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Coding Free Software, Coding Free States: Free Software Legislation and the Politics of Code in Peru

Anita Chan
Massachusetts Institute of Technology

In December 2001, a legislative proposal was introduced to the Peruvian Congress that would have mandated the use of free software on government computers. The introduction of the bill, dubbed the Law for the Use of Free Software in Government Agencies, or Proposition 1609,[1] added Peru to a growing list of countries pursuing legal measures for the adoption of free software by government. Similar measures had begun in Brazil, Argentina, France, and Mexico—and within a year, they would be joined by dozens of other national- and local-level efforts in Germany, Spain, Italy, and Vietnam—all seeking to establish official alternatives to the use of closed, proprietary software by government. But it was Peru alone that uniquely managed to capture international public attention in the work surrounding its legislative efforts.

Much of the publicity was spurred through the online circulation of a letter-mediated exchange between Microsoft's General Manager in Peru—who attacked the bill as a "danger" to the nation's security and to corporate intellectual property rights—and the congressional sponsor of the bill, Congressman Edgar Villanueva, who staunchly defended its support. The letters later became the focus of a wave of international media coverage around the South American nation and its legal proposal. Unlike any other nation considering similar legis-

lation, Peru's proposal and its Congressional author were suddenly transformed into prominently visible players in the global movement for free software. Or as one reporter from the online news publication *Linux Today* prophetically narrated: "In the course of everyday business and politics, once in a while something truly significant happens. At such a time, letters become road maps for change and a politician from a small mountain town in Peru can become a hero to those who believe in a cause: both amongst his countrymen, and around the rest of the world… Congressman Villanueva's reply [to Microsoft]… raised him practically to folk hero status over night" (LeBlanc 2002).

Envisioning Free Software

Despite the unusual media attention captured by the Peruvian legislative efforts, and the rapidly expanding adoption of similar initiatives by national and local governments worldwide, the dominant reaction of free software proponents to the bill in the months following its proposal was to treat it as simply further evidence of free software's continued global spread. Minimizing the local specificity of actors and contexts surrounding the emergence of legal proposals like Peru's, the prevailing reading of such developments in the developed North was as one extraordinary achievement within free software's history of other, similarly extraordinary achievements. For many free software practitioners, it was the seemingly uncontainable momentum of their movement and the sheer technical strength of free software itself—more than any particular local actions or activities—that were to credit for its global successes.

Yet a closer examination of the practices that surround the emergence of free software legislation in Peru reveals a distinctly different account. Far from presuming free software's steady advancement, the proponents of Peru's free software legislation undertook various forms of local and non-local work, advocacy, and activism to propel the visibility of their movement. Further, their practices departed from the language of technical and economic rationality that had been repeatedly invoked to explain free software's adoption. They insisted instead on a new framing of free software as necessarily engaged and invested in processes of governance and political reform. And while prominent factions of free software had previously read social linkages to formal political bodies as unnecessary or even counterproductive, Peru's free software advocates actively sought to build relations with bodies of governance, demonstrating a willingness to engage with traditional political channels. If free software had frequently expressed a confidence that it would and should spread without govern-

ment's intervention, Peru's legislative developments signaled a departure from such free market logics and signaled that something other than free software's technological spread were of most concern to its advocates.

Indeed, for participants who had witnessed free software advance from its modest origins as an isolated practice of Northern hackers to a phenomenon with global visibility and the support of some of the largest technology corporations, the emergence of legislative demands for free software appeared unnecessary. Free software's rapid transition from the margins to the mainstream of society, after all, had occurred without the aid of governments and with largely only the support of a network of active, individual coders. Both the computing industry and free software communities, further, came to position free software as a species of "disruptive technology" (Christensen 2000) that would inevitably displace outdated technologies. To the commercial software industry, such a reading signaled the need for dramatic self-transformation and adaptation to new technological environments. For free software participants, it served instead as a confident reassurance in their current practices, and a sign that all could proceed stably without change. Both framings, however, operated on a degree of technological inevitability, presuming that it would only be a matter of time before everyone came to see the objective, self-evident rationale for free software's use. Not unlike discourses around the progression of scientific facts, free software predicted the stable progression of what it saw as its inherent truths and technical merit (Kelty 2001).

Media coverage on free software legislation similarly advanced its own logic of inevitability. News articles repeatedly emphasized economic rationales for the state use of free software, presenting it as a drastically cheaper alternative to closed, proprietary software and stressing that national poverty coupled with the potential for financial savings drove government interest in free software (Dorn 2003, Festa 2001, Stocking 2003, Wired.com 2003). As Paul Festa described the legislative trend in Cnet.com: "This legal movement… is finding ready converts as governments struggle to close sometimes vast digital divides with limited information-technology budgets… Governments—especially those of poorer nations with less money to spend on information technology—are eager to reap the cost savings of using free software" (Festa 2001).

Unsurprisingly, the emergence of movements like Peru's to legislate state use of free software, and free software's deepened ties to conventional politics, were developments that many free software advocates—particularly in the developed North—viewed with deep skepticism and suspicion.[2] To actively seek the building of such ties between state governance and free software advocacy,

after all, was to risk diluting the rational and technically-based justifications for free software. And it further threatened to undermine what the movement had embraced as its essential belief in individual users' freedom of choice. Tony Stanco, a senior policy analyst at The George Washington University's Cyberspace Policy Institute, thus reacted to the growth of free software legislation in Latin America by warning against the imposition of politics over rational markets. Writing in *Linux Today*, Stanco asserted, "It is much better for governments to set up a real level playing field in procurement policy and then let the market decide on merit. If a product can't make it in the market without government mandates, then history has shown that it won't make it with government mandates either" (Stanco 2003). Stanco was echoed by other free software supporters, who, in a Brookings Institute publication aimed at government policy makers themselves (Hahn, 2002), collectively urged governments to maintain a stance of neutrality in software acquisition policy. Some insisted that free software would advance without the need for government involvement (Bessen 2002), while others argued that free software preferences would compromise consumer freedom of choice (Evans 2002). To such Northern free software advocates, politicized arguments for free software not only seemed to be a weak rationalization for a technology's use, but threatened to pollute more "legitimate" technologically-based justifications for free software's adoption.

Biella Coleman insightfully characterizes such an explicit disavowal of formal politics as free software's own "political agnosticism" (Coleman 2003). Practitioners' emphatic insistence on their non-politicization, she argues, advances free software's circulation by constructing a permissive terrain that allows its wide adoption by a multiplicity of parties. Such a political disavowal, she observes however, is also rooted in the lived experience of working with and through the culture of free software. Where programming and computing become vehicles through which the unrestricted expression of individual creativity and imagination are brought to life, "politics are seen by programmers as buggy, mediated, and tainted action clouded by ideology that is not productive of much anything while it insidiously works against true forms of free thought" (Coleman 2003:5).

The persistent boundary work that seeks to maintain a separation between free software and formal politics, critically, simultaneously displays a certain confidence in the rational workings of a free market. If government and political operations were regarded as flawed, non-rational, conservatively rigid, and tainted by ideological motives, free markets could be read as rational, pragmatic, flexibly adaptive, and ideologically neutral. And where politics was

positioned as an entity from which the purity of free software should be protected, free markets were understood as entities that could be relied upon to legitimately recognize the technical merit of free software applications and secure its steady advancement.

And yet, despite such deep suspicions around the realm of politics, sustained movements around the Peruvian legislation emerged. For Peru's local communities of free software practitioners, formal political channels existed not as an entity to explicitly avoid, but appeared instead as something that had to be actively, arguably unavoidably, engaged with. And just as Peru's free software proponents framed free software technologies as anything but pure, self-enclosed objects that could remain separate from politics, so too did they frame formal political channels as something other than static foils to free software's project. Rather, for Peru's free software communities, political channels came to serve as instruments that, like technologies themselves, were dynamic, reprogrammable, and recodeable in Diane Nelson's formulation of the terms (Nelson 1999). Much, then, as technologies under free software's framing, were interpreted as unfinished artifacts that could exist in permanent cycles of reprogramming to fit specified needs, so too were politics read as imperfect entities that could and should be recoded for local civic contexts.

It's arguably the recodability of political and civic bodies—rather than the recodability of technology and free software itself—that's most at stake in movements for free software legislation in Peru. For these free software advocates, technology was deployed as an instrument to reform state and national "bugs" that encompassed everything from the relentless, unflinching dominance of transnational corporations to a publicly unaccountable and non-transparent state. Where dominant framings of free software suggested that it was the progress of free software that was considered as most important, Peruvian free software participants' strategic utilizations of technology to engage with national politics suggested that it was the social context surrounding technologies, and not merely technologies themselves, what was seen as most critical. Peru's free software advocates thus combined a vision of the Peruvian state as needing independence from transnational corporate control with a distinct vision of the state as an institution whose own authority had to be restricted and checked by an active public. Such dual engagements exhibited not only Peruvian free software practitioners' understanding of the state and politics as variably recodable entities, but expressed their hope as well that it would be an engaged Peruvian public who would be entrusted with government's reprogramming.

Re-Coding The Debilitated State: Government and Transnational, Corporate Dependence

Presented before the Peruvian Congress in December 2001, Proposition 1609 proposed the mandatory adoption of the use of free software in all areas of Peru's government, making exceptions only where a developed enough free software application was not yet available. Addressing in its text issues of science, technology, and development, Proposition 1609's language emphasized the contemporary legal contradictions and constraints experienced by government in software use. It stressed that states' reliance on computational processing in nearly all administrative activities forced governments into "a situation of dependency… [on] technology created in other countries." The bill further cited the rapidity of software update cycles, stressing that the frequency of new releases forced governments to make choices between continually purchasing new licenses, operating with out-dated software, or pirating programs. It also referenced a government study that estimated Peruvian government's own use of pirated programs at 90%, and concluded, "This panorama [of factors] makes necessary that the State ensures alternative solutions that will allow the breaking of the vicious circle of dependency in which we find ourselves."

Proposition 1609 thus asserted legal and economic imperatives for the state to cease its use of closed, proprietary software. Moving beyond arguments that legitimized free software's adoption for practical, technical needs of the state, Proposition 1609 asserted a political narrative that critically implicated external, global relations of dominance and dependence. Through the lens of the bill, global dynamics of power that disproportionately privileged developed national and transnational corporate interests were exposed as piercing the inner workings of Peruvian government. What was for years assumed as the natural and inevitable object of adoption for the state—that is, closed proprietary software—was thus revealed instead as one choice among others. And if adopting and even the cost-free pirating of closed, proprietary applications were previously seen as relatively inconsequential acts on the part of government, Proposition 1609 made them visible instead as deeply politicized, socially expensive choices that would re-inscribe the nation within debilitating relations of dependence.

Free software in Peru became an instrument, then, to directly address the limitations of the state and its relation to global markets. Through free software, new demands to recode the state as a strengthened entity that could act independently from or in challenge to transnational corporate interests could be asserted. Previously framed as a mode of protecting users' fundamental

technological freedoms, free software in the Peruvian legislative efforts became a method too for defending states' political and economic sovereignty and for challenging the limitations in technological choice that resulted precisely from a denial of such freedom.

Reprogramming The Authoritarian State: Government and Debilitated Publics

Within months of Propositions 1609's presentation to Congress, the primary software vendor for Peru, Microsoft, intervened in an attempt to reaffirm its formerly unchallenged legitimacy as government's largest software provider. In a March 2002 letter addressed to Congressman Villanueva, Juan Alberto Gonzales, the General Manager of Microsoft Peru, issued his own projection of how free software would fundamentally compromise the state.[3] Positioning free software as a technology of risk, Gonzales foretold a whole swarm of domestic devastations that could be unleashed under Proposition 1609. Among the dangers he warned free software's adoption would inflict were immeasurable state expenditures for technological migration, the potential for non-interoperability of platforms between Peru's public and private sectors, the destruction of domestic corporate productivity and employment, and, finally, the de-motivation of "the creativity of the entire Peruvian software industry which would no longer have its intellectual property rights protected."

Arguing, too, that state decisions over technology should remain politically neutral and based on technical merit, Gonzales challenged, "If Open Source software satisfies all the requirements of State bodies, why do you need a law to adopt it? Shouldn't it be the market which decides freely which products give most value?" Crucially, the image he projected of a future with free software predicted conditions of economic and technical instabilities, and the devastation of what were presumed to be otherwise healthy and efficient public and private processes in Peru. Where Proposition 1609's imaging of an "illegally" operating government stressed the forced piracy of software, then, Gonzales' vision of governments' legal breaches instead emphasized the violation of laws to protect free enterprise.

Directed to Villanueva specifically, Gonzales' indictment was intended to persuade the congressman to revoke his support for the free software bill. Instead, the letter prompted Villanueva to begin to build new links between political channels and civilian bodies. In constructing his response to Gonzales' indictment, Villanueva sought out the expertise and help of an

international network of free software activists based in Cordoba, Argentina, named Proposición.[4] The group was originally founded to support an Argentinean free software bill that was proposed in 2001.[5] It later grew to encompass members from across Latin America, Europe, and North America and came to serve as a site for discussing states' use of free software more broadly. Recalling the processes around the use of Proposición's mailing list to construct the Argentinean bill, Federico Heinz, one of Proposición's co-founders, compared them to the construction of free software applications where programmers network online and openly contribute code to build a single working application. He explained that after a few list members "had hacked up some text, we brought it back to the list for it to be criticized until we reached something acceptable... It was very long work, but also very interesting, this construction model of creating legislation as if it were software. It was …really like a participative method of creating the law."[6] After being approached by Villanueva for its guidance in the Peru case, the group dedicated efforts to collectively authoring a response to Gonzales.

The document that the Villanueva-Proposición collaboration later produced was a 10-page, 5,800 word-long letter that meticulously enumerated and refuted each of Gonzales' assertions.[7] It reasserted the justification for Peru's Proposition 1609, but significantly under different terms than the original bill had. Unlike the legislation's original language, the letter opened by specifying that the bill was not motivated by economic rationales and specified instead that it was linked to the state's "fundamental" political guarantees and obligation to citizens. These included ensuring citizens' free access to public information, suggesting that citizens should be able to access and survey code that, for instance, stored tax records. These "fundamental guarantees" also included the state's role in ensuring the permanence of public data, under the rationale that if states were dependent on closed, proprietary software and were unable to purchase new licenses to keep systems updated, they would put public data at risk. Stressing the state's responsibility as guardians of citizens' records, the letter closed by reasserting the obligation of the state to protect public data: "The state archives, handles, and transmits information which does not belong to it, but which is entrusted to it by citizens... The State must take extreme measures to safeguard the integrity, confidentiality, and accessibility of this information."

Via the Villanueva-Proposición collaboration, a distinctly new justification for the bill and orientation toward the state had emerged. Internal, domestically-based politics and the relationship between the state and its own citizens now

figured prominently into the bill's defense. Where earlier arguments for Proposition 1609 emphasized the need to protect the state from external corporate intrusions, situating the state as the potential victim of transnational domination, new justifications positioned the state instead as an entity whose own political authority and capacity for control required mechanisms for restraint. By resituating the state as an agent of potential unchecked, authoritarian power, Proposition 1609's supporters advanced arguments for the state's political and technological transparency to its citizens. Heinz explained that it was a heightened consideration of the state's responsibility to citizens and public dependence upon government that prompted an expanded orientation toward the state: "Better software and lower cost may be necessary for a company, but… corporations just have to be accountable to their shareholders. We're all shareholders, though, in the state... [And] when we started to think about the possible insecurities and back doors in government systems that store personal data,… I as a citizen have an interest in the ways these things are guarded… It's a very scary prospect when you think about how dependent the software user is on software and you translate that into the public sphere."[8]

In dedicating their efforts to collectively responding to Gonzales' initial indictment, Proposition 1609's supporters operated in defense of the state's power and reaffirmed government's authority to act independently of corporate interventions. Through their reply to Microsoft, however, they also insisted upon a new relationship of the state to its citizens that would empower the public to both surveil and redirect state codings. Where the Microsoft letter had projected a future of risk and insecurity for *private and public institutions* with the adoption of free software, the response to it narrated instead a future of risk and insecurity in the protection of *citizens' rights* without it. And crucially, where Gonzales' letter sought to keep decision making processes bound within a closed exchange of letters between public official and private corporation, Villanueva's response unlocked a process of and increased potential for public scrutiny and participation in the decision-making process.

Proposition 1609's supporters' activities around free software were propelled, then, less by ideals of users' technological freedoms, than by notions of citizens' political rights. Such an interpretation of the imperatives for free software was indeed distinct from that within the general free software movement, where discourse focused explicitly on software users' rights to access, understand, and rework code. The interpretation they offered instead translated the general principles of free software from focusing on individual consumer freedoms to emphasizing collective social rights, where citizens bore

the right to access, understand, and rework public institutions. Critically too, free software for Proposition 1609's supporters involved the transformation of citizens, who were revisioned as actors with heightened capacities for political and technological activity. The reading of the state that Proposition 1609's supporters asserted, then, encompassed not merely a construction of politics as presently practiced, but was built around the future emergence of what was hoped to be an information-ready society where new sites of public political engagement could manifest and where one such crucial site would exist as technology and code.

Circumventing Politics, Circumscribing Publics

By mid-July 2002, less than a year after Proposition 1609's original proposal, Microsoft had orchestrated a meeting between Peru's President Alejandro Toledo and Bill Gates in the company's Redmond headquarters. Formally intended to announce Microsoft support of Toledo's Project Huascaran, an initiative to provide Internet access for Peruvian schools, the meeting also gave Gates the opportunity to present Toldeo with a $550,000 donation to fund other government projects. The Microsoft-Toledo agreement in fact also called for Microsoft to donate resources and services for other government IT projects, including: providing computer training for some 6,000 teachers, creating a Web portal to let citizens access government services, and building three Microsoft training centers to train hundreds of IT instructors. Without a trace of the defensiveness that characterized his letter to Villanueva, Gonzales endorsed the agreement in a press release, assigning Microsoft the status of a global corporate citizen in the process: "Microsoft Peru knows its role in society, and we know that only an informed society will achieve development; and we feel that our function is to provide society with the technological resources that will permit the spreading of access to information" (Microsoft 2002).

Seeming to take its cue from Proposition 1609 backers' response to Gonzales, which framed free software in government as an instrument to empower citizens, Microsoft now situated its technology as a tool for civic engagement. Where the company had previously insisted that its technology's place in government was merely the product of a healthy free market that elevated technical merit, it now asserted its ties to the state as founded on its support of civic processes. Notably absent from either Microsoft's or the Toledo administration's explanation of the accord was any mention of free software or its Congressional bills. Speculation began to emerge, however, that despite all official pretenses,

the Redmond meeting and the Microsoft donation had secured the rejection of the pending free software proposals (Lettice 2002).

Yet despite the attempt to circumvent public scrutiny around Proposition 1609's progression, the bill continued to enroll participation from a variety of national and international publics. In Lima, a number of free software advocacy organizations—including the Peruvian Linux Users Group,[9] GNU Peru,[10] and the Peruvian Association for Free Software[11]—began posting copies of the bill and the Villanueva-Microsoft letter exchange online. Copies of the documents appeared first on the Spanish *Free Software News* and discussion site, *Barrapunto*, and later on its English equivalent *Slashdot* (Slashdot.org, 2002, Slashdot.org 2002a). And by June 2002, dozens of articles would appear in such English language publications as the *San Jose Mercury News* (SiliconValley.com 2002), *Wired Magazine* (Scheeres 2002), the *Register* (Greene 2002), *Linux Today* (LeBlanc 2002), and *Linux Journal* (LinuxJournal.com 2002).

The groups also worked to publicize the legislation domestically, using decidedly more low-tech tactics such as handing out pro-free-software fliers on Lima's street corners and postering public walls. Equally telling however, were the responses Proposition 1609's developments produced among international audiences. A large study on free software and government use completed by the University of Maastricht's International Institute of Infonomics and funded by the European Commission drew its policy recommendations for governments directly from Proposition 1609 (Ghosh et. al. 2002). UNESO also approached Congressman Villanueva to help organize an international conference on free software and Latin American governments that took place in Cuzco, Peru in August 2003.[12] Significantly too, free software supporters across the globe began to contact Peru's advocates to volunteer to translate Villanueva's letter into other languages. Now available in more than a dozen different languages—including Dutch, Turkish, Greek, Hungarian and Portuguese—the Villanueva letter and bill, and the visions of free and proprietary software they constructed, acquired new mobilities and new audiences in each reproduction.

Conclusion

Reflecting back on global dimensions and mobility that Proposition 1609 came to acquire, Federico Heinz emphasized his own surprise and confessed, "We actually never expected any of it to reach international projections."[13] He spoke more assertively, however, when he elaborated on what he read as

a critical distinction between the dominantly-framed identity of free software and its identity as practiced by Proposition 1609 supporters: "The mainstream of free software [has been] very individualistic most of the time, where free software is [seen as] good because it is good for me… But technical needs and software in particular, is a secondary and not primary issue… What we are saying is that what you should see is whether you can accomplish things that are good for society—and that free software is right because it is so for absolutely everyone."[14]

The attempt by Heinz and other Proposition 1609 supporters to shift free software away from its focus on individual freedoms towards an emphasis on collective, civic freedoms echoes calls made by scholars of digital culture and politics. Such writers have cautioned against an over-adherence to the libertarian ideals that define much of online culture and that project cyberspace as a utopian arena of individual freedom that best exists outside of state regulation. (Escobar 1994, Lessig 1999, Nelson 1999, Sassen 2000). Insisting on the connections between the shaping of technology and the shaping of politics, and between coded virtuality and social reality, they warn of the risks of completely disassociating ideals of individual freedoms experienced online from real world states and polities.

The various engagements with Peru's political channels by Proposition 1609's supporters thus attempted to expose technology as something other than the pure, independently operating object that free software communities had predominantly defined it as. By Peru's free software supporters' framing, technology and technological development were entities that existed inseparably from the realm of politics and from the exercise of power. Similarly, traditional political channels were interpreted as something other than static foils to technological development and the project of free software. Politics, by Proposition 1609's supporters' interpretation, were understood instead as malleable and reprogrammable. Precisely such a dynamicism and recodability of politics allowed Peru's free software practitioners to cultivate multiple, differentially-oriented relations to the state. While practitioners articulated arguments for the protection of state independence and strengthening of national government against transnational corporate intrusions, they simultaneously insisted upon the establishment of mechanisms to limit and reform government control. The cultivation of such variable orientations toward the state by Peru's free software practitioners, and the work necessary to cultivate such diverse positions, reveal that it was more than the future and recodability of free software as a technology that was at stake in movements

for free software legislation. At stake too for such actors was the future of the country's political and civic institutions, as well as the modes of governing and being governed within Peru.

ENDNOTES

[1]http://www.gnu.org.pe/proley1.html

[2]Richard Stallman, for instance, reacted to the growth of the Latin American legislative strategies with a mild critique, asserting that free software activists' energies would be better spent preventing governments' over-regulation and infringement on user freedoms, than on fostering ties to legislative bodies. Paul Festa in a Cnet.com article of August 21, 2001, thus quoted Stallman as saying: "These laws are not the kind of help we most ask for from governments," said Stallman. "What we ask is that they not interfere with us with things like the Digital Millennium Copyright Act, with software patents, with prohibitions on reverse engineering that enable companies like Microsoft to make proprietary data formats and prohibit our work. Those are the main obstacles to satisfying the software needs of humanity."

[3]Original text in Spanish at: http://www.gnu.org.pe/mscarta.html. A translated text in English at: http://www.gnu.org.pe/mspemail.html.

[4]Proposición website at: http://proposicion.org.ar.

[5]Spanish text of the Argentinean bill, Bill 5613-D-00 at: http://proposicion.org.ar/proyecto/leyes/5613-D-00/texto_orig.html.

[6]Personal communication, March 23, 2003.

[7]Original text in Spanish at: http://www.gnu.org.pe/rescon.html. A translated text in English at: http://www.gnu.org.pe/resmseng.html.

[8]Personal communication, March 23, 2003.

[9]Peruvian Linux User Group (PLUG) website: www.linux.org.pe.

[10]GNU Peru website: www.gnu.org.pe.

[11]Asociación Peruana de Software Libre (APESOL) website: www.apesol.org.

[12]Website for the Latin American and Caribbean Conference for the Development and Use of Free Software at: http://www.lacfree.org.

[13]Personal communication, March 23, 2003.

[14]Personal communication, March 23, 2003.

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