

Report

on

Visual Communications

How is Multimedia utilized in Bulgaria

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In this report I will make a short survey of the communications and multimedia technologies utilized in Bulgaria nowadays. As we know this is a field which develops very fast and the new becomes old only within a single day. According to this the communication in Bulgaria have changed a lot during the last 5 years.

Internet

At first Internet providers in Bulgaria appeared about year 1999 but at present there are many companies offering Internet access at home and also business solutions via different media and type of connection. The most of them use “state of the art” technologies including equipment from Cisco Systems, the most advanced transmitting techniques and different kinds of customer access: leased line, Frame Relay, redundant fiber optic and wireless channels. They have international Internet connectivity for direct connection with several independent Internet providers. The services they offer include as well telephone or ISDN Internet access, point to point connection and satellite. They offer building of VPNs, VLANs and lately Intercity MANs as well. Quite common recently is also offering VoIP which became an important issue for the providers because of it’s low cost easy use. All the companies do data transferring, e-mail service and web-hosting. The most advanced of them offer direct lines for teleconferencing and high speed Internet access which is oriented to corporate users. Very popular in the last years is building Internet coffee shops where one can check his email to chat with friends or just play games via Internet. Internet makes the communication over the world faster and easier.

Mobile telecommunications

Mobile telecommunications in Bulgaria exist since 1993 when the company Mobikom came on the national market. At present there are 3 mobile telephone operators: MobilTel, Globul and Mobikom, but since February this year the last one is possessed by the national fix phone monopole company Bulgarian Telecommunication Company. Both operators Mtel and Globul are GSM operators and Mobikom has an analogue system. The

competition makes them improve the quality of their services and respectively the territory coverage of both companies is almost 100%. That makes the mobile communications in Bulgaria possible almost everywhere and even February last year Mtel marked 100% coverage in Sofia Metro. These mobile operators offer basic services like voice, sms, mms and data (GPRS, WAP, mobile Internet via GPRS, data and FAX services). Since the beginning of this year Mtel supports EDGE (Enhanced Data Rates for Global Evolution). EDGE is a 3G technology that delivers broadband-like data speeds to mobile devices that is similar to the speed in the UMTS networks. It allows M-tel subscribers to send and receive data, including digital images, web pages and photographs, three times faster than possible with an ordinary GSM/GPRS network. At the end of March this year Mtel obtained the license for building 3G network in Bulgaria and they will immediately start with the construction. Till end-2006, 3G mobile services will be in operation in Bulgaria's 5 biggest cities. The 3G network enables the TV watching on the mobile phone's screen, the using of high-speed Internet etc. As an instance of comparison – the UMTS (Universal Mobile Telecommunication System) data transfer is about seven times faster than if using EDGE and approximately twenty times if using GPRS. As a small country like Bulgaria these three mobile operators offer many good quality services and make customers feel glad while communicating.

Fix telephone

Fix telephone services are also well developed in Bulgaria. As a single company offering fix phone services Bulgarian Telecommunication Company (BTC) has advanced digital equipment, transmission equipment, radio-television transmitters, ground satellite station. Their systems use:

- Already created optical system with length 2900km
- Digital radio relay lines with length 1500km
- Nets for data transmitting and Internet in the whole country
- Telecommunication net of the company is directly connected with 45 foreign operators in this count 28 European countries.

Bulgaria is one of the countries in Central and East Europe with the highest percent of stationary telephone posts – 85% of all households.

As a developing country the telecommunication technologies in Bulgaria are still on a level which needs to be improved but there is much effort being done at the moment. The development is going quite fast and hopefully in near future we can work with the newest technologies.

Other fields

Other field where the use of Multimedia is quite large is the advertisement and Commerce. Maybe this is the branch where the combination of medias is really common. As

most medias one uses for advertising best it is. According to this rule in Bulgaria **advertising** companies use newspapers, TV, fliers, radio, Web, voice messages etc. in order to spread the information all over the potential customers. Nowadays the cities are full with Billboards showing the newest proposals by the leading companies on the market. There are more than 20 radio stations and almost the same number of TV private channels and 2 national ones. The most advanced of them offer 24 hours program full with many different shows, well prepared news sessions, documental materials and entertainment.

E-Commerce also make use of multimedia technologies, it is build on web environment and it relies on good advertisement as well. Colorful images and flash animations offering newest products are much more attractive than a simple black and white newspaper notice. The web space in Bulgaria is increasing quite fast, the most of the companies no matter how big they are have already built their own web site. Personal web pages are also very common.

Very new is the practice to utilize multimedia products in the **education**. Comparing with the classical study in the class room looking to the black board and writing in a notebook with a pen or pencil nowadays students go to the computer room or a remote computer and watch their lectures online as a teleconference or static text on presentation. There are many efforts being done at the moment for improving E-learning in Bulgaria and many courses are already started like distance learning or combined classical and e-learning methods in order to improve the educational process. At present any language course has it's own audio records which help the learner while studying or they are entire system for self learning.

Multimedia technologies are used also in creating **security** systems in Bulgaria. They use the perception of cameras and microphones or waves to detect changes in the environment.

Multimedia is also in the **games** and especially there. This is a huge entertainment branch which will never stop developing and it is one of the reasons for multimedia to progress. For children it doesn't matter how much money they have for breakfast but if they have money for playing games. Computer games in Bulgaria are quite popular, game halls are always full and work 24 hours a day.

Multimedia is everywhere and even Bulgaria is still developing country I can say that it covers the main needs of the day. Of course in Bulgaria I don't see these huge Shibuya screens and the elevators still do not talk, the waiters do not take the order via wireless system, but there is still time to improve our daily life and it is good that we have an example like Japan from where to get ideas. The most important is that with the development of multimedia we actually develop communications which are the reason for human to advance.