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# **Who Controls the Internet? Illusions of Borderless World**

*JACK GOLDSMITH  
TIM WU*

**OXFORD UNIVERSITY PRESS**

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JACK GOLDSMITH AND TIM WU

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*To our friend Larry Lessig*

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## *Preface*

The new technologies will bring “every individual . . . into immediate and effortless communication with every other,” “practically obliterate” political geography, and make free trade universal. Thanks to technological advance, “there [are] no longer any foreigners,” and we can look forward to “the gradual adoption of a common language.”<sup>1</sup>

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The invention of the telegraph inspired these words. One hundred years later, another technological revolution inspired their resurrection. In the 1990s, academics, corporate executives, and pundits of all stripes viewed the Internet as the leading edge of a new globalization that was eroding the authority and relevance of national governments. The Internet’s arrival seemed to herald a new way of ordering human affairs that would free us forever from the tyranny of territorial rule.

This book depicts the fate of these ideas. It tells the story of the Internet’s challenge to nation-state rule in the 1990s, and the ensuing battles by national governments to assert control over the great borderless medium. It is the story of the death of the dream of self-governing cyber-communities that would escape geography forever. It is also the story of the birth and early years of a new kind of Internet—a bordered network where territorial law, government power, and international relations matter as much as technological invention.

By the mid-2000s, where our story ends, the network had undergone profound changes. The American-dominated English-language



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Internet of the 1990s had grown to reflect the different values, languages, and interests of hundreds of millions of new users around the globe. The Internet's architecture had been shaped by the whims and obsessions of powerful governments in the United States, China, and Europe. And questions of Internet governance had come to be characterized by clashes among the great powers and their network ideologies.

Three themes emerge from this narrative. The first is that even for the most revolutionary global communication technologies, geography and governmental coercion retain fundamental importance. In the 1990s, many believed that nations could not control the local effects of unwanted Internet communications that originated outside their borders, and thus could not enforce national laws related to speech, crime, copyright, and much more. But the last ten years have shown that national governments have an array of techniques for controlling offshore Internet communications, and thus enforcing their laws, by exercising coercion within their borders.

Our second theme is that the Internet is splitting apart and becoming bordered. Far from flattening the world, the Internet—its language, its content, its norms—is conforming to local conditions. The result is an Internet that differs among nations and regions that are increasingly separated by walls of bandwidth, language, and filters. This bordered Internet reflects top-down pressures from governments that are imposing national laws on the Internet within their borders. It also reflects bottom-up pressures from individuals in different places who demand an Internet that corresponds to local preferences, and from the web page operators and other content providers who shape the Internet experience to satisfy these demands.

Many lament the death of the borderless Internet. Our third theme is that, contrary to what many expect, the geographically bordered Internet has many underappreciated virtues. Citizens want their government to prevent them from harming one another on the Internet and to block Internet harms from abroad. Companies need a legal environment that guarantees stability in the network and permits Internet commerce to flourish. The bordered Internet accommodates real and important differences among peoples in different places, and makes the Internet a more effective and useful communication tool as a result.

There are downsides to the bordered Internet. As governments increase their control, they replicate their vices on the Internet. Au-

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thoritarian China has used the network as a device of political control and economic self-aggrandizement. Even in democratic societies, government interventions on the Net can reflect the corruptions and imperfections of the political process. We do not discount these and other vices. But we do think that the death of the 1990s vision of an anarchic Internet should be mourned only a little, for on the whole decentralized rule by nation-states reflects what most people want. Something has been lost, but much has been gained.

The Internet age is characterized by the incessant search for the newest “new thing.” Our story, by contrast, is about old things—the enduring relevance of territory and physical coercion, and ancient principles governing law and politics within nations, and cooperation and conflict between them. Territorial government is a persistent fact of human history that accommodates humanity in its diversity and allows it to flourish. Behind the mists and magic of the Internet lies an older and stronger order whose relevance remains inescapable.

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## *Introduction*

Yahoo!

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Marc Knobel is a French Jew who has devoted his life to fighting neo-Nazism, a fight that has taken him repeatedly to the Internet and American websites. In February 2000, Knobel was sitting in Paris, searching the Web for Nazi memorabilia. He went to the auction site of yahoo.com, where to his horror he saw page after page of swastika arm bands, SS daggers, concentration camp photos, and even replicas of the Zyklon B gas canisters. He had found a vast collection of Nazi mementos, for sale and easily available in France but hosted on a computer in the United States by the Internet giant Yahoo.<sup>1</sup>

Two years earlier, Knobel had discovered Nazi hate sites on America Online and threatened a public relations war. AOL closed the sites, and Knobel assumed that a similar threat against Yahoo would have a similar effect. He was wrong. AOL, it turned out, was atypical. Located in the Washington, D.C. suburbs, AOL had always been sensitive to public relations, politics, and the realities of government power. It was more careful than most Internet companies about keeping offensive information off its sites.

Yahoo, in contrast, was a product of Silicon Valley's 1990s bubble culture. From its origins as the hobby of Stanford graduate students Jerry Yang and David Filo, Yahoo by 2000 had grown to be the mighty "Lord of the Portals." At the time, Yahoo was the Internet entrance point for more users than any other website, with a stock price, as 2000 began, of \$475 per share.<sup>2</sup> Yang, Yahoo's billionaire leader, was confident and brash—he "liked the general definition of a yahoo: 'rude,

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unsophisticated, uncouth.”<sup>3</sup> Obsessed with expanding market share, he thought government dumb, and speech restrictions dumber still. Confronted by an obscure activist complaining about hate speech and invoking French law, Yang’s company shrugged its high-tech shoulders.

Mark Knobel was not impressed. On April 11, 2000, he sued Yahoo in a French court on behalf of the International League against Racism and Anti-Semitism and others. Yahoo’s auctions, he charged, violated a French law banning trafficking in Nazi goods in France. “In the United States [these auctions] might not be illegal,” said Knobel, “but as soon as you cross the French border, it’s absolutely illegal”<sup>4</sup> Ronald Katz, a lawyer representing the French groups, added, “There is this naïve idea that the Internet changes everything. It doesn’t change everything. It doesn’t change the laws in France.”<sup>5</sup>

Yahoo received a summons from Le Tribunal de Grande Instance de Paris, Judge Jean-Jacques Gomez presiding. “The French tribunal wants to impose a judgment in an area over which it has no control,” reacted Jerry Yang.<sup>6</sup> Yang’s public relations team warned of the terrible consequences of allowing national governments to control content on the Internet. If French laws applied to a website in America, then presumably so would German and Japanese regulations, not to mention Saudi and Chinese law. “It is very difficult to do business if you have to wake up every day and say ‘OK, whose laws do I follow?’” said Heather Killen, a Yahoo vice president. “We have many countries and many laws and just one Internet.”<sup>7</sup>

Jerry Yang embraced 1990s conventional wisdom in thinking that Judge Gomez could legitimately exercise power only in France, and could not control what Yahoo put on its servers in California. French officials, he thought, simply had no authority over a computer in the United States.

Yahoo’s Nazi web pages also seemed hard for French officials to stop at the French border. “The volume of electronic communications crossing territorial boundaries is just too great in relation to the resources available to government authorities,” wrote David Post and David Johnson, two proponents of a “sovereign” Internet.<sup>8</sup> Even if French officials identified and blocked the offending offshore website, the same information could be posted on mirror sites outside France.

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Moreover, the Internet's decentralized routing system was designed to carry messages from point to point even if intermediate communication exchanges are blocked, damaged, or destroyed. "The net interprets censorship as damage, and routes around it," John Gilmore famously declared.<sup>9</sup> To keep out the Nazi pages France would need to shut down every single Internet access point within its borders—seemingly an impossible task. And even this wouldn't have worked, because determined users in France could access the Net by a telephone call to an Internet access provider in another country.

For these reasons, the Internet seemed in the 1990s to have shattered the historical congruence between individual conduct and government power. Some, like Jerry Yang, were sanguine about this development. But many were alarmed. In the midst of the Yahoo trial, Paul Krugman wrote a *New York Times* column about the Net's threat to traditional copyright and tax laws. Internet technology is "erasing boundaries" and undermining government power, he warned. "Something serious, and troubling, is happening—and I haven't heard any good ideas about what to do about it."<sup>10</sup> In the late 1990s, there was broad agreement that the Internet's challenge to government's authority would diminish the nation-state's relevance. "It's not that laws aren't relevant, it's that the nation-state is not relevant," argued Nicholas Negroponte, the co-founder and director of MIT's Media Lab. "The Internet," he concluded, "cannot be regulated."<sup>11</sup>

Yahoo's fearlessness before Judge Gomez thus seemed justified. By the standards of the day, Knobel's effort to stop Yahoo from violating French law seemed dated, ridiculous, and destined to fail.

Paris's Tribunal de Grande Instance is on the Ile de la Cité, the cradle of Parisian civilization, just a few blocks from the Notre Dame Cathedral. It is housed in the beautiful but haunting Palais de Justice, where Marie Antoinette and thousands of others were incarcerated before being guillotined during a different revolution. It was in this ancient building that Yahoo's lawyers would defend the Internet's conventional wisdom against the tradition and glory of the French State.

In Judge Gomez's courtroom, it became clear that the irrelevance of the nation-state would not go uncontested. Knobel's lawyers asserted that France had the sovereign right to defend itself from the sale of illegal Nazi merchandise from the United States, and asked





Palais de Justice, where the Yahoo case was litigated (Martial Colomb/Getty Images)

Yahoo to explain why it ought be exempt from French law. As one anti-Nazi lawyer put it, “French law does not permit racism in writing, on television or on the radio, and I see no reason to have an exception for the Internet.”<sup>12</sup>

This simple argument threw Yahoo on its heels. If Yahoo caused harm in France, why should it be any more immune from regulations in different nations than “real-space” multinational firms? The Ford Motor Company must obey the varying safety and environmental laws of the many countries in which it sells cars. Why should Yahoo be exempt from laws in the countries where it does business?

Yahoo responded with an “impossibility” defense. If Ford found French environmental regulations too costly, it could stop selling cars in France without suffering harm in other markets. But Yahoo claimed that its situation was different. It maintained a French-language website (yahoo.fr) that complied with French law. But it also had a U.S. website that the French could visit. And unlike Ford, Yahoo argued, it had no power to identify where in the world its “customers” were from and thus no control over where in the world its digital products go. Were Yahoo forced to comply with French law, it would need to remove the Nazi items from its U.S. server, thereby depriving Yahoo users everywhere from buying them, and making French law the effective rule for the world.

On May 22, 2000, Judge Gomez issued a decision that, on a preliminary basis, rejected Yahoo’s arguments. He ruled that Yahoo’s

U.S. websites violated French law, and he ordered Yahoo “to take all necessary measures to dissuade and make impossible” visits by French web surfers to the illegal Yahoo Nazi auction sites on yahoo.com.<sup>13</sup>

But Yahoo remained defiant. “We are not going to change the content of our sites in the United States just because someone in France is asking us to do so,” reacted Jerry Yang.<sup>14</sup> The trial wasn’t



Jerry Yang (Robyn Beck/AFP/Getty Images)

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over yet, and the ability of Yahoo to filter its users by geography would be the key issue. And on this issue, Yahoo felt confident. Said Yang, “Asking us to filter access to our sites according to the nationality of web surfers is very naïve.”<sup>15</sup>

Yahoo’s “impossibility” argument reflected turn-of-century assumptions about the architecture of the Internet. The Net was not built with physical geography in mind. Neither Internet Protocol Addresses (each computer’s Internet ID), nor Internet domain names (such as mcdonalds.com or cnn.com), nor e-mail addresses, were designed to dependably indicate the geographical location of computers on the Net. Even domain names and e-mail addresses with geographical clues—such as toystore.co.fr, or tonyblair@gov.uk—were unreliable. The toy store web page might be located on a computer in Germany (and the data might be cached in dozens of nations), or might be sold or re-assigned to an entity outside France. Prime Minister Blair, meanwhile, could have been reading his e-mail on vacation in Italy, or while visiting the United States.

These architectural “facts” meant that users of 1990s Internet technology could not know where in the world their e-mail messages and web pages were being viewed, and thus what laws in which nations they might be violating. “In Cyberspace, physical borders no longer function as signposts informing individuals of the obligations assumed by entering a new, legally significant, place,” said Johnson and Post in 1997.<sup>16</sup> One reason why it seemed unfair for France to apply its laws to Yahoo was that Yahoo didn’t know where particular users were, and thus didn’t know which laws it should be complying with.

France’s attempt to govern Yahoo seemed unfair for another reason. Internet firms and users confronted with a bevy of conflicting national laws could reasonably be expected to comply with the strictest among them in order to avoid legal jeopardy. The ultimate effect of territorial control of the Net thus seemed to be a tyranny of unreasonable governments. “We now risk a race to the bottom,” said Alan Davidson of the Center for Democracy and Technology about the *Yahoo* case. “The most restrictive rules about Internet content—influenced by any country — could have an impact on people around the world.”<sup>17</sup>

There’s an old European joke that captures the problem. In heaven, the joke goes, you find French cooks, English government, Swiss trains,

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and Italian lovers. In Hell, by contrast, you find French government, Italian trains, English chefs, and Swiss lovers. Territorial control of the Internet seemed to promise a parallel version of legal hell: a world of Singaporean free speech, American tort law, Russian commercial regulation, and Chinese civil rights.

Judge Gomez gave Yahoo two months to figure out how to block French surfers. During this recess, Cyril Houri, the founder of a fledgling American firm called Infosplit, contacted the plaintiff's lawyer, Stephane Lilti, and told him that he had developed a new technology that could identify and screen Internet content on the basis of its geographical source. Houri flew to Paris and demonstrated his technology on Lilti's computer. The men blinked and peered into the screen, astonished. Yahoo's servers, which the firm had claimed were protected by the U.S. First Amendment to the U.S. Constitution, were actually located on a website in Stockholm! Yahoo had placed a constantly updated "mirror" copy of its U.S. site in Sweden to make access to the site in Europe faster.<sup>18</sup>

When the trial resumed on July 24, Yahoo lawyers again asserted that it was technically impossible to identify and filter out French visitors to the firm's U.S.-based websites. Lilti responded by discussing Houri's geo-location technology in the courtroom. Yahoo auctions in France, he argued, were not in fact coming from servers in the United States. The assumption that every web page was equally accessible to every computer user everywhere in the world, Lilti claimed, was simply wrong. If Yahoo could target French users from Swedish servers, it could potentially identify users by geography and, if it liked, screen them out.

Judge Gomez responded cautiously to this seemingly audacious claim and appointed three Internet experts—Vinton Cerf, the "father" of the Internet, Ben Laurie, a British Internet expert, and Francois Wallon, a French technologist—to assess the extent to which Yahoo could block transmissions into France. The experts' report was devastating. It relied on the state of technology in late 2000—namely Houri's IP-identification technology, and self-reporting about nationality—and concluded Yahoo could effectively screen out 90 percent of French users.<sup>19</sup>

Based on this report, Judge Gomez issued a landmark final decision on November 20, 2000, that reaffirmed that Yahoo had violated

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French law by allowing Nazi goods to appear for sale on web pages there.<sup>20</sup> The judge determined that the French court had power over Yahoo and its servers because the company had taken conscious steps to direct the prohibited Nazi auction pages into France. He pointed out that Yahoo greeted French visitors to its U.S. website with French-language advertisements. This showed both that Yahoo was tailoring content for France, and that it could to some extent identify and screen users by geography.<sup>21</sup> The court acknowledged that 100 percent blocking was impossible, and ordered Yahoo to make a reasonable “best effort” to block French users.<sup>22</sup>

Yahoo remained indignant. It announced that it would ignore Judge Gomez’s decision unless a U.S. court made it do otherwise.<sup>23</sup> A month after the decision, it filed a counter-lawsuit in the United States meant to block the French judgment. “We hope that a U.S. judge will confirm that a non-U.S. court does not have the authority to tell a U.S. company how to operate,” said Yahoo France’s managing director Philippe Guillanton.<sup>24</sup>

But the company had a problem. While Yahoo thought it would be impossible for a French court to exercise power in the United States, Yahoo also had assets in France, including income from a sizeable French subsidiary, at risk of seizure.<sup>25</sup> Judge Gomez warned the firm that it had until February 2001 to comply before facing fines of 100,000 francs (about \$13,000) per day.<sup>26</sup> Yahoo executives, who make frequent trips to Europe and who would be subject to legal process there, began to think things through.

On January 2, 2001, Yahoo abruptly surrendered. It pulled all Nazi materials from its auction sites, announcing that it “will no longer allow items that are associated with groups which promote or glorify hatred and violence, to be listed on any of Yahoo’s commerce properties.”<sup>27</sup> It weakly asserted that it was motivated by bad publicity from the Nazi auctions, and not the French ruling. “Society as a whole has rejected such groups,” said a Yahoo spokesperson.<sup>28</sup> But the timing and threat of French sanctions suggest otherwise—that Yahoo’s will had broken.

Soon after Judge Gomez’s decision, Yahoo’s resistance to geographical screening began to wane. In June 2001, Yahoo announced a deal with Akamai, a content delivery company, to use the firm’s geographical

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identification technology to deliver geographically targeted advertising, in order to “increase advertising relevance.”<sup>29</sup> One of Yahoo’s lawyers, Mary Wirth, had the unenviable job of explaining the firm’s contradictions on geo-ID. “We argued that . . . it’s not a 100 percent accurate solution for the French court order because we would have to identify (French citizens) with 100 percent accuracy, and that’s not possible. [However,] the technology is perfectly appropriate for ad targeting purposes.”<sup>30</sup>

And then Yahoo took the next step. In 1999, it had established a new venture in a new place: the People’s Republic of China. When Yahoo first entered the Chinese market, it announced that Yahoo China would “give Internet users in China easy access to a range of Yahoo’s popular services tailored to meet the needs of this audience.”<sup>31</sup> But the Chinese government had its own ideas about what its citizens needed. As a condition of market access, it eventually demanded that Yahoo filter materials that might be harmful or threatening to Party rule. The Chinese government, in effect, asked Yahoo to serve as Internet censor for the Communist party.

We do not know if there was a long internal debate at Yahoo, or whether the company searched its libertarian soul before deciding to go forward. But we do know that in 2002, Yahoo was not the brash and confident firm it had been just a few years earlier. By end of the summer of 2002, Yahoo shares, valued at \$475 in 2000, were now trading at \$9.71.<sup>32</sup> A new and better search engine, Google, whose motto was “don’t be evil,” had become the new darling of Internet information retrieval. Yahoo had to do something, and the Chinese market looked to be the future.

In the summer of 2002, Yahoo quietly agreed to China’s demands. It signed a document called the *Public Pledge on Self-Discipline for the Chinese Internet Industry* in which it promised to “inspect and monitor the information on domestic and foreign Websites” and “refuse access to those Websites that disseminate harmful information to protect the Internet users of China from the adverse influences of the information”<sup>33</sup> Ken Roth, the executive director of Human Rights Watch, criticized Yahoo for promising “to identify and prevent the transmission of virtually any information that Chinese authorities or companies deem objectionable.”<sup>34</sup>

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By 2005 Yahoo had come full circle. The darling of the Internet free speech movement had become an agent of thought control for the Chinese government. Yahoo today provides Chinese citizens with a full suite of censored products. Its Chinese search engines do not return full results, but block sites deemed threatening to the public order. Yahoo's popular chat rooms feature software filters designed to catch banned phrases like "multi-party elections" or "Taiwanese independence." It also employs human and software censors to monitor chat room conversations. All this led the group Reporters without Borders in 2004 to label Yahoo a "Chinese police auxiliary."<sup>35</sup>

In the fall of 2005, Chinese Journalist Shi Tao sent an e-mail to a democracy website in the United States. He attached to the e-mail a memorandum recording a Communist party meeting that discussed ways to deal with the anniversary of Tiananmen Square. But Shi Tao made a serious mistake—he used his Yahoo e-mail account to send the document. When Chinese authorities discovered it on the website in the United States, they asked Yahoo to help identify its sender. Yahoo complied, and Tao was thrown in prison for ten years. How did Jerry Yang, the one-time champion of Internet freedom, explain his company's new role? "To be doing business in China, or anywhere else in the world, we have to comply with local law," explained Yang. "I do not like the outcome of what happens with these things," Yang added. "But we have to follow the law."<sup>36</sup>

The Yahoo story encapsulates the Internet's transformation from a technology that resists territorial law to one that facilitates its enforcement. But the Internet's challenge to the nation-state was much more profound than the Yahoo story suggests, and the nation-state's response has been much more complex and, at times, tentative. To understand the transformations of the past decade, we must begin by examining why so many people believed that the Internet might transcend territorial law and render the nation-state obsolete. This is the task of part 1.

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*Part 1*

# The Internet Revolution

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