

Gandhigiri in the Infosphere: A Novel Approach to Information Ethics

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The interpretation of the terms ‘information’ and ‘ethics’ is often culturally situated. A common understanding is contingent to facilitating dialogue concerning the novel ethical issues we face during computer-mediated interactions. Developing a nuanced understanding of information ethics is critical at a point when the number of information and communication technology (ICT)-enabled interactions may soon exceed traditional human interactions. Utilitarianism and deontology, the two major schools of ethics are based in a western perspective. We contribute to the existing discourse on information ethics by arguing for the inclusion of Gandhian notions of non-violence and confrontation. These are particularly relevant to cyberspace, which does not always lend itself to coercion due to legal, political and economic limitations. We address the applicability of ahimsa, satyagraha, and swaraj to cyberspace. We discuss a Gandhian approach to system design. Finally, we use case studies to illuminate the application of Gandhian notions as well as their limitations.

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1. INTRODUCTION

We are perennially surrounded by pervasive and ubiquitous technology. Our interactions not only with each other but also with the components of the physical world are mediated by ICTs. Here, we refer to the ICT-enabled elements of our lives as occurring in cyberspace [Vlahos 1998; Floridi 2002]. Cyberspace is a place to earn a living, to enjoy life, to fulfill duties, and to obtain knowledge. Capurro 2008 frames the term digital ontology to describe the pervasive nature of digital technology in all dimensions of our existence. Bijker 2006 discusses the vulnerability inherent in technology that is not only desirable but is also an essential component of innovation. He argues that to analyze this vulnerability it is important to take a cultural perspective. A transcultural consensus requires a dialogue between and across cultures [Capurro 2008]. An example of such transcultural acceptance is in a Gandhian framework.

There are two major schools of thought in western ethics: utilitarian and deontological. *Utilitarianism* judges the moral worth of an action based on its ability to maximize utility for the actor. An action that maximizes utility for some might operate in a tyrannical mode by restricting the distribution of (positive) utility to specific sections of society while simultaneously denying benefits to others. Pareto improvement

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is seldom encountered beyond theoretical economic models. *Deontology* is a duty-based framework of ethics. To act morally the actor must act a priori from deon (duty) or what ought to be done. Thus, as long as the actor acts out of good will the act would be considered moral irrespective of the nature of the outcome. Current codes of ethical conducts such as ACM (Anderson, 1992) or IEEE (IEEE, 2006), reflect the problems and tensions (Harrington, 1996) inherent to these approaches.

A Gandhian approach builds upon the Western ethical framework through the inclusion of the Vedantic philosophy of Hinduism¹. Vedantic philosophy advocates a balanced pursuit of the four purusharthas (life goals): dharma (duty), artha (wealth), kama (pleasure), and moksha (enlightenment) [Parel 2006]. Ethical dilemmas can in practice and principle be reduced to a conflict between the four purusharthas. A Gandhian resolution is attained by finding a balance between the four purusharthas. Our task is to analyze this process of balancing and adapt it to information ethics.

We begin with a background of Gandhian philosophy and the Vedantic ideas that form its meta-theoretical foundation. We then examine the translation of Gandhian philosophy to cyberspace and demonstrate its suitability to information ethics on a culturally and politically diverse Internet. We do not argue that notions of non-violence and confrontation are novel to information ethics. We do, however, feel that the primary treatment of the subject has been done through Western ethical framework. We argue for the expansion of the discourse by introducing Gandhian notions that spread across both western and eastern perspectives, not only in application but also in its inspirational grounding.

In the next section we discuss related work. Then we provide a brief introduction to a Gandhian approach and its key components: ahimsa, satyagraha, and swaraj. We then situate these Gandhian constructs in cyberspace. We discuss case studies to examine the application and limitations of a Gandhian approach. Furthermore, we note the limitations of this work and some of the open questions that need to be addressed in the future. Finally, we conclude.

2. RELATED WORK

Maner 1980 coined the term “computer ethics”. Computer ethics is “the analysis of the nature and social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such technology” [Moor 1985]. Floridi 1999, however, argues for information ethics over computer ethics. He says that computer ethics is difficult since traditional ethical theories are not easily adapted to computer ethics. In contrast to computer ethics, information ethics can be treated as a special case of environmental ethics or ethics of the cyberspace. Similarly, we argue that ethics in the cyberspace can also be viewed as a case for Gandhian discourse. Instead of focusing primarily on western philosophies (e.g. Rawls 1971) here we will focus on the application of western philosophical frameworks to the cyberspace.

We face ethical dilemmas due to ever changing technology and the increasingly pervasive nature of computing [Moor 1998]. Johnson 1997 argues that the only solution is that we categorize and internalize ethical behaviors in the online world just as we have for the offline one. She also argues that online ethical issues themselves are not very different from ethical issues offline. Thus we can use the existing tools in ethics and apply them to the cyberspace. This work is essentially in agreement with that per-

¹Gandhi's ideas were influenced by, amongst others, Western thinkers such as Thoreau and Ruskin and Vedantic philosophy, which originated in India. This work concentrates on the Vedantic roots of Gandhian thought as we present an eastern, in particular Indian, ethical perspective on information ethics in the context of cyberspace.

spective and only presents a case that a Gandhian framework would facilitate these distinctions.

Lessig 1999 argues that there are differences between the physical space and cyberspace, which makes the latter both potentially more or less regulable. He notes that, unlike in the offline world where the architecture is defined by physical constraints, the online world offers a wider range of choices. Further, those choices, once embedded in the cyberspace, cause risk to become immovable, invisible, ubiquitous and self-enforcing. His view is complementary to a Gandhian perspective on system design. [Nissenbaum 2001] at the same time suggests that the architecture of the system itself can hold values and thus can demarcate between the ethical and the unethical. She considers a dichotomy of controversies. The first deals with the aspect of social change and second deals with the underlying value system. The former deals with the idea of accountability and responsibility, the latter deals with a more radical change. An example would be a change in the way we think about privacy in light of large-scale data aggregation and data mining. She also says that this change goes both ways: at the same time that technology alters value systems, values also guide the evolution of technology. She suggests that these controversies can be resolved only through dialogue between the engineering community and those who study value systems and calls it 'engineering activism'. A Gandhian approach, as we will see later, facilitates this dialogue.

Electronic Civil Disobedience (ECD) [Ensemble 1994], similar to the above, actively attempts to counter those decisions that are seen as unethical. It is a reflection of how activists are embracing technology and hackers are becoming politically motivated [Wray 1999]. Since the capital is now mobile and electronic, the resistance must also have the same characteristics and adapt itself for cyber-activism. ECD has, however, evolved into hacktivism [Manion and Goodrum 2000], a more radical idea that is not grounded in resolution through dialogue and is seen by some as terrorism [Furnell and Warren 1999]. This classification makes it far less effective. It has been argued that hacktivism is not criminal behavior since criminals seek to profit from damage to individuals whereas hacktivists only target institutions [Ensemble 1994]. The problem, however, is that hacktivists may use technologically extreme measures and that their actions affect people who have no stake in the conflict [Furnell and Warren 1999].

Civil disobedience was also used by Gandhi but in a much different form, as we will see later in the case studies. His approach is more in line with Johnson 1997 in that it tries to internalize the norms of ethical behavior. At the same time Gandhi differs in not being an element of the school of philosophy that came out from the industrial revolution in the west but is instead an eastern outlook [Pantham 1983]. He encourages decentralization [Pantham 1983], which is a tenet on which the Internet has evolved and prospered [Post 2000] and whose benefits are well known [Brafman and Beckstrom 2006].

3. GANDHIGIRI: AHIMSA, SATYAGRAHA, AND SWARAJ

Gandhi's philosophy is not only based on the lack of physical coercion but in fact rejects it under all conditions, even self-defense. Gandhian arguments therefore cannot apply to the coercion of the unwilling that underlies a solution based in jurisprudence. Cyberspace crosses all extant jurisdictional boundaries. That physical coercion is rarely possible over the network argues for the value of a Gandhian perspective. Another advantage is that Gandhian ideas have been proven in a diverse range of cultures. For example, this philosophy has contributed to the transformation of society in the United States of America and South Africa as exemplified by the popularity and success of mass movements led by Dr. Martin Luther King, Jr. and Nelson Mandela respectively. The Chipko movement also adapted Gandhian strategies of protest to fight environ-

mental degradation in India [Hardiman 2003]. These examples indicate the relevance and applicability of Gandhian principles to different cultures.

Another reason for applying a Gandhian framing to the analysis of conflicts in the cyberspace is the more dialogical² than monological³ approach that Gandhi takes. For example, his most important work, *Hind Swaraj* [Swaraj 1909], is written in the style of a conversation rather than a set of declarations. A monological approach allows the reader to reflect on internalized ethical values [Nijhof et al. 2000] at the risk of reduced flexibility. Adaptability is important in the cyberspace not only because of its current dynamic nature but also because of the uncertainty in its future development. Gandhian ideology is flexible and subject to growth.

There are three essential components of Gandhian philosophy: *ahimsa*, *satyagraha* and *swaraj*. *Ahimsa* is the journey, *satyagraha* is the path, and *swaraj* the destination. Before we can see how these terms translate in the cyberspace, we first need to understand these components in the context of his time.

3.1. Ahimsa

Literally translated, ‘*ahimsa*’ means ‘non-violence’. Gandhi believed in non-violence. There are three aspects to Gandhis conceptualization of non-violence. First, he believed that true force is not brutish. It is the strength of ones mind. Second, while *ahimsa* as a notion is common in eastern religions, but Gandhis *ahimsa* differed from that preached by the Buddhists or the Jains. Gandhi believed that true *ahimsa* does not mean just accepting whatever persecution is brought upon us. He believed in action. He believed that if the persecutor can be shown how they cause suffering and how their victims bear it without complaint, the persecutor would have a change of heart and would eventually realize the folly of his actions. Finally, Gandhi believed that true *ahimsa* meant standing up, not only to the injustices done to oneself, but also those done to others. Such meaningful suffering requires partaking in their resistance leading to the idea of *satyagraha*.

3.2. Satyagraha

Satyagraha is *ahimsa* in action. Formed from two words, ‘*Satya*’ meaning truth and ‘*Agraha*’, translated as force, the word *satyagraha*, literally translated, means the force of truth. It is a peaceful form of civil resistance. *Satyagraha* enables not only the strong but also the weak, because it calls on mental strength instead of physical strength. This is not a new notion. There are examples of it being used long before Gandhi introduced it into the Indian political movement. In fact, these precedents and their success may have convinced him of the power of this movement. Some examples of these protests that Gandhi came across are: passive resistance by the Hungarian nationalists against the Hapsburgs from 1849 to 1867 and by Sinn Fein against British rule in Ireland during the early years [Gandhi 1907].

Apart from examples abroad, the Indian social structure, especially the Gujarati one (to which he belonged) was filled with examples of non-violent resistance. An example would be the practice of *traga*: threats of self-harm to motivate another [Hardiman 2003].

3.3. Swaraj

The idea of *swaraj* can be literally translated as self-government. Some find *swaraj*, the greatest good for all and not just the greatest number, to be self-contradictory. This

²A dialogical approach uses a Socratic style question and answer format between the fool and the wise man.

³A monological approach is presented in a style in which there are no interruptions and ideas are conveyed as declarative statements.

is because most people believe that there is no such optimization. The idea of swaraj can be understood from Gandhis seminal work called Hind Swaraj (Gandhi, 1939a). He treats swaraj as an open-ended question and does not give a specific definition.

He does, however, define a few characteristics. The first characteristic that swaraj must have is the idea of the governing body as servants. They ones who govern are there to serve the people and not to rule them (e.g. public servants). Swaraj can not be achieved by giving up on what is old, what is not swaraj, since swaraj is a dynamic which builds upon its own self, each time becoming better and more wholesome [Swaraj 1909]. Swaraj requires peer production through collective action. Swaraj is a process and not an end point. Thus, the fact that at one time there is no optimal solution, which provides the greatest good for all, does not mean that the process should cease at that moment.

4. THE CYBERSPACE GANDHIAN

In this section we translate Gandhian ideas of ahimsa, satyagraha and swaraj to the cyberspace. The application of Gandhi to cyberspace is straight forward. Cyberspace is culturally diverse and crosses myriad jurisdictional boundaries. It is extremely difficult, not to mention potentially undesirable, to enforce laws that transcend these boundaries and ensure ethical behavior. Gandhi does not advocate forcing ethics onto people but instead inculcating them.

Gandhis conception of swaraj [Swaraj 1909] is similar to Floridi's notion that information, being a source of nourishment, should be available to all [Floridi 2005]. It is necessary for a person to fulfill his/her purusharthas, for example a person would not be able to fulfill his or her duty (to the best of their potential) if the information access is restricted [Wagner 2003; Stallman et al. 2002]. In that sense Gandhian ethics would also incorporate disclosive ethics [Introna 2007].

The idea of Gandhian cyberspace can also be explained using his idea of Oceanic Circles [Parel 2008]. Oceanic Circles refer to a strong unified society that would be free from violence and aggression. Gandhi described the current society as a pyramid, i.e. a hierarchy based society. Every step is built upon a lower step, thus irrevocably suppressing the one beneath. Some argue that the Internet and related network technology is based on the similar principles of control and hierarchy [Froomkin 1997]. For example, access control is basically one account (Administrator) having all the privileges and others having various levels of privileges assigned by the administrator [Zittrain 1996]. In an organization this might lead to resource starvation if lower ranked processes are denied access to resources. The alternative is an Oceanic Circle approach.

“Life will not be a pyramid with the apex sustained by the bottom. But it will be an oceanic circle whose center will be the individual always ready to perish for the village, the latter ready to perish for the circle of villages, till at last the whole becomes one life composed of individuals, never aggressive in their arrogance, but ever humble, sharing the majesty of this oceanic circle of which they are integral units” [Parel 2008].

This idea is based on the notion of completely independent and self-sustainable villages. They must be capable of taking care of their affairs including defending themselves. Each village, in itself a circle with certain area of influence, will be flanked by other villages who would be equally powerful, thus drawing a larger (oceanic) circle of influence. Thus the process is repeated, every time drawing a larger circle. Since the outer circle derives power from the inner ones it would not wield the power to crush the inner circle but will give strength to all within and derive its own strength from it (Gandhi, 1946). It is easy to see how Oceanic circles would correspond to the Internet. The individual is the node that forms villages or subnets that join together to form bigger subnets and thus a bigger oceanic circle.

Peer to peer technologies and open source movements [Stallman et al. 2002] run parallel to the idea of oceanic circles. In Gandhis words they allow “free and voluntary play of mutual forces. Such a society is necessarily highly cultured in which every man and woman knows what he or she wants and, what is more, knows that no one should want anything that others cannot have with equal labor” [Parel 2008]. In the sense of peer-to-peer groups a user can’t simply download songs unless they contribute by sharing some songs themselves.

The concept of each village being able to defend itself also makes sense. If every subnet in the world was capable of protecting its resources then it would make the Internet a much more secure place. Most security incidents happen because individual systems are not patched⁴. Most of the time people are not even aware that they are leaving their systems vulnerable to attacks. From this comes the idea of an all-aware society leading to Swaraj. As Gandhi says “Swaraj can only be achieved through an all round consciousness of the masses” [Batra et al. 1984]. Similarly, our shared privacy can only be met if we all implement security to avoid data loss. Of course, security is a prerequisite for privacy but does not in any way guarantee it.

While Gandhi had reservations about technology, he also said, “I would prize every invention of science made for the benefit of all” [Bose 1962]. Gandhi’s dislike was towards technologies that would lead to unemployment and concentration of wealth in the hands of the few. His dislike was for mass production. Instead, ICT-enabled technologies facilitate distributed production by the masses. One example of this can be seen in the music industry with increasing number of artists choosing to release their work on independent labels. ICTs, like telemedicine, are also helping people with limited resources get access to better healthcare. Several ICT enabled project have been promising in increasing education [Mitra and Rana 2001]. It may be argued that these technologies are expensive and only available to few. However, ICTs such as cellular telephones vastly increase connectivity and can increase economic opportunity [Camp and Anderson 1999]. Paradigm shifts in thinking about engineering are making production of new technology not only locally but also economically⁵. This new engineering paradigm is also based in Gandhian philosophy. Thus ICTs would, based on their usage and context, be acceptable in a Gandhian setting.

5. CASE STUDIES

In this section, we provide case studies of how behaviors can be understood as ethical or unethical from a Gandhian perspective.

5.1. iPhone

Consider the Apple iPhone, which was launched in 2007. At the time it was only available on the AT&T network. Customers were also not allowed to install breakthrough designs for ultra low cost products third party software on the iPhone. Customers were not happy about relinquishing control in either of these areas. At that time, AT&T was subject to an attempt at boycott due to its role in the NSA wiretapping practices of the Bush Administration [Sugiyama and Perry 2006]. Customers also believed that since they had paid for the phone, it was their prerogative to decide whether they wanted to install third party software or not.

Some unsatisfied customers hacked the iPhone to allow third party software and network service through other providers. This resulted in a cycle between Apple and hackers wherein Apple would release patches to make the hacks ineffective and hack-

⁴<http://www.schneier.com/crypto-gram-0406.html#4>, Retrieved April 12th, 2012

⁵http://www.ted.com/talks/r_a_mashelkar_breakthrough_designs_for_ultra_low_cost_products.html, Retrieved on April 12, 2012

ers would break the new patch. While iPhone users were locked in to AT&T for a long time, they got a more immediate respite for third party apps. Within a few months AT&T announced an SDK allowing users to develop third party applications, effectively allowing them to install third party software on the iPhone.

This is an instance of how Satyagraha can be practiced online. It runs parallel to the Dandi March [Weber 1997] undertaken by Gandhi to protest against the salt tax imposed by the British government. Salt is an important ingredient in the Indian diet. A lot of people, especially the ones near the coastal areas would simply make salt from the sea. The British however made it illegal for anyone to manufacture salt except the government. Gandhi appealed to the then Viceroy Lord Irwin to amend the salt law but to no avail, Gandhi and his supporters openly broke the law by making salt at Dandi. This was a widely publicized event and a large number of people were arrested. Eventually the British government gave in and called Gandhi for talks.

There are many possible points of illumination with the iPhone story. The disobedience was about economic self-control. The actions of the protestors were non-violent. The actions were widely publicized and the authorities were aware of the mechanisms of the protest. The authorities escalated the measure to curb protest AT&T locked the phones via upgrade but the protestors did not. Uninterested customers were not affected by the actions of the protestors.

5.2. Metallica

The second case study can also be illuminated using a Gandhian perspective. is a thrash metal band that came out as an offshoot of the new wave of British Heavy Metal. They were the first band to sue Napster, a file sharing system based on peer-to-peer architecture. This was not acceptable to their fan base. Metallica fans argued that the reason for Metallicas popularity was bootlegs. By suing Napster Metallica denied upcoming bands the same freedom, which gave them success. Fans revolted by destroying Metallica CDs, paraphernalia and other items in public. This, however, did not elicit any response from the band as the tactics to boycott them only brought more publicity. Eventually, though, the fans adopted a new strategy and simply stopped buying Metallicas music and concert tickets. Thus experiencing genuine revenue loss, Metallica settled out of court. The bands final statement was that they opposed Napster not because it shared their music but because Napster should have asked Metallica before doing so.

This case study draws parallels with the Non-cooperation movement. Non-cooperation was a protest against the Rowlatt Act that overruled Habeas Corpus. This was started by Gandhi and was mobilized in 1920. In the Non-cooperation movement, Indians simply quit their jobs and did not go to work. The machinery of the British government relied on Indians working. Without them the machinery lacked its foot soldiers in clerks, teachers, doctors etc. Metallica too lost its fans and thereby lost not only money and reputation but also its identity. The band was previously respected for being true to its roots, but once the movement began, Metallica became a symbol for the self-serving record companies. All this happened without any violence on the part of the protesters. They broke no law, but by not buying Metallicas music they exercised a right and reached a solution without affecting anyone who was not a stakeholder in the dispute.

5.3. Kathy Sierra

The third case is more difficult as it addresses threats of horrific violence. Kathy Sierra is a programming instructor and game developer. She was also a prominent blogger . In 2007, she stopped blogging and cancelled her appearance at the Orielly Tech Conference due to death threats from various sources via e-mail and blog posts⁸. The threats

forced her to make significant changes to her life. This is one case where someone's virtual world persona can have serious and potentially fatal consequences in the physical world. Similar threats using the Internet were also witnessed in the case of Students Against War (SAW) vs. Michelle Malkin. In this case Michelle Malkin reposted the names and contact information of individuals involved with SAW. This information was originally posted on the SAW website, but they decided to remove it after getting various threats. Michelle Malkin, however, did not agree to SAW request to remove this from her blog, reposting it several times and claiming that SAW needed to take responsibility. This form of cyber-harassment has been widely studied [Campbell 2005; Ellison and Akdeniz 1998; Servance 2003]. In these cases Gandhian philosophy would probably be an ineffective way to protest against the actions of the individuals involved. However, the Gandhian perspective clearly illuminates the many ethical contributions to the greater harm.

Such cases are different from the first two case studies in many ways. First, individuals are singularly targeted and even though Kathy Sierra was supported by many other bloggers, she alone would have had to bear the consequences if the threats against her were realized. Secondly, the people involved in doing harm are not the authorities but fellow bloggers and Internet surfers. Also, in the above two case studies, both Metallica and AT&T took legal recourse and exercised what were their legal rights. The consequences were mostly economic. The problem of the first two case studies is of ethics, whereas here the problem is not only ethical but also legal. When the problem becomes legal, we have the option of using the legal framework to solve the issues. For example, in the case of Kathy Sierra an investigation was conducted by law enforcement. If the events had escalated and there was proof to show physical danger, she might have considered police protection.

There is, however, a clear contribution of Gandhian philosophy to these cases. A Gandhian would clearly identify these as unethical behaviors. From a Gandhian perspective, the use and threat of force is never justified, so those who threatened the students, those who advocated threatening them, those who threatened Sierra, and those who justified the threats as freedom of speech can all be identified as unethical actors. Justification of threats of violence, while legal, is clearly unethical. Using a Gandhian framing, such an identification of the unethical as unethical contains no threat, and thus there can be no pretense that such an identification is itself a threat. Thus a Gandhian framework could mitigate rather than escalate the situation. First, it denies unethical actors the claim of legal justification. Second, it refutes reliance on the importance of the ends to justify means. Finally it identifies the diminishing of themselves and their victims in the case of threatening violence on advocating the right to make these threats.

6. OPEN QUESTIONS

The purpose of this work is to argue that a Gandhian perspective can better enable us to distinguish ethical and unethical online behaviors. From this comes a potential increase in awareness by society and technologists of the nature of the (un) ethical. This may result in changes in technology and patterns of behavior. Understanding such changes requires the study of social structure. Such study is concerned with relationships among groups as enduring patterns of behavior by participants in the social system in relation to each other. Social patterns may become institutionalized norms or cognitive frameworks. At the same time there may constantly be new emergent behaviors [Giddens 1984; Orlikowski 2008; DeSanctis and Poole 1994]. We, however, do not expand on how this addition of Gandhian insight to information ethics would animate technology, its artifact, or associated patterns in this work. This paper is rather intended to begin such a dialogue.

Gandhigiri also promises insights about the nature of common good in the cyberspace. Recall the discussion of utilitarian, de-ontological, and virtue ethics perspectives. In Gandhigiri both the ends and the means must be more than simply not unethical. Both ends and means must serve the common good. According to Aristotle [Nichols 1992], the common good concerns itself with the relative equality of outcomes where all citizens can flourish, similar to Gandhi. While the ideal of the common good is transcendent, how the material and manifest work of serving the common good are worked out is a matter of collective action [Limayem and DeSanctis 2000; Jankowski and Nyerges 2001]. Such collective action may also be informed by the addition of a Gandhian perspective. As such, again, this process online may influence social and technological architectures. While these questions are beyond the scope of this immediate work, we propose that the addition of Gandhigiri to structuration theory would enhance the dialogue.

7. CONCLUSION

The case studies demonstrate both the potential and the limits of a Gandhian approach. The iPhone users were allowed to install third party software but were for a long time locked in with AT&T as the solitary service provider. Allowing third party software on the iPhone was trivial, as it dealt primarily with the individual and his or her own phone. Allowing owners of hardware to migrate to another provider was a bigger problem with more stake-holders and consequences leading to contract breaches. The same, however, is true for the offline scenarios. For example in the first study, while people were allowed to make salt by the government they were not given freedom. Allowing people to make salt has smaller consequences, but giving them freedom and right to self-governance would have had much wider implications.

The last case study also shows that not all problems can be solved by a Gandhian approach in practice. It is not reasonable to demand the level of self-awareness shown by Gandhi from those who are threatened and harassed on the network. Thus, legal recourse in some cases is a critical, or potentially, even life-saving option. Gandhian philosophy does, however, contribute to the understanding of this by identifying the ethical failures of those who advocated violence, supported this advocacy, or failed to stand against them.

There are four methods to satyagraha [Pantham 1983]: Purificatory, Non-Cooperation, Civil Disobedience and Constructive Programs. The case studies cover only two. Their solutions cannot necessarily be generalized over all the myriad problems in the domain of information ethics. They do, however, provide an insight into how a resolution might be reached using a Gandhian framework and the benefits of such a framework. There is also need for a deeper more comprehensive analysis comparing the Gandhian approaches to western thought as applicable to cyberspace.

The practice of Gandhian ideals requires patience, courage, and faith in the goodness of human nature [Gandhi 1907]. It believes in an open dialogue between the involved parties. It is like Floridi advocating inclusion over discrimination [Floridi 2005]. There is direct impact of this school of thought on ethical issues including informed consent, anonymizing datasets for research, developing codes of conduct for ethical research and ethical system design. This paper does not provide a solution to these problems but argues that a Gandhian framework of ethics is a powerful source of insight, and should be brought to bear. In particular a Gandhian approach empowers the end user and allows them to confront the institutions in charge of regulation. It protects the entities not involved in the dispute from the stakeholders and reaches a meaningful resolution by enabling dialogue. The results from the case studies reflect existing notions like net neutrality (Marsden, 2008) and indicate that this framework can accommodate existing value systems. Thus the Gandhian framework can serve to incorporate east-

ern value systems with western ethics and provide insights that are more global and thus more applicable to an increasingly international and multicultural cyberspace. In conclusion we agree with Johnson on the need to facilitate dialogue but argue that clearly distinguishing ethical behaviors from the unethical requires drawing on the entire global range of ethical systems [Johnson 1997].

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