

# Cyber Bosnia: Computer-Mediated Communications in a War Zone

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## Abstract

Computer-mediated communication is being used by peace workers and aid agencies as part of their work in the Balkan war zone. The ZaMir Transnational Network (ZTN), a member of the Association for Progressive Communications (APC), has established a communications infrastructure that crosses boundaries and ethnic barriers. This application of the new information technology consists of refugee mail services, coordination of humanitarian relief efforts, media substitution and the creation of a cross-national anti-war coalition.

**Keywords** — CMC, social use of IT, social movements.

## 1. No Electronic Escape

*"All those stories how nice and how good it was in ex-Yugoslavia are fairy-tales of the past. A virtual reality, as the virtual reality that Bosnia was such a peaceful country, it may was, but it isn't anymore. Wars have left their scares and war is NOT broken houses, it is broken MINDS. Living in a "war" zone is living in a virtual reality, a reality based on rumors and worries for the future...."<sup>1</sup> (Wam Kat, peace worker & communications activist)*

The Internet is not just fun and games for youngsters and yuppies, or restricted to academic exchanges, or moving the shopping mall to our home computer. The new information technology can be part of socially meaningful action. The work of communications activists in the Balkan war zone is such use. For these

peace workers "Cyber Bosnia" is not an electronic escape but a way to relieve some of the suffering of the war, hopefully to make a contribution to ending it.

## 2. ZaMir Networking

In late 1991, the pan-Yugoslavian amateur Adrianet was crumbling. It was becoming increasingly difficult to use the telephone systems between the component parts of former Yugoslavia. And the FIDO technology used by amateur and citizen networks relies on dial-up modem connections over telephone lines. In order to guarantee stable connectivity between anti-war and humanitarian groups, communications activists began probing possibilities of linking to systems with a political profile such as the PeaceNews BBS in Belgrad, already used by local groups for communication and information exchange. Some help was obtained from peace and humanitarian groups in Sweden, the Netherlands, Switzerland, Austria and Germany.<sup>2</sup>

The Antiwar Campaign in Zagreb and the Center for Antiwar Action in Belgrade decided to set up their own BBS network. In July 1992 the first systems were installed. This was the beginning of the ZaMir ("For Peace") network, linked from the start to the Association for Progressive Communications and the rest of the Internet.<sup>3</sup> When it became impossible or extremely difficult to maintain direct communication links between the various parts of former Yugoslavia, then relayed links were set up. When it was not possible to call from Zagreb to Belgrade, then calls were made to a "node" (station) which could connect to both. Connec-

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<sup>2</sup>Joel Sax in <apc.forum>, "Networks in Yugoland", Dec.23, 1992

<sup>3</sup>Eric Bachman, "Communications Aid for the Peace Movements in the former republics of Yugoslavia", Report, September 1991- May 1993", Balkan Gopher, (8) ZAMIRnet...nr 1. Updated in correspondence with Eric Bachman, May 6, 1995.

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<sup>1</sup>Wam Kat, Topic 2036 "Yugoslavs as virtual reality", Response 3 of 4 in <yugo.antiwar> 3:01 pm Dec 17, 1994 (at ZAMIR-ZG.comlink.apc.org)

tions have gone through GreenNet in London, LINK-ATU in Vienna, and later BIONIC in Bielefeld, Germany. Interviewed in a Reuters news release, Rena Tangens, a co-operator of the Bielefeld link, put it this way:

*"It sounds crazy to send a message from Serbia to Bielefeld in order to contact someone in Croatia," she concedes.*

*But with neighbors once less than an hour's drive apart now divided by battle lines and severed telephone cables, it is for many the only way to communicate. Mail is no alternative. In Bosnia the postal service has broken down, between Serbia and Croatia it is extinct.*

*What we have created is the most reliable communication link with and within the former Yugoslavia," Tangens says.<sup>4</sup>*

By mid 1993, the Zagreb-Belgrade link was being used by about 500 users, with 35 different groups online. At this time, each of the BBSes sent and/or received about 500 to 200 kilobytes a day, which is between 250 to 1000 pages of text. Messages were both private e-mail and public postings. Usage expanded and by mid 1995, there were about 1500 users on the system.

The ZaMir network expanded, adopting the name ZaMir Transnational Net (ZTN). By early 1995 additional stations had joined: in Ljubljana, Sarajevo, Pristina and Tuzla. In November 1994, ZTN became a full member of the APC., dedicated to peace, the environment, human rights and sustainable development.<sup>5</sup>

### 3. Content of the ZTN

The ZTN, rooted as it is in the peace movement, is dedicated to maintaining open channels of dialogue between the warring factions and across boundaries. While it does not allow propagandizing or belligerent "shouting", the ZTN is dedicated to the "open flow" ideology. This flow takes several different forms within the ZTN and the other info-footpaths into Cyber Bosnia: e-mail, refugee mail services, conferencing, electronic publishing and archive services.

The ZTN helps coordinate humanitarian aid for some of the many refugees of the war. It has become

an important means of communication for humanitarian organisations working in the war region and sister organisations in other countries. The ZTN facilitates the search for volunteers for reconstructing the damage of the war in all parts of former Yugoslavia. In order to facilitate e-mail exchanges, a database of groups and organizations is being compiled. Wam Kat, volunteer who came for one month to Croatia has ended up staying. He began to write a diary so that his two young sons would later know what their father was doing. His "Zagreb Diary" is posted regularly in the public APC/ZTN conference called <yugo.antiwar>. This diary has been distributed widely electronically, reprinted, and royalties help finance the ZTN.<sup>6</sup>

### 4. Refugee Mail Services

Refugee work was given priority since it soon became evident that computer-mediated communications could both complement and speed up refugee support work of the kind carried on by agencies such as the Red Cross/Red Crescent.<sup>7</sup> Using connections organized in and around the APC, ZTN and the Internet in general, two refugee mail services collaborate to carry letters for refugees and others in and out of besieged cities in former Yugoslavia. These services are the Sarajevo Pony Express (SPE) and PISMA (Servis za Pisma). The former, with its clearing house at PeaceNet/IGC in San Francisco, is responsible for international traffic and PISMA for regional delivery. This service combines computer-mediated communications with fax linkages with to-the-door delivery by relief and peace workers.<sup>8</sup>

### 5. Conferencing as Communicative Interaction

In 1991, the Swedish Peace and Arbitration Society, Sweden's largest and the world's oldest existing peace organization, opened an online conference <yugo.antiwar>, which has become something of a communications hub in Cyber Bosnia. People from all around the world participate in this conference. Topics deal not only with the war and refugees but also with culture and exchanges such as classroom to classroom projects.<sup>9</sup>

At the request of aid workers, a special APC con-

<sup>4</sup>Reuters, "Internet keeps Yugoslavia connected to global village", posted in <yugo.antiwar>, Topic 2108, Jan. 26, 1995.

<sup>5</sup>Eric Bachman, "ZANA-PR in Wonderland" in Balkan gopher at gopher.igc.apc.org, ZTN5:( reprint from KOHA magazine, Nov 94) Eric Bachman, "ZaMir Transnational Net" (11 Nov 1994), ZTN3:, updated 6 April 1995 in correspondence with Eric Bachman, May 6, 1995.

<sup>6</sup>Ibid.

<sup>7</sup>Wam Kat at ZaMIR-ZG, Nov. 29, 1992, reposted in <apc.forum> 362.2, Dec. 23, 1992.

<sup>8</sup>Eric Bachman, loc.cit.; Ed Agro, in "SPE/PISMA Refugee Mail Services: History and Operation" at Balkan gopher: gopher.igc.apc.org.

<sup>9</sup>Ibid.

ference for refugee work was started. <exyugo.refugee> The contents here deal with aid coordination, appeals and announcements, finding people. One effort deals with an international war resister's network for aiding war resisters to the present Balkan war. Another APC conference <reg.exyugoslavia> contains official documents, press releases from different governments, agencies and organisations. Besides APC conferences, the ZTN has its own set of conferences, mainly in the regional languages, for discussion and for helping people find each other.

The Geneva BBS of the International Council of Voluntary Agencies (ICVA) uses the ZTN for communications with its field workers.<sup>10</sup>

January 28, 1995 marked the 1000th day of the siege of Sarajevo. This tragic commemoration was protested against by peace groups in Serbia, Croatia, Bosnia and around the world. Peace and Sarajevo support groups in Belgrade, the capital of Serbia, protested the continuing siege of Sarajevo, even though they themselves had suffered from the international blockade of their country. These protest activities were coordinated online.<sup>11</sup>

These examples illustrate a salient feature of electronic conferencing: the subject content can be either local, global or both. Material can be structured by dedicating different conferences to different issue areas. ZTN and APC conferences are mostly moderated, to keep people to the content area. Some USENET conferences deal with the Balkans, such as <soc.culture.bosnia-herzgvna>. While not analyzed in this study, there is a growing concern among netters that these unmoderated electronic fora may become unreluctant, vehicles for narrow-mindedness or worse. Drawing parallels to war-torn Bosnia, BIX editor George Bond is concerned that certain Internet trends may be contributing to the degeneration of CMC as a citizen's medium for rational discourse.<sup>12</sup>

## 6. Media Substitution

A major use of computer-mediated communication is for media substitution. CMC can also be used for distributing and retrieving information that simply cannot be spread or found elsewhere. Volunteers, concerned academics and organizations around the world often gather reports, articles and news, or produce original items, on certain subjects and then forward this material to interested users of e-mail. This method of publishing and/or broadcasting is known as "maillist" (or

listmail or listserv). A maillist is just what the name implies: material is sent out over the Internet as e-mail to a list of electronic subscribers, who automatically get the listserv publication(s) in their e-mailbox. The material sent out in this way is "moderated" (controlled) usually from a clearly identified source or sources. In some systems, the maillists are put in to conferences on a host computer. These "read only" conferences function then as maillists but with indexing, which allows a user to choose what he or she wants to "download", that is transfer to their own computer.

In the beginning of 1995 the "South Slavic Mailing Lists Directory" contained the following:

- Bosnet - a moderated, volunteer forum for redistribution of information;
- Croatian-News / Hrvatski-Vjesnik - a moderated, volunteer forum for redistribution of information;
- Cro-News / SCYU-Digest - a non-moderated distribution point (from the WELL) for news;
- CRO-VIEWS - a non-moderated Australian service and an academic level of discussion is encouraged.
- Kuharske Bukve - a weekly Slovene-language cook book;
- MAK-NEWS - two bi-lingual news services from the University of Buffalo on Macedonia;
- Novice MZT - News of Ministry of Science and Technology of the Republic of Slovenia;
- Oglasna Deska - bulletin board of usenet type conferences in Slovenia, multi-lingual;
- Pisma Bralcev - an edited (not moderated) mailing list which provides the possibility of publishing readers' opinions, questions, inquiries for help, answers etc., multi-lingual;
- RokPress - a moderated mailing list, intended primarily for news from Slovenia. mainly in Slovene;
- SAGE-net - a moderated group/forum run by student volunteers from the group Students Against GENocide (SAGE)--Project Bosnia. Its goals are to initiate and coordinate activities among groups active on Bosnia, particularly those on university and college campuses.
- SII - unmoderated network for distribution of news and discussions about the current events in ex-Yu, centered around those involving or affecting Serbs;
- ST-L (Srpska terminologija/Serbian Terminology) - for discussing Serbian terminology ...
- Vreme - carries "Vreme News Digest" (selected articles from "Vreme" translated to English).
- YU-QWest Mejling Lista - unmoderated forum for exiles and emigrants from the territory of the for-

<sup>10</sup>Eric Bachman, *loc.cit.*

<sup>11</sup>Topic 2106 "Belgrade Groups Protest 1000th day" in <yugo.antiwar>, 6:03 pm Jan 26, 1995 (at ZAMIR-BG.comlink.apc.org).

<sup>12</sup>BYTE, March, 1995.

mer republic of Yugoslavia.<sup>13</sup>

Seven of these maillists are based in the USA, the UK or Australia (albeit with much exile input); four are joint Slovene-North American projects; one (MAK-NEWS) appears to be a multinational effort, though with Anglo-Saxon predominance; one is purely Slovene and one purely Serbian, one seems to be Polish-American. The list servers of Cyber Bosnia thus appear to be an Anglo-Saxon affair. It would be most interesting to know how these rich information services are actually being used, both in the Balkan region and around the globe.

The ZTN distributes critical analyses of mainstream media, which have played, according to many, a key role in whipping up nationalism and war hysteria in the whole region. One such media watchdog publication is ARKzin, which publishes summaries electronically in <yugo.antiwar>. Another example of electronic publishing in Cyber Bosnia are exile magazines such as *Dialogue*, from Amsterdam.<sup>14</sup> The need for media substitution may sometimes tend to overshadow the communicative-coordination aspects of global, inter-organizational conferencing, as the two mix in a blend of information, analysis and action.<sup>15</sup>

A major interchange in Cyber Bosnia is the Balkan gopher at PeaceNet in San Francisco. This gopher collects and organizes information on current events in and around the Balkans. For example, it carries a documentation section on war crimes in the territory of former Yugoslavia, mainly bulletins of the Republic of Bosnia - Hercegovina State War Crimes Commission, in several languages. An archiving service has started at the University of Essex in the United Kingdom with the task of gathering and cataloging electronic material from and on the Balkans.

## 7. Actors and Spectators in Cyber Bosnia

A major tool for communication and interaction between people using computer-mediated systems like ZTN is conferencing. In an online conference system, an individual can post his or her views, publications and statements. These can then be read and commented upon by other users of the system. That this is a new electronic forum for public discourse and coordination of meaningful action is exemplified by the utopian us-

ages of electronic conferencing on the ZTN and connected networks. This type of use of CMC strengthens civil society.

One of the most important parts of building up an anti-war movement is coordination between groups. This is for the obvious purpose of planning joint activities but also for the equally important psychological effect of knowing that one is not alone. In this respect, computer-mediated communication is a powerful tool. Besides its immediate humanitarian importance, this type of computer-mediated communication has shown itself to have other longterm effects. CMC helps maintain communities in exile through the creation and support for group identity, for internal and external communication and for effective political action. The experience of the ZTN in establishing and maintaining crisis communications in a war zone underscores that effective networking for social change has to be global in its perspective and organization.<sup>16</sup>

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<sup>13</sup>Topic 2092 "South-Slav Mailing Lists (Upd)", Mailing-Lists@KRPAN.ARNES.SI (South Slavic Mailing Lists Directory), from <igc:pnbalkans> in <yugo.antiwar> 9:00 pm Jan 14, 1995.

<sup>14</sup>Topic 215 "Introduction to DIALOGUE mizamir" in <yugo.antiwar> 2:01 pm Jan 29, 1995 (at antenna.nl).

<sup>15</sup>Cf Wam Kat's comment on this in <yugo.antiwar>, Topic 1773, Jul 24, 1994.

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<sup>16</sup>Cf. Tiger Li, "Computer-Mediated Communications and the Chinese Students in the U.S.", in *Information Society*, 1990, vol 7: 125-137; Howard H. Frederick, "Computer Communications in Cross-Border Coalition-Building: North American NGO Networking Against NAFTA," in *Gazette* 50:217.241, 1992; Howard Frederick, "Computer Networks and the Emergence of Global Civil Society: The Case of the Association for Progressive Communications (APC)", in *Global Networks: Computers and International Communication*, ed. Linda M. Harasim, Cambridge Mass., MIT Press, 1993.

## Appendix

Balkan gopher: [gopher.igc.apc.org](mailto:gopher.igc.apc.org) or [www.igc.apc.org](http://www.igc.apc.org)

Eric Bachman, coordinator, ZaMir Transnational Network: [e.bachman@bionic.zer.de](mailto:e.bachman@bionic.zer.de)

Belgrade: [support@ZAMIR-BG.ztn.apc.org](mailto:support@ZAMIR-BG.ztn.apc.org)

Ljubljana: [support@ZAMIR-LJ.ztn.apc.org](mailto:support@ZAMIR-LJ.ztn.apc.org)

Sarajevo: [support@ZAMIR-SA.ztn.apc.org](mailto:support@ZAMIR-SA.ztn.apc.org)

Tuzla: [support@ZAMIR-TZ.ztn.apc.org](mailto:support@ZAMIR-TZ.ztn.apc.org)

Zagreb: [support@ZAMIR-ZG.ztn.apc.org](mailto:support@ZAMIR-ZG.ztn.apc.org)

Pristina: [support@ZANA-PR.ztn.apc.org](mailto:support@ZANA-PR.ztn.apc.org)

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