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TELECOMMUNICATIONS FOR NONVIOLENT STRUGGLE

A Report by Schweik Action Wollongong

Telecommunications can play a vital role in nonviolent resistance to aggression or repression, as numerous historical examples have shown. However, there has been no systematic development of telecommunications research, policy, or training for this purpose.

We interviewed a number of experts in telecommunications to learn how these technologies could be used in nonviolent struggle. We report our general findings and list recommendations for use and design of telecommunications in nonviolent struggle. This pilot project reveals the radical implications of orienting telecommunications for nonviolent rather than violent struggle.

EXAMPLES

Communications are crucial to nonviolent struggle against aggression and repression. The following cases illustrate some of the roles of telecommunications.

• In April 1961, there was a military coup in Algeria, then a part of France, by generals who opposed de Gaulle's willingness to negotiate with Algerian rebels. Popular opposition in France to the coup led de Gaulle to make a media announcement calling for resistance. In Algeria, many pilots opposed to the coup simply flew their aircraft out of the country. Many soldiers hindered operations, for example by "misplacing" orders and communications; others simply stayed in their barracks. The coup collapsed within four days without a shot being fired against it (Roberts 1975).

• In August 1968, Czechoslovakia was invaded by troops from the Soviet Union and four other Warsaw Pact states. The reason was the liberalization of communist rule in Czechoslovakia, which threatened ruling elites in Moscow. There was no resistance to the invasion from Czechoslovak military forces, nor from the West, but there was an amazing spontaneous nonviolent resistance (Windsor and Roberts 1969).

Many of the invading soldiers had been told that they were there to smash a capitalist takeover. When told the truth by Czechoslovak people, many became unreliable and were transferred out of the country within a few days. They were replaced by troops from the Soviet far east who did not speak Russian. This shows the crucial importance of knowing the language of the aggressor troops.

The radio network was crucial to the resistance (Hutchinson 1969). The network permitted simultaneous broadcasting from the same frequency from different locations. This meant that when Soviet troops tracked down and closed one transmitter, another immediately took over. The radio announcers announced strikes, recommended using nonviolent methods only, and provided information about troop movements, impending arrests, and license numbers of KGB cars. The arrival of jamming equipment being brought in by the Soviet military was delayed by railway workers. The radio broadcasts made this the first European invasion exposed to intense publicity.

In the circumstances, the resistance was remarkably effective in frustrating the Soviet political aim of setting up a puppet government within a short time. The active phase of the resistance lasted just a week, but it was not until April 1969 that a puppet government was installed.

• Indonesian military forces invaded the former Portuguese colony of East Timor in 1975. Their occupation led to the deaths of perhaps a third of the popula-

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tion through killings and starvation. Cutting off communications to the outside world minimized outrage over this repression. The Australian government aided in this communications blockade by shutting down a short-wave transmitter in the Northern Territory.

In November 1991, a massacre of nonviolent protesters in Dili, the capital of East Timor, rekindled international concern over the Indonesian occupation. This killing attracted attention because foreign observers were present and the killings were videotaped..

• In Fiji in 1987 there were two military coups. Because Fiji has numerous small islands, short-wave radios are a standard means of communication. Therefore, it was impossible to cut off communication with the outside world. Wide publicity about the coups led to international protest, bans by some trade unions on goods shipments, and a dramatic decline in tourism, a major export earner for Fiji (Martin 1988).

• In 1989, Chinese troops massacred hundreds of prodemocracy protesters in Beijing. In the aftermath, the Chinese government tried to cut off telecommunications to other countries. But fax machines continued to operate, providing information to outsiders and enabling informed overseas protests. When the Chinese government publicized a telephone number for reporting of "dissident elements," this information was leaked overseas, and people from around the world jammed the number by making continual calls, preventing it from being used for its original purpose.

• The Soviet coup in August 1991 failed, in part, due to lack of control over telecommunications. Yeltsin's supporters got out their basic message—refuse to cooperate with the coup leaders and defend the Russian parliament—using radio, faxes, computer networks and leaflets.

These examples show the importance of communications in nonviolent resistance to aggression and repression. Killings of unarmed civilians can generate enormous outrage, both in local populations and around the world. By contrast, killing of guerrilla fighters gains relatively little attention—violence against violence is seen as legitimate, even when the sides are very unbalanced.

But killing or beating of civilians has to be publicized. If repression is carried out in secret, there is little impact. Communications and publicity are vital. Communication of accurate information is a key to the effective work of Amnesty International.

SOCIAL DEFENSE

Social defense is nonviolent community resistance to aggression as an alternative to military defense. Instead of having an army, a community would oppose aggression using demonstrations, fasts, refusals to obey, strikes, boycotts, sit-ins, and other types of nonviolent action. This form of defense also goes by the names nonviolent defense, civilian defense and civilian-based defense.

At first glance, it seems implausible that social defense could possibly work against a well armed aggressor. As some of the above examples show, the use of only nonviolent methods can be very effective in undermining the commitment of soldiers. Most soldiers under military dictatorships and authoritarian regimes are conscripts who don't want to go to war. When they encounter an "enemy" who doesn't use violence, it becomes much more difficult for them to use violence, and armies can succeed only if soldiers are willing to follow orders.

There is not enough space here to begin to discuss the arguments for and against social defense. (Some good sources are Boserup and Mack 1974; Galtung 1976; Roberts 1967; Sharp1990). Suffice it to say that we believe social defense is worthy of further investigation and testing. Our project is part of that process.

THE PROJECT

Schweik Action Wollongong is a small voluntary group of people who work on projects relating to social defense. The group is named after Hasek's fictional character, the good soldier Schweik, who created havoc in the Austrian army during World War One by pretending to be extremely stupid (Hasek 1974). Various members of the group are also active in other social movements and hold down regular jobs. We keep in regular contact with like-minded individuals and groups throughout Australia and overseas.

Our project on telecommunications and social defense commenced in mid-1990 and followed a preliminary investigation into the Australian postal system. We have focused on this area because the connection between communication and social defense is vital.

We interviewed people from the areas of satellite communications, computer engineering, ham radio, computer systems development, and community radio. We started by interviewing people we knew and branched out as we asked the people interviewed who else we should be contacting. The interviews were usually conducted by two members of our group, one of whom took notes. The notes were written up and circulated amongst members of the group. Care was taken to ensure the anonymity of the interviewees.

For us the interviews served two purposes. They were a valuable and interesting source of information on telecommunications capabilities, and they allowed us to talk to other people about social defense. In this way the interviews were a goal in themselves, namely raising the issue of nonviolent struggle, as well as a method for gaining information about telecommunications.

MAIN RESULTS

We describe some of our main findings according to the type of technology used.

The telephone system is a wonderful means for mobilizing against repression. It is readily available to nearly everyone, requires very little knowledge or training to use, and can be used to contact virtually any part of the world. Most important, it is a network means for communication. Anyone can contact almost anyone, and there is no central control or censorship over what people say on the phone.

There are two important limitations to the telephone. First, it can readily be tapped, and individuals usually don't know when this is happening. Tapping can do little to stop a large-scale opposition, because If there are enough people in the resistance, the regime can listen to only a small fraction of relevant calls. Tapping in this situation is effective through its psychological intimidation of callers who think someone is listening to their calls.

A simple way to get around tapping is to use public telephones or simply a friend's telephone. For answering of phones, some of the systems that forward a call to another number are useful: the location of the person answering the phone is not readily known to the caller (or someone listening in). Also worth considering, as preparation for emergency situations, are machines that change the pitch and vocal quality of a voice, and encryption technology (which puts the message into code).

The second important limitation of the telephone system is that it can be cut off selectively or entirely. This can be used against the regime or the resistance, depending on loyalties of technicians on the inside. Generally, the resistance would be wise to keep the telephone system operating. For that matter, any modern industrial society depends on telephones for everyday functioning, so it is unlikely that the entire system would be cut off except for short times, such as the aftermath of a coup or massacre. Resisters should build links with technical workers to ensure that the chance

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of this is minimized.

As telephone systems become more computerized, the possibilities for central authorities to monitor calls or cut off certain numbers increases. These developments are making telephones less valuable for nonviolent struggle.

Fax is an extension of the telephone system to printed documents. All the same considerations apply, except that documents received are often available to anyone who happens to be around. (This is similar to the lack of security in telephone answering machines.) Faxes with security codes overcome this problem. Fax machines are much less common than telephones and require a bit of training, but they are easy to use. Faxes are much better when lengthy or complex information needs to be sent out.

Computer networks are excellent for person-to-person communication but can also be used to send messages to several addresses at once or to ,put material on a computer bulletin board for all to read. Like the telephone system they can be monitored or cut off by a master user (a person who controls the system and knows all the passwords).

Unlike telephones, computers are not so easy to use and are available to only a small fraction of the population. Computers are becoming cheaper, more widely available, and more user-friendly each year and will undoubtedly play an increasing role in communication in crisis situations.

In an emergency, it would be advantageous to be able to run computer networks on a different basis. For example, the master user's power to shut down or monitor accounts could be terminated. Such a change could be programmed to occur, for example, whenever a specified number of users inserted a special command within a certain time interval. Methods for doing this, and their implications, remain to be studied.

Many computer networks could be disrupted by turning off a single key machine. To reduce this vulnerability, there could be a duplicate site as a backup.

Computers can store vast quantities of information, and this leads to new considerations. Some databases—for example, containing information on social critics—would be sought by a regime. One possibility would be to have plans to hide, encrypt, or destroy sensitive information in case of emergency.

Short-wave radio is another excellent network form of telecommunications. It can be used to talk person-to-person across the globe. Furthermore, it operates as a stand-alone system, so that the plug cannot be pulled from any central location.

Calls on short-wave can be overheard by others with suitable equipment; as in the case of telephone, the more people who use the medium, the less the risk to any one. The location of short-wave transmitters can be pinpointed, but the transmission site can readily be moved. An ideal way to ensure continued international communications in a crisis would be to have a short-wave system in every home, plus many additional public systems for anyone's use.

A combination of short-wave transmission and computer data produces packet radio, in which packets of data are transmitted. These transmissions cannot be listened in on, though they can be deciphered with special equipment. Packet transmissions can be sent up to amateur radio satellites and broadcast down to receivers later, even halfway around the world. Combined with encryption, this provides an extremely safe and secure method of sending masses of information.

The main disadvantage of short-wave radio is the limited availability of the technology and knowledge of how to use it.

CB radio is similar to short-wave radio, except it has a much more restricted range.

Television and mainstream radio are much less useful against a repressive regime. Indeed, they are prime targets for takeover. The main reason is that a few people control the content and the transmissions; everyone else consumes the message. In this situation, the loyalty of both technicians and broadcasters is crucial. If stations are taken over, perhaps the best countermeasure would be for technicians to cause faults hindering transmission But this cannot be the basis for a program of resistance, since immense pressures can be brought against recalcitrant workers, or new compliant ones brought in.

With some advance planning, a takeover could be delayed and hindered for days or weeks, if not resisted indefinitely. But often the threat is not immediately recognized by all workers, so it can be difficult to obtain agreement for such action.

Community radio stations, in which community groups control program content and participate in making station policy, are much better placed to continue speaking out. Preparations for emergencies at such stations have the added advantage of making many groups aware of the necessity for action in a crisis.

Illegal political radio broadcasts are also possible, and indeed clandestine radio is a regular feature of resistance movements. Complications arise because many clandestine broadcasters are run by government spy agencies, which sometimes pose as resistance stations (Soley and Nichols 1987).

In the longer term, it would be desirable to reduce dependence on the broadcast technologies of television and mainstream radio and increase the use of network technologies such as telephone.

It is important to remember that other forms of communications are important besides telecommunications. This includes talking face-to-face, pamphlets, graffiti, posters, and the mail. Telecommunications can aid resistance to aggression and repression, but they are not essential.

It is also important to remember that technology is useless unless people are willing to act. In this sense, politics, not technology, is the key to resistance.

RECOMMENDATIONS

Even with the present state of technology and people's awareness, telecommunications can be an important part of nonviolent resistance to aggression and repression. But there are also many things which can improve the effectiveness of telecommunications for this purpose. We list them here under five categories.

1. Realizing present capabilities. Right now, people are quite capable of using existing telecommunications to oppose a repressive regime. People need to be made aware of their own capabilities.

If the mass media of television and mainstream radio, plus large-circulation newspapers, are taken over, there are still plenty of avenues for independent communication. The telephone system is the most obvious. Only a small fraction of phones can be effectively monitored, so most people can use them without risk; they need to realize this. Those who are at risk can use other phones.

Those who have access to computer networks should be made aware of the potential for communication. This includes people working for banks, universities and large companies. Similarly, short-wave operators should be made aware of the crucial importance of their technology.

Technicians in vital areas—such as television broadcasting or computer networks—need to be aware of how they can help maintain communications among those resisting repression.

2. Learning to use existing technology. Most people know how to use telephones. Many more can learn how to use fax machines and computer networks. Run a practice session with friends.

An even greater commitment is needed to learn to use

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short-wave radio or packet radio. It is important for these skills to be more widely shared in the community.

3. Preparing. Knowing how to use telecommunications is one thing; being prepared to use them in a crisis is another.

Having a procedure for telephoning people in an organization or network is important. The system should work even when some people are not available or some telephone lines are interrupted.

Developing lists of fax numbers is another useful step. On a computer network, lists of important contacts could be kept ready for an emergency and perhaps hidden in a coded group so that others cannot inspect the list.

Another important part of preparation is simulations. A group of people can run a drill, testing their communication systems in the face of a few disrupters and comparing the strengths and weaknesses of different systems. Simulations also accustom people to acting promptly and sensibly in a crisis situation.

4. Designing technology. Telecommunications systems should be designed to provide maximum support to a popular, nonviolent resistance, and minimal help to a repressive regime. This seems never to have been a consideration in system design, so it is difficult to be precise about what is required.

Is it possible to design a telephone system so that a speaker is warned if another party is listening in on a call? Is it possible to design a telephone system in which every phone can become—at least in emergencies—as non-traceable as a public phone? Is it possible to design a telephone system so that user-specified encryption is standard? Or in which encryption is introduced across the system whenever a specified fraction of technicians (or users) signal that this is warranted? Is "public key encryption," or some other system, the best way to support popular nonviolent struggles?

Is it possible to design a computer network so that the master user's control over accounts is overridden when a certain fraction of users demand this within a specified period? Is it possible to design a computer system in which encryption or hiding of data bases is automatic when there is unauthorized entry?

There are many other such questions. Perhaps, too, these are not the appropriate questions. The most effective design of a telecommunications system to operate against a repressive regime will depend on practical tests which cannot all be specified in advance. There is a host of difficult and fascinating design problems.

The design is not simply a technical issue, because effective design depends on accurately assessing people's skills, commitment, and behavior in a crisis. Good design will discourage aggressors and encourage resistance. In this context, being seen to be effective is part of what makes a system effective in practice.

5. Organizing society. Telecommunications is only one part of nonviolent resistance to aggression. Other areas are important too. A decentralized, self-reliant energy system—rather than dependence on supplies generated at a few central facilities—will make a community much more capable of resisting threats from an aggressor. Similarly, greater self-reliance in transport and agriculture would help a community defend itself. Workers should be able to take control of their workplaces and resist demands of a repressive regime.

All this implies considerable changes in the organization of society: production and distribution of goods, services, transport, etc. In each case, there are implications for communication. For example, if a regime tried to repress dissent by interrupting deliveries of food, it would be vital to have reliable communication about available supplies, local gardens, needy people, etc.

All of this requires preparation, organization, commitment and training.

CONCLUSION

The development of telecommunications for nonviolent resistance to aggression and repression depends on participation by many people to deal with local situations. This is a preliminary report of our project. We welcome comments, corrections and suggestions for future investigation, and hope to hear about the ideas and experiences of others.

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Schweik Action Wollongong is a small voluntary group of people in Australia who work on projects relating to social defense. This article was sent to us in April, and in the interim it has appeared in Nonviolence Today, published in Australia. We publish it here in the belief that our mailing lists do not overlap much.