INDIAN LAWS TO ASSIST THE NEED FOR NEW TOOLS DURING RISK AND OUTBREAK COMMUNICATION: NOW AND POST PANDEMIC COVID -19

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INTRODUCTION:

In 2003 SARS (Severe Acute Respiratory Syndrome) started spreading from China from the Guangdong province of South-Eastern China and that was also from an uncertain animal reservoir and WHO declared a Global Health Emergency due to loss of life in 22 Countries registering more than 10, 000 deaths Globally. On April 24 2009, the World Health Organization (WHO) announced that a previously undetected Swine origin influenza Virus (Swine Flu) was causing outbreaks of disease among humans in Mexico and the United States. By the end of August 2010, when the WHO declared the pandemic over, the new virus had spread to more than 214 countries and territories and caused at least 18,449 laboratory confirmed deaths. Given that many Countries did not have the capacity for laboratory confirmation of deaths or even cases, the number of deaths Worldwide is estimated to be significantly higher. In the United States alone, one study has estimated over 12,400 deaths from the new Virus.

The influenza pandemic during 2003 and 2009 in India revealed shortcomings in the existing guidelines for risk and outbreak Communication. Concepts such as building trust proved hard to achieve in practice, whereas other issues such as communicating through the internet and coping with the political fallout of disease outbreaks are not dealt with in existing guidelines. This article makes efforts to identify the current guidelines and makes recommendations for additional tools and guidelines to be developed in four areas: Integrating long-term behaviour, Change Models with outbreak communications; Scientific approach to develop a better understanding of Communicating through the Internet; Research to understand how to use communications to build trust; and developing guidelines and principles to understand the political nature of disease outbreaks.

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The pandemic was a testing time for the field of risk and emergency communication. Although communications tools and guidelines to deal with disease outbreaks exist, the scope of the pandemic threw up challenges that demonstrated both the usefulness of existing tools and concepts as well as an understanding of their limitations. If one of the aims of communication is to build common understanding between health agencies and the public, then low-vaccine uptake, allegations of collusion between health agencies and the pharmaceutical industry, and allegations that the pandemic was a 'fake pandemic' reflected failures in communication. As one commentator noted, existing communications guidelines and practices might require 'some pivotal adjustments' after being tested during the pandemic.

This article reviews existing tools, principles, and guidelines for communication during pandemics and other disease outbreaks and looks at the gaps in theory and practice that the pandemic has revealed. In particular, it examines four questions:

- Do existing Health Risk Communication Tools, which were designed to meet the needs of disease outbreaks of relatively short duration, work for an event as long and complex as a pandemic?
- What do Health Communicators need to understand about Communicating through a medium as interactive and dynamic as the Internet?
- Trust is key principle in Risk Communications, but we live in what has been characterized as a post-trust Society. How are Public Health Agencies and Governments to build trust in this context?
- Pandemics and other Serious Disease events are Political, Social, and Economic events, in addition to being Public Health Events.
- What are the key issues that Communicators need to understand about the Socio - Political Environment in which Communication occurs?
- In particular, what can we learn from Sociological and Cultural scholarship into Risk Perception?

1. Integrating Risk and Emergency Communication with Health Communication

The Two main sources of guidelines and practices for Communicating during Pandemics and Infectious Diseases outbreaks are the World Health Organization's Outbreak Communications guidelines and the US Centre's for Disease Control and Prevention Crisis and Emergency Risk Communication guidelines and Training Module. These guidelines are very focussed on Emergencies and outbreaks and the special challenges of Communication during a period of 'Uncertainty, Confusion, and a Sense of Urgency', and Communicating effectively 'under nearly impossible time constraints.'

The focus on emergencies and crises arose out of specific needs the experience of SARS, the Anthrax attacks in the United States, and the heightened focus on Bio - Terrorism led to the creation of tools and guidelines for situations where Health Communicators would find themselves as part of a crisis and emergency response. However, an influenza pandemic is more than an outbreak. It begins as an outbreak when the new virus first emerges and starts causing disease at the community level. It then spreads globally over an extended period of time, causing different levels of disease at different places at different times. If the virus is unstable, then patterns of severity could also change with time and location, and changes in the virus could see a pandemic lasting for several years.

The 2009 pandemic showed that communication needs changed over time. The initial need was for clear communication on what the public needed to do to reduce transmission as well as advice on treatment. But as the pandemic progressed, this changed to more complex questions such as the necessity for vaccination and vaccine safety, the need for continued vigilance as well as questions about the quality of the public health response to the pandemic, and questions of accountability, cost, and so on. These issues were no longer within the realm of emergency or even risk communication. They were rather part of long-term health communication and health promotion, focusing on behaviour change in areas such as cough etiquette, hand hygiene, and in wealthier societies on regular vaccination for influenza.

Although there are a variety of approaches to Health Communication, from the more traditional forms used in the western world, to more participatory, grassroots-based approaches that are often more effective in the developing world, these have never been integrated with risk and Emergency Communication. The WHO has its Outbreak Communication guidelines for emergencies, but it also has a Communication for behavioural impact model for Health Communication and Behaviour Change. This model has used to support leprosy control campaigns in India and Mozambique, dengue prevention in Malaysia, TB prevention in Bangladesh, and Kenya and in other places. The United Nations Children's Emergency Fund and the World Bank have advocated similar social mobilization communication strategies. Other Participatory Communication programs for HIV/AIDS have also been described in the literature.

During the pandemic, a survey of the needs of developing countries conducted by the WHO and other UN agencies showed many developing countries found communicating at the community level a problem and were requesting support for planning for behaviour change communication at the community level. This was not an area covered by the existing outbreak and risk communication guidelines. There, therefore, appears to be merit in trying to combine the longer term, participatory health communication approaches with the more short-term communication principle for disease outbreaks and emergencies, into a broader framework for strategic communication for disease outbreaks.

2. Understanding and effectively using the Internet

This was the first pandemic of the internet age, and it was clear that the web and web-based tools including social networking tools provided valuable channels for communicators to reach audiences. However, the internet is a challenging medium to use. The internet is unique because it erases the formal distinction between communicator and audience. The creation of blogs and other user-generated content has turned the internet into a conversation space in which everyone can participate, erasing the distinction between expert and lay person, and has created a space in which everyone can publish their opinions and views.

Unlike traditional top-down communication from expert to audience, the internet provides 'alternate lines of knowledge circulation,' where websites and blogs also challenged assessments by experts and authorities. Through web sites and blogs, the internet has created a network of virtual communities based on shared interests and values, who communicate among themselves. For example, during the pandemic, environmental and sustainable development groups critical of factory farming created alternative narratives of the pandemic as a consequence of modern farming. Groups suspicious of modern businesses and their influence on politics created narratives in which the pharmaceutical industry influenced perceptions of the seriousness of the pandemic.

Existing risk communication guidelines do not provide guidance or principles on the best way to use the internet, particularly social networking tools such as Facebook and Twitter during disease outbreaks as well as for longer health crises. This is clearly an area where evidence-based guidance needs to be developed.

3. CREATING TRUST IN A POST-TRUST SOCIETY

Being regarded by the Public as trustworthy is a basic component of risk communication. The WHO and CDC emergency and outbreak communication guidelines are based on building a relationship of trust between communicator and audience. Without this trust, the likelihood of the public being persuaded to follow guidance diminishes. But, it has been pointed out that Public Trust in policy makers and officials is declining, at least in western Societies. The Sociologist Ragnar Lofstedt described these societies as post-trust Societies. There is little literature on trust in government in developing societies, or societies with different social and political systems, but it is reasonable to assume that low trust in government and institutions is not a purely western phenomenon.

A range of factors have been described in the literature as components of trust. Renn and Levine proposed competence, objectivity, fairness, consistency, and goodwill as making up trust. Peters, Covello, and McCallum proposed knowledge and expertise, openness and honesty, and concern and care as the constituents of trust. Lofstedt proposed fairness, competence, and efficiency as the components of public trust. It is not clear how these various components are to be communicated to the public to build trust.

Risk and outbreak communication principles describe displaying empathy with the public and being open and transparent as factors to build trust. But are empathy and transparency sufficient to communicate the varied components of trust listed in the literature? Lack of trust can flow from a variety of factors: lack of belief in the competence and knowledge of authorities, lack of belief in their fairness, lack of belief in their honesty, and so on. The reasons for lack of trust can vary from situation to situation. It is possible to conceive of a situation where lack of trust is based on the perception that the authorities have knowledge and competence, but are not fair and another situation in which the authorities are perceived to be fair and honest, but lack competence. In addition to a general policy of openness and transparency, it is important that communication be addressed to the specific causes for low trust. Establishing trust is a complex process that requires more than applying guidelines such as openness and transparency. A Scientific Analysis on agenda for Risk Communication needs to understand the trust building process better and offer insights from the published literature in various disciplines, as well as suggest new areas for study.

4. The political, social, and economic environment of risk communication

As has been noted earlier, infectious disease outbreaks and other health emergencies are highly charged political and social events. Communicating during such events is rarely a simple matter of communicating information clearly and transparently and winning public trust. More often than not, the issues are surrounded by political and economic overtones, requiring political decisions that can create controversy. To take an example, decisions over vaccine procurement, travel restrictions, and other public health measures, all have economic and political consequences, and therefore those who communicate about these issues find themselves confronting questions that are not essentially about health but about other aspects of society. Therefore, Health risk communicators need to draw insights from Sociological and Cultural studies of risk. The work of the German Sociologist Ulrich Beck offers insights into the Social and Political basis of risk that can offer insights for the communication of risk. In his pioneering work on the Risk Society, Beck described the distribution of technological and other risks produced through the process of modernization as a major preoccupation of modern governments and societies . This distribution of risk is never equitable but follows the unequal distribution of power in national societies as well as global society. The struggles over the distribution of risks are a major reason for the differences in the scientific or expert views of risk and the views of different sections of society.

To take an example, a farmer with an outbreak of H5N1 in his farm needs to cull his chicken and ducks if the outbreak is to be curtailed. From the farmer's point of view, though, he is being asked to bear the cost of destroying his livelihood in order to reduce the risk to other members of society. He could well see himself as bearing a disproportionate level of risk, and his compliance with health messages would depend on the extent to which these messages also address the larger issues at the back of the farmer's mind. In this case, the level of compensation for bearing this risk to his livelihood would be a key issue to address if there is to be compliance. Therefore, what might seem a simple public health issue has complex roots in areas that lie outside health, and there is a need to develop tools and ideas that help to deal with these complexities.

Communication during a health emergency or crisis often gets bogged down in questions of blame. Although communicators try to provide the public with information, the public, and very often the media, seem more interested in attributing blame. Mary Douglas' cultural anthropological work has led her to describe risk in modern society as being part of a politicized 'Blaming the System.' 'Whose fault?' is the first question? 'Then, what action, which means what damages, what compensation, what restitution?' Risk thus 'becomes a stick for beating authority. Based on this, it is necessary for health communication guidelines and principles to be broadened so that they equip communicators to address the underlying social and political questions about blame and risk distribution that are on the public mind during disease outbreaks and emergencies, and to have the tools to be able to respond to these queries.

Toward a Research Agenda for Communication

Following from the earlier discussion, it is suggested that the tools and principles of risk communication be expanded in the following areas:

- The Integration of Communications tools and guidelines for long-term behaviour change and Social mobilization, especially in developing Country settings, into the existing guidelines for outbreak Communication.

- Based on case studies of the experience of the pandemic as well as other disease outbreaks, guidance on how to use the Internet, including social networking tools effectively to provide the public with Health Guidance.
- Understanding how to build and maintain Trust with the Public before, during, and after disease outbreaks.
- Guidance on how Public Health Communicators can understand and negotiate the Political and Cultural complexities of Pandemics and other Disease events.

The COVID-19 pandemic has accelerated 10 key Technology trends, including Digital Payments, Tele - Health and Robotics. These Technologies can help reduce the spread of the coronavirus while helping businesses stay open. Technology can help make Society more resilient in the face of pandemic and other threats. During the COVID-19 pandemic, technologies are playing a crucial role in keeping our society functional in a time of lockdowns and quarantines. And these technologies may have a long-lasting impact beyond COVID-19. Here are 10 technology trends that can help build a resilient society, as well as considerations about their effects on how we do business, how we trade, how we work, how we produce goods, how we learn, how we seek medical services and how we entertain ourselves.

1. Online Shopping and Robot Deliveries

In late 2002, the SARS outbreak led to a tremendous growth of both business-to-business and business-to-consumer online marketplace platforms in China.

Similarly, COVID-19 has transformed online shopping from a nice-to-have to a must-have around the world. Some bars in Beijing have even continued to offer happy hours through online orders and delivery.Online shopping needs to be supported by a robust logistics system. In person delivery is not Virus proof. Many delivery Companies and Restaurants in the US and China are launching contactless delivery services where goods are picked up and dropped off at a designated location instead of from or into the hands of a person. Chinese e-commerce giants are also ramping up their development of robot deliveries. However, before robot delivery services become prevalent, delivery companies need to establish clear protocols to safeguard the sanitary condition of delivered goods.

2. Digital and Contactless Payments

Cash might carry the virus, so central banks in China, US and South Korea have implemented various measures to ensure banknotes are clean before they go into circulation. Now, contactless digital payments, either in the form of cards or e-wallets, are the recommended payment method to avoid the spread of COVID-19. Digital payments enable people to make online purchases and payments of goods, services and even utility payments, as well as to receive stimulus funds faster. However, according to the World Bank, there are more than 1.7 billion unbanked people, who may not have easy access to digital payments. The availability of digital payments also relies on internet availability, devices and a network to convert cash into a digitalized format.

3. Remote Work

Many Companies have asked employees to work from home. Remote work is enabled by Technologies including Virtual Private Networks (VPNs), Voice over Internet Protocols (VoIP's), Virtual Meetings, Cloud Technology, Work Collaboration Tools and even Facial Recognition Technologies that enable a person to appear before a Virtual background to preserve the Privacy of the home. In addition to preventing the spread of viruses, remote work also saves commute time and provides more flexibility.

Yet remote work also imposes challenges to employers and employees. Information security, privacy and timely tech support can be big issues, as revealed by recent class actions filed against Zoom. Remote work can also complicate labour law issues, such as those associated with providing a safe work environment and income tax issues. Employees may experience loneliness and lack of work-life balance. If remote work becomes more common after the COVID-19 pandemic, employers may decide to reduce lease costs and hire people from regions with cheaper labour costs.

Laws and regulations must be updated to accommodate remote work and further psychological studies need to be conducted to understand the effect of remote work on people. Further, not all jobs can be done from home, which creates disparity. According to the US Bureau of Labour Statistics, about 25% of wage and salary workers worked from

home at least occasionally from 2017 to 2018. Workers with college educations are at least five times more likely to have jobs that allow them to work from home compared with people with high school diplomas. Some professions, such as medical services and manufacturing, may not have the option at all. Policies with respect to data flows and taxation would need to be adjusted should the volume of cross-border digital services rise significantly.

4. Distance Learning

As of mid-April, 191 countries announced or implemented school or university closures, impacting 1.57 billion students. Many educational institutions started offering courses online to ensure education was not disrupted by quarantine measures. Technologies involved in distant learning are similar to those for remote work and also include virtual reality, augmented reality, 3D printing and artificial-intelligence-enabled robot teachers. Concerns about distance learning include the possibility the technologies could create a wider divide in terms of digital readiness and income level. Distance learning could also create economic pressure on parents – more often women – who need to stay home to watch their children and may face decreased productivity at work.

5. Tele - Health

Tele - Health can be an effective way to contain the spread of COVID-19 while still providing essential primary care. Wearable personal IOT devices can track vital signs. Chabot's can make initial diagnoses based on symptoms identified by patients. However, in countries where medical costs are high, it's important to ensure Tele - Health will be covered by insurance. Tele - Health also requires a certain level of tech literacy to operate, as well as a good internet connection. And as medical services are one of the most heavily regulated businesses, doctors typically can only provide medical care to patients who live in the same jurisdiction. Regulations, at the time they were written, may not have envisioned a world where Tele - Health would be available.

6. Online Entertainment

Although quarantine measures have reduced in-person interactions significantly, human creativity has brought the party online. Cloud raves and online streaming of concerts have gain traction around the world. Chinese film production companies also released films online. Museums and international heritage sites offer virtual tours. There has also been a surge of online gaming traffic since the outbreak.

7. Supply Chain 4.0

The COVID-19 pandemic has created disruptions to the global supply chain. With distancing and quarantine orders, some factories are completely shut down. While demand for food and personal protective equipment soar, some countries have implemented different levels of export bans on those items. Heavy reliance on paper-based records, a lack of visibility on data and lack of diversity and flexibility have made existing supply chain system vulnerable to any pandemic. Core technologies of the Fourth Industrial Revolution, such as Big Data, Cloud Computing, Internet-of-Things ("IOT") and Block Chain Technology are building a more resilient supply Chain Management System for the future by enhancing the Accuracy of Data and encouraging Data Sharing.

8. 3D Printing

3D printing technology has been deployed to mitigate shocks to the supply chain and export bans on personal protective equipment. 3D printing offers flexibility in production: the same printer can produce different products based on different design files and materials, and simple parts can be made onsite quickly without requiring a lengthy procurement process and a long wait for the shipment to arrive. However, massive production using 3D printing faces a few obstacles. First, there may be intellectual property issues involved in producing parts that are protected by patent. Second, production of certain goods, such as surgical masks, is subject to regulatory approvals, which can take a long time to obtain. Other unsolved issues include how design files should be protected under patent regimes, the place of origin and impact on trade volumes and product liability associated with 3D printed products.

9. Robotics and Drones

COVID-19 makes the world realize how heavily we rely on human interactions to make things work. Labour intensive businesses, such as retail, food, manufacturing and logistics are the worst hit.COVID-19 provided a strong push to rollout the usage of robots and research on robotics. In recent weeks, robots have been used to disinfect areas and to deliver food to those in quarantine. Drones have walked dogs and delivered items.

While there is some reports that predicts many manufacturing jobs will be replaced by robots in the future, at the same time, new jobs will be created in the process. Policies must be in place to provide sufficient Training and Social Welfare to the Labour force to embrace the change.

10. 5G and Information and Communications Technology (ICT)

All the aforementioned Technology trends rely on a stable, high speed and affordable Internet. While 5G has demonstrated its importance in remote Monitoring and Healthcare Consultation, the rollout of 5G is delayed in Europe at the time when the Technology may be needed the most. The adoption of 5G will increase the cost of compatible devices and the cost of Data plans. Addressing these issues to ensure inclusive access to Internet will continue to be a challenge as the 5G network expands globally.

The Importance of Digital Readiness

COVID-19 has demonstrated the importance of Digital readiness, which allows Business and Life to continue as usual as much as possible during Pandemics. Building the necessary infrastructure to support a Digitized World and stay current in the latest Technology will be essential for any Business or Country to remain competitive in a post-COVID-19 World, as well as take a Human-Centred and inclusive approach to Technology Governance. As the BBC points out, an estimated 200 million people will lose their jobs due to COVID-19. The financial burden often falls on the most vulnerable in Society. Digitization and pandemics have accelerated changes to jobs available to humans. How to mitigate the impact on the larger workforce and the most vulnerable is the issue across all Industries and Countries that deserves not only attention but also a timely and Human - Centred Solution.

Rumours are a Lethal Weapon that affects the morale of the People. The Law enforcement agencies have power under Law to take legal action against anyone who spreads rumours about the virus and causes a state of panic among the general population. Even though, at present, India does not have a specific Law to deal with menace of fake news but we still have certain existing Legal provisions under which these are dealt with.

Section 505(1) of Indian Penal Code, 1860:

The punishment for making, Publishing or Circulating any Statement, rumour or report which may cause fear or alarm to the Public, or to any section of the Public. **Punishment:** Imprisonment which may extend to 3 years or fine or both.

Section 66D of Information Technology Act:

Whoever, by means for any Communication Device or Computer Resource cheats by personation.

Punishment: imprisonment of either description for a term which may extend to three years and shall also be liable to fine which may extend to one lakh rupees.

Section 54 of the Disaster Management Act, 2005:

Whoever makes or circulates a False Alarm or Warning as to disaster or its severity or magnitude, leading to Panic. Before Creating, Posting, Sharing and Forwarding any message, one needs to be aware about the implications of the same if not true and create panic in any way. One needs to refrain from forwarding any corona related messages without verifying specially in this age of "infodemic", which the World Health Organization defines as – "an overabundance of information some accurate and some not that makes it hard for people to find trustworthy sources and reliable guidance when they need it. The Law Enforcement Agencies are monitoring such posts on Social Media platforms and can land a person in a Legal battle or Jail.

Under Current Laws, Police can charge someone under IPC's Section 269 for negligent act and Section 270 for malignant act for spreading an infectious disease which is dangerous to life. Former Union Health Secretary Verma concedes that there is a need to strengthen India's legal framework but laws alone are insufficient. "India still has a plethora

of laws to take on such an emergency. There are enough guidelines too. The problem arises mainly because of coordination and implementation issues," he says, adding that silo mentality in the government often poses a challenge. In the last fortnight, during which the Centre intensified its efforts to contain the pandemic, its coordination with states has largely been satisfactory. Also, no Inter - Ministerial tussles have come to the fore. In fact, the Home Ministry, which usually takes the lead during crises such as earthquakes, floods and cyclones, has taken a backseat, allowing the health ministry to coordinate with states as mandated by the Disaster Management Act of 2005.

CONCLUSION:

The Health degree of a Society's well-being is determined by the ideas which take actual shape in the course of its daily Self Constitution. In order to Reform and even Redeem such a Society, India has to reform those defining ideas. The quality of our human life is a function of our determining ideas. Law plays a significant and structural role which is also responsible for the creation of an infinitely complex network of Legal relations connecting every single individual of a Society. Our Individual and Social behaviour derives its genesis from the Law, which is responsible for the development of Social reality. In the present situation, COVID-19 is our reality. It is an eye-opener for all of us, as a Community, as Citizens and even as a Nation.

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