

# Facilitating Social Harmony Through ICTs

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**Abstract.** Social Harmony involves the peaceful interaction of people in a social setting. In this keynote address I briefly examine the historical antecedents of social harmony and identify some of the salient barriers to its realisations, before selecting examples of ways in which ICT can contribute to social harmony, with particular attention to the Asian region. I conclude by looking ahead to future research opportunities.

## 1 Introduction

Normatively, I would hope that social harmony is the kind of concept that we can easily understand. For me, social harmony refers to the peaceful interaction of people in a social group, and thus conveys a very positive message. However, social harmony has been misappropriated in contemporary China, where the government has co-opted it into the “Socialist Harmonious Society” slogan used as a form of propaganda that promotes social stability, yet is also associated with the crack down on protests and the arrests of journalists and opinion leaders on social media. In Chinese Internet slang, “to harmonize” now means “to censor”, as occurs when social media content or news content is removed if it touches on sensitive topics. Unfortunately, even social harmony has been co-opted to the dark side.

Indeed, notwithstanding the Chinese context, the positive sense of social harmony does not get much attention in the news and media these days. Quite the opposite as most news media revel in gory depictions of violence, accidents, unhappiness, victimisation, fake news, malicious rumours and gossip, indeed anything but social harmony. As a species, we have a huge capacity for mutual intolerance, hate and a litany of inhumane behaviours that we seem to take delight in wreaking on each other. While the underlying motives for this behaviour lie in the realm of psychology, ICT applications often play an instrumental role in the conveyance of this intolerance, as encountered in the nauseous behaviour of online trolls and the ‘shock jocks’ of extreme opinion, very often through social media channels. It is tempting to imagine that this tendency for intolerance and hate is genetically hardwired in a survival mechanism of which we are entirely unaware (cf. [1]). But this seems to be too easy an excuse and diminishes any claim we have to being a higher species, equipped with wisdom (*homo sapiens*), if we unthinkingly use that wisdom in such unpleasant ways.

Nevertheless, I was delighted when I learned that the IFIP WG 9.4 conference chairs had selected as a theme ‘Facilitating Social Harmony through ICTs’. I felt that this would be an opportunity for us to celebrate the social positives of ICT, to demonstrate

that ICT can indeed facilitate social harmony in different ways. I greatly look forward to listening to the presentations in the conference theme track. I felt even more honoured to be invited as a keynote speaker, for this provided me with the opportunity to select this important conference theme as my topic.

However, my initial enthusiasm for the topic waned a little when I started to collect my thoughts and write this paper. It is one thing to agree that ICT-facilitated social harmony is a good thing, but quite another to talk about it for an hour with wit and erudition. There are certainly many inspiring examples of ICT-driven community development (as well as digital enablement at the bottom of the pyramid) that undoubtedly bring significant benefits at the bottom of the pyramid, alleviating the worst cases of poverty. For instance, the Free Lunch for Children project in China [2] and the Ceibal project to bring laptops to children in Uruguay [3]. Another example is the [www.colab.re](http://www.colab.re) project in Brazil, designed to bring citizens and local governments closer together by locating common interests and solving problems. However, these examples are not quite the same thing as ICT-facilitated social harmony, even though they are closely related and social harmony may be an unintended consequence.

Let me reassure you that I have found good examples of ICTs facilitating social harmony. Indeed, one example that I hope to visit when I am in Yogyakarta is just a few kilometres from our conference site and I have found several others in the South East Asian region, as well as around the world, but before I get to the examples, I need to delve into the historical and cultural context of social harmony.

## 2 Historical and Cultural Context

In order to position social harmony in its historical context, I would like to consider some ancient traditions. In China, the origins of social harmony are often attributed to the teachings of Confucius (551–479 BC), who encouraged discussions of qin, one of the earliest forms of music in China. Qin music embodied the concept of harmony as it sought to balance the yin and yang associated with different aspects of the music, as well as the different weather conditions associated with the four seasons when the music might be played. This qin music was not written solely to please the ears, but instead to encourage people to moderate their likes and dislikes and help them achieve a ‘correct direction’ in life, achieving a balance between humans, society and the natural environment. Thus, in Confucian terms, just as qin music combining different instruments, tones, notes, speeds, keys, etc. could combine harmoniously, so human society could also, with its blend of different temperaments, personalities, preferences and tastes, combine in a harmonious social fashion with the peaceful interactions of multiple individuals who are transformed and civilised.

Harmony remains a key component of many musical traditions, where consonance and dissonance are resolved. For instance, the traditional Javanese musical instrument known as the *Angklung* also explains the philosophy of harmony. In order to play the *angklung* effectively, a number of players must cooperate and coordinate their movements. This is believed to enhance teamwork, mutual respect and social harmony, since each member of the team has a specific role to play. The overall message is that to ensure social harmony, people must be patient and work together with others.

A second historical tradition I wish to bring in to this discussion is Greek, whence the English word harmony is derived (via French and Latin) from ἁρμονία (*harmonía*), meaning “agreement or concord”, which in turn is cognate with the verb ἁρμόζω (*harmozo*), “to fit together, to join”. This brief etymological analysis indicates how harmony is associated with joining things (people, music, nature) together in a smooth fashion. I will return to nature later, but when we are dealing with people, clearly social harmony is a collective notion, involving multiple people or other objects. It is bound up with ideas of togetherness, relationships and a shared sense of belonging. A related concept is social capital, which is associated with social networks and the transactions between people that are characterised by reciprocity, trust and cooperation, all hallmarks of social harmony. Hanifan [4] notes that when there is “goodwill, fellowship, mutual sympathy and social intercourse among a group of individuals and families ... there will be an accumulation of social capital, ... which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community”. Social capital is thus something to be encouraged as it can lead to a social state where social harmony is more likely to emerge.

I suggest that a harmonious society will be one that is governed by mutual respect between members and a sense of reciprocity, with people altruistically helping one another. For social harmony in a real or virtual society to be effective, collective efficacy is important, for all the members of the society must work well together with tolerance and respect if that state of harmony is to be achieved and sustained.

Social harmony is a state that is not only peaceful but also founded on cooperation and collaboration, not conflict and dissonance. This does not exclude an economic element, but economic drivers often favour the bold, risk takers with a ‘who dares, wins’ mentality. As the Greek soldier and historian Thucydides (460–400 BC) is supposed to have remarked “τοῖς τολμῶσιν ἡ τύχη ζύμφορος”, i.e. “fortune favours the bold”. Such an attitude can induce individualistic competitiveness and exclusiveness, with a slippery slope that leads to conflict and a diminishment of harmony if inequalities emerge. Collective economic benefits can be realised in a socially harmonious way if it is the entire community that benefits, not the individual. I will explore this in more detail below.

In the Chinese context, key cultural elements in the traditional social harmony pantheon are *guānxi* (關係), *héxié* (和諧), *rénqíng* (人情) and *miànzi* (面子). *Guanxi*, broadly, refers to situation where two or more individuals enjoy a “close and pervasive interpersonal relationship [that] is based on high quality social interactions and the reciprocal exchange of mutual benefits (*renqing*)” [5]. People who share *guanxi* target the formation of a state of harmony (*héxié*) between each other and also protect each other’s face (*miànzi*). *Guanxi* is ubiquitous in China and is often seen as an essential survival mechanism: without *guanxi*, it is very hard to do anything related to work or social interaction. The social harmony that is a key component of *guanxi* is not only a face-to-face phenomenon, but also one that is firmly rooted in online communications. Social media technologies like WeChat and QQ are often used to build and maintain online relationships (*guanxi*) where interlocutors aim to achieve a state of harmony (*hexie*) as they interact. Although the desire for a harmonious interaction is a cultural one, the technology effectively supports this interaction by embedding tools central to such communication, as well as more special functions, such as WeChat’s ‘donating to charity’ app.

### 3 Barriers to the Adoption of ICT

While social media technology may seem ubiquitous, there are in fact many barriers to the access and use of ICTs that may impede the development of ICT-facilitated social harmony. The research unit of the Chinese global telecommunications equipment manufacturer Huawei [6] suggested four key barriers, viz.: availability, affordability, appetite and ability, to digital enablement in developing countries. These barriers equally apply to ICT-driven social harmony.

Availability has two key components. Firstly it relates to the access to the technology, including networks and devices, electrical power supply and high speed infrastructure. Secondly, it relates to the need for local content that meets local needs in local languages. Affordability is a very familiar problem. It not only refers to the purchasing power of the intended users, but also to the value that can be obtained through the use of the technology. Appetite and Ability tap into a different set of issues. Appetite refers to the motivation to use the technology, prompted by questions like “Why do I need it?” and “How will it benefit me?” Appetite can also be related to technophobia: the fear of technology. Finally, and very critically, ability refers to computer literacy and the whole issue of “How can I use the technology?”. This is premised on the need for appropriate education.

### 4 Examples of ICT-Facilitated Social Harmony

In the northern highlands of the island of Borneo, straddling the border between Indonesian Kalimantan and Malaysian Sabah/Sarawak, there are a number of communities that illustrate ideas central to ICT-facilitated social harmony. Two key projects are the eBario village and the eBorneo knowledge fair.

eBario ([www.ebario.org](http://www.ebario.org)) is a project that, starting in 1998, has brought the Internet to remote Kelabit communities in the highlands of northern Sarawak [7, 8]. The project has from the start been premised on close interaction between members of the community in their natural environment and the various researchers and agencies who have supported the project. These interactions give priority to the problems and opportunities that the community itself identifies. Thus the eBario community radio station, which broadcasts in the rapidly disappearing Kelabit language, is operated by the community for the community and features information of relevance to the community. The project includes a telecentre, established to provide access for the community to resources on the Internet including e-health and telemedicine, but also enabling the community to attract tourists who can supplement village income in their community-based tourism project. In these projects, it is the community as a whole which benefits, hence the link to social harmony. The community sells its indigenous Bario rice over the Internet and hopes to attract tourists keen to trek in the surrounding jungle, activities that ensure economic benefits for a disparate range of Bario villagers. The eBario project is donor funded and addresses all four barriers identified by Huawei. The technology itself was provided by donors, who also installed solar panels and a diesel generator to provide a reliable electricity supply. The content is generated locally, in the local Kelabit language. While the initial costs of the project were covered, locals need to generate income from use of

the technology. In the Bario school, computers were provided to ensure that school children would learn how to use them as part of the curriculum, thereby addressing the issue of appetite and ability. The views of the Bario villagers who have benefitted from the eBario development are recorded by Tarawe and Harris [9].

Closely linked to eBario is the eBorneo knowledge fair ([www.ebkf.org](http://www.ebkf.org)). The knowledge fair is designed to showcase how the use of ICTs can benefit the development of isolated rural communities. Such fairs are designed to allow all participants to learn from and interact with each other in an innovative and dynamic way in order to facilitate the transfer of knowledge. The knowledge fair is designed as a non-hierarchical community event that champions social harmony across the communities.

A few kilometres from our conference location, there is a very local example of a socially harmonious community: Kampung Cyber. <http://www.rt36kampoengcyber.com/>. As the website mentions: “Sebuah kampung yang penuh potensi dan ingin selalu berkembang. Utamanya berkembang melalui teknologi informasi.”, which I loosely translate as “This is a village that always wants to develop, which it will do primarily through IT”. Although the village is old, the cyberification of the village, which led to Kampung Cyber, was started in 2008 by Mas Koko, a village resident and graduate from the local Universitas Gadjah Mada. As he explained to me by email, Mas Koko had the objective of bringing not only free Internet to each house in the village, but also, and more importantly, educational programmes that help citizens to build their capacity to leverage the Internet effectively. The project started with just five villagers, who drew on their own savings to buy the necessary equipment but who also shared that equipment with their neighbours, who subsequently became interested in the project. Atmajaya University provided basic computer training for free. In early 2015, they received their first outside funding from a private company which has enabled them to improve the speed of their connections. Currently, many of the villagers are informally employed, seeking to sell their various products, e.g. batik, fishing equipment, T-shirt painting, food, snacks and traditional crafts via the Internet. As a result, the standards of living in the village have improved for the individuals as well as the village as a whole. Facebook is used as a village communication channel for sharing ideas, invitations and meeting minutes. The overall effect is for Kampung Cyber to be a harmonious location for the villagers who live there.

In southern Mexico, Ricardo Gomez is working with an indigenous Tzeltal community in Chiapas state [10] on a multi-year initiative that will involve an indigenous community library, indigenous community radio and what he terms *fotohistorias* [11], the use of photography to capture the salient elements of the culture. The common thread for the various activities is the local, indigenous notion of “*likil cuxlejali*” which translates roughly as “The Good Life”. In the Tzeltal indigenous tradition, The Good Life is defined by harmony. Harmony between heart, stomach, and spirit, harmony between individual, family, and community, and harmony in relation to Mother Earth or the environment. This project is therefore very much about social and community harmony and the way it can be enhanced through development programmes.

In Central Kalimantan, Indonesia, Raihani [12] draws on the indigenous Dayak *rumah betang* or long house as “a cultural symbol of harmony amongst different religions and ethnicities”. The whole extended family or community would live in a *rumah betang*, with little privacy and the need for much respect of differences. In similar vein,

Raihani [12] documents how school children are brought up and educated to respect religious differences, just as they would have to in the rumah betang, in line with Indonesia's Pancasila philosophy. As "another feature of the harmonious inter-religious relations" these children described how they sent "short messages via mobile phones" and wrote "on friends' Facebook walls to express greetings" during religious celebrations and festivities such as Eid al-Fitr and Christmas.

In Liberia, Smyth et al. [13] developed a mobile information kiosk as part of the country's post-civil war truth and reconciliation process. The kiosk is called Moses and consists of "an interactive computer system which allows users to browse, watch, create and share video messages". It is thus a means for sharing of stories across the country with the objective of enhancing social harmony, despite very poor levels of Internet infrastructure, power supply and information or computer literacy. Smyth et al. [13] report that the over 900 people who recorded videos with Moses and the several thousand more who watched these videos across the country from 2008–2009 "saw Moses as giving them a voice and connecting them to other Liberians throughout the country". The system itself was often associated with group usage, with a throng of people gathered excitedly around the kiosk, helping each other to use the system, sharing their stories and looking towards a brighter future. Here, social harmony is being achieved as part of the reconciliation process.

## 5 Closing Thoughts and Future Directions

Social harmony needs intensive maintenance if it is to persist. From an ICT perspective, this means that there is an intensive need for the sharing of ideas, knowledge and best practices; thus communication is critical. Such communication, if online, is likely to involve some form of social media, assuming that Internet access is available. Facebook is very popular in many of these communities, but others include WeChat and Twitter. Email is also reported as being popular for more formal communications. In less well resourced communities, such as parts of West Africa where Internet accessibility is very weak and literacy is low, reliance on more indigenous applications is likely. All stakeholders, especially those in the local community, need to participate in a culture that nurtures the interests of the community as a whole. While ICT-facilitated community development projects are common, these seldom report on any social harmony that results. One might conclude that the lack of evidence suggests the absence of the phenomenon but I am more optimistic: I am certain that social harmony does exist, indeed it is abundant, but we need to find and report on it, sharing our stories. Gomez's use of fotehistorias provides us with a unique new tool that is well adapted to recording social harmony in practice.

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## References

1. Eres, R., Louis, W.R., Molenberghs, P.: Why do people pirate? A neuroimaging investigation. *Soc. Neurosci.* (2016). <http://dx.doi.org/10.1080/17470919.2016.1179671>
2. Zheng, Y.Q., Yu, A.: Affordances of social media in collective action: the case for free lunch for children in China. *Inf. Syst. J.* **26**(3), 289–313 (2016)
3. Winocur, R., Aguerre, C.: Scope and limitations in the evaluation of programs for digital teaching in Latin America: a paradigmatic case: the ‘Plan Ceibal’. *Iberoamerican Commun. Rev.* **5**(1), 59–68 (2011). [http://www.infoamerica.org/icr/n05/winocur\\_aguerre.pdf](http://www.infoamerica.org/icr/n05/winocur_aguerre.pdf)
4. Hanifan, L.J.: The rural school community center. *Ann. Am. Acad. Polit. Soc. Sci.* **67**, 130–138 (1916)
5. Ou, C.X.J., Pavlou, P.A., Davison, R.M.: Swift Guanxi in online marketplaces: the role of computer-mediated-communication technologies. *Manag. Inf. Syst. Q.* **38**(1), 209–230 (2014)
6. Huawei: Connecting the Future: Digital Enablement: Bridging the Digital Divide to Connect People and Society. White Paper, 43 pages (2015). [http://www.huawei.com/minisite/digital-enablement/download/Digital+Enablement\\_ENGLISH+online.pdf](http://www.huawei.com/minisite/digital-enablement/download/Digital+Enablement_ENGLISH+online.pdf)
7. Harris, R.W.: Tourism in Bario, Sarawak, Malaysia: a case study of pro-poor community based tourism integrated into community development. *Asia Pac. J. Tourism Res.: Spec. Issue Pro-Poor Tourism: Linking Tourism Dev. Poverty Reduction* **14**(2), 125–135 (2009)
8. Harris, C.A., Harris, R.W.: Information and communication technologies for cultural transmission among indigenous peoples. *Electron. J. Inf. Syst. Dev. Countries* **45**(2), 1–19 (2011)
9. Tarawe, J., Harris, R.W.: Stories from eBario. In: *Living the Information Society Conference*, Makati, Philippines, 23–24 April 2007
10. Gomez, R., Lefthand-Begay, C., Berwick, J., Zubair, C., Iribe, Y., Mora, S.: Indigenous information system in Chiapas, Mexico: integrating community radio, library and impact assessment for community development. In: *Proceedings of iConference*, Wuhan, China, March 2017
11. Gomez, R., Vannini, S.: Notions of home and sense of belonging in the context of migration in a journey through participatory photography. *Electron. J. Inf. Syst. Dev. Countries* **78**(1), 1–46 (2017)
12. Raihani, R.: Creating a culture of religious tolerance in an Indonesian school. *SE Asia Res.* **22**(4), 541–560 (2014)
13. Smyth, T.N., Etherton, J., Best, M.L.: Moses: exploring new ground in media and post-conflict reconciliation. In: *CHI: Crisis Informatics*, pp. 1059–1068 (2010). <http://dl.acm.org/citation.cfm?id=1753484>