

The digital technologies as the chance for sustainable development of Moldova

C. Gaidric

The European Union initiated the project “e Europe: An Information Society For All” which is oriented first of all to the Member States.

The candidate countries prepared the project “e Europe+. A cooperative effort is to implement the Information Society in Europe” which aims at the co-ordination of time of joining the Information Society with Member States.

Moldova, which now goes through a very complicated time of the transition to market economy, can and should use its chance to form sustainable economy based on the opportunities of information technologies.

To achieve this Moldova has the following priorities:

- aspiration, vocation and strong orientation of the youth towards high technologies;
- lack of other alternatives for stimulation of economic growth and creation of new jobs;
- existence of national communication structure;
- favorable international context (European, G7 and World Bank initiatives);
- high enough level of special higher education;
- independence (to some extent) on out-of-date information systems.

At the same time we would mention some negative points:

- expensive, unreliable and slow access to the Internet;
- low purchasing power of the population, which causes inhomogeneous Internet connection, especially in the country-side;
- inertia of central and local administration;
- weak information of the society;
- mass emigration of the youth and at the same time the increase of the share of people with the age of over 50;
- weak interest of investors and distrust of financial organizations which could give credits;
- realization by bureaucracy and corrupted elements that the information society is their irreconcilable enemy;
- low level of the school education (especially among the rural people) in the domain of information technologies;
- non-adequate legal base.

Government of Moldova is proposed to elaborate State programme “eMoldova” that would envisage the introduction of digital technologies:

- 1) in national economy, including
 - industry
 - infrastructure
 - business and commerce
 - administration of the state and territories
- 2) in educational system
- 3) in everyday life of people

- 4) establishment of information technologies centers which are available for the population
- 5) establishment of technology parks
- 6) access of the population (especially in the rural environment) to cultural values, including
 - creation of a national virtual digital library
 - creation of a virtual museum
- 7) rising of health services level, especially in the country, providing:
 - establishment of centers of distant doctor's consultation,
 - Internet connection of the hospitals,
 - elaboration or usage with adaptation of standards of information systems for medicine.
- 8) Ensuring of legal base which is adequate to needs of information society and consistent with European legislation, favorable terms for small and middle enterprises in the field of information technologies.

An essential point in the programme will be the determination of the role and function of the state in the process of formation of information society. The state should guarantee the elaboration of legal environment defining clearly rights and duties of physical and juridical persons. Also the state is to finance projects of the access of all citizens, especially pupils and students, to information recourses and through them to cultural values.

It is supposed that the industry and agriculture can finance by themselves their elaborations for the access to networks if the state creates favorable fiscal climate for middle and small enterprises.

These measures will create new jobs in the field of high technologies and to some extent will stop the drain of qualified specialists from the country.

Specific question of the creation of “e-government” (management of territories, monitoring of tax collection, customs duties, financing of some state projects, etc.) naturally should be the care of government.

In any case we consider that state is to perform basically a regulating role by means of the creation of favorable taxation climate in order to stimulate important from its standpoint directions, but not exercise direct administration.

Taking into consideration geographical position and natural conditions of Moldova, among first and for most subsystems the programme “e Moldova” will include:

- system of registration of earthquakes and their consequences
- system of landslides monitoring
- system of monitoring of crops condition (taking into account frequent droughts and vermin invasions).

This programme should be in line with general principles included in the mentioned programmes “eEurope” and “eEurope+”, of course taking into consideration the particular conditions of Moldova, its scientific and industrial potential.

Because Moldova only recently has become an independent state and now goes through a complicated way of the transition to market economy, it is very essential to make this transition easier by means of information technologies.

That is why our Institute of Mathematics and Computer Science of AS of Moldova jointly with the Ministries of Economics and Finances elaborated models of financial programming as the base of structural reforms supported by International Monetary Foundation. The model includes the following sectors: private, governmental, financial, foreign and industrial. Also, for estimation of the influence of changes on tariff and taxes policy, a model of economy balance was elaborated.

These models were used for short-term and middle-term economy prognostication, and they permit to simulate consequences of different policies.

The Decision Support System of multicriterial evaluation and selection of scientific and technical projects and their monitoring was elaborated which permits in a more grounded way to select the proposals for financing projects.

By now the requirements to software for support of customers register for market of valuable papers and immovable property, which were elaborated jointly with the National Commission of Valuable Papers, were adopted as normative documents.

There is some experience of optimization and simulation of the development of branches enterprises, which yet has no application because of scattered farming.

The work on the establishment of information technologies centers that will carry out consultations and support of small and middle enterprises in the usage of new technologies, Internet and starting of electronic commerce only begins.

As was mentioned, in Moldova there exist good communications (main towns are connected with optical fiber cables), which will permit, when gaining experience and especially if having investments, to connect quickly with Internet state structures, schools and enterprises.

The elaboration of systems of territorial administration is carried out also.

The more difficult work is the connection of schools by Internet. That is because the state does not provide the schools with finances owing to deficit budget.

All these works are carried out for the present separately, and more attention is paid to industry and administration of state structures.

Globalization, as an objective process, leads to the integration in the economic sphere, the informational and telecommunicational technologies, the international scientific and educational projects, the distant education. At the same time intellectual resources concentrate in the richest countries and the sphere of influence of so called mass culture broadened, suppressing and substituting the national cultural values of less rich countries.

The most complicated problems to solve in the proposed programme seem to be a series of measures that will guarantee a bal-

ance between inevitable globalization of economics and the necessity to maintain and cultivate national self-awareness, the original culture.

That is why now it is especially important to elaborate the State programme that due to the attention of the usage of information technologies will bring to democratization of the society, widespread access of the population, particularly pupils and the youth, to Internet and through it to opportunities of getting and rising knowledge.

Broad support of middle and small enterprises in the usage of advanced technologies will give impact to the economy development thus permitting young state Moldova to develop in sustainable way.

C. Gaidric,
Institute of Mathematics and Computer Science,
Academy of Sciences of the Republic of Moldova,
Chisinau
E-mail: *gaidric@math.md*

Received January 15, 2002