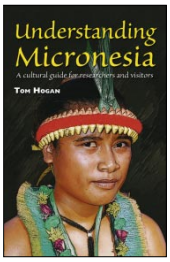
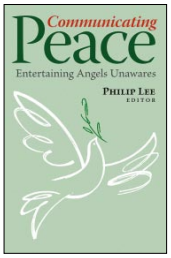
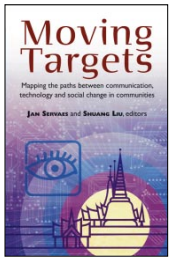
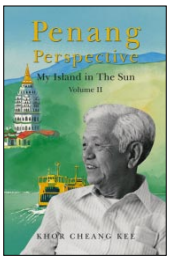








Southbound is the winner of the 2008 The Communication and Social Change Award given by the University of Queensland, School of Journalism and Communication to an individual or organisation for contributions to the theory and/or practice of communication for social change. Major theoretical contributions, and applied communication practices that are illustrative of frontline change and long-term sustainable development are considered for this award.

Southbound Sdn. Bhd.
Suite 20F Northam House
55 Jalan Sultan Ahmad Shah
Georgetown
10050 Penang
Malaysia

Email: Books@Southbound.my
Fax: 604 – 228 1758
Tel: 604 – 228 2169

Communicating Communication

Chin Saik Yoon, Publisher, Southbound
chin@southbound.my
November 2008

Our recent past

Southbound published our first book 18 years ago. It was a family guide to HIV and AIDS. The manuscript was peer reviewed and field tested among pioneering AIDS activists, and among mothers and their teenage children. It ended up causing more than a few of our first readers sleepless nights when they found out about the consequences of risky behaviours! Over the years we have also gotten involved in actual development field work besides publishing about it. We have come to appreciate that doing these two things at the same time – publishing about the field, and doing actual field work – is mutually reinforcing. We can put into practice what we have published and learnt from; and we are able to identify pivotal issues that stump us in practice which we then try to publish about and learn from. Our books and work have since tracked social issues and development concerns of its time. The most recent project was to design an information and communication system for the surveillance of avian flu. So we are back where we started – with a concern about people's health.

We began ambitiously publishing about all the development issues that generous authors were willing to entrust to a new publishing house based in a developing country. We went from AIDS to agricultural policies in Viet Nam and then bravely on to economics of the Third World! However, we soon found our niche in books about the use and role of communication in promoting development, and social change. Our first title in this area was an auspicious one by Cees Hamelink on *Trends in World Communication* which became quite a popular text book in a short time. Southbound today is very much the result of the work of our authors who have entrusted us their life's work to share. Our mission is in communicating about communication.

The name of our house came from the idea of making and binding books in the South. The imbalance in book-flows around the world was a burning issue among developing-country publishers and communicators at the time our house was founded. The flow was predominantly from North to South. However, research and practice of development communication was flowing in reverse, from the South to the North. Innovative field work in the South was written up and published in the North and then exported to the South. We wanted to publish some of these books about the South, in the South. Southbound was a response to the Dependency Paradigm that drove, and continues to drive, the work of many media organizations in the South.

This paper will touch on three aspects of the work of our house:

- the issues we publish about
- the challenges of running a self-sustaining scholarly press
- practice of communication for development and social change.

The issues we publish about

Communication for development and social change has evolved and undergone changes and adaptations during the five decades of its practice. Radio and expert-led instruction of the very early years, immediately after the Second World War, have evolved today into Internet-based interactive wireless facilities aimed at promoting community participation and global civil movements.

Our understanding of what should drive development has also been in constant flux. Development imperatives have always decided the aims and methods of development communication. Early priorities focused on increasing crop yields on farms. This soon broadened out to redress the inequalities inherent in the world economic system that favoured the rich developed countries while curbing the full potential of developing nations. Currently, the excessive depletion of natural resources to satisfy the expansive activities of industries and governments has driven communities to fight for the conservation of the commons and their cultures.

Past and present communicators have founded specialized modalities of practice over the decades that responded to the different development imperatives. These modalities collectively signpost the path we have taken to arrive at where we are today. Highlighted below is a random listing of some of these milestones that mark our field:

- Diffusion of Innovations
- Development Support Communication
- South-South News Flows
- International Communication
- Science Writing
- Social Marketing
- Information-Education-Communication
- Alternative Communication
- Community Communication
- Community Broadcasting
- Environmental Journalism
- Edutainment
- Behavioural Change
- Community Radio
- Participatory Communication
- Information and Communication Technologies for Development
- Communication for Social Change

The United Nations has adopted The Millennium Development Goals that collectively frame governments' and the multilateral perspective of what type of development and social change we should aim to accomplish in the next 15 years. These goals are not perfect. They have been found by many to be mechanistic and top-down. Others have questioned their truncated ideals; for example Goal 1 aims in effect at leaving behind half of the people living in extreme poverty.

The eight Millennium Development Goals and 21 targets:

1. **Eradicate extreme poverty and hunger**
   - Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.
   - Achieve full and productive employment and decent work for all, including women and young people.
   - Halve, between 1990 and 2015, the proportion of people who suffer from hunger.
2. **Achieve universal primary education**
   - Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
3. **Promote gender equality and empower women**
   - Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.
4. **Reduce child mortality**
   - Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.
5. **Improve maternal health**
   - Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.
   - Achieve, by 2015, universal access to reproductive health.
6. **Combat HIV/AIDS, malaria, and other diseases**
   - Have halted by 2015 and begun to reverse the spread of HIV/AIDS.
   - Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.
   - Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.
7. **Ensure environmental sustainability**
   - Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.
   - Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.
   - Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.
   - By 2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers.
8. **Develop a global partnership for development**
   - Develop further an open trading and financial system that is rule-based, predictable and nondiscriminatory. Includes a commitment to good governance, development and poverty reduction—nationally and internationally.
   - Address the special needs of the least developed countries. This includes tariff and quota free access for their exports; enhanced programme of debt relief for heavily indebted poor countries; and cancellation of official bilateral debt; and more generous official development assistance for countries committed to poverty reduction.
   - Address the special needs of landlocked and small island developing States.
   - Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.
   - In cooperation with developing countries, develop and implement strategies for decent and productive work for youth.
   - In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
   - In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.

Not identified explicitly among the Millennium Development Goals and targets are a number of urgent issues that have emerged since their drafting. The following "new" concerns now form their "unspoken" subsets. These include:

- Global warming which may lead to the permanent flooding of low-lying regions (including the Island States of The Pacific).
- Disruption of potable water supply to millions around the world as the ice-packs in the mountains shrink and deplete the water reserves of major population centres.
- Emerging infectious diseases such as SARS, avian flu and Ebola for which cures have not been developed and where the main instrument of control in the event of a pandemic is timely and effective mass communication.
- Transformation of parts of the global economy to services that trade valuable information secured via intellectual-property regimes.
- Political tensions and conflict caused by confrontation and competition among religious and cultural groups across the world.
- Armed conflict and genocide.
- Disruption in affordable food supplies causing widespread food insecurity.
- Decline in oil and gas supplies as hydrocarbon reserves peak and the price of energy increases exponentially.
- Disruption in international finance and trade causing the world economy to crash causing a prolonged depression.
- Erosion of human rights as the security of states and communities are perceived to be threatened by political, economic, financial and ecological challenges.

The practice and study of communications activities that support efforts to achieve the changes targeted in the Millennium Development Goals are underpinned by three pairs of development paradigms and communication theories:

Development Paradigm	Communication Theory
Growth Paradigm	Diffusion of Innovations[1]
Dependency Paradigm	South-South Information and News Flows
Sustainable (Other) Development	Participatory (Organic) Communication[2]

Although these three sets of theoretical "twins" evolved sequentially, they never replaced each other and continue to remain valid and vital to our work in different areas of development. For example, the Diffusion of Innovations theory continues to be most applicable in today's communication activities aimed at controlling the outbreaks of diseases. In such crisis situations, top-down, authoritative communication of instructions from experts works best in marshalling affected communities to take appropriate preventive measures

to avoid infection. However, once an outbreak is over, it is participatory efforts and peer-to-peer counselling that works best in preventing a recurrence of an outbreak.

All three sets of theories continue to be referenced in development programmes. Many practitioners draw on them all at once in their work but to serve different ends. This can be difficult to rationalize, especially at the community level, where the work of practitioners among villagers is often underpinned simultaneously by the opposing theories of Diffusion of Innovation and Participatory Communication. We have learnt much through our attempts at striking this syncretic balance. Southbound's publication programme aims to cover all three sets of theoretical perspectives in a hopefully balanced way.

The Dependency Paradigm remains vividly potent in studying the workings of the mass media, and especially with regards to the news, culture and entertainment industries. For this reason we see the South-South Information and News Flows theory very much alive in the Third World. The advocacy aligned with the theory is particularly valid in view of the concentration of ownership of the most influential media groups around the world. Flow issues also apply to the tightening intellectual property regimes applied to commercially valuable information. The regression suffered in copyright legislation, particularly in bilateral "free" trade agreements with the United States of America has given added impetus to safe guarding the health of these flows. This old campaign has been given a fresh face by content creators online who are pushing for the publication and dissemination of their work using a truly free licensing approach facilitated at the Wikimedia Commons.[3]

The Participatory (Organic) Communication theory is the most current. It is also the most promising for addressing the ecological problems facing everyone, and every living thing, in the world. The environment is unlikely to heal without the awareness and participation of people in stopping pollution and excessively consuming our limited resources; so that we may return to a sustainable mode of living. This is perhaps the most urgent and challenging social change.

Learning from our books: The *Isang Bagsak* Network and the VIPP manual:

The two case studies to be discussed briefly here will show how our field work and publishing programme converge in a mutually reinforcing way. These two cases show how our field work confronted us with gaps in the literature and absence of practical methodologies, which we were then fortunate enough to work with four authors in publishing about them. We learnt to apply participatory communication methodologies while working on the book and have since been able to use the methodologies in our field work, hence making it more effective.

Southbound's focus on participatory communication was catalyzed by its publisher's work with the Isang Bagsak Network[4] – an initiative involving multi-disciplinary teams from Cambodia, Uganda, Philippines and Viet Nam.

The network aimed at sharing participatory approaches to development and promoting communication methods that facilitate such approaches. Several years of focused field work revealed that there are many aspects of participatory development communication (PDC) which are loud in rhetoric but short of methodologies that may be applied to bring about sustained social change. The following table shows what our network of participatory communicators had achieved and what was left to be done:

Availability of Tools and Methods for PDC Processes

PROCESSES	AVAILABILITY OF TOOLS AND METHODS		
	Exists	*Being Developed*	*Largely Absent*
Effective Communication			
Self expression	✔		
Listening and understanding		✔	
Creating Knowledge			
Sourcing information	✔		
Tapping indigenous knowledge		✔	
Processing and validating information		✔	
Sharing knowledge			✔
Building Communities			
Building trust		✔	
Managing conflict and competition			✔
Forging partnerships		✔	
Reinforcing self identity			✔
Reflecting on the past and present	✔		
Visioning the future	✔		
Affirming values			✔
Adjusting values			✔
Enabling transparency in decision making			✔
Sharing benefits		✔	
Enabling Action			
Identifying problems	✔		
Evolving solutions	✔		
Nurturing sense of guardianship of the commons		✔	
Managing expectations		✔	
Taking stock and pooling resources	✔		
Sourcing complimentary resources	✔		
Advocating to stakeholders	✔		
Mobilising for action	✔		
Evaluating action	✔		
Iterating and refining action	✔		

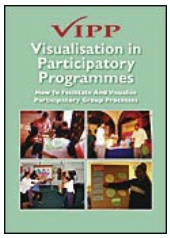
I think the most urgent communication facility we need to develop for our practitioners is our ability for "Listening and understanding" of the communities we work with. Conventional training in communication for development and social change typically emphasises the building of our ability for self-expression; and rarely our ability to listen to others. Yet, if we are to be effective in working in a participatory way, we should begin by listening to the people we intend to work with.

The other communication skills we need to develop urgently are for:

- Managing conflict and competition
- Sharing knowledge
- Reinforcing self-identity
- Affirming values
- Adjusting values
- Enabling transparency in decision-making

Our opportunity to address some of these gaps came when we met up with the team of facilitators who had developed the Visualization in Participatory Programmes (VIPP) methodology. VIPP facilitates group work in such a way that everyone gets an opportunity to help plan and decide on action for social change. It has been used by many NGOs and UN agencies to facilitate participatory planning of development projects.

The expert facilitators and UNICEF Bangladesh approached us to produce an updated edition of the manual about their participatory methodology. When discussing how to go about publishing the manual, we decided to be congruent with the principles of participation and opted to develop the manual in a participatory way. The four authors and the publisher went into retreat for a week in an apartment, and using the visioning method – which is



the subject of the book – planned the manuscript, drafted chapters, and selected the photographs to be used in illustrating the book.

We also decided that the manual should suggest and describe activities to help strengthen the cohesion and identity of groups. We ended the week with the core components of the manuscript written, and the central concepts of the accompanying website finalized as well.

The VIPP process being used by different communties to facilitate participatory activities.

Pictures clockwise from top-left:

• Leader of a truck-drivers' union working on a set of health issues affecting his members.

• Villagers in Cambodia mapping their resources.

• A workshop at Johns Hopkins University, USA.

• A participatory planning session in Viet Nam.

Challenges of running a self-sustaining scholarly press

Our authors come from a cross-section of people working in communication for development and social change. They are scholars, researchers, practitioners, policy-makers, regulators, and members of civil society and industry. Our authors are drawn from both The South and The North.

Authors from The South face a couple of challenges in their work. As we publish in English for an international audience many of them need to make special efforts to write in a language which may be their third or fourth working language. On our part we make additional efforts in editing to make sure we do full justice to the ideas, experiences and analyses that are being shared by these authors.

The second more difficult challenge faced by some of our authors from The South is their limited freedom in making critical commentary. The latitude for such discussion varies from country-to-country. The penalties imposed by conservative regimes on forthright writings can be severe. This limitation poses a special challenge, especially in regional works that adopt a comparative approach. In spite of our best efforts we do not always succeed in finding a solution that leads to balanced content in such works without at the same time placing our authors in jeopardy. As such some of our titles do come across as presenting an unbalanced set of views. In such instances the irk of less restrictive regimes, who may feel that their policies and programmes have been portrayed in worst light when compared against the more restrictive regimes covered, may be valid even if the critical review of their cases is fair and valid.

Governments are not the only ones who dampen critical discourse. The private sector (such as software companies) has also acted to curb published analysis and reflection on information and communication technology (ICT) used for development purposes.

However, such hindrances by the public and private sector are relatively minor challenges to scholarly publishing in The South as a whole. The increasingly difficult business conditions pose the toughest challenge to most independent scholarly publishers. Unlike publishers linked to institutions, such as universities, independent houses must sustain themselves solely through sales.

Books sales have been declining across the sector over much of the past two decades. The advent of the Internet and the availability of free scholarly content online have probably accelerated the trend in recent years. While we are delighted, from the perspective of practitioners of ICT for development (ICT4D), that the Web has improved access to content we are also challenged by it as a self-sustaining publishing house.

On the positive side we realise books have always been difficult to come by in The South. The Internet has made scholarly content more accessible in developing countries where Internet access is affordable. We are greatly encouraged by this healthy content flow. As publishers we appreciate that pressure mounts for us to revise our business model and ensure we remain relevant in the decades to come.

We began almost 20 years ago with copublishing as our preferred business model. Two, or more, houses come together and publish a title in this approach. We have tended to take the lead in such instances, coordinating everything from manuscript development to printing and shipping. There are several advantages in working in this way. For a start, we are able to access additional expertise to review and develop the manuscript. Each house contributes its own resources towards ensuring that content is accurate, relevant and useful. We also able to share distribution and marketing resources, lengthen the printrun of a title, thereby reducing the unit cost of production.

As readers in the world switch to the Internet as their preferred medium, we have been presented with two new business models to test and perhaps to evolve on to. The first is to publish digitally via the Web. In this approach the whole publication process is the same as conventional publishing except the "book" is delivered digitally in the form of PDF-like files downloaded from a website after the buyer has paid for it using a credit card. This is one of the earliest alternative ways of publishing conceived for digital channels. It has been tested and so far not found to be viable even by the largest trade publishers. We have also tested the approach and found it not acceptable to our readers. In our trials, we made available at our website selected reference books for sale as PDF files. Readers can visit our website and select chapters of the books they wish to buy, pay for their purchases, and then download their chapters immediately afterwards. In this way, our readers have the choice of paying only for those chapters they want to use and are able to access them instantaneously. It seemed like a great idea but it did not work. I think we sold about 10 downloads in the two years we had these electronic books available. It is such a neat idea that we think someone is bound to make it work eventually.

An electronic book being read on a PDA.

For now, we think (like everyone else) that what's very challenging with this model is the price. Readers will make use of electronic content if it is free. The Wikimedia Commons and Wikibooks[5] is an example of what may work in the future. There were 11 titles under the subject "Communications" the last time I looked up the website in October, including a textbook on "Communications Theory".[6] Wikibooks are published online by a community of volunteers (anyone can join) who agree to work together in creating a free online library of educational textbooks that anyone can edit. Wikibooks was launched in July 2003; and had published more than 32,500 pages in the form of textbooks on a large number of subjects during the past five years.

The Wikibooks approach implies more than just free books. It does away with the role of publisher and the formal editorial and publishing process now performed by a publishing house. "Anyone can edit" is its philosophy. Readers and authors see the pros and cons of both the Wiki and traditional publishing approach. The Wiki process is highly participatory and the role of gatekeepers is dispensed with. Authors who have encountered peer-review processes that are not satisfactory support this aspect of Wiki.

Readers and authors who are more comfortable with paper books prefer the traditional approach not solely for its means of production but more so for the editorial process that assures them of the quality of content being disseminated. Further more, under the "publish-or-perish" regime, paper publications continue to be accepted as the primary yardstick for gauging scholarly output by most universities – but this is changing rapidly with peer-reviewed electronic publications accepted at par by an increasing number of academic institutions.

As publishers we believe we add value to published works not only for the cosmetics of professionally typeset pages and appropriately designed covers but more so for the support we provide our authors in developing their manuscripts and making sure that their works are presented accurately and in

formats and ways which allow readers to assimilate the content effectively. In the case of critical analysis, we help keep an eye out for our authors' well being. We involve lawyers in the editorial process so that our authors can present their scholarship and research in an honest way without being encumbered in legal and political whiplash afterwards. At the same time we also make sure that we continue to maintain the independent nature of our house so that the public and private sectors are assured that what we publish are truly independent scholarly works free of ulterior motives.

A third business model has also been proposed to academe. It will fuse the accessibility of online content with the rigorous pre-press process of the traditional scholarly press. In this hybrid business model authors, or their institutions, fund the editorial and pre-press process but the resulting electronic books or journals are made available free of cost to readers and users online. This approach applies "public" funding of scholarship and research to its very end – to include the dissemination of research results. In the traditional publishing process universities and research organizations employ researchers and scholars who create new information and knowledge which is then shared and disseminated through commercially run or subsidized operations, as in university presses. The publishers in this model do not pay for the full cost of the creation of the content of their books. They only fund the cost of disseminating the content. In the proposed new hybrid model, the university or research institute pays for everything, including dissemination. But will this mean the imminent extinction of the independent publisher?

Communicating for development and social change

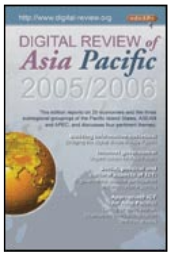
The publisher has had the privilege of collaborating on a range of communication for development projects in the developing world over the past three decades. The field work involved has ranged from publishing and CD production to information centres, and more recently, ICT4D initiatives. A big part of our effort was focused on developing practical field methodologies in participatory communication for a number of communities based in Africa, Asia and the Arab Region.

Avian flu surveillance information and communication system

The last part of this paper will end with a thumbnail review of the most recent communication for development and social change effort we have been involved in. The field work addressed the threats posed by avian flu and the H5N1 virus that causes it. It has infected and killed poultry on farms and birds in the wild. The virus has infected 387 people and killed 245 in 16 countries located in Asia, Africa and the Arab Region as of 10 September 2008. Additionally, millions of chicken and ducks have been culled over the past five years resulting in financial losses that run into the millions of dollars on farms. The finances of many farmers have been ruined as a result.

The fear among the health sector and governments is that the virus will mutate from the present form, which is difficult for humans to contract, to a

virulent strain that can be spread easily among the population in the same way that the common cold and flu is transmitted among people. No proven large-scale method for controlling the virus has been developed so far. "Social distancing" – where we lock ourselves away for at least two weeks and not interact with anyone outside the household – is probably the most effective way to manage a large-scale avian flu outbreak if it were to occur tomorrow within a human population. In such an event public-health and mass communication strategies will be governments' main instruments for bringing such a pandemic under control.



We applied what we had learnt from researching, developing and editing the ***Digital Review of Asia Pacific*** *series over a four-year period into our work with ASEAN regarding avian flu.*

Governments in Southeast Asia have acted in concert to address the threats posed by H5N1 and avian flu. Multilateral expert committees have been set up to plan and execute preventive measures. Thousands of doses of Tamiflu (Oseltamivir) have been stockpiled, and surveillance of the disease stepped-up. Our involvement is in the design of an information and communication system for surveillance.

The prototyping of the system is now happening in Lao PDR and Viet Nam. Both countries have been gathering health data of various major diseases for many years. The quality and timeliness of the data varies. In our research during the design phase we found that governments need to review surveillance data on human and animal health simultaneously. This will allow dangers posed by animal-to-human transmission of the virus to be effectively gauged by the authorities. However, we found that the ministries of agriculture and health in most countries operate autonomously and in highly linear fashions with limited opportunities for the sharing of data and communication across the two ministries. This is particularly the case at the headquarters of the two ministries which tend to be housed in separate office complexes in the national capitals. The opportunity for collaboration and communication is much better at the provincial and district levels where agricultural field agents and vets work from offices located closer to public-health officials and doctors, and they usually maintained better communication with each other than their colleagues in the capital.

The other thing we learnt early on is that avian flu is not an easy disease to detect. The tools for testing poultry are not readily available on the farms. Confirmation of a suspected case depends on testing done in laboratories in the cities. It is even more difficult in cases involving people as isolates obtained from suspected patients need to be tested at foreign laboratories. Routine surveillance of H5N1 is very challenging at the field level as the symptoms are easily mistaken for the common flu.

The experts also pointed out to us that surveillance programmes had to provide real-time data to the people responsible for managing the disease as avian flu is highly contagious and infected poultry (and people) can begin infecting others in a couple of days after being exposed to the virus. The existing routines adopted by most ministries of health and agriculture of gathering and tabulating data for policy makers to review once a month is not useful. Sticking to this routine of processing historic data may help officials understand why incidents happen but not prevent them from getting out of control in the first place.

We must also prepare for the mutation of the disease. The things we keep under surveillance now may not be the ones we want to keep tabs of in the future as the virus changes its course and we get to understand better the nature of the disease. A system has to be designed so that data gathering methods can be changed and updated according to current requirements.

And finally, we realized that presenting surveillance data in the form of tables is not always helpful to senior policy makers who lack advanced statistical, agricultural and public-health training. The tables which combine human and animal health data would be too dense to contribute meaningfully to decision-making in the chaos of an emergency.

The solution which the teams in Viet Nam and Lao PDR are now working on will make use of ICT to build an Internet-based system that will present real-time surveillance data on maps of the two countries. It will draw on open-source database and geographical information system (GIS) technologies to ensure that the system is affordable and can be shared with other countries in the Association of South East Asian Nations (ASEAN) region. The system is designed to enable the eventual merger of national datasets (and therefore the maps) to form an ASEAN-wide system. The design recognizes that avian flu is of regional concern and that some of the most challenging management issues rest along the borders as outbreaks cross territorial boundaries and require bilateral and multilateral efforts to contain.

Operating at the heart of the system will be a GIS database that is now being developed. It will hold surveillance data that will enable the display of the following "layers" on the maps of the respective countries:

NATIONAL SPATIAL DATABASE INFRASTRUCTURE MAP (base map)

MINISTRY OF HEALTH/PROVINCIAL GOVERNMENT
- Influenza
- Density of at-risk groups (farmers and traders)
- Patient referral routes
- Referral hospitals, district hospitals, clinics
- Laboratories for avian flu
- Collection centres for avian flu samples
- Cases of human avian flu (including molecular-genetic and pathogenesis data if available)
- Tamiflu stockpiles
- Areas covered by public-health education programmes

MINISTRY OF AGRICULTURE/PROVINCIAL GOVERNMENT
- Confirmed H5N1 cases (including molecular-genetic data)
- Number of poultry tested
- Number of poultry vaccinated
- Chicken population with seasonal variations
- Trade routes, markets, processing facilities with seasonal variations (including "underground trade")
- Laboratories for avian flu
- Quarantine stations
- Paddy fields
- Duck population with seasonal variations

OTHER AGENCIES
- Status of sentinel flocks
- Flyways of migrating water fowl with seasonal variations
- Movement of people with seasonal variations
- Telecommunications/cellphone coverage

In specifying the above information layers we visualized the information requirements of the users of the system. It was obvious that the users' main responsibility was to decide on measures to control the spread of the disease once surveillance data showed basis for concern. The system being built therefore contains layers of management information regarding resources (such as quarantine stations and laboratories) and tactical information (such as poultry trade routes and patient referral routes) which policy makers will need for them to decide the most appropriate containment measures in the case of an outbreak.

We have tried to overcome the difficulties of pinpointing outbreaks by mapping overlapping layers of indicators that will suggest locations vulnerable to outbreaks. Trained surveillance teams will then be deployed to these areas for on-site testing and more detailed data collection.

The flexibility offered by the GIS system will allow us to add and remove layers of surveillance data on the maps and in the databases at short notice. This will allow us to respond quickly to new scientific discoveries about the virus and how the disease may be transmitted. For example, if it is found that irrigation canals are the route for the transmission of the virus, we can fairly quickly add this layer to the map by retrieving this information from the existing national base map.

The biggest challenge we face is the gathering of surveillance data from the field. The challenge is especially daunting if what is needed is real-time data. Data gathering now involves thousands of public-health and veterinary field staff dispersed across the two countries filling thousands of forms with the required data. These documents then gradually make their way to district headquarters of health and agriculture agencies where the numbers are transcribed and aggregated, and then forwarded to the national headquarters where final rounds of processing bring all the data together to form a national situational report.

We think this method will have to continue for some time to come. A long-term solution is being developed and hopefully can be deployed soon in selected at-risk zones. In this solution hand-held global-positioning-system (GPS)-enabled personal-digital-assistants (PDAs) will be equipped with customized software to assist field personnel in gathering and transmitting surveillance data from the field. The field staff will have to download a new data-gathering template from the Internet, via either a wireless link or through a computer local-area-network (LAN) connection at their offices, before heading out to the field. The staff will then call at the farms or villages identified in their templates, input the required data, use the GPS facility on their hand-held devices to confirm its location, before the data is filed away in the PDA. This "place-stamping" of data stored is an important quality-control feature which confirms that the field staff are on location during data entry. The field data gathered is then transmitted from the PDA when the staff either returns to an area with wireless connectivity or where he/she can plug onto a LAN and access a server set up to accept data uploads.

The data uploaded in this way from field staff across the country will be routed via the Internet to the server hosting the national surveillance database. The data received will be scanned by the appropriate security software before it is automatically added to the national database. The data will be visualized on the maps as soon as the database is refreshed. In this way the time taken for the data to be made accessible to policy makers is shortened significantly. The instantaneous processing of data received from the field will hopefully provide policy makers with near-real-time data to work with.

The policy makers can alter the data they need to receive and review by changing the data-gathering templates that is used by their field staff. Current plans are for data to be collected routinely on a weekly basis. This may be increased to a daily basis during a heightened state of alert, and to a twice-daily basis in affected areas during a crisis.

Although the surveillance database is now being developed for avian flu, the public-health and veterinary agencies we are working with intend to apply this for the other human and animal diseases that they keep constant watch over. This numbers more than 40 diseases in each country for both humans and animals. These diseases may be added to the system without too much effort as the additional data can be stored and presented as additional layers on maps which can be quickly customized to review any of the diseases under surveillance.

Communication for the quarantined

This initiative will also develop and provide information and communication facilities to selected hospitals which will serve as referrals centres for human cases of avian flu. During an outbreak these hospitals will be put under quarantine so that patients and medical staff will not be permitted to leave their premises and no visitors from the outside will be permitted to enter either. Communication with the medical staff may be constrained and rendered ineffective at a time when good communication is necessary for the isolated personnel to consult with national and international experts to evolve patient management methods which remain to be developed for avian flu.

The two national project teams will begin this part of their work by asking the staff at the hospitals what type of communication facilities and information they will need to work effectively with under quarantine conditions to manage an avian flu outbreak. The consultation in Viet Nam will be particularly informative as it will engage with medical personnel who played active roles during the SARS outbreak. The survey will tap the experiences of staff who helped to manage an outbreak of the hitherto unknown disease during a quarantine of their facilities.

The solution will very likely involve a package of Internet-based technologies which will permit the doctors and their supportive personnel to communicate and share information with colleagues around the world. This will probably include video-conferencing facilities and telemedicine solutions.

The situation in Lao PDR will be more challenging. Internet access is limited and restricted outside the larger cities. A set of wireless technologies will be deployed here to overcome this problem. The technologies will include satellite based back-haul access to the Internet with WiFi and WiMAX equipment set up to distribute the access to hospitals and field personnel located within an affected area. The project teams hope to be able to assemble the equipment as a mobile package which can be quickly transported by a truck, boat or aircraft to the affected hospital for quick deployment.

The project has already obtained the core literature on avian flu from the World Health Organization and plan to load digitized versions of the literature on to computers to be used by the hospitals. Selected titles from this collection will be translated into the national languages to make them accessible to larger numbers of people.

Communication for Development and Social Change

Looking like other things

The thumbnail case which very briefly described our work with the communication and information system for avian flu surveillance illustrates the challenges faced by communicators today. Our work today comes across looking too much as something else. In this case looking like computers and wireless networking. The novelty of ICT hardware and software has distracted organizations from the *processes* of communication. This is happening while management of international organizations are downgrading the role of communication in their programmes. We see this distraction and downgrading expressed in the form of institutional reorganization. The Food and Agricultural Organization in Rome, for example, has downgraded its communication for development department to a lower ranked unit. The number of communicators at UNICEF has also been reduced in recent years. This has happened within two international organizations that pioneered some of the most innovative communication for development practices in the field.

The present state may ironically be due to our success in advocating strongly over the years that communications processes must be designed into all field activities. In many ways it has. The result is that communication as a field has fragmented and become smaller parts of many things. Communication processes run all through the avian flu case described earlier. The design resulted from numerous semi-structured consultation sessions held across the region involving experts from various fields and senior policy makers from a number of countries. Participatory communication methods were used to facilitate these consultations and share their recommendations with stakeholders within national, regional and international agencies.

The project teams have begun their work using participatory communication research methods to determine the information and communication requirements of the people to be served by the information and communication systems to be developed during the project.

More participatory communication activities will be implemented as the hardware and software for the system are installed to not only train stakeholders in their use but also to build trust and establish interpersonal and group communication linkages among farmers, field staff, managers and policy makers across the health and agricultural sectors so that they will be able to respond confidently and effectively as one community in the event of a pandemic occurring.

The challenge of undoing past communications programmes

Our toughest assignment will come soon when we begin to address threats posed by climate change to the planet's long-term survival. Solution to this urgent challenge will require us to dismantle much of our earlier work. Our present day ecological problems can be traced to the economic growth model of development which encouraged exploitation of our natural resources and increased consumption of goods and services by populations.

Communication for development had been very effective in mobilizing people to exploit natural resources, produce more finished products using these resources, and to consume increasing amounts of these products so that economies can grow. The emphasis of our communications programmes had been to achieve short-term gains – such as the doubling of crop yields and the building of more factories to create jobs.

The communication efforts of the future will need to adopt very long-term strategies to safeguard lives of people yet to be born and whom we will never meet. Communities must reduce exploitation of natural resources to allow the planet to recover. Such recovery will probably be achieved several generations from now but will require the sacrifices of intervening generations who must submit to the deprivations caused by a degraded ecology.

We must do this using the same tools, processes and media that we deployed over the past decades to mobilize people to deplete resources, but now to do the exact opposite. We need to do this in such a way that people we had reached a few decades ago with our pro-consumption messages will be motivated to make sacrifices and alter their lifestyles so that future generations of people may live better lives. We must undo the past to build a future for people who will inherit an evironment we damaged.

Endnotes

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3. See "Wikimedia Commons" at http://commons.wikimedia.org/wiki/Commons:Welcome
4. See "Isang Bagsak South-East Asia" at http://www.crdi.ca/prma/ev-105009-201-1-DO_TOPIC.html
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6. See "Communication Theory" at http://en.wikibooks.org/wiki/Communication_Theory