Dr. M. BĂCESCU,
Dr. R. STROE,
I. TAMAŞ
Academy of Economic Studies

Production of Information Component of Social Production System

Production and handling information is now a weighty component of social labour division, and hence a social activity branch/field. The product of this activity has a character of merchandise.

1. CONSIDERATIONS ON INFORMATION CONCEPT

The information concept was, is and will be yet more at issue in the technical literature, this fact resulting in a multitude of definitions, so that we now may consider that it is not yet rigorously determined. The same as matter and conscience it is proper to nature (universe). In order not to be in impossibility to define it, we will not deal in this paper with information as an intrinsic property of the material world, but as a conscious reflection of reality on the human thinking and action.

Considering the information is closely linked to the reality reflection on the thinking plane, we will give a double meaning to the information concept (Fig. 1):

a) information as primary element of knowledge — reflection of the reality (data);

b) information as a result of information production — synthetised reflection of the reality (information proper or, briefly, information).

2. INFORMATION — RESULT OF HUMAN ACTIVITY

In the economic and social development and progress conditions of the contemporary technical and scientific revolution it is necessary to consider information, on the one hand, as a resource in the production process

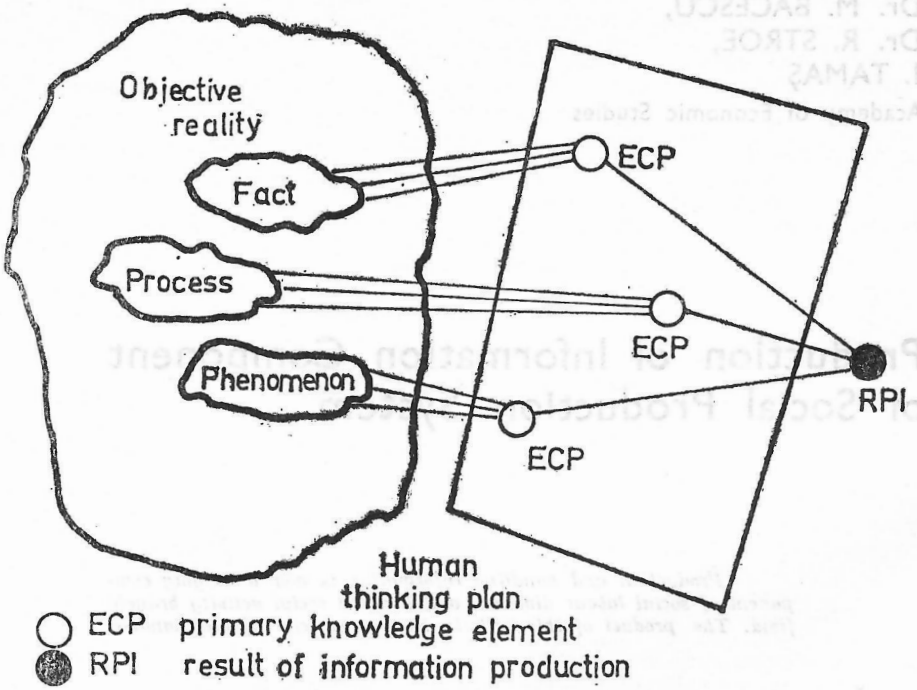


Fig. 1 — Ratio between reflection of reality and production of information

(information stock), hence a production factor, and, on the other hand, as a result of the production process (Fig. 2).

Consequently, now it is imperative to complete the production factors and the forms of the production process results, at least with two aspects:

a) with the information dual form: result of human activity — information proper and decision, so that:

$$I = IP \cup D$$

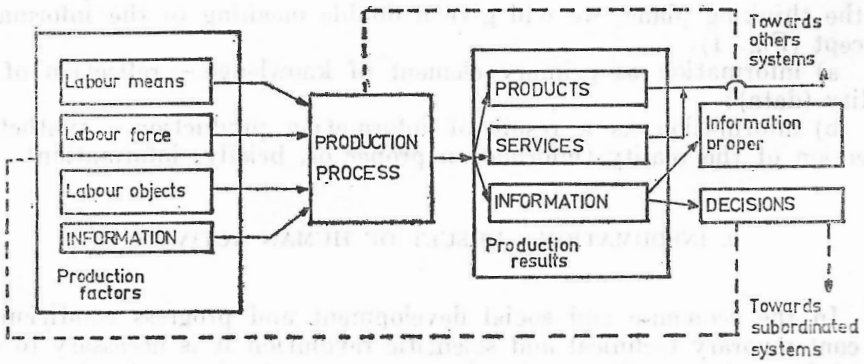


Fig. 2 — Production factors and production results

where: I — set of man-produced information
IP — set of information proper
D — set of decisions.

Taking this face into account, we consider that the decision may be defined as being "information with a directing character" (or ordering character);

b) with the information triple hypostasis:
— as production factor
— as production result
— as production controller.

The hypostasis of human production result obliges us to implicitly insert the "information production" as a field of the social activity and as a result of the labour social division.

It is unanimously admitted today, that mankind is in full progress of a new technical and scientifical revolution. Some authors emphasize its engineering character, others speak of an "informational revolution" linked to the automation revolution. Utilization of information is for a long time past an acute requirement for any human activity, a necessity for its efficient development on multiple plans (economic, operative, of quality, etc.). Under these circumstances, it is to be expected that the information generation and handling activity — in the broadest sense of the word — will tend to gradually become the society ultimate and chief activity, in all the human activity fields, respectively.

3. INFORMATION PECULIARITIES AS A PRODUCT OF LABOUR AND THEIR CONSEQUENCES ON THE PRODUCTION OF INFORMATION

Information, as a product of human labour, has a series of peculiarities (Fig. 3) leaving their mark upon the information production process.

Among these peculiarities, we may emphasize:

a) omnipresence — i.e. information to be found in any human activity, raising problems regarding its collecting, organization and transport to the processing or consumption point;

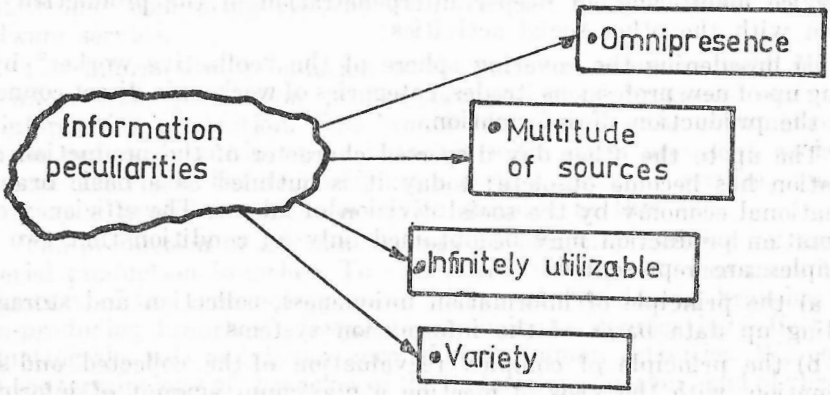


Fig. 3 — Information peculiarities

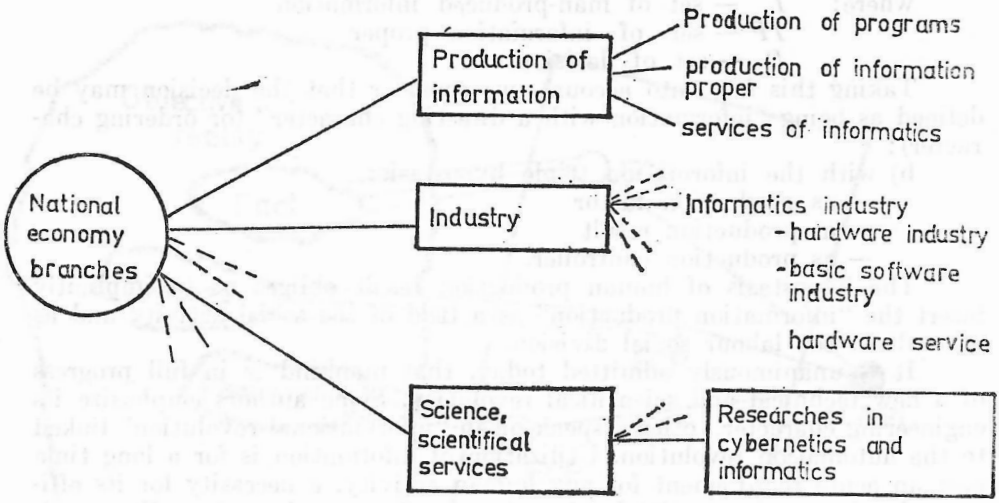


Fig. 5 — Information production within the social production system

and economic activities. The production of information should be therefore included in the last one.

Additional arguments for considering the production of information as a branch are brought by a series of ampler and ampler processes, such as:

a) in the manpower field — stress is laid upon perfecting the vocational training, recycling, re-qualification and poli-qualification, for which (organization, research, training, a.s.o.) expenses are made, tending to increase the share within the social expenses total;

b) in the means of production field — robotization;

c) in the social activity deployment field — computer assisted management, planning and organization of production, performance of operating processes, product designing, etc.; in an adjacent position, the tendency of service monitoring, of deeper interpenetration of the production information with the other social activities;

d) broadening the covering sphere of the "collective worker" by the setting up of new professions, trades, categories of workers in direct connection with the production of information.

The up to the other day dispersed character of the production of information has become obsolete; today it is outlined as a basic branch of the national economy by the social division of labour. The efficiency of the information production may be obtained only on condition that two basic principles are represented:

a) the principle of information uniqueness, collection and storage for building up data bases of the information systems;

b) the principle of complex reevaluation of the collected and stored information, with the view of meeting a maximum amount of information demands.

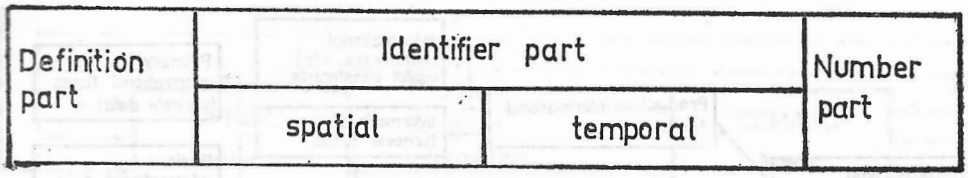


Fig. 4 — Information structure

b) multitude of information sources, fact creating a series of difficulties in its collection, control processing.

c) reutilizability within limits determined, on the one hand, by the domain of the problems to be solved, and on the other hand, by the reduction of information utility as it gets old. This fact has a series of implications, both in the distribution of costs on a greater number of information at output, and upon the possibilities of integrating the data handling processes also;

d) diversity — in the meaning that the information is obtained as "one-off", but it may be multiplied to be simultaneously used by several users. Also, account should be taken of the fact they are different from one another both regarding their contents, and space or time, as illustrated in Fig. 4.

4. PRODUCTION OF INFORMATION — COMPONENT OF THE SOCIAL PRODUCTION SYSTEM

The dimensions and structure of information production are correlated with those of the economic and social activity as a whole, but, at the same time, with the impact of the technical and scientific revolution on this activity.

At the very start, a precise distinction should be made between the informatics industry and the information production (Fig. 5).

The informatics production is a branch of industry to be included within the sector I of the social production and consists of the production of electronic computing systems with relevant basic software, as well as hardware service.

The information production is the national economy field including the information production proper, production of programs and service for information production. This branch also includes the information production deployed within other branches with other prevalent social and economic activities. Before producing a certain asset or service, man has to deploy a production of information suitable to this end.

The production of information may be perfectly included in the non-meterial production branches. To this effect, we suggest once more the re-evaluation of the terminology used today, of "producing branches" and "non-producing branches", frequently inducing a deprecating effect when evaluating the role and importance of some human activities. We consider that the terminology of "branches of the material production" and of "branches of the non-material production" is the nearest to the meaning of the social

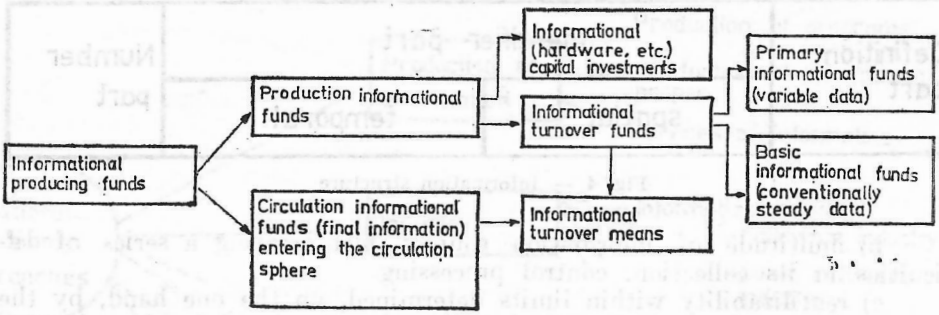


Fig. 6 — Informational funds

In the end, the general aim of the information production is, of course, the correlation of the informational demand with the information offer, with a view to a normal deployment of any activity.

The impact of the technical and scientific revolution brings about important changes, both in the character of some activities formerly considered as non-producing services, and in the division of labour; thus:

— the production of information becomes an indispensable essential link of the modern production, together with the scientific research and staff training activity;

— the production of information, as a component of the social division of labour, is also proved by the fact that — when we refer to our country, over 55,000 men work in specialized units (informatics units), and, when we take also into account those dealing with this activity in non-specialized units, then their number comes near to 1,000,000.

The production of information implies the utilization of some funds referred to as "informational funds" (Fig. 6).

Determination of each category of funds is perfectly assimilated with the definitions of the productive fund categories as they may be found in the Marxist political economy, the difference between them being the material content only.

5. INFORMATION AS MERCHANDISE

With the extension of the "production" of information and the society effort by the resources assigned for it, the information fulfils all the conditions to be a merchandise.

First of all, it is a product of man labour. The information producing activity has detached itself with the deepening of the social division of labour. The production from information implies complex activities of collecting, checking, classifying, storage, up-dating, logical and digital processing, editing informational marketing, etc., accordingly implying the consumption of social labour.

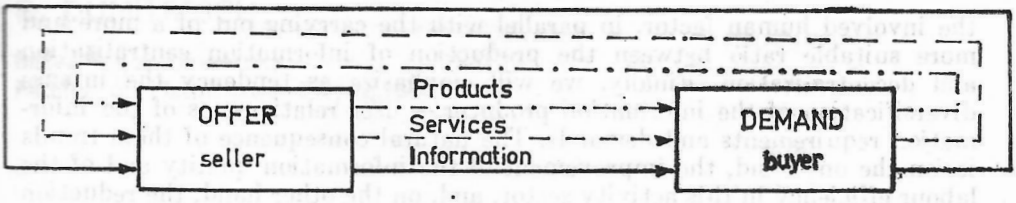


Fig. 7 — Information circulation as merchandise

In the second place, information meet a vital requirement of social activities. The start of any social activity requires the previous existence of an information fund, and the deployment of any activity requires both information for management, and for execution.

In the third place, information is more and more intended for exchanges. A production of information, as an end in itself is senseless. The producer of information transfers it to its user, but the transfer title is not yet deeply standardized.

The question is set as follows: Is it a free title, or for sale-purchase? The existence of some specialized units for production of information, in economic autonomy conditions, requires the sale-purchase of information. Also, it is imperative to go beyond the contradiction between the acknowledgement of the social character of its utility and the complete (temporal, spatial, of management subordination) non-recognition of the social character of the labour consumption for its production (Fig. 7).

The information merchandise has, as any other merchandise its value and the use value in the known meaning of these notions. This is why we can speak of information price, whose planned and effective level should cover the production expenses and provide a net income.

The information circulation as merchandise has a series of economic advantages:

— it secures economic efficiency for the production of information;

— it generates the rationalization of informational flows and of information demands;

— it makes possible to quantitatively measure the efficience of management work, as a ratio between the decision economic effects and the effort made for their informational substantiation;

— it provides the increase in volume and share of the conception time in the total working time of the decision and execution factors.

6. TRENDS IN INFORMATION PRODUCTION

In the context of the contemporary informational outburst, the main tendency is the diversification of the information production. This is obtained against the background of the improvement at an unprecedented pace of the information techniques (hardware) and of the informational processes (software). Another natural tendency is the training and specialization of

the involved human factor, in parallel with the carrying out of a more and more suitable ratio between the production of information centralization and decentralization. Finally, we will emphasize as tendency the intense diversification of the information producer — user relations, as of the information requirements and demands. The natural consequence of these trends is, on the one hand, the improvement of the information quality and of the labour efficiency in this activity sector, and, on the other hand, the reduction of the information unit price.

REFERENCES

1. BĂCESCU, M., TAMAS, I.: *Producția de informații în contextul noului mecanism economico-financiar* (Production of Information in the Context of the New Economic and Financial Mechanism). postuniversitary course, lith., ASE., 1983.
2. DIACONESCU, G., DUMITRESCU VL., PAIU, O., STROE, R.: *Elemente de analiză a statutului economico-juridic al produsului-program* (Analysis Elements of the Economic and Juridical Statute for the Product-Program). ASE-LCCE, Bucharest, 1983.
3. BĂCESCU, M.: *Informatica și dezvoltarea economică* (Informatics and Economic Development). Revista de Studii și Cercetări de Calcul Economic și Cibernetică Economică No. 2/1984.
4. BADEA DINCĂ, N., BĂCESCU, M.: *Probleme izvorîte din Directivele Congresului al XIII-lea al PCR privind eficiența economică a introducerii sistemelor informatice în conducerea proceselor* (Problems Deriving from the Norms of the XIII-th Congress of the Romanian Communist Party Regarding the Economic Efficiency of Introducing Informatic Systems in Process Management). Studii și Cercetări de Calcul Economic și Cibernetică Economică, No. 4, 1984.
5. IOAN PETRIȘOR: *Estimarea calității organizării producției de informații* (Evaluation of the Quality of Information Production Management). ASE, Bucharest, 1985.
6. BĂCESCU, M., TAMAS, I.: *Aspecte ale normării și determinării eficienței activității de informatică* (On the Rating and Determining the Efficiency of Informatics Activity). Revista de statistică, No. 3/1986.
7. BOCCARA, P.: *Implicații social-politice ale noi irevoluții tehnologice* (Social-political Implications of the New Engineering Revolution). Era Socialistă, No. 21/1986.
8. MIHAILA, N., BAYER MAIA-RUXANDRA, VELNICERIU, A., STEFANESCU AMELIA: *Relații producător-utilizator de informații* (Information Producer-User Relations). Selective book of the Centre for information and documentation of the Chemical Industry, ICECHIM, 1986.