Online Contribution Practices in Countries that Engage in Internet Blocking and Censorship

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ABSTRACT

In this article we describe people's online contribution practices in contexts in which the government actively blocks access to or censors the Internet. We argue that people experience blocking as confusing, as a motivation for self-censorship online, as a cause of impoverishment of available content and as a real threat of personal persecution. Challenging ideas of blocking as a monolithic, abstract policy, we discuss five strategies with which Internet users navigate blocking: self-censorship, cultivating technical savvy, reliance on social ties to relay blocked content, use of already blocked sites for content production as a form of protection and practiced transparency. We also discuss strategies that forum owners and blogging platform providers employ to deal with and to avoid blocking. We conclude by advocating for more research that acknowledges the complexity of the contexts in which all Internet users contribute to the Internet and social media.

Author Keywords

Internet censorship, blocking, motivation, contribution, government, Internet non-use, Internet use, lurkers, online communities, social media, ethnography

ACM Classification Keywords

K.4 [Computing Milieux] Computers and Society; H.5.m [Information Systems and Presentation] Miscellaneous

General Terms

Human Factors

INTRODUCTION

The Internet's very existence depends on people's contributions of words, images, and video. Many popular social media–blogs, discussion forums, image, music and video-sharing sites like Flickr or YouTube, and, of course, Wikipedia–rely on people's willingness and ability to contribute content. People's contributions are the backbone of user-generated content sites and much of the Internet.

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However, the importance of the small fraction of Internet users who are active contributors to social media places them at the center of research about how people use online communities, and engage in blogging and other digital practices. Understanding the reasons and contexts in which people contribute to social media is of utmost importance to people who design, provide content for, and use the Internet and social media. The individualized motivations of active contributors have been studied across a range of domains in a diverse set of social media, most often drawing on theories of psychology and communication.

Individualized approaches to understanding contribution practices tend to be insensitive to context. They tend to assume that contributors face few, if any, structural consequences as a result of their contributions. People's willingness and ability to contribute to social media, however, are also shaped by their contexts, and, in particular, their relationship to the state. In countries with strong protection of freedom of speech and relatively democratic legal systems, the negative potential consequences are relatively slight: loss of a job for inappropriate postings or merely social embarrassment. For much of the rest of the world, however, the negative potential consequences–whether actual or perceived–are far greater.

In this article we describe people's contribution practices in contexts in which the state actively censors Internet use through blocking access to Internet resources. Blocking of Internet web sites is commonly discussed as a technical phenomenon, using techniques such as DNS tampering and IP and URL blocking using a proxy [17]. Our research, however, indicates that people who live in countries with extensive Internet censorship, experience blocking as a complex phenomenon that shapes their decisions about and attitudes toward contributing to social media.

In many countries where populations are just recently starting to utilize the Internet, state governments tend to see the development of locally grown Internet resources as national projects. Governments make investments into the infrastructure and fund Internet entrepreneurship, supporting the development of locally relevant social media tools that often depend on user contributions to survive. At the same time, many governments monitor the content produced by their citizens and engage in extensive

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censorship. These mixed signals usually do not deter Internet users in these countries from accessing the Internet, but we argue that such state actions influence what Internet users access and how and whether they contribute online.

WHY PEOPLE CONTRIBUTE (& NOT) TO SOCIAL MEDIA

Research about why people contribute to social media does not coalesce into a coherent, definitive list. The significance of individual and social motivations-both intrinsic and extrinsic-differ, as others have noted [26], along numerous axes. The form of social media (e.g., video vs. web blog [22]), the nature of an initial encounter with a social network [1], the technology's ease-of-use [8], the content domain (e.g. contributions in medical versus technical support online groups [15]), whether contributions on an online encyclopedia are directed between users or to the community at large [12], and, of course, people's socioeconomic characteristics [6], have all been identified as explanatory variables in people's contribution practices.

Most users of the Internet do not contribute content or material. By default most people participate in social media as recipients or consumers of content created by other people. In fact, in most social media, a minority of people creates the majority of the content or contributes most actively. A small number of members or participants in online discussion groups post messages [19], a minority create content for user-generated encyclopedias [12], more people read blogs than have them, and following on Twitter is far more common than sending tweets.

Research about why people do not contribute on the Internet [15,19], as well as what it means to be a user of the Internet [20,21,23,25,28] has appropriately added complexity to the understandings of contribution, sharing, and the very idea of a participatory culture. Empirical research has dispelled [15,19] the idea that people who participate in but do not post in online communities–nonpublic participants [15] or so-called lurkers–are simply selfish free riders. Rather, people choose not to contribute for myriad reasons, including wanting more information about the group first, shyness, feelings that they have nothing worth contributing or, often, the sense that reading and browsing satisfies their goals and needs [15,19].

The majority of Internet (and social media research) assumes that people make decisions to contribute in contexts in which they are free, willing and voluntarily able to do so, with few non-psychological consequences. The typical theories (e.g., uses and gratifications theory) and survey questionnaire items reflect and reinforce this assumption.¹ We argue that what has also regularly been

overlooked in research about online contribution is that any decision to contribute to social media takes place in a context shaped not only by individual and organizational motivations, but also by the laws and policies of states, often in tandem with technology and telecommunication companies. For people in countries with strong legal protection of speech and ideas, this fact has gone unnoticed and unremarked upon. People in these contexts, for the most part, feel "free" to contribute to the Internet, and the negative repercussions to their lives are slight and rare, such as dismissal from a job or legal fines. For an increasing number of people worldwide, however, their social media contribution practices are less free from repercussions and are shaped by another force: the practice of censorship through the blocking of web sites by the state.

BLOCKING & CENSORSHIP

The practice of blocking

Blocking is beginning to receive some attention by research communities. As a research object, blocking is most often approached in three ways: as a technical practice, as a policy-level phenomenon, or in connection with political activism online. From a technical viewpoint, blocking is discussed as existing techniques to restrict access to web sites and to circumvent these restrictions [17]. At a policy level, blocking is often construed as part of State media policies, control practices and legislative frameworks [11,16]. Another approach highlights how people circumvent blocking usually in the name of political activism, using technologies to stage or facilitate government protests [2,13,14,30]. Regular users' practices under such conditions-how they experience and navigate blocking-are rarely discussed in the literature, though for many people censorship is a common factor in their Internet use. As countries worldwide add the Internet to their list of capabilities, they bring with them their own ideas and ideologies about how their own citizens ought to navigate the Internet [10]. Many of these ideas and ideologies get translated into methods of control, censorship and site blocking reminiscent of the much-debated approaches used in the Middle East [7] or China [13,14,29,30]. In this article we discuss our findings about how people experience blocking "on the ground" and how blocking and censorship figure into online contribution practices.

Note on Ethics of this Research Study

Issues of blocking and censorship are sensitive topics often seen as inappropriate for discussion in countries where such practices are prevalent. The data reported here are derived from an ongoing project in a country where these practices are present but are perceived as politically sensitive and inexpedient for open discussion. In the course of data collection, all participants were provided with a study information sheet and were informed of potential risks from participating in the study. We had intended to follow the accepted confidential treatment of the data by anonymizing participants in the course of publication. However, the IT community under study was sufficiently small where by

¹ One challenge to these assumptions is research highlighting possible structural obstacles to contribution and participation, such as the continuing existence of a digital divide in terms of access or in terms of digital skills [23] or digital literacy [5].

simply identifying the fieldsite, we would have violated collective anonymity [24], making it simple for community members to identify individual respondents despite accepted anonymization practices.

In an effort to protect the respondents who graciously agreed to be a part of this project and the integrity of the project itself, we have chosen to anonymize the name of the country described in these pages and to call it The Country. We do not cite any of the local news and scholarly sources in The Country that, while providing support for some of the statements made in this article, would immediately identify the location in question. We realize that such anonymization efforts do not completely protect the authors or the people involved, however a good faith effort can produce sufficient barriers to limit potential harm.

The National Context Under Study

The country under study can be construed as a digitally nascent State [27] with less than 30% of the population on the Internet, although technology adoption is rapidly growing due to decreases in prices for broadband and mobile access. With increases in user base, The Country is quickly developing its own Internet infrastructure and resources in languages spoken by its population.

Internet users in The Country tend to perceive the Internet as a series of differentiated nationalistic spaces with themselves located in the local national Internet space. The government of The Country engages in a broad effort to support what it sees as the development of the national space on the Internet, funding products and services that are locally produced. From the user's point of view, the national Internet space is defined through the country-code top-level domain $(ccTLD)^2$ and through local content and its visibility. The localness can also be signaled by some part of the URL outside the ccTLD as sites often sport either a city- or the country name somewhere in the URL.

According to the official domain name registration rules of The Country, a site that has a second-level domain within the national Internet address space has to be hosted on the territory of The Country. Each country designs the specific policies under which it administers ccTLDs³. The resources available in what is considered the national Internet space signal their affiliation either through obtaining a URL with the relevant ccTLD or, if they are not granted the ccTLD usually for reasons of blocking, history or content, by other indications in the URLs and through presentation of local content. For example, several oppositional news sources are housed on servers in other countries. These resources have not been able to obtain the relevant ccTLD due to government resistance and threats of persecution. However, these news sources retain the name of The Country as part of their URLs to signal their affiliation.

Although no official list or a clear set of rules establishes which sites are allowed or disallowed in The Country, the blocking of sites is rampant and known to the users. A popular worldwide blogging platform is currently the only site that is officially blocked by a court ruling. Other sites are often blocked for arbitrary periods of time by the main Internet provider, which is owned by the state-controlled telecom. For example, a popular video sharing site and a microblogging site were blocked with no warning or explanation for about 2-3 days in 2010 and then unblocked just as swiftly.

While blocking and censorship have been discussed in the literature on the technical, policy, and political activism [4,12,14,29] little of this research has considered how users that live in countries that censor the Internet might develop strategies to deal with blocking and how the twin threats of blocking and censorship may affect their online content contribution practices.

METHOD

The research presented here is part of an ongoing research project that investigates how people in The Country use the Internet and other communication technologies for communication and information seeking purposes and how these technologies are being integrated into everyday practices. The first author conducted semi-structured interviews, focus groups and many hours of informal conversations and observations in three different cities in The Country over the course of seven weeks in the spring of 2009 and in the spring of 2010. Interview and focus group participants were recruited using snowball sampling initially seeded through personal contacts or encounters in Internet cafés and public spaces. The interviews were conducted in the native language, and lasted between 30 and 60 minutes each, usually in a location of the interviewees choosing. Informal conversations and observations were conducted in the course of visiting and participating in IT-related and educational events in order to get a sense of discussions around IT-related issues and online contributions. The majority of conversations centered on communication and information seeking practices as well as any contributions in the form of blogging or posts on discussion forum spaces. We focused on urban centers, as levels of Internet penetration in rural areas at this time were negligible. Thus the results of this research apply to urban population only.

Participants

Our sample of 49 included 38 individual interviews and two focus groups. Nineteen of the interviewees were directly engaged in IT-related activities or policy debates, and the rest were people of varying socio-economic status and backgrounds with no direct professional connection to the IT industry. We interviewed IT professionals and Internet

² Each country has a unique two-character abbreviation which is appended at the end of the domain name (eg .us for US, .de for Germany, .uk for United Kingdom, .cm for Cameroon, etc)

³ See the IANA TLD Delegation Practices Document (ICP-1) http://www.icann.org/icp/icp-1.htm

resource developers, prominent local bloggers, forum moderators and Internet policy advisors. The sample included 25 men and 24 women, aged 18 to 62 (average 35). All but two were native to The Country.

In the course of the fieldwork a pattern emerged wherein participants and informants tended to talk more openly about blocking and their fears about online contributions, as well as engaged in more political discussions once the recorder was turned off and the notebook was put away. These observations, informal conversation and postinterview discussions were noted and paraphrased in memos and field notes after the fact and constitute part of the data on which we base our analysis.

Data Analysis

All interviews were audio-recorded and transcribed. Following the methods of qualitative data analysis suggested by Emerson and colleagues [3] we developed a coding scheme based on open coding of transcripts, memos and field notes. Our initial purpose was to investigate the strategies users develop to deal with State blocking of Internet resources, whether or not they contributed content online and how fears of State persecution may figure into their decision making and Internet use practices. Relevant references from each transcript were combined and summarized to form a coherent narrative for each theme. These summaries then provided an analytical overview. All quotes presented here were translated. Names and initials were changed to a random numbering of respondents in order to preserve confidentiality. Given the sensitivity of the topics discussed, we do not present additional information about respondents, such as their location at the time of interview, background or occupation.

EXPERIENCES OF BLOCKING AND CENSORSHIP

Participants in our study experienced blocking and censorship in a variety of ways: as something confusing and difficult to comprehend, as something that inspired selfcensorship online, as a cause of an impoverishment of available content and as a threat of real personal persecution. Some of these experiences were shared across respondents and some were unique, depending on where they lived and what activities they engaged in on the Internet. Moreover, owners of forums and blog platforms experienced blocking and censorship as reasons for instituting oversight and heavy moderation on their sites. We begin this section however, with discussing how State blocking and censorship practices were in part responsible for delineating State boundaries online and for the creation of a national Internet space that was clearly identifiable to the state citizens.

National Internet space

In 2009 the agency of information and communication of The Country released an official report that made recommendations to develop resources in the national internet space, recognizing the importance of local content, improvements in telecommunication infrastructure and reduction of the digital divide through education and promotion. A large proportion of government support went toward two specific projects - implementation of the electronic government, and promotion and development of resources and content in the national Internet space through provision of support to internet-based businesses (from field notes). In early 2010 the agency was disbanded and management of internet-related issues moved under the umbrella of the Ministry of Information. As a result the government took an even more overtly active role in promotion and control of internet-related issues. A newly appointed minister conducted formal meetings with entrepreneurs and owners of leading Internet businesses in The Country and participated in a series of open forums discussing the issues faced by the developers of local content in the national Internet space.

These actions did not simply increase government involvement, but they were a response to something the majority of people we spoke to in the course of this study pointed out time and again: "You know, [national Internet space] is simply empty. There is nothing there, just torrents and downloads." (R1)

The government and the businesses involved realized that in order to accomplish the development of what they and the users saw as the national space on the Internet, they had to encourage regular Internet users in The Country to produce content. However, the government also pursued a conflicting goal of controlling certain types of speech on the Internet. Mixed signals from the government– encouraging and yet controlling content–generated a fair bit of skepticism among Internet users in The Country about the viability of this national Internet project.

As one active blogger commented: "No, they want it so that everything is in the [National] domain. On one hand that's a good thing, that's development of [national Internet space], but they should make it worth our while." (R2)

"They" in the quote above, of course, refers to the government and its stated goals. The question remained, however, how the government might make being part of the national Internet space "worth their while" for people who make up the fledgling participatory culture in the region. The mixed signals of participation promotion and censorship resulted in the opposite effects. In the course of one interview a participant commented: "*The information space of* [The Country] *is impoverished, simply impoverished. It is objectively like that.*" (R3)

He further explained: "Well there are such things as freedom of speech and censorship. We don't have the former and we have the latter – there are some disallowed topics. So there is nothing interesting to read." (R3)

Many activists, bloggers and IT professionals shared the view that the national Internet space lacked anything "interesting" to read. One of the major reasons for this evaluation was the fact that the government and the

government-controlled Internet provider engaged in content control by blocking offending sites. However, not all users experienced technical blocking equally as several areas of The Country accessed the Internet through channels outside the main government-controlled pipeline. In these areas, the stories about blocking, control and finding interesting things to read were more abstract and similar to the kinds of ideas about blocking that one might encounter in most Western countries because although people had heard about blocking, they had not experienced it first-hand.

Blocking as an Abstract Concept

In the course of fieldwork, it became obvious that blocking in The Country was going to be difficult to pin down and define analytically, given that the users we spoke to communicated a fair amount of confusion about this government practice. Blocking tended to be variable, inconsistent and mostly manifested as a sudden inability to connect to certain web sites. However, in locations where many places have spotty Internet connections it was sometimes difficult to tell whether a site was blocked or simply inaccessible for technical reasons. The fact that several small independent Internet providers exist, offering limited services in some areas of the country, and choose not to block sites, added to the complication of figuring out whether a site was in fact blocked. Internet users in The Country at times tested sites with different settings and attempts at access through different providers, and then posted results of such experimentation on forum discussions or swapped information through text messaging among groups of friends. Those that lived in areas where blocking was minimal encountered it far less often, but certainly heard of the practice from their friends.

"Some of my friends said, they tried to access some site and they were basically told that access to the site is blocked for people from [The Country], but I never experienced that." (R4)

Such stories of friends or acquaintances encountering blocking were often confusing and difficult to interpret for users who were new to the Internet. If they lived in areas where blocking was absent, it was clearly difficult to conceptualize what that might mean for their Internet use and how that might even be experienced.

"Yeah we heard about blocking but we get everything here, no problem. Here, see I can access [blogging platform blocked in the rest of The Country] no problem." (R5)

We also noted that where blocking was not rampant or particularly evident, the idea of starting a blog or contributing to a forum was a less daunting prospect although the likelihood of doing so was still fairly low given the lack of popular examples of such content production.

"Well I had lots of time and I was alone there [studying abroad] and I have so many relatives and everyone wants to chat and everyone wants attention. So I decided blogging

would be better and I will put up photos and everyone will know what I am up to."(R6)

In these areas the idea of contribution was attractive and reluctance to contribute had more to do with more familiar reasons, such as lack of time, lack of technical knowledge, caution about saying something that might generate conflict at work or at home or simply being intimidated by the existing conversations.

"Yeah I should start a blog I think, or something like that. I mean my friends think I should but I am not sure. I don't actually know anyone who does it." (R4)

Although the perceived immensity of already available information on the Internet discouraged many interviewees from considering online contributions, those that did think about creating content were often deterred not only by the common reasons of shyness or technical limitations, but also due to other more specific reasons. For example, even when the content in question would seem benign and largely unthreatening to a State that actively polices the local Internet space, many respondents described caution and tentativeness about putting up photos and content that were either too explicit or creatively unique:

"Who knows who might see photos of me on the beach!" (R6)

Even without the threat of blocking, the worry of being seen by an unknown audience and the kinds of potential unintended consequences were some of the most common reasons. Users in The Country did not seem seduced by the idea of anonymity on the Internet, as many similar users in the West had been. The practice of self-censorship has been observed in other contexts where State surveillance was openly present in the everyday lives of citizens [16]. This kind of self-censorship also belied a lack of trust in online audiences that their contributions could attract, as users were worried about having their original work somehow stolen and appropriated.

"Well these are my photographs and I don't want people to steal them." (R7)

Blocking as an Experienced Reality

Yet in most areas of The Country blocking was evident as a central fact of life for many users. Effects of blocking could often be detrimental to the sites affected:

"People are leaving that site [a news discussion and oppositional site], blocking didn't do them any favors and such and so people are no longer reading it." (R3)

Blocking as delineating state boundaries online

As sites got blocked, being a part of the national Internet space was seen as problematic. The probability of the national telecommunication company suddenly blocking one's blog or website was largely unknown and unclear. Web sites were sometimes taken down through denial of service (DOS) attacks initially and eventually blocked outright if the site owners were able to deal with the DOS attacks. Patterns of blocking were erratic and largely incomprehensible. Moreover, many respondents related stories of observed persecution as reasons for not being part of the national Internet Space.

"[Oppositional news site] moved to Tuvalu, [Newssite].tv now. They were constantly getting DOS'ed and their commentaries page was always getting blocked so they moved out" (R8)

Impoverished content

Technically savvy and politically active respondents often cited these kinds of forced relocations as the main reason why even though many "interesting" conversations and information happened on the Internet, they were not to be found in the national Internet space:

"So basically, if there is an interesting conversation happening online, really interesting intellectual discussion, it gets blocked. That's why they get blocked, if they are interesting." (R8)

Even if "interesting" conversations were available outside of the national Internet space, there were plenty of forums and even a recently developed blog-platform available in The Country, ostensibly for the purpose of fostering interesting conversations in the local space. Yet here as well, censorship was faulted for lowering the quality of contributions:

"Yeah you can contribute on the [locally-developed blogsite], but it's all childlike. You know girls writing about poetry and long walks on the beach and you get deleted as soon as you start saying anything interesting" (R8)

Blocking as persecution

Aside from observations of other conversations getting blocked or removed, there were also plenty of examples of personal access to the Internet being actively monitored. Experience with such forms of surveillance on the part of government, or more often, the employer who provided Internet access in the first place:

"I wouldn't access [oppositional news site], because that's oppositional. Or if it is government supported then it is ok, because you know at work, they will know." (R6)

If just reading an oppositional site could elicit persecution in the workplace, then the thought of actually posting on a forum or a blog seemed unthinkable and even irresponsible to those users who observed their co-workers' experiences:

"We have one guy at work, they took away his Internet for a week and fined him for using [local forum]. So I looked and I won't post there again." (R9).

Blocking as cause for oversight and moderation

Blocking and monitoring were actively discussed not only by Internet users but also by IT professionals who developed and maintained sites and businesses that relied on user contribution to survive. In these cases, the owners of forums freely admitted that there were government national security agents whose job it was to monitor discussions on the sites. Forum owners made no secret about this monitoring to their users as well, often reminding them that the Internet was monitored and not anonymous. Forum owners knew how many such watchers there usually were and even when they logged in to monitor. Thus forums and discussions sites of every stripe employed a range of paid and volunteer moderators to manage submitted content in order to limit their own exposure for the content their users produced and to reduce the perceived danger of getting censored and blocked.

STRATEGIES TO DEAL WITH/HANDLE BLOCKING

As Internet users in The Country encountered blocking, evidence of monitoring and being monitored, they developed a range of strategies for Internet use. These strategies varied depending on the goals of the users and the kinds of content they were interested in producing online. Overall, we recognized five strategies that individual respondents used for dealing with blocking and censorship. These strategies were self-censorship, technical savvy, reliance on social ties to relay blocked content, use of blocked sites for content production as a form of protection and practiced transparency. Our respondents often utilized several of the strategies we discuss here to varying degree. However, we separated these concepts for analytical purposes. We also discuss how forum owners and blogging platform providers dealt with blocking and what strategies they employed to avoid having their sites blocked.

Individual strategies

Self-censorship

Bloggers who wrote on non-political topics and themes were generally cautious about what they posted. Although they still expected that they would probably get blocked at some point, they tried to minimize that possibility by engaging in forms of self-censorship and careful attention to both the content they produced and the commentary they received. Despite taking care to control their speech, many bloggers and forum posters were worried that they might get blocked or deleted anyway at any moment.

"I check every day, you know we are afraid of getting blocked again. We don't know why we got blocked last time, but it can always happen" (R10)

The quote above illustrates the fear of being blocked, because such blocking could be detrimental for smaller sites with readership leaving to seek non-blocked content elsewhere. The distinct uncertainty over why one might get blocked meant that the fear remained regardless of the topics discussed on the site.

"Well that site opens now but at some point it was blocked. We are still a bit scared that we will get blocked again. Because many of the bloggers are getting really active. More active than official sites." (R2)

Having been blocked once, a community of bloggers that discuss local IT and national language issues came up with

reasons for why they might get blocked again. Their explanations often centered on steadily increasing levels of activity among bloggers who were interested in the national language and ethnic identity issues. In the course of one discussion with a small group of these bloggers it became clear that they felt the simple increases in posting frequency and local audiences made them more visible and exposed to the government that may or may not have approved of their discussions. This exposure was largely imagined because none of the blogs usually received more than a few hundred hits a day and most received just a few dozen a week. Yet this imagining of visibility as a cause for being persecuted both technically (through blocking) and physically (through direct government action) were based in the visible reality of sites getting blocked and in the second-hand or even first-hand stories of legal persecution and individuals experiencing direct government pressure:

"So [news discussion site], they [the government] took away their domain – [sitename] and so they moved to the .net space cause then the government can't get to it [the physical server], but they still don't want to get blocked so they have toned down what they say." (R8)

In the course of the fieldwork we heard stories of people being asked to remove their comments by some form of authority. In one story, repeated by several sources, an opinion leader on a local forum was suddenly seen posting announcements in which he uncharacteristically reneged on everything he expressed in a series of prior posts lamenting particular aspects of government financial policies. He subsequently stopped posting entirely on the forums under the pre-text of having too much work. People relating this story to us usually concluded that the opinion leader was either banned from the Internet or arrested. Some suggested that he might have decided a few comments on a forum were not worth losing too much over and that was probably a smart move on his part. While people relating these stories intended, in part, to shock the interviewers, at the same time, they also clearly regarded the consequences as a normal and logical outcome of one's activity online.

Technical Savvy

Despite the erratic nature of the blocking and the shadowy evidence of persecution, technical savvy and knowledge of efficient workarounds such as proxy servers or anonymizers was important for getting access to blocked content. These were utilized by a wide range of users and were especially important for those who produced content and those who were determined to access oppositional resources and blocked blogging platforms.

"Well so it got blocked, so whatever ... Today it got blocked, tomorrow it will get unblocked or I will access it through an anonymizer or some other way, through some other browser and that's all." (R8)

Reliance on social ties

When users in some areas of The Country could not access a blog post or a news site for whatever reason, users who did have access to these resources because they either were technically savvy or happened to live in areas without blocking, simply pasted the information into email or reposted it on their social network site profiles for their friends to read. Thus many users were able to circumvent some forms of blocking without much technological savvy, but instead relying on social ties to people who lived in areas with unfettered access to the Internet.

Blocked sites as a form of protection

Armed with technical savvy of navigating proxies and anonymizers, many users in The Country continued to actively post on blocked blogging platforms, forming welldefined intellectual communities behind the firewall. Although a few did so because they intentionally blogged for friends or family who lived outside The Country, some clearly produced content that was local and directed at an audience inside The Country. For content producers that blogged on sites that were officially blocked, and especially for those that produced politically charged content, blocking was at times perceived as a form of protection from potential persecution by the government.

"Government put itself into a stupid position [by officially blocking a site]. So if they say "You wrote this and that and the other on your blog?" and I will say "I am sorry, but all of these blogs are blocked according to this court decision. That's all – they don't exist and they are officially inaccessible to citizens of [The Country]." So what are they going to do then?" (R8)

The scenario described above was produced in full seriousness and with the expectation that this, in fact, was something likely to happen – an expectation of persecution that was part and parcel of political blogging in The Country. Given this environment, the prominent and prolific bloggers and forum participants talked openly about expecting to have their phones tapped and their online conversations followed.

"I wouldn't go get a blackberry. I could go down the street and get one, but I wouldn't because they [the government] can't crack that encryption and they would just get suspicious. Cause they listen to me and listen to me and then suddenly I am encrypting and so that means I am really saying something they don't want me to." (R8)

Practiced transparency

There was a resignation to being watched and an acceptance of this as a practice where personal transparency would be the best policy and best protection. Many prominent bloggers and IT professionals practiced transparency as a policy of self-preservation. They limited their use of encryption and made sure to post commentary on sites outside their own blogs in a manner that clearly indicated their identity. In interviews and conversations these kinds of practices were often pitched as a form of bravado and yet at the same time described with clear and calculated detail. Practiced transparency also removed any illusions of anonymity one might harbor when interacting

online. Nearly every respondent was careful to explain that nobody was anonymous on the Internet, but that sometimes people tried to hide behind temporary handles anyway.

Forum owner and platform provider strategies

The data presented in this portion of the article includes few representative quotes because these stories were told in confidence and the interviewer was explicitly asked not to record and not to take notes. In order to protect our participants we give no detailed information and present this data in general terms.

The fear of persecution and the experience of surveillance were not unique to people producing content in public space, but also to those providing platforms for such contribution. In fact the onus of control and censorship often fell to blog, discussion and forum platform operators as the initial level of control. The owners of blog and forum spaces felt they were required to do active surveillance, in some cases surrendering information about their clients that could identify them to the government. They developed a range of practices to give their users a chance to take back untoward commentary and to adjust behavior. The owners did so in order to protect their users from persecution, to create a space where online contributions were encouraged despite the censorship and to protect the site from being blocked by the government.

For example, small forum owners or private bloggers monitored comments on their sites by hand and sent reminders that there is no such thing as anonymity on the Internet, offering people a chance to remove or augment the offending commentary. This was only tenable, however, if the audience and readership of the site was small. In one example, the owner of a local forum realized that he no longer had time to sleep because his site had gained popularity and saw swift increases in traffic and comments.

Larger sites promoted some of their frequent users to volunteer moderators of online conversations and sometimes even hired people to moderate. The way the moderators dealt with offenders on the sites was largely similar. The most common strategy for the administrators and moderators of online discussion spaces was first to warn, always pointing out that the feeling of anonymity on the Internet was deceptive and that in reality anonymity did not exist. Users of the forum or blog were given a chance to revise their statements and if these same people did not heed the advice, their information was eventually handed over to the relevant government agencies.

Forums with very large audiences and readership developed sets of rules to govern posting and moderator activities. These rules were often so lengthy and detailed that when the moderators cited a reason for a warning or a deletion of a comment, it looked as if they were referring to a part of a fully-fledged legal codex. Owners, employees and moderators on these forums worked 24 hours a day, tirelessly reminding users that they were responsible for keeping the conversation civil and for treading carefully around problematic topics. The idea that online and offline worlds are somehow separate was combated with reminders that no matter what was said online – the people responsible for the words could be held accountable in their all too physical realities. The users often loudly complained of unfair moderators and bickered over the details of the rules, but by and large they understood the reasons and motivations for such control:

"[a local forum] has huge amounts of information but you have to be careful and they moderate because you know, they have to." (R11)

These strategies illustrate a tricky balancing act that both the audience and contributors of the sites and the site administrators had to manage. The threats of blocking and persecution were all too real for the owners and administrators, and they did their best to relate the reality of these threats while at the same time managing to retain an environment that fostered online content contributions for their users. Forum users, in turn, understood and, to some extent, supported that the forum and blog owners had to moderate and control what was said on their web sites.

DISCUSSION

The goal of this research was to explore how blocking and Internet censorship may be implicated in people's decisions about and attitudes toward contributing online. Our findings illustrate the complexity of Internet experiences for people who live in a country that censors the Internet through site blocking and persecution of individuals and content and platform providers. Such government actions served as opportunities for state monitoring and surveillance, and served as a reason for people responsible for social media sites to moderate and oversee user-generated content produced there. Blocking and Internet censorship shaped people's experience of the Internet by delineating state boundaries online, and often resulted in impoverished content online. Our findings also reveal specific strategies that people in The Country used to navigate blocking and Internet censorship. Individuals engaged in self-censorship, used technically savvy workarounds, relied on social ties for access to blocked content, co-opted government blocking and monitoring, and practiced transparency in their everyday activities. In addition, forum owners and platform providers also engaged in strategies to handle blocking and censorship, primarily by monitoring and controlling user-generated content on their sites and platforms and by consistently reminding their users about the lack of anonymity on the Internet.

Despite the reliance on a single fieldsite, our findings provide a clear opportunity to address more broadly the existing literature about user-generated content and Internet censorship. In particular, our findings speak to the importance of considering macro-level social contexts in user-generated content, the cultural specificity of issues such as anonymity and privacy in the practice of contributing online, the need to conceptualize blocking as more than merely a technical phenomenon, and the importance of a richer understanding of people's overall strategies to create and consume online content.

First, our research project demonstrates that research on user-generated content would benefit from paying more attention to and making more explicit the broader social, macro-level context in which such practices take place. National-level, state-sponsored actions of blocking and censorship permeated people's Internet practices, shaping actions of resistance such as accessing oppositional news web sites, but also creating an environment of caution that trickled down to concern about posting holiday photographs or a blog for family. These sources of concern run counter to much of the existing research on user-generated content that focuses solely on individual-level or group-level motivations-whether intrinsic or extrinsic-to create content. Considerations of the kinds of real repercussions that practices of content creation may bring about are important and overlooked aspects of participatory culture.

Regardless of geographic location, everyone makes decisions about whether to contribute or what to contribute in a context determined by legislation and regulations enacted by governments and companies. In democratic countries contributory practices occur in a framework that guarantees free speech (whose implementation and definition varies between countries), but this context should be explicitly acknowledged in research in such places. Our communal understanding of user-generated content will only be enriched if we are to explore more carefully, or at least acknowledge and make explicit the circumstances in which people create such content.

Second, our findings underline the cultural specificity of the concepts intrinsic to user-generated content, most notably anonymity. A premise underlying much of the current research on user-generated content is that people, if they possess sufficient technical skills, are able to manage their anonymity online by controlling how or whether they are personally identifiable, for example, as the reviewer of a product or a particular contributor to a mailing list. Our findings demonstrate the degree to which that was not true. The people to whom we spoke did not assume that anonymity was possible, rather they tended to accept a lack of anonymity as a fact of life and not as particularly onerous or unfair given their expectation of state surveillance. Recurring in our conversations with respondents ranging from political bloggers to photographposting vacationers was a pervasive attitude of caution about making oneself visible or expressing opinions, an attitude that pre-dates and encompasses more than the Internet. Individuals regularly engaged in self-censorship when it came to creating user-generated content. Similarly, political bloggers and forum owners worked under the assumption of a lack of anonymity. This findings provoke additional questions about the ways in which people across a variety of circumstances-including those with less censorship and blocking-may also self-censor in their

online contribution practices and expose further reasons for non-use of technology [20,21]. The insight that anonymity, much like privacy [18], is a culturally specific concept that is experienced and valued differently across contexts, is particularly relevant to user-generated content research.

Third, through discussions of the complexity of blocking and Internet censorship, our findings underscore the need for a more nuanced conception of the online experience in censored environments. In practice, blocking is more than simply a technical construct involving IP addresses, URLs, and DNS. Blocking and censorship must be understood as socially framed and experienced phenomena rather than merely forms of blackouts of information or as direct and logical forms of persecution by a repressive State. Our respondents described an uncertain environment in which blocking and censorship happened haphazardly and inconsistently. Respondents who were not IT professionals, for example, expressed confusion about whether particular sites were blocked officially or were simply inaccessible for an innocuous technical reason. Forum owners and moderators accepted and expected that items related to political issues or even personal blogs might be periodically monitored, censored and eventually blocked. Many forum and public discussion board users commented that they were largely comfortable with the heavy involvement of moderators in their conversations because they knew this was a way to keep valuable resources available.

Fourth, our findings add to the growing body of literature that illuminates the rich, contingent, and multi-modal strategies that people use to create online content. While the strategies used by our respondents for online content creation emerged from a context of more blocking and censorship than in some parts of the world, they speak to greater understanding of how people make decisions about whether to contribute content online, what to contribute and how. Our findings imply that it might be fruitful to go beyond considerations of individual motivations in the study of online contributions and to explore the broader political and social circumstances under which people make their decisions. It is quite possible that some of the specific strategies that emerged in this study, such as self-censorship and the use of social ties as alternative information sources or communication paths, might well be relevant to usergenerated content practices in less censored contexts.

CONCLUSION

Our research findings challenge conventional research on how, when and why people contribute online by highlighting the complexity and sophistication of people's contribution practices. While all online contributors produce content in environments shaped by state-policies, much of the research about online contribution tends to assume a Western democratic context. Recent high-profile events, such as India's consideration of banning Blackberry service, the negotiation around Google's activity in China and Wikileaks actions, have highlighted that many people use the Internet in contexts that look quite differently. Of course, one does not have to live in a society that openly censors Internet access in order to experience repercussions from making online contributions. Yet, the ways that people in The Country experience blocking and censorship and the strategies they use to navigate the Internet underscore the urgent need to better understand how people in a broad variety of contexts experience and navigate blocking and censorship when making decisions about online contributions.

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