

Blogging in a Region of Conflict: Supporting Transition to Recovery

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ABSTRACT

The blogosphere is changing how people experience war and conflict. We conducted an analysis of 125 blogs written by Iraqi citizens experiencing extreme disruption in their country. We used Hoffman's [8] stages of recovery model to understand how blogs support people in a region where conflict is occurring. We found that blogs create a safe virtual environment where people could interact, free of the violence in the physical environment and of the strict social norms of their changing society in wartime. Second, blogs enable a large network of global support through their interactive and personal nature. Third, blogs enable people experiencing a conflict to engage in dialogue with people outside their borders to discuss their situation. We discuss how blogs enable people to collaboratively interpret conflict through communities of interest and discussion with those who comment. We discuss how technology can better support blog use in a global environment.

Author Keywords

Blogs, empirical study, community, disrupted environment

ACM Classification Keywords

K.4.3 [Computers and Society]: Organizational Impacts – Computer-supported cooperative work.

General Terms

Human Factors

I INTRODUCTION

Blogs, or weblogs, are truly a global phenomenon. Technorati has estimated that there exist over 133 million blog sites since 2002 in 81 languages and global readership is over 346 million [26]. As a global phenomenon blogs provide a historical record of first-hand experiences of people living in a region. They are opinions, news,

persuasive arguments, political commentary, entertainment, advice, fact sources, but above all, they can be documents about mundane aspects of daily lives. Blogs provide a glimpse into what it is like to live in another country or culture. In this paper, we examine how blogs can serve to support people in transitioning to a stage of recovery while living in a conflict zone. We studied blog use among Iraqis experiencing the current conflict in Iraq as a case study.

Blogs can provide a record into what it is like for citizens in a society to experience a conflict. Blogs not only enable writers to express their feelings, opinions, or news accounts, but they also enable the writers to interact with people anywhere in the world. Through blogs, people can collaboratively experience and make sense of an event. People from anywhere in the world can comment on a blog, bringing in their perspective on a situation, offering condolences and commiserating, sharing similar experience, providing advice, and so on [23].

The uses of blogs have been studied from a variety of perspectives. Herring et al. [7] discuss how the structure of the blog does not dictate any particular genre of use but rather enables flexibility for a wide range of uses. In their study of university students who blog, Nardi et al. [17] found that people in their sample typically blogged to give updates on their lives, to express opinions, to invite others' opinions, to "think by writing", and as a way to release pressure. Similar to what Nardi et al. found, Schmidt [24] claims in an analysis of blog studies that most blogs are of the personal journal genre. Yet an understudied aspect of blog use is that it may be relational; the context of the physical environment can influence the blog genre [3].

Recovering from Disaster

Oliver-Smith and Hoffman [9] conceptualize disasters in terms of the interrelationships between society (groups and individuals), the physical environment (how it affects the relationships among people), and culture (values, norms, beliefs, attitudes that people in that society hold). If the physical environment is disrupted, then in turn groups and individual relationships and connections are also affected: they may be severed, or connections weakened, or new

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relationships formed. Also, as new connections and relationships are affected, culture may change.

We frame our analysis of blog use during conflict using Hoffman’s [8] model of stages of recovery in a disaster. In disasters, people lose access to physical places that have important social meanings: religious institutions, public buildings, public squares, as well as people’s homes. These places offer people a sense of community and identity [19]. Environmental disruptions (disasters and war) can make it impossible for people to collocate in such places as they often must relocate or are unable to leave their homes.

In Hoffman’s first stage of recovery from disaster, people experience an extreme sense of isolation. As survivors of an environmental disruption, their social fabric has often dissolved. They may be physically cut off from others, as with Hurricane Katrina survivors who often had to wait days for rescue boats.

In the second stage of recovery from disaster, people find others and form into groups. People realize that what they have in common is that they have survived, which Hoffman describes as leading to bonding and a sense of unity. Collocation with others provides a means for this bonding activity to occur. Collocating may be fairly soon after the disaster struck, e.g. as in relocating to a school during the Oakland firestorm [8] or in the New Orleans Superdome stadium after Katrina. People can also continue to meet with others once the acute stage of disaster is over. It is in this second stage of recovery that people begin rebuilding their lives and reconstructing their social scaffolding. People who sustain supportive social relationships have been found to be more resilient during disaster [18].

New identities emerge in this second stage—that of survivors. Eight years after the event, survivors of 9/11 have formed the World Trade Center Survivors network¹ which is still active and often involves activities where people physically meet, e.g. at local New York restaurants. Hoffman describes how survivors of the 1991 Oakland firestorm formed a community of survivors who convened convocations, and met regularly at burn sites [8].

In the third stage of recovery, survivors either return to their homes or are settled in new areas and the disaster effects no longer predominate. In the case of Iraq, this passage to closure has not yet happened, as disruption is still occurring and the environment is still dangerous to residents.

Contrary to disasters, wars involve continual disruption. People must continually rebuild and recover from traumatic events such as effects of bombs, shootings or kidnappings, uprooting to another area, or loss of life of friends and family. Thus, this second stage, where relationships and communities are built, is especially important during war to provide resilience for when the next calamity occurs.

Button [4] describes how disasters are socially constructed. Different groups and individuals compete for their worldview of the disaster to be heard. With blogs, people can easily broadcast their view of the disaster, providing an alternative to official news sources and government views of the condition.

Stage recovery aspects (Hoffman)	II	Characteristics of physical war zone	Affordances of blogs that can support recovery
Survivors meet physically	meet	Unsafe to travel to meet others	Can interact in a safe virtual environment via anonymity
Survivors form a community	form a community	Cannot interact physically with strangers (can be insurgents)	Can form online communities by linking to other blogs, content
Survivors form new identity	form new identity	Can be dangerous to reveal identity (e.g. member of a religious sect)	Can manage identity, develop new identities, online
Survivor group become a support system	group become a support system	Support system can not be reached through collocation	Can receive comments of support globally
Can engage in dialogue of tragedy to others collocated	engage in dialogue of tragedy to others collocated	Can be dangerous to express ideas in public	Can express ideas of tragedy globally through narrative structure

Table I. Contrast of collocation and blog affordances in Hoffman’s second stage of disaster recovery.

Table I contrasts disaster recovery in physical collocation, according to Hoffman’s model, with characteristics of a physical war zone. We present how affordances of blogs can support recovery. First, in Hoffman’s model, people collocate with others as part of the recovery process. In a dangerous environment, it is difficult or impossible to meet with others. The anonymity of blogs enables bloggers to express themselves and interact in a *safe*, virtual environment. According to Hoffman, survivors form a community which involves meeting face-to-face. In a war zone, meeting with strangers can be dangerous as they may be insurgents or people can be kidnapped. People can, however, form online communities with blogs by linking to other blogs and to blog content. Hoffman describes how survivors form new identities. With blogs, people can express identities (e.g. as an atheist) that would ordinarily be dangerous in a volatile environment. Hoffman also explains how survivors become a support system. The use of comments enables bloggers to receive support from users, within and outside their region of conflict. Last, users control content, and the narrative structure of blogs enable users to express their viewpoints with others about the environment as a diary or running commentary over days, in reverse chronological order. This is in contrast to other

¹ (<http://www.survivorsnet.org/>)

social media such as Twitter which have limits on character length. In contrast to chat rooms, individuals can provide a longer narrative thread over days so that the reader can follow the story, e.g. to describe event details or express catharsis [17].

We are interested in how people utilize blogs in disrupted environments to cope with events and build resilience. Though disasters are beginning to receive attention in the CHI community, research has for the most part focused on social media use among North Americans and Europeans. A few studies have highlighted how people use blogs [13], as well as online Internet forums, Instant Messenger, social networking sites, and mobile phones, to increase social support during times of stress [6, 15, 16, 23]. Some research has shown that the use of blogs increases during and right after disasters [13, 14] though the reasons remain unclear.

There has been little investigation into how technology can help people recover from a disaster. Though research has shown the importance in forming communities to increase resilience [23], we investigate how people can use the social media of blogs for social support in a climate where people cannot safely meet in physical places.

RESEARCH METHODOLOGY

We examine the topic of how people use technology to cope with disruption by utilizing a case study method [27]. We wanted to explore the role of blogs in supporting resilience and therefore we focus our study on bloggers who are affected by the current violence in Iraq and posted entries using Blogger. Due to the size of the blogosphere and the general inability to determine which blogs are active, we focused on what Schmidt terms a cluster [24].

We conducted a qualitative investigation of blogs written by Iraqi civilians. We used textual analysis. We analyzed Iraqi blogs written in (local and formal) Arabic and English. The research team consists of members fluent in both languages and who have much knowledge on Iraqi culture. One member of the team is fluent in the local Iraqi dialect.

We analyzed the content of 125 blogs: 63 blogs written in Arabic and 62 blogs written in English. Blogs were sampled from a web site that has catalogued Iraqi blogs since 2003 [11]. We found that the catalogue is fairly comprehensive as subsequent searches for Iraqi blogs typically led us to blogs that were already listed on this site. The blog site lists blogs separately written by Iraqis in Arabic and in English. We traversed these links and others included in listed blogs (many listed the blogs that they followed). We found the Iraqi bloggers' backgrounds presented through their blog profiles to be diverse, although not all bloggers provided a detailed profile. Their ages ranged from 14 to over 50 with varied occupations, e.g. students, journalists, doctors, dentists, pharmacists, literary writers, and poets. All the blogs we analyzed were created by Iraqis; the majority were based in locations across Iraq, and some lived in other countries in the Middle East (e.g. Jordan), Europe (e.g.

England), and North America (e.g. the U.S.). We later discarded posts written by Iraqi citizens who were not residing in Iraq and do not use these blog data in our report.

All the blogs we reviewed were created after 2003. Those written in English generally started to appear in 2003 onwards whereas those written in Arabic typically started in 2005 onwards. We found that those written with the onset of the war (in 2003) typically started as a war diary and later evolved into a more general account of everyday life and reflections. We estimate that bloggers posted one to two posts per week rather than the daily count reported by others [7]. We found some posts that reported the difficulties in maintaining the blog regularly because of the environmental disruption.

We found that the majority of blogs were maintained by individuals, which is consistent with other researchers' findings [7]. However, we also found that the majority of bloggers used pseudonyms which is in contrast to previous research [7] and can be taken as an indication of their unwillingness to risk revealing their identity because of the dangerous environment.

We went on to establish contact with selected blog authors. We asked them for clarifications regarding the role that their blogs play in their everyday life. We also asked that they confirm aspects of their profile, i.e. age, occupation and location, and explain why they started blogging, why they continue to blog, and whether or not they use a pseudonym (and why). Contact was made either directly, if the blogger included an email in their profile, or indirectly, by posting the questions as a comment to their most recent entry and an email address to which they can respond. Their responses will be highlighted as such when included.

Finally, for contextual information about Iraqi daily life and technology use during the conflict, we draw upon data we gathered through interviews. Starting in September 2007 we conducted semi-structured telephone interviews with 45 Iraqi citizens, asking about how they use technology during the war. All our informants were living in Iraq when the conflict began in 2003 [15, 16].

IMPACTS OF DISRUPTION IN THE CONFLICT ZONE

It should be noted that Iraqis had only limited access to the Internet prior to 2003, where it was only available in universities and government institutions. We found that there was only one blog authored by an Iraqi living in Iraq prior to 2003 [22].

Iraqi lives have been disrupted since 2003 because of their direct or indirect exposure to violent conflict. Civilians in Iraq are directly exposed to violent conflict through insurgents, bombs, and local militia. Further, civilians experience disruption due to reduced access to energy and fuel resources that are destroyed as a result of violent attacks, which affects the use of cars, homes, etc.

The disruption of the country's technological and physical infrastructures also have a significant impact on citizens' physical well-being when considered within the context of the weather of that region (temperature can reach 150° F in August). With reduced power resources, it is a challenge to power cooling devices (e.g. air conditioners and fans) or generators (e.g. to power refrigerators).

The conflict also directly exposes citizens to random acts of violence (e.g. bomb explosions) or targeted attacks (kidnappings or killings). It makes it difficult or impossible to travel. The blogs we analyzed describe various aspects of everyday life, providing first-hand descriptions of civilian experiences living in Iraq and those forced to leave because of the conflict. For example, one 20 year-old Iraqi male was forced to leave the house he lived in with his family because of sectarian violence. He insisted on spending the last night in the house and was directly exposed to violence when an invasion in his home occurred while he was there with his friend:

"we had fire from gunmen for about 5 mins andsuddenly my cell phone ringed ... then I just switched it off... then I turned the torch off so these bastards wont know which room we are.."

Other Iraqis found themselves imprisoned in their homes. For example, one female informant stated the following during an interview:

"Your life has changed 180 degrees, you have no job to go to, you have no car you can drive because you can't drive. It's not safe anymore... so your life is all about what you do in your house, in your home."

Another example is given by one 20-year old Iraqi civil engineering student who records the following in his blog;

"...Stuck in the middle of all the holidays, curfews and a few big battles that happened near us. During the last three weeks, I only went to the university three times..."

Yet though he was confined to his house due to violence in the environment and the curfews, his blogging allowed him to interact with others in Iraq and the broader international community.

All our findings should thus be considered within the context of the conditions in which the blogs were written. This dangerous environment led to a physical confinement and subsequent isolation which suggests that Iraqis are still trying to overcome the conditions of the first stage of recovery described in Hoffman's model [8].

BLOGGING: TRANSITIONING TO RECOVERY

Our data suggests that blogging supports the Iraqi survivors' transitions to Hoffman's second stage of recovery in multiple ways: by creating a safe virtual environment for interaction, by enabling formation of communities, expression of identity, finding support, and expression of views. Blog posts in our sample fell into one

or more of the categories defined in [7], namely: filter, journal, and K-Log blogs. K-Log blogs are considered to contain primary content that focuses on external topics or events. We found that Iraqis living in Iraq created *filter* blogs to discuss the war and create dialog about their experiences in Iraq. Their *journal* blogs typically reported everyday activities. Finally, the majority of the *K-Log* blog posts consisted of reports similar to newspaper articles and these posts were often used to create communities. We found that these different blog types were often used to seek and provide support from within Iraq and from outside its borders.

People living in the conflict zone typically cannot meet face-to-face to express their opinions, grief, or support. Blogs provide a means for people to transcend the physical and social confinement imposed by violent conflict. Through blogs, Iraqis were able to interact freely with others regardless of gender, religious persuasions or nationality, unlike in their physical life. Blogs provided as well anonymity as an outlet for expressing alternate identities that people could not express in their current public environment. Thus, blogs provide a safe interactive virtual environment that can be highly personalized to reflect an author's persona.

The majority of bloggers in our sample used an alias in their blogs, thus choosing to remain anonymous. When asked why they used aliases our informants' responses were of two types: they felt that their blog would cause social difficulties or that their blog would endanger them. Anonymity allowed them to express political, religious, and other social commentary without fear of reprisal.

During our interviews, our informants regularly stated that women in particular were targeted by violent attacks and acts of intimidation. They also reported that women were coerced into adopting a conservative form of dress, including a scarf to cover their hair, by forces patrolling the streets. However, we found that while the majority of the blogs were created by men, there was also a strong female presence from Iraqi women living in Iraq. We estimate that over 40 of the 125 blogs we analyzed were authored by women. It was not always possible to determine the gender of the author as some did not provide such information and also used an alias. Female bloggers freely expressed their opinion and interacted with others, both male and female, in their virtual blogging communities.

The risk Iraqi bloggers face in expressing their opinions in public while living in Iraq is a theme that runs through their blog posts. From our interview data, our informants reported that they avoided expressing their opinions regarding current events, sects, political parties or forces in public because they were afraid that they would be targeted by these forces. However, in contrast, we found that bloggers freely expressed their opinion regarding sensitive political and social issues in their blogs.

Iraqis are also constrained by social norms that have become more restrictive since 2003. Our informants described how they are struggling to cope with these new social norms in public. We found several instances in which our informants stated that new technologies supported social behaviors that would have otherwise been impossible in their current society. One example is that in public it is not possible for individuals to converse with others of the opposite sex without great risk [1]. For example, one 17 year-old girl describes how complicated it has become in Baghdad to go out to buy a notebook even though the store is only a 15-minute walk from her house. In her blog post she describes how her family insists that her brother and another male from their family accompany her because of a previous experience, which she describes as follows:

“I got stalked by a blacked out big car for 3 hours, and had to call parents to the rescue, since i didnt want to take any alleyways (out of the frying pan into the fire).”

She goes on to describe how two male members accompanying her during her errand elicit other problems. The trio is stopped twice at checkpoints and the relationship between the two young men and the young female blogger is questioned at each point. Yet this same girl could interact with the same male kin through her blog, which she does in the same entry and in subsequent posts placed on each others' blogs. In her blog she was able to transcend the confines of her gender due to the new social norms and also the dangers of her physical environment.

Blogs also enable Iraqis the freedom to express opinions that are not in line with, and could damage, their societal position. For example, an Iraqi doctor in his late twenties who created a blog presenting his views on political and social aspects in Iraq stated that he used an alias because his views were not suited to his occupation. He felt that his commentary is socially inappropriate. Another female blogger only revealed her identity after she left Iraq. She stated that she was married to another blogger but while living in Iraq she could not reveal it due to the confines of Iraqi society and the violent environment. She writes:

“I had confession which I really want you to know it. I did not tell you before because I wanted to write freely in Iraq. now I have nothing to be afraid of...”

These above examples illustrate how blogs provided people with a safe virtual environment where they could express opinions (e.g. political views) and aspects of their identity (e.g. as a female) which they could not safely do in real life.

Forming communities of support

Hoffman describes that forming community is an important aspect of the recovery process. We found in the blogs *communities of support* that could not exist in public. We found that these communities were typically created by an individual and other individuals within the community generally represented by links to blogs on the right hand side of the page. We also found that some of these

communities were a collaborative effort. We will describe two cases: a community of agnostics and a community of journalists who voiced opinions regarding public events.

Communities of nonbelievers and believers: “open to the light”

Blogging affords Iraqis the freedom to create virtual communities that might incite violence if they existed in the physical world. Iraqi bloggers can *only* express specific personas in a virtual world because they risk their life if they attempted to do so in the physical world. An example of the expression of such personas can be found in numerous blogs in which Iraqis discussed their faith, or more radically, the lack thereof.

The significance of religion, while taken to the extreme in the current conflict, plays a key role in the region. Religion provides a central cultural construct that underpins and dominates most social interactions in Iraq [28]. It is rare for an Iraqi living within Iraq to *admit* to being an agnostic or atheist, which makes our finding of agnostic and atheist virtual communities all the more significant.

We found bloggers who consistently questioned the existence and the “goodness” of God in their blogs. Many postings sought to present logical arguments to persuade people of faith that there is no God while other postings attempted to present scientific facts to prove the writings of mainstream holy books. For example, we found postings from an agnostic who uses his blog to point out the flaws in mainstream religions and includes many links to other Arab agnostic blogs and websites. Here we found comments from nonbelievers which supported the blogger's view and another which was from a person of faith who stated that the blogger should keep himself “open to the light” of faith. Our interviewed informants and bloggers explain that the social interaction about religion within this virtual community would not have been possible in a physical environment and has dangerous consequences in the current conflict.

Communities of journalists: “let me be your eyes”

Another community we found was that of journalists who supported each other in reporting events that they could not write about in traditional media due to fear of harm. The majority of bloggers who lived in Iraq reported events as they unfolded, as eyewitnesses, while other bloggers posted literary contributions which included poetry and musings. We found that reports in Arabic tended to be far more formal and adhered closely to the journalistic impersonal style of reporting, whereas those written in English tended to be more personal accounts, as in a war diary. Evidence based on the bloggers' comments suggests that Iraqis who blogged in English typically did so to communicate with readers who live outside of Iraq. There may be other reasons that motivated bloggers' choice of language. However, as our focus of the study was on blog content, we did not ask bloggers about their choice of language. In one English blog, written by an Iraqi residing in Iraq in 2003

entitled “let me be your eyes”, the blogger explains his reason for blogging:

“...Some of you questioned the accuracy of news broadcasted by some media sources. To be honest, I won't say that the media are lying but they are telling only one side of the truth....So I'll try to show you the naked truth about daily life in Iraq....And I will try to show you the difference between pre. and post. Liberation Iraq.”

Again, it is important to consider that Iraqis living in Iraq cannot report news from their perspective in public without fear of violent retribution. Our interviews with journalists revealed they are often in grave danger of losing their lives if they write articles that criticized militias or political factions. One male reporter in his sixties stated the following in his interview:

“...since the fall of the regime 200-300 journalists have been killed because they attempt to tell the news that one group or another doesn't agree with [what] they are publishing”

In addition to regular political posting and discussion, we found that in their blogs both professional and citizen journalists are attempting to bring social issues to the forefront of the Iraqi consciousness. One blogger maintains three separate blogs to document “historic” tragedies. He has two which focus on the bombing of shelters and deaths of civilians while a third reports the atrocities discovered in an orphanage. He stated that he writes about these topics because of the difficulties in Iraq and the repression that has resulted. Here again we found Iraqi females participating and contributing to these journalist blog communities, unrestricted by their gender. We also found many women presenting their literary work, e.g. poetry.

Providing emotional support: “you bring me to life again”

The disrupted environment in Iraq makes it difficult to meet others collocated for support. Our analysis revealed that the comment feature of blogs provided a means to gain support from people, even those in remote locations. The collaborative and personal nature of blogs, along with commenting features are affordances that enable people to elicit and receive support from others. We found that dialogs would ensue among people from different countries, religions, and political parties that would not be possible in the current physical environment. Bloggers often posted thanks to their followers for their support and stated that their response encourages them to continue blogging despite the difficulties present in their everyday lives.

We found that people used their blogs as a means to initiate a dialog about the conflict and to receive personalized support for those who are suffering its impact. We found many blog entries that actively welcomed posts from followers. Sometimes comments were also brought into the main blog and referenced by the blogger. Other bloggers specifically stated that they started the blog because they

wanted to find out about other people's opinions. This is typically a dangerous activity in public especially if an Iraqi initiates a dialog with someone who has an opposing view. We found that several bloggers directed their blogs to an American audience in particular, sometimes including statements which start with “you American...”. Their fluency in the English language is illustrated in their blogs, yet they avoided speaking with coalition forces or American civilians in public. This observation further emphasizes the dangers derived from our interviews, i.e. of voicing an opinion not in line with others in public, and in interacting with foreigners face-to-face in Iraq. For example, one 24 year-old male describes his frustration when his brother continues to talk to Americans disregarding the danger:

“...he was so stupidly standing there, chatting with some of the younger Americans about wrestling and sports stuff. I always warn him not to do this, it's still very dangerous to hang around them and shit happens. It also brings him unwanted attention. But it's no talking...”

Thus, we found that blogs offer a safe opportunity for dialog and provide support not only from people with opposing views but also from people whose countries' governments might be considered on the opposing sides of a conflict. Other instances include dialogues between Iraqi Jews and Iraqis of other religions. These comments were welcomed warmly by another follower of the blog. Iraqi Jews were forced to leave Iraq by the powers that governed Iraq over the years once Israel was established.

An example of the freedom afforded by the safe online virtual environment to exchange views is highlighted by this blogger's entry:

“...Nobody now is able to tell us which news is worthwhile or not, ...and in case you have another view point or opinion about the particular issue, you can leave a comment on the blog entry and other people will or will not share you the opinion”

This posting shows how blogging empowers not only the writers but also the readers in being able to choose which blogs to follow. Furthermore, blog followers are not just recipients of information but participants in discussing and producing information.

We found that blogs that describe experiences that are the result of direct contact initiated another type of dialogue: a dialogue of comfort and support. Those written in Arabic typically received support from other Iraqis whereas blogs written in English often received support from people residing in the West. Interestingly, most of the Western support was from people residing in the U.S. (only 2-5 posts were made from other nationalities). Here, we find blogs offer people across national borders the opportunity to support and encourage one another in a manner that would not be possible without this medium.

Western support of Iraqis often reached several hundred postings, especially for early postings which reported the

conflict and its impact, and communicated positive feelings and encouragement to endure the challenges in their environment and to continue the blog. Here is an example of a response from a blogger to this support:

“Dear readers,

I am very grateful for you caring and support to me you bring me to life again because I am so happy to write about my nation and all what’s happened to Iraq. I am more happy that you are listening to what I’m saying promising you to keep on and I am trying to rise up my blog space so I can show you what’s happened by pictures and movies which I take with my camera where ever I go.”

Blogging to engage in dialogue about the conflict

Finally, blogs helped people transition to recovery by supporting people in their expression about the war. The narrative structure of blogs enables people to explain detailed aspects of day-to-day Iraqi life and practices. It suggests that Iraqi bloggers are attempting to connect to other people globally through cultural dialogue.

Though the violence in Iraq is reported regularly in global news sources, Iraqi citizens discovered that their culture is rarely reported, is relatively unknown, and often misrepresented, to non-Iraqi citizens. Their explanations led to scores of responses from people around the world who used the bloggers’ explanations of their practices as a benchmark to express their own. Consequently, blogs enabled an exchange of practices and customs unhampered by the conflict that would have been difficult, or impossible, without the Internet. We found that bloggers and authors typically had symmetrical relationships; bloggers welcomed their followers’ comments, often expressing their appreciation.

We found many blogs where Iraqis attempted to explain their customs. People often explained in their blogs why they attempted to do this: so that foreigners could understand their customs and to avoid being misrepresented by foreign media. A consequence of blogging about customs is that they led to rich exchanges. Thus, the interactive and personalized accounts afforded by blogs provide alternative explanations and a different perspective of the conflict than what is reported in the popular media.

A coding of the Iraqi blogs revealed that the majority used the word “Iraq”, the name of an Iraqi city, and/or local Iraqi idioms and expressions within the blog title. Others chose titles reflective of the ethnic or religious focus of their blogs. The blog names were often explained, typically in English, which suggests to us that the authors were attempting to reach a wider audience beyond Iraqis or even Arabic speakers.

Using Iraqi identifiers would enable other Iraqis reviewing these blogs to immediately recognize that the author was Iraqi. Thus these authors do target an Iraqi audience to some extent. However, because the posts are predominately

written in English, and the blog names often explained, typically in English, this suggests to us that the authors are mostly portraying Iraqi customs and practices to people outside of Iraq. The posts are often interspersed with Iraqi words using English characters and translated in parentheses.

The posts generally fall into one of two categories, namely: traditional customs and religion. These two categories are not mutually exclusive because religion plays a central role in Iraqi society and is ingrained in their traditional customs.

Traditional customs: “telling the world how Iraqis think”

Many blog posts explained traditional Iraqi customs and idioms such as explanations of hospitality, honesty, traditional Iraqi traits and language. Upon examination we found that bloggers reported that by explaining their customs to foreigners, they believed it would help others understand differently the current conflict, especially through Iraqi eyes. For example, a male blogger states in English:

“I am writing these articles not for the Iraqis and I am not trying to criticize any body. All I am doing here is telling the world how Iraqis think so it would be easier to put decisions and solutions for the new Iraq. And I would like to talk again here about the need to talk to Iraqis and to open more channels of talking with them and put more reasonable explanation for what’s going on.”

We found one Iraqi female residing in Iraq who created a blog dedicated to teaching everyday Iraqi expressions. This blog targeted English speakers. The author also goes on to translate the name of fruits, furniture, letters and numbers. She indicates in her second blog that she receives emails from her followers.

An example of Iraqis describing cultural traits to others can be found in a blog written by an Iraqi male residing in Iraq. He wrote his first blog in 2004 in which he explains his need to blog and his choice of the blog name “Ibn-Alrafidain”. He states that he wanted to share thoughts with others and to broaden peoples’ perspectives. He also explains his blog name means “*the son of the two tributaries*” and that he felt this reflected his feeling: “*I’m the son of this wonderful land.*” He also makes two observations about personal cultural traits, namely:

“most of the Iraqis are not ready to listen to criticism or advice, even when they are in real trouble. Moreover, they find it very difficult (or impossible) to admit their fault”.

This post elicited several comments, one of which is from an American whose son is serving in Iraq. She states that she found this posting “enlightening”. She goes on to emphasize the necessity of admitting mistakes and learning from them within the context of her own culture:

“...We learned of our own crimes in condoning and perpetrating slavery. When studying wars, we learn of our errors and carelessness at Pearl Harbor...”

The response from the American mother and other comments illustrates how there is a cross-cultural exchange. In another example, a male college student residing in Iraq describes life on campus and the disconnect students feel due to the violence both on and off campus. He received many posts of support which illustrate again that the exchange of cultural norms is symmetrical, e.g.:

"I'm a freshman in college here in the U.S.I think that's cool how all the political crap drops out of your guys' minds when you step on campus. Here it's the opposite. There's so many political things happening here!"

We found that the shoe-throwing incident in Iraq² was discussed in several blogs. Some explained why they supported the action and others condoned it. In many posts, bloggers explained the significance of throwing a shoe at a person in Iraq, i.e. that it was not meant to harm but rather to disgrace and shame the person. One female student living in Iraq used the incident to explain how Iraqis and others in the region are falsely portrayed:

"...And no, iraqis DO NOT go around throwing shoes everywhere. What outraged me on the internet today, was the statements of "In iraqi culture" and "In arab culture" shoe throwing is apparently common. Its ridiculous exactly how the media portrays the east. First we are always the bad guys in movies, and now, our welcome to foreigners is shoe throwing!"

The dialog that ensued through the posted comments from regular followers of this blogger created a familiarity that led to a discussion of customs. One Iraqi blogger participating in the dialog even offered to host an American participant's visit to Iraq once it became safe for Americans to visit Iraq. This exchange demonstrates how blogs can be used as a means to explain customs to others outside of their confined environment. In this way, citizens can help others to understand a different view of the conflict, i.e. through the residents' eyes. It can also lead to a mutual understanding of each others' customs and culture.

One male blogger in Iraq took it upon himself to explain Middle-eastern customs to the west as a result of an offensive email from an American. He writes about the unjustness of misrepresenting Iraqi customs by popular media and suggests "establishing a new humanity organization to support peace and build a cultural society". He received twenty-four comments of support in response. One American makes the following observation:

"This is one of the functions and benefits of the internet and weblogs, to pierce the screen of drama and illusion that the media so loves to create. You should remember that the letter that your received is a single voice; listen to our

voices, here, if you want to know what effect you and the other Iraqi bloggers are having."

On a lighter note, one Iraqi man, currently a resident of England, posted his observation of his experience during his stay in Iraq. He writes in detail of his poker night with friends living in Iraq and the challenges of having such nights, e.g. the violence surrounding them, and the old generator in need of repair. Here is an excerpt:

"Poker is another ancient Iraqi religion... those foreign reporters don't tell you this because they have no idea how Iraqis have fun....For those interested in keeping records this particular game was attended by 3 Sunnis, 2 Shias and 1 Christian.... See what I mean?"

Religions: "strong bonds ... in spite of religious differences"

We also found that people used blogs to explain their religious practice and customs, again, intending to target people in other countries. We found blogs dedicated to providing information about the dominant religion in Iraq--Islam. We found one of the blogs provided information in English and listed several related sites that could be followed by the reader based on their interest in the religion. Others tried to explain the relationship between Iraqis of different religions and received over 150 responses from people around the world:

"The Iraqis have strong bonds between them, in spite of religion or ethnic differences, we all work together, have neighbors from other religions, visit each other and respect our differences. my neighbors are shias, my best friends are Christians and Kurds and I'm Sunni, but we all have good relations between us. I'm afraid of those who are trying hard to tear us a part, for me I don't think they will succeed but I'm sure they are from outside Iraq,"

Other blogs made references to Islamic religious events, describing these in English. They explain the origins of these events and go on to explain the traditions that accompany these religious events in terms of social interactions, clothes, and special prepared foods.

We also found several bloggers attempting to de-mystify secular jargon and the political parties that claim to be secular based. One blogger explains that during the holy month of Ramadan, Muslims are typically expected to fast from sunrise to sunset for 29-30 days and adds that this should not be forced on people. One Jewish follower from Israel posts the following comment drawing upon similarities and the differences between the two religions:

"...On Yom Kippur (basically, a 24 hour ramadan) in israel everything is closed, very, very, very few people drive..."

Another interesting comment was made by an American who states the following:

"...I as a non-believer in Christian America have the same problem. Though it's not so important in this secular society, I do feel a bit ostracized by believers..."

² In December, 2008, an Iraqi journalist threw his shoes at U.S. President George Bush during a press conference in Baghdad.

Here we find an exchange of descriptions and experiences of religious customs and views from three individuals who reside in three disparate locations and are of three nationalities. It would be extremely unlikely and risky for such an exchange to have occurred in the physical real world of conflict in Iraq, even if such people could have met face-to-face. However, such exchanges are possible through blogging, independent of the current environmental context.

DISCUSSION

This paper attempts to bridge different research streams. On the one hand, disaster researchers have studied how people cope with environmental disruptions [e.g. 18], but they have not given much attention to the role of technology. On the other hand, researchers such as Castells [5] have written about how people overcome territorial-bound types of interaction through the Internet. A third emerging stream of research to which our study contributes is how people can use social media to act in their environment to recover from disruption [20, 23].

We used Hoffman's model of disaster recovery to understand our data. First, the violence in the physical environment made it difficult for our informants to leave their homes. This led to physical and social confinement, i.e. isolation, as Hoffman describes in the first stage of her model, and potentially prevents their evolution to a new stage of recovery. Blogs provided a truly safe environment in the virtual world, where people could interact with others irrespective of their religious background or belief, gender, or nationality. The affordances of blogs (forming communities, expressing identity, receiving support from others, and expressing views of the war) support a transition to the second stage of recovery where people can form groups, find identity, and elicit support. In the current disrupted climate this was a way for people to experience social interaction and free expression. The anonymity that the blogosphere afforded women seemed to place them on equal footing with their male counterparts and freed them of the constraints imposed by the current conflict.

In contrast to Herring's [7] study of bloggers who provided much information about their real-life identities, we found that our informants kept their identities anonymous. The reason was that they revealed information about themselves that could be harmful to them in real life (e.g. as atheists).

The blogosphere is changing how people experience war and conflict and recover from a disaster. In our study, we found that blogging expands the borders of people confined by conflict. Though physically confined in a place where it is difficult to interact with families and friends to receive emotional support, the bloggers we studied solicited support from people around the globe. Whereas other studies of disaster have analyzed people forming community through their physical collocation [3, 8, 9] we found that people can indeed do so during a war using a virtual environment. It enables people outside a national border to experience the

conflict as well as enabling people within a region of conflict to share in the experience of "normal" environments outside of their conflict zone. The social support of family and friends has been found to be vital in enabling people to cope with disaster and is part of the recovery process [13, 8]. Some comments were from people in other countries who themselves had experienced conflict and could thus share similar experiences. Consequently, through blogs, a support network to aid resilience and recovery can be expanded beyond that of local friends and families, to strangers who provide empathy.

Blogging enables people to collaboratively produce the experience of a war, both inside and outside the region of conflict. It is not just the bloggers' reporting and interpretation of events but also the discussion through comments that refine and expand this interpretation.

Blogging empowered our informants; we saw many reports of this in the blogs and heard this in interviews. Situations of disaster and conflict can produce feelings of helplessness [13]. Blogs can empower people by enabling interaction. Above all, in a disrupted unsafe environment, where one may not be able to *physically* act, the narrative structure of blogs enable people to continue to act through writing and expression.

The blogosphere also enables citizens to produce an alternative interpretation of their conflict, in contrast to what the mainstream media affords. One form of interpretation is by providing first-hand eye-witness accounts which many of our bloggers did, especially in the journalist communities of interest. However, a new form of communication that we discovered was through providing interpretations of various customs, which led to dialogue. Again, blogs empowered people to overcome prejudice and stereotypes through explaining their customs and provided an alternate means to "meet" across the globe.

CONCLUDING REMARKS

The global nature of the Internet and blogs enabled us to study a phenomenon occurring across the world. Our study showed how the Internet enables people experiencing a war to transcend national borders and how it aids them in their recovery process. Our study extends the reasons for blogging identified by Nardi et al. [17] and Herring [7] because we have looked at a very different sample of informants in a unique context. Compared to what these researchers reported, we found additional purposes of blogs, namely that blogs helped citizens build resilience against the impacts of violent conflict. We hope our research can lead others concerned with disaster recovery to expand the range of study further.

Our study has its limitations. We could not investigate the Iraqi blogosphere as a whole nor analyze all the blogs hosted on the chosen Blogger host, but rather focused on a cluster and sampled posts within this cluster [24]. The size of the blogosphere, the general inability to determine which

blogs are still active and our desire to adopt a qualitative approach prohibited a comprehensive analysis of all blogs written by Iraqis living in Iraq. We may therefore have missed relevant blogs because we limited our analysis to these accounts.

Our future work involves studying the how use of language (native vs. non-native) influences interactions with those who comment. We are also interested in exploring how blog posts evolve over time and whether the quantity, quality and nature of the blog posts reflect the changes occurring daily in the disrupted environment.

Though our study is rooted in blogs written during conflict, we feel our basic results on how people collaborate through blogs can apply beyond situations of conflict. People can build support networks globally and engage in cultural interchange irrespective of their physical circumstances. Our study illustrated how blogs can be important social tools for people in critical circumstances.

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