verification to biometric verification, but the details of these different schemes and the costs and benefits of each one is beyond the scope of this paper.

<sup>103</sup> See Lerner & Tirole, *supra* note 15, at 61 (“[G]iving credit to authors is essential in the open source movement. This principle is included as part of the nine key requirements in the ‘Open Source

recognized by internal and external observers, which is necessary to economically encourage participation.<sup>104</sup> The community can then structure itself by giving more authority to the participants who earn the respect of their peers and less authority to participants who hurt the product through poor quality solutions or bad information.<sup>105</sup>

¶52 In legislation development, authentication has the added benefit of letting participants know which industry, company, group, or lobby for whom each contributor works. Authentication therefore allows participants to give different weight to different contributions—depending on the source of the contribution. While a possibility for falsifying the authentication exists—for example, a business lobbyist passes himself or herself off as a consumer—the community has at least two ways of policing this behavior. First, a participant’s reputation in an open development community is extremely important and a deception may be difficult, if not impossible to recover from—ostracizing that person from the community and preventing his or her participation in future projects. Second, the community assigns, either implicitly or explicitly, a level of trust (and the associated authority) to each participant. A first-time contributor will not have as much trust as a person who has contributed since the beginning of the project, or even participated on multiple projects. The value of each contribution by a participant will be vetted by the community before it gets incorporated into the product, and low-value contributions or false data will decrease the participant’s trust in the community. Finally, different levels of authentication can garner a participant different levels of trust. For example, if a participant is authenticated by a government or academic e-mail address instead of a generic e-mail address, that community will have greater confidence that the person behind the official address is authentic.

### C. Development Community

¶53 When legislation development is opened to the public, people and entities that were previously excluded from the process will have the opportunity to contribute. State and foreign governments<sup>106</sup> can contribute their knowledge of what solutions have and have not worked for similar problems in their territories and provide valuable data and rationales behind those solutions. Businesses and individuals can help to further define the problem by contributing data about local effects of the problem and possible consequences of proposed solutions. Academic courses can be structured around researching the cause behind a problem and providing valuable empirical data that can be used to test potential solutions.<sup>107</sup> When no one is excluded from the process, the possibilities for participation are endless.

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Definition’.”).

<sup>104</sup> See *supra* Part IV.A.2.

<sup>105</sup> Some participants in open development projects are “net-negative producers.” Fitzgerald, *supra* note 61, at 97. One way that some open source projects can deal with these people is by using long probationary periods as filtering devices. *Id.*

<sup>106</sup> As noted in Part IV.B, a foreign government will be given the requisite level of trust and authority in the community based on the topic and the foreign government’s reputation (both inside and outside the project’s community). The fear of allowing foreign governments the ability to affect U.S. legislation is therefore unwarranted if the ability of the community to properly weigh those opinions is trusted.

<sup>107</sup> See, e.g., David Broder, *Montana Legislature Draws Teens into Lawmaking*, MERRILLVILLE POST-TRIB., Sept. 25, 2007, at A9 (reporting on a Montana legislator that selects an idea for legislation from a high school class and then involves that class in researching the issues, testifying at a legislative committee,

¶154 In open development projects, a core group of contributors tends to stand out from the masses. With legislation development, the core group might contain experts in the topic at issue,<sup>108</sup> experts in drafting legislation,<sup>109</sup> and experts in navigating the political arena. These actors are similar to actors in a closed legislation development project. However, this core group is chosen by the community instead of by a person looking for a specific solution. For example, a person that a politician may categorically ignore can become an influential figure in developing a piece of legislation if the community values his or her input, contributions, and commitment to the open process. If the community trusts this person enough, it will give him or her increasing authority, which may rise to the level of a core group member or even the project leader.

#### D. Resulting Legislation

¶155 As shown in Part II, the open development model has many benefits over the closed development model. The large, diverse and decentralized pool of participants increases the possibility that problems with the legislation will be found and that solutions will be easily created. The transparent decision-making process leads to greater community support and incentivises potential competitors to become contributors. If a solution cannot be agreed on, every area of disagreement will be meticulously narrowed and documented so the final debate will focus on concrete issues.

¶156 The end result of an open legislation development project will most likely be a complete piece of legislation that a legislator can introduce in Congress. This legislation will have been created and thoroughly analyzed by both professional and lay people with different expertise, backgrounds, and experiences. The problem will be accurately defined, the proposed solution will be vetted as the best way to fix the problem, and the legislation will be accompanied by every conversation, debate, and research created by the process.

¶157 The community that developed the legislation should agree that the result is the best solution for the problem, and this community should be representative of everyone with an interest in the legislation. Therefore, if Congress decides to enact the legislation and allocate resources to fix the problem, it follows that the best solution for America will be achieved.

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and observing the legislative proceedings).

<sup>108</sup> The Congressional Research Service is an agency within the Library of Congress that serves the mission of providing Congress with “comprehensive, authoritative, and reliable analysis, research, and information services that are timely, objective, nonpartisan, and confidential, thereby contributing to an informed national legislature.” Congressional Research Service, *Annual Report: Fiscal Year 2006*, at 5 (2006) available at [http://www.loc.gov/crsinfo/CRS06\\_AnnRpt.pdf](http://www.loc.gov/crsinfo/CRS06_AnnRpt.pdf). The professionals in this agency would be ideal participants in the core group because they are objective, nonpartisan, and experts in research. Cf. BLACK, *supra* note 73, at 20.

<sup>109</sup> The Office of Legislative Counsel currently employs 30 professional legislation drafters. Sandra Strokoff, *How Our Laws Are Made: A Ghost Writer's View*, 59 PHILADELPHIA LAW., Summer 1996, available at <http://www.house.gov/legcoun/strokoff.shtml>. Attorneys in the Office are bound by statute not to express views on the legislation topic, only to make sure the legislation accurately reflects the proposal. *Id.* Each attorney specializes in several topics and can draft legislation from any side of the issue. *Id.* Attorneys from this Office would be valuable participants in the core group. However, only a Member of Congress can request assistance from this Office. Office of the Legislative Counsel, U.S. House of Representatives: Frequently Asked Questions, <http://www.house.gov/legcoun/faqs.shtml> (last visited Sept. 29, 2008).

## V. IMPLICATIONS OF OPEN LEGISLATION DEVELOPMENT

### A. *In Congress*

¶58 Openly developed legislation will streamline the “official” legislative process in Congress. The legislators will not have to debate which method is the best way to solve a problem because the reasons behind every decision in the proposed legislation will have been thoroughly documented. Any changes to the openly developed legislation will have to be justified against the community’s reasons, rationales, and research supporting the chosen solution. The debates in Congress will instead focus on whether resources should be allocated to fix the problem addressed by the legislation.<sup>110</sup>

### B. *In the Courts*

¶59 Legislation that is written by the public before passing through Congress raises a couple of jurisprudential issues. First, courts give a challenged law a “presumption of constitutionality” partly because it was considered by Congress.<sup>111</sup> This presumption exists because Members of Congress take an oath to uphold the Constitution, and therefore are obligated to determine, to the best of their ability, the constitutionality of proposed legislation.<sup>112</sup> Legislation created with an open development process will still go through the “official” legislative process and be voted on by Congress before becoming law. However, Members of Congress may not scrutinize the legislation as much as they would scrutinize legislation developed using the traditional closed development model. With openly developed legislation, Congress can forego much of its normal deliberation because a consensus on the solution has already been created.<sup>113</sup> If the courts determine that Congress has not scrutinized the openly developed legislation as much as legislation developed using a closed model, then the “presumption of constitutionality” may not be as strong.

¶60 The second jurisprudential issue for openly developed legislation is how the courts will look at the publicly created legislative history. When the text of a statute does not closely fit the facts of a case, the court will often look to the legislative history to determine what Congress intended the statute to cover.<sup>114</sup> With openly developed legislation, the court can determine the intent behind the legislation with greater certainty because documentation and debate generated during the open development process will surpass any legislative history generated by Congress. However, the court must first determine that Congress intended to pass the legislation for the same reasons and rationales as the community that drafted the legislation. Without this finding, the information created by the open development process may not be imputed to Congress.

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<sup>110</sup> For an example of this benefit, see *infra* Part VI.A.

<sup>111</sup> Paul Brest, *The Conscientious Legislator’s Guide to Constitutional Interpretation*, 27 STAN. L. REV. 585, 588 (1975).

<sup>112</sup> *Id.* at 587.

<sup>113</sup> The “official” legislation development process is the “search for compromise—in caucus, in committee, on the floor, in negotiations with the executive, and in confrontation with interest groups.” KEEFE & OGUL, *supra* note 2, at 22.

<sup>114</sup> ESKRIDGE ET AL., *supra* note 67, at 937. Determining the “intent of Congress” presents an entirely new set of issues and considerations.

¶61 When courts consider legislative history, the committee reports are given the most weight because most legislation is written in committee and any statement by the committee will represent the best-informed understanding of the legislation.<sup>115</sup> The information created by the open development process should be considered for similar reasons; the legislation was written by the community and the community as a whole will represent the best-informed understanding of the legislation.

### C. For Direct Democracy

¶62 Although this paper focuses on federal legislation, the open legislation development process can also be applied to legislation developed for States and municipalities. In addition to the traditional method of developing and passing legislation, many State and local governments also allow for the enactment of legislation through direct democracy.<sup>116</sup> The direct<sup>117</sup> and indirect<sup>118</sup> initiative processes are especially susceptible to the benefits of open legislation development.

¶63 Direct democracy was intended to “(1) increase voter involvement in the legislative process, (2) provide a check on the domination of legislatures by special interest groups, and (3) permit voters to act more objectively by considering issues rather than personalities so that there would be greater accuracy in expressing the public will.”<sup>119</sup> However, the problems with direct democracy have frustrated these intentions.<sup>120</sup>

¶64 Initiatives are usually considered technically inferior to legislation passed by Congress.<sup>121</sup> The drafters of initiatives are not professional legislators or drafters, and the initiative does not go through the legislative vetting process to make sure that it is “internally consistent, not in conflict with existing laws or policies, or based on inaccurate factual premises.”<sup>122</sup> The peer review process of the open development model creates legislation that is technically equal or superior to congressional legislation.<sup>123</sup> Participants in the process can be experts in drafting legislation, people affected by

<sup>115</sup> *Id.* at 947.

<sup>116</sup> *Id.* at 500 (“Twenty-seven states provide one form or another of statewide initiative or referendum for statutes, and the District of Columbia does as well. In many states, the initiative and referendum are available at the local level as well, even if one or both are not available statewide.”).

<sup>117</sup> “The direct initiative refers to the method in which the issue goes on the ballot automatically after the requisite signatures of voters are collected.” *Id.* at 499.

<sup>118</sup> The indirect initiative refers to the method in which the legislation is first submitted to the legislature. If the legislature fails to pass the legislation, it is then placed on the ballot. *Id.*

<sup>119</sup> *St. Paul Citizens for Human Rights v. City Council of St. Paul*, 289 N.W.2d 402, 407 (Minn. 1979) (Wahl, J., dissenting).

<sup>120</sup> *Id.* The criticisms of direct democracy have increased as the popularity of referendums and initiatives have grown. “[I]n the 2000 general election, voters faced over 200 state ballot measures, and many of them concerned hot-button social issues such as gay rights, gun control, drug policy, and publicly funded vouchers for private schools.” ESKRIDGE ET AL., *supra* note 67, at 502.

<sup>121</sup> *See St. Paul Citizens for Human Rights*, 289 N.W.2d at 407 (“[O]rdinances enacted through the initiative process may be poorly drafted because only one person or a small group drafts the ordinance to be placed on the initiative petition. There is no review to ensure that the ordinance is internally consistent . . . nor is there the refining process that occurs in the legislature.”).

<sup>122</sup> *Id.*

<sup>123</sup> At minimum, the openly developed legislation is technically equal to legislation developed in a closed environment because the people who develop closed legislation form the base of participants in the open development model. *See supra* note 86 and accompanying text. Additional actors can contribute to the technical superiority of the openly developed legislation.

similar existing laws, and researchers who validate factual premises. Everyone who may be affected by the initiative has the opportunity and incentive to participate.

¶165 Initiatives may confront very complex issues that require detailed explanations or specialized knowledge in order for the voters to make an informed decision.<sup>124</sup> “As a result voters may be confused and make decisions, not on a factual or philosophical basis, but for emotional or political reasons.”<sup>125</sup> Many of the participants in the open initiative development project will probably not have experience or specialized knowledge in the topical area. As the initiative is being developed, these participants will require that the language of the initiative and the voter explanations are clear, concise, and easy to understand.

¶166 Currently, only special interest and well-organized groups have the resources to participate in the process of getting an initiative on a ballot.<sup>126</sup> Some States require hundreds of thousands of signatures before an initiative gets on the ballot. Well-funded groups have a significant advantage of getting these signatures.<sup>127</sup> This can make the initiative less representative of the average voter than the closed legislative process. The participants in an openly-developed initiative form a well organized group that contains many people who may be positively or negatively affected by the initiative. This group has the incentive to get the necessary signatures and inform the public about the initiative.

## VI. EXAMPLES OF OPEN LEGISLATION DEVELOPMENT

¶167 The Internet is increasingly being used to connect the average voter to the political process. For example, the OpenPolitics website contains a “list of all issues in Canadian politics” and allows registered users to discuss these issues in a public forum. The website uses a merit-based system that allows contributors to weigh the contributions of everyone else.<sup>128</sup> Another example is Senator On-Line, an Internet-based political entity in Australia that, if elected, will cast a vote for an issue based on the result of an online poll from its constituents.<sup>129</sup> The following examples show the potential for the proposed open legislation development, as they have already implemented aspects of this proposal and realized the benefits discussed herein.

### A. *Politicopia*

¶168 Utah State Congressman Steve Urquhart created the Politicopia website<sup>130</sup> in 2007 to cut out “special interest groups, bureaucrats, and the media” and facilitate unfiltered information between the legislator and constituents.<sup>131</sup> The website started out as a

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<sup>124</sup> *St. Paul Citizens for Human Rights*, 289 N.W.2d at 407.

<sup>125</sup> *Id.*

<sup>126</sup> ESKRIDGE ET AL., *supra* note 67, at 501–02.

<sup>127</sup> *Id.* at 501. The First Amendment protects the right of special interests to pay petition circulators to get the required signatures. *Id.* at 501–02 (citing *Citizens Against Rent Control v. Berkeley*, 454 U.S. 200 (1981)).

<sup>128</sup> OpenPolitics: About Open Politics, <http://openpolitics.ca/tiki-index.php?page=about%20open%20politics> (last visited Sept. 29, 2008).

<sup>129</sup> Senator On-Line: F.A.Q., <http://senatoronline.com.au/faq> (last visited Sept. 29, 2008).

<sup>130</sup> Politicopia, <http://www.politicopia.com> (last visited Sept. 29, 2008).

<sup>131</sup> Politicopia, <http://steveu.com/blog/2007/01/politicopia.html> (Jan. 21, 2007).

“wiki”<sup>132</sup> with the purpose of “accumulating and presenting information.”<sup>133</sup> The first test of the website came when Congressman Urquhart posted a school voucher bill that he had been trying to pass for six years.<sup>134</sup> People immediately started participating, legislators began taking note, and Congressman Urquhart changed a position he held for years based on input from the website. In just one week, the Politicopia participants were shaping the legislation.<sup>135</sup> In the end, thousands of people had participated by posting their thoughts and ideas.<sup>136</sup> The online conversation expanded into pro and con sections, findings from other States, and links to news articles about the topic.<sup>137</sup>

¶69 Congressman Urquhart specifically asked the participants to show evidence that public education did not come out financially ahead with his proposed legislation.<sup>138</sup> No one was able to prove otherwise, and what had previously been a sticking point in passing the legislation was not mentioned the next time the legislation was presented in Congress.<sup>139</sup> The debate in Congress about the legislation was “more philosophical and substantive than demagogic,” and the Speaker of the House characterized the debate as “the highest caliber that I’ve seen in my 13 years here.”<sup>140</sup>

¶70 The community discussions on Politicopia shaped the issue and led to legislation that created the best solution for a specific problem in the State of Utah. Several legislators publicly stated that the website influenced their thinking and votes.<sup>141</sup> The legislation, which had previously been voted down, ended up being passed.<sup>142</sup>

### B. New Zealand Police Act

¶71 New Zealand was the first country to make federal legislation open for public comments and edits. On September 25, 2007, a website was launched to give “Kiwis an innovative way to suggest the wording for a new Act of Parliament,”<sup>143</sup> namely, a reworking of the New Zealand Police Act of 1958. Like Politicopia, the New Zealand Police Act also used a “wiki” as the development environment. The response was so

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<sup>132</sup> “A wiki is a page or collection of Web pages designed to enable anyone who accesses it to contribute or modify content . . .” Wiki, <http://en.wikipedia.org/wiki/Wiki> (last visited Sept. 29, 2008). The specific wiki software used by Politicopia is SocialText. Ross Mayfield, Politicopia: A Wiki for Open Government, Jan. 27, 2007, [http://ross.typepad.com/blog/2007/01/politicopia\\_a\\_w.html](http://ross.typepad.com/blog/2007/01/politicopia_a_w.html); see Socialtext, <http://www.socialtext.com> (last visited Sept. 29, 2008).

<sup>133</sup> Politicopia Utah: About, <http://politicopia.com/about> (last visited Sept. 29, 2008).

<sup>134</sup> Posting of Ross Mayfield to WebProNews.com, Wiki Deliberation Passes Bill in Legislature, <http://www.webpronews.com/node/35220/print> (Feb. 7, 2007).

<sup>135</sup> Politicopia Utah: About, *supra* note 133.

<sup>136</sup> John Fund, Opinion, *Somewhere, Milton is Smiling*, WALL ST. J., Feb. 5, 2007, available at <http://www.opinionjournal.com/diary/?id=110009624>.

<sup>137</sup> Posting of Steve Petersen to NewAssignment.Net, Extreme Democracy: When Wikis Inform Legislation, [http://www.newassignment.net/blog/david\\_cohn/feb2007/12/extreme\\_democrac](http://www.newassignment.net/blog/david_cohn/feb2007/12/extreme_democrac) (Feb. 13, 2007).

<sup>138</sup> Fund, *supra* note 136.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> Posting of Andrew Rasiej & Micah L. Sifrey to The Politico, <http://www.politico.com/news/stories/0207/2685.html> (Feb. 9, 2007, 12:20 EST).

<sup>142</sup> Vote Tabulation, <http://www.le.state.ut.us/%7E2007/status/hbillsta/hb0148.001h.txt> (last visited Nov. 21, 2007).

<sup>143</sup> News Release, Policing Act ‘wiki’ Launched, (Sept. 25, 2007), <http://www.policeact.govt.nz/news-releases/policing-act-wiki-launched.html>.

overwhelming that the website had to turn off the comment and edit feature less than a week later.<sup>144</sup> The comments and edits were then consolidated and the resulting Police Act legislation was made public.<sup>145</sup> The changes will be presented to a parliamentary committee in 2008.<sup>146</sup>

¶72 The police officer in charge of developing the Police Act stated that “the person on the street” has the best idea about how they want to be policed, as they are the “consumer” of the legislation.<sup>147</sup> The officer also realized the benefit of opening the website up to the entire world to “make the talent pool much wider.”<sup>148</sup>

## VII. CONCLUSION

¶73 The open development model has been vetted by the software industry and its benefits have been studied and proven. The open development model allows everyone to participate in the design and development of a product, and the resulting large and diverse community increases the quality and reliability of the product. The dynamic structure of this community allows it to easily evolve and adapt to any situation. The self-determination of the participants maximizes each person’s contribution. Finally, the publically-accessible information behind every openly-developed product allows for the reuse of other products’ information and focuses participants on the problems that are unique to the current project.

¶74 Applying the open development model to the development of legislation will make the legislative process achieve what it was originally intended to do—give ample opportunity to all sides to be heard and make their views known. The open development model gives every person an opportunity to contribute to the legislation, and the influence a person has on the legislation is only limited by their own dedication and ability. And the open development model achieves this without requiring groups to organize and hire lobbyists to take their views to the legislator. The resulting legislation will be representative of all the participants, include arguments and support for both sides of every issue, and solve the presented problem in a way that is best for America.

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<sup>144</sup> Police Act Review Wiki, <http://www.policeact.govt.nz/wiki/> (last visited Sept. 29, 2008).

<sup>145</sup> *Id.*

<sup>146</sup> BBC News: NZ Police Let Public Write Laws, <http://news.bbc.co.uk/2/hi/asia-pacific/7015024.stm> (last visited Sept. 29, 2008).

<sup>147</sup> Arjun Ramachandran, Police Wiki Lets You Write the Law, (Sept. 26, 2007), <http://www.stuff.co.nz/4215797a10.html>.

<sup>148</sup> *Id.*