



IMIA - Reasons to be

History

TC4 existed about eleven years when it became IMIA. In eleven years a lot of things can happen, and with IFIP's Technical Committee this was particularly true.

Let me first recall a few facts from the past. TC4 met in 16 countries: Bulgaria, Canada, Denmark, Finland, France, Hungary, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, U.K., U.S.A., U.S.S.R., Yugoslavia. Including those planned for the first half of this year we organized 15 Working Conferences in: Bulgaria, Canada, C.S.S.R., France (3x), F.R.G. (2x) , Israel, Netherlands (3x), S.Africa, Sweden and Switzerland. And we had two Medinfo Congresses, in Sweden (1974) and Canada (1977), whereas the next one will take place in Japan (1980). TC4 established 4 Working Groups, which all together met a really unknown number of times. We organized conference sessions in several countries not yet mentioned: Brasil, Iraq and the Philippines, in all cases as part of larger more general events.

Plans are in progress for the organization of 8 more Working Conferences, two open Conferences, and two Medinfos, including the 1980 Tokyo Congress.

The first chairman of TC4, Francois Gremy, had the habit to call the TC4 members to order somewhere in the middle of the meeting: "and now, gentlemen, we have to work". No doubt a lot of work has been done in these eleven years, and, even more than by absolute numbers, the strength of TC4 is emphasized by the fact that the number of its projects has been increasing steadily each year. Up to such a level that it became impossible for TC4 members, selected and backed as they were, to manage all the activities and give the proper support from all countries concerned.

The number of countries represented in TC4, by the way, has arisen to 28 by the end of 1978.

Analysis of the quantitative figures given above, can only give information about the distribution of activities over

countries and continents. It strikes that the great majority of events take place in Europe, more precisely the Western part of Europe. Very little was done in Central and South America, very little in Africa, nothing in Australia and Oceania, and relatively little in Asia when one takes into account the huge proportions in all respects of this continent. We are not very much surprised by these conclusions, because we have been aware of them for a very long time, and because there are obvious explanations for it. One reason is that informatics as a science and particularly as a technology is identified with highly developed industrialized areas in this world. The second reason is that, whether we like it or not, IFIP TC4, though pro-created in Mexico, was given birth in W.Europe and assumed European nationality for many spectators. Grown up, a main function was to serve as a co-ordinating body for activities in the many countries in W.Europe, and to bring together N.American experience and aheadness with W.European and E.European eagerness to learn, on W.European soil. Of course this is somewhat exaggerated, but there is enough truth in it to call for a somewhat aggressive policy in support of the claims that TC4 was, and IMIA will be, the global organization for Medical Informatics.

So far about quantity and geographic distribution; what about quality?

Everybody expects this a difficult question: to answer it at all, and to answer it honestly. But it is first of all a difficult question to formulate properly.

When dealing with the quality of an organization's realized projects one should refer to the aims of the organization. However, it turns out for most organizations that their concrete aims are to realize projects, and the circle is neatly closed. The less concrete, let's say less operational, aim is to develop a certain field of human exploration and engineering activity. In this case the field is medical informatics.

An analysis of this goal may lead to such diverse questions as:

- did TC4 arouse the general interest of the scientists in the field (and outside)?
- did it cover the field properly?

- did it propagate effectively the education of younger people?
- did it bring something new, did it push forward the border line of the field?
- did it meet the highest standards for communication among scientists?

Some of these questions can be answered with an unconditional "yes", some with a conditional "no".

As the speaker has no obligation to be polite, as he is to a large extent speaking about tasks for which he was responsible in the first place, we will definitely hear a few "no's".

Although TC4 has done many things for which we are very grateful and that reflect wisdom and long-term insight, relatively few milestones were laid down that will affect the course of scientific development for the years or decades to come.

Undoubtedly, TC4 attracted the attention in the field. Particularly the Medinfo Congresses are considered the fora where the medical informaticians meet. Also, the Medinfo Congresses helped in defining the field itself, and they promoted the cohesiveness of the subspecialties involved. We are also quite sure that the coverage of the field was rather adequate. There are some areas where a somewhat better coverage might have been achieved, particularly in the areas dealing with research: mathematical modelling, biological systems experimentation. But more activity in these areas is part of the plans already. An area that is not yet touched by a project, though it is planned, might be identified with the title of one of our prospective Working Conferences: Health Care Management and Informatics. Nobody will deny the important role of informatics in any health care - or other - organization. But in general there is no blueprint of the information flow within the organization, or of the information system. The idea is to make explicit the role of informatics, to describe the information system as an essential subsystem in the total health care organization, and by doing so identifying the interactions of the information system with other essential subsystems, such as the personnel system and the treatment system, as well as the ethical and judicial requirements. The

work in this area seems a very large and challenging task for IMIA. We will talk about that later. But here it might be said that, though the distinction is a bit artificial, it is here that IMIA may distinguish itself from TC4 as it concerns material content of its scope of activities. TC4 is born in the era where the advance of pure technology dictated our vision about the progress of civilization. In the long run this may still be the case, but in the last decade there appeared at least a synchronization lag: the advance of technology and its potential applications, and what was felt as progress in civilization according to human measure, were propelled forward at different speeds in different directions.

However difficult this transition might be for many of us, today and in the future this means for us the predominance of the information concept over the automation concept, and it is particularly here that IMIA will distinguish itself from TC4. The influence TC4 has had upon the education in medical informatics is not known. For the development of any field it is essential that the younger generations be properly instructed and given chances by the older generation in order that they can push further the borders of knowledge and experience. In fact, the oldest Working Group of TC4 is dealing with this activity, and has even published a booklet that may serve as a reference for anybody setting up an educational programme. The effect of this work has never been measured, however, but it is speaker's conviction that TC4's influence has not been what could have been done and what is actually needed.

It is here already that the limits of TC4's potential - and possibly this applies to IMIA as well - become visible. IFIP-TC4, and so IMIA to a large extent, are staffed by individuals who work on an absolutely voluntary basis. Of course these individuals expect some benefit from their efforts, and this potential reward should in some way balance the time and money spent by the individuals or their respective employers. As soon as the amount of time that has to be spent in order to achieve a goal set has to be measured in weeks or months a year, the load becomes too heavy and the required balance will not be reached. Thus there is a natural limit to what organizations like TC4 can achieve. What seems worthwhile, but not achievable by the



organization itself through mobilization of "its own" resources, it should do through other organizations that have the capacities. Consequently it is unrealistic to expect that TC4 pushed forward scientific borders. However, it should be possible to improve communication between scientists in the field - and in different fields -, and mobilize the international scientific community to serve as a stimulant and a critic.

However, in glancing through the Proceedings of Working Conferences, the kind of projects that are expected to "critically review the state-of-the-art in a particular specialty and report in a systematic way about the findings", it appears that the majority of contributions, though possibly very valuable in isolation, nonetheless are rather incompatible in combination. A systematic review is only occasionally presented, but in the majority of cases it is left to the reader to derive his/her own conclusions from the basic and diverse papers presented.

Though this criticism may seem hard, it is not really so, because here the critics themselves hold the ropes that pull IMIA in this or other direction. To summarize, it is our hope and wish that IMIA, more than TC4 did, will direct the efforts of collaborators to the systematic revising of scientific achievements, and in this way contribute in a more direct way to the education of both younger scientists, and of those who have managerial responsibilities and need to know essential data in order to direct their action in a well-founded way.

After this bird's eye view on the past, retrieving some aspects that pointed to the future, let us discuss some future IMIA policies with occasional references to the past.

IMIA and the nations

IMIA is based upon the medical informatics societies organized on a national scale. It follows the United Nations concerning the recognition of nations. Conversely, IMIA will only achieve its goals, when a great number of national organizations are members, and when it is these members' policy that their needs for international co-operation and communication are channelled through the IMIA. Although the IMIA should have a certain

autonomy in order to guarantee the continuity of the organization, its policies should be derived from the needs of its members, and these policies should be implemented largely through its member organizations.

When the IMIA policies will be implemented properly, it will turn out that there is a mutual dependence: IMIA will build upon the potential of its members, whereas the members can call upon IMIA to improve their own position and functioning.

IMIA and world regions

It is explicit IMIA policy that between the level of the national organizations for medical informatics and the global level essentially represented by IMIA, there shall be the intermediate level of the IMIA Regional Groups. The Regional Groups are considered an integral part in the IMIA structure. They may have been initiated outside IMIA and will then be welcomed cordially, and if not, they should be established by the relevant group of national societies from within IMIA. There are several reasons to promote the Regional Groups. First of all, although the importance of distance as a factor hindering communication has been deminished rapidly, it is still present, and particularly so for the nations that are not so rich. But even rich countries allow the existence of poor scientists, and so it is really a great draw-back for many people when they have to travel large distances in order to meet their colleagues.

Second, some areas in the world are highly industrialized, others are primarily rural, some contain poor countries and others the less poor, some are characterized by certain climatic or other environmental conditions, some contain nations with similar political and economic systems, and so on. All of these may be factors determining a certain coherence of a group of nations, in such a way that the area concerned may be called a region. The Regional Groups within IMIA shall organize some activities of their own, from their own. It is envisaged that such activity can be a yearly, or bi-annual or at least tri-annual general medical informatics conference (Medinfo-type), specifically geared to the needs of the professionals in the area and their

achievements. Smaller specialized conferences, dealing with problems peculiar to the area, should also be stimulated. The Regional Groups should in the future be represented in the highest executive of the IMIA. The present composition of the Executive Board, though not composed explicitly according to these principles, nonetheless shows a distribution of its members which can be considered a precursor to this regional representation in the very near future.

IMIA and developing countries

Informatics is invented by the developed, industrialized, and rich countries, and the more so is medical informatics.

It has become common in many circles linked with science and technology, to design programmes that take into consideration projects directed towards developing countries. TC4 was, and IMIA will be, no exception to this rule.

A few things IMIA should take in mind. Medical informatics and developed countries will differ from the same in developing countries. Looking at the membership list of IMIA one can doubt however, whether in this gremium the appropriate ideas can be generated in relation to the developing countries.

In any case it will be very necessary to consult representatives from those countries before a project is defined.

Developed countries differ on the level of technical and economical development among each other. A country like the Netherlands lays a few years behind the United States of America, but in Western Europe it is not in a bad position. The differences between the group of countries generally identified as "developing", are far greater, and for some, there is no question that they have reached a level comparable to countries considered developed.

So the distinction in two groups, though possibly useful in politics because of its simplicity, will not be adequate in the scientific, technical and economic contexts. Rather, from IMIA's point of view there is a quasi-continuum from highly developed to very undeveloped, from the technical point of view, that is. It is a very hard mental exercise for many of us informaticians to listen and try to understand the level and needs of other countries and people, instead of projecting problems onto them

which can then be solved by the developed men's solutions. But these conversations have to be engaged in, and undoubtedly all participants will benefit from them when conducted properly. As the techno-economic conditions in countries tend to be similar when these are geographically nearby, the regionalization of IMIA also allows groups of members to discuss problems they have in common, but that may differ from those of other groups. Against the background of the developed / developing scale, regionalization seems a very useful tool for IMIA.

Medical informatics, who are you?

In the previous monologue, reference was made to the technical and economic conditions of nations. It was implied and not said, that medical informatics may be of relevance to the day to day life of people, in other words, that it may be useful, it effects society. If medical informatics were a pure science, the relevance of it for society would at least be disputable.

In the sequence: biology, medicine, health care, every grade and shade of relevance for human well-being is present. The application of informatics to these areas will have equal relevance to society, of course.

It is not the intention of IMIA to leave out of the scope of its activities anything that might be an aspect of the yet only loosely defined area of medical informatics. This is a very ambitious statement indeed, but no doubt IMIA is the proper horse to carry this load. The last two decades have learnt, that the medical computer scientists and the medical informaticians thereafter, form a very strong and motivated group, willing to take on their shoulder any responsibility.

Undoubtedly, this was often accompanied by superficiality, lack of scrutiny and negligence of efficiency. This will improve, however, because of improved scientific management, while the high degree of motivation will be kept alive.

This dedication stems from the belief that informatics, if not the engine is at least the catalyst of very important renovations in the methodology of the biological sciences, in the analysis and treatment planning of diseases, and in the internal structure and the control of health care institutions and the health care

delivery organizations.

It has to do with the invention of information as a key-element in any natural or artificial structure, for any decision to be based upon reason rather than belief, and for the mental cohesion and co-ordination of the elements of the structure.

IMIA, IFIP and other international bodies

As TC4 was an internal element of IFIP, and the IMIA was a transformation of TC4 in a sub-organization having its own roots outside the IFIP-structure, a natural idea was to go another step further and loosen IMIA completely from IFIP. There are many practical reasons for not doing so. TC4 has grown inside IFIP, and so IMIA is linked with many ties, tangible and intangible, with the parent organization. Rupture would of course be possible but cause a lot of work to be done, and few people are really enjoying such idea. Essentially, as medical informatics is the application of informatics to biomedical research, medicine and health care institutions, IMIA must have very close links with both informatics as well as medical and health care societies.

One might speculate, that the IFIP will become, in addition to what it is today, a federation of informatics application associations. Within such a federation, IMIA will be a member most logically.

On the other hand, one might foresee a federation embracing the medical and/or paramedical associations. In fact an organization which comes very close to this idea is the CIOMS, the International Committee for the World Medical Societies. There is ample reason for IMIA to seek membership of the CIOMS, as this will provide IMIA access to the discussions about fundamental issues facing biomedicine and health care on the global level.

TC4 has maintained excellent and sometimes very deep connections with the World Medical Association, the International Hospital Federation, the International Electrotechnical Committee, and the International Federation for Medical and Biological Engineering. No doubt IMIA will continue to strengthen these relations, in particular where they can be given concrete form to joint projects. Co-operation with IMIA will be easier, when both IMIA and the



other party are representative on the global scale, and know no restrictions pertaining to race, religion, culture, political and economic system, and level of economic wealth and development. A few final words shall deal with the World Health Organization. WHO is a very honourable member of the United Nations Organization. It is trusted by the great majority of the countries, and its projects and representatives are treated with great respect. It is appreciated that IMIA, as a member of IFIP, is recognized as a non-governmental organization in official relation with WHO. From this base, this IMIA Board and its successors will continue to seek ways to make the relationship with WHO fruitful for the improvement, of the health of the world population, in particular to those people who are deprived of what may be called a decent level of health care , and so a decent level of life.
