

## **Integrated information management in a veterinary institution : a case study at the Onderstepoort Veterinary Institute, South Africa**

David A Swanepoel

Onderstepoort Veterinary Institute, P Bag X05, ZA-0110 Onderstepoort, SOUTH AFRICA

Phone +27 (0)12 529 9279, Fax: +27 (0)12 529 9282 or +27 (0)12 565 6573,

E-mail: [david@moon.oivi.ac.za](mailto:david@moon.oivi.ac.za)

**Keywords:** information management, information audit, information services - co-ordination

### Historical overview

Over the years several organisational divisions emerged which in some way were involved in the creating, processing and dissemination of information. Onderstepoort evolved from a small, rather informal establishment to the four interdependent but otherwise independent units it is today.

Arnold Theiler, the founder of Onderstepoort, initially obtained books, reports and journals through the mediation of his father and brother (1, p. 73). Since Onderstepoort was a civil service establishment, records had to be kept of correspondence. Sadly, the earlier archives had been lost (1, p. 405).

The first mention of a person dedicated to the care of information materials was in 1908 when the establishment moved from the former quarters of Daspoort to Onderstepoort. This person took care of the "library" and "stock records" (2, p. 11).

By 1912 there was a dedicated budget for a library service, supplied by the Government of the Union of South Africa. For the first time there is also a mention of a specific room for the collection - although it was only a row of shelves in the conference room.

In the early pioneer days Theiler's wife, Emma, unselfishly took care of his laboratory records. In the later years, when he was an established person, she kept an inventory of his publications.

For many years the organisational structure of the institute underwent little change. A major event was when the teaching function became independent. Henceforth the major function of the institute, I am now employed at, was research, and mainly into disease aspects like microbiology, parasitology and chemically related disorders (toxicology). A study of the organisational structure of the institute, such as at its 50<sup>th</sup> and 75<sup>th</sup> birthdays, reveals no mention of the recognition of information as an important function as in a dedicated component (3, 4). Although we know that the library existed since the 1890's, it is not even mentioned.

However, several organisational divisions existed which in some way were involved in the creating, processing and dissemination of information. Apart from informal liaison, most functioned independently. In the late 1980's a division of Information Management was

created comprising of the library, audio-visual services, diagnostic information, technical statutory advice, computer centre and public relations. Under a dynamic head of division, movements towards the integration of information services were made, but when he left, this division simply became a loose group of sections reporting to one head. However, under the direction of the said head of division the set-up was still far from how information management is described in the literature (e g 5).

In 1992 the former Veterinary Research Institute was split up into three business units. It was felt that the bureaucratic system of the Civil Service was no longer suitable to serve the agricultural industry of South Africa. Like other scientific disciplines, it became too expensive to maintain large taxpayer supplied budgets for facilities and human resources, while the establishments had the potential to generate income.

The Civil Service owned several research institutes and divisions, whose directors reported to officials, in what was in 1992 called the Department of Agricultural Development. The function of agriculture had been split up, merged, reorganised and renamed a number of times, mainly due to influences of politics. To describe all this will deserve a paper of its own. The Agricultural Research Council was established in 1992 comprising of all the former research institutes and one division of the Department. Reorganisation of components also took place thereafter and still continues.

The three business units formerly mentioned are:

- *Onderstepoort Veterinary Institute*, which function is to conduct research on diseases of economic importance. An important side function is diagnostics. Reference diagnostics of specialised cases are done, as well as routine diagnostics for the Gauteng Province, which never established its own regional diagnostic laboratory, as Onderstepoort is situated in this region and performed this function as a civil service component. A third and rather new function was the development of commercially viable products, like diagnostic kits.
- *Onderstepoort Biological Products* (since 1994) which manufacture vaccines and other biological products. This is presently still a business unit within the (presently called) National Department of Agriculture (NDA) although an in depth look is presently conducted into its organisational form.
- *Onderstepoort Institute for Exotic Diseases*, which essentially is a high-security laboratory. This causes it to be a clone of the other components. The cost of maintaining heavy engineering plant to ensure that the viruses do not escape resulted in a different contract of the ARC with the NDA. Practicalities in the daily running of it, made it to a separate unit with its own director.

One consequence of the direction of a parastatal organisation, the Agricultural Research Council was the implementation of a "flat" organisational structure as opposed to the pyramid of the former civil service. Information Management was one of the divisions to be completely split up again, all section heads now reporting directly to the Deputy Director: Research Support. The little co-ordination that existed between the information divisions was lost again.

Although it was decided that the library of the OVI would serve the other two institutions, with respect to other information functions, it will be independent issues. The rest of the paper will therefore continue only with the OVI as subject.

### Developments at Onderstepoort Veterinary Institute

A new mission statement for the parastatalized OVI was written. At present it reads as follows:

The promotion of animal health through:

- research on animal diseases and their vectors
- development of vaccines and diagnostic techniques
- diagnostic services
- technology transfer

The fact that considerable amounts of income now have to be generated by us created many challenges. Although we are still government supported and a non-profit organisation, in most respects we have to run the institute like a business. We had to steer away completely from the bureaucratic way of thinking.

One positive consequence was that the information function became more important. Suddenly it was realised that information on clients and other role-players had to be available. On the other hand, it is also clear that information is an important product of the research activities. I hesitate to even call it a side product, if you consider vaccines and diagnostic reagents as the products mentioned in the mission statement. Eventually the research process results in the creation of information. That information is actually the "technology" in the last line of the mission statement, the process of technology transfer.

In 1996 a business group was created. This is a fairly new concept in the organisational structure of the institute. People and divisions located on different parts of the institute and which may report to different supervisors, work together towards common goals. This is in line with modern international developments, i.e. functions like a network. It is obvious that most of the old Information Management sections found themselves in the group. The library manager acts as information services co-ordinator. This is a position I had actually been performing for quite a while.

Matters relating to the publications of the OVI had always been forwarded to me. There is no single publication department at the OVI. Claims and legal deposit administration were always sent to me by the mail registry, sometimes due to ignorance, sometimes in valid cases where a problem needed analysis. Since the editor of our journal the Onderstepoort Journal of Veterinary Research, had always been the Director himself, he usually has no time to handle administrative matters. The type of reference enquiries the library received often resulted in the consulting of local and national archives. Liaison with institutions to obtain information (transferred orally or by referrals) lead to the blurring of the borders between the Public Relations division and us. The library was once asked to conduct a survey of the internally produced audio-visual materials (mainly slides) and internally created databases. Entries in

directories of all kind, like fax directories, address directories, serials directories etc were and still are our responsibility as nobody else seems to include it in their job description. I was also appointed on the museum and computer committees.

Activities like the above-mentioned may often be found in other institution's libraries as well.

### Information management and auditing

These above-mentioned functions mainly relate to publication management. Information management is still a way off in terms of the models of de Bruin (5) and others. Vickers cautions: "With information management, many people focus on the information and forget the management. Some of information management's keenest protagonists are at times its worst enemies in this respect. To make matters worse, many librarians, information scientists, and documentalists are eagerly adopting the title "information manager" on the assumption that it will ensure them greater status than their previous job titles did" (6, p. 70). Although various models were tried, there is still no real co-ordination of information affairs, not to speak of an information management plan.

The solution for this is called the information audit. An audit is a process for studying, discovering, monitoring and evaluating something (7, p. 215). The difference between audit and survey lies mostly in the last term, e g evaluating. The audit should determine the value of information assets, and evaluate the efficiency of the operations concerning information. The audit should determine these entities, assets and operations, support the objectives of the organisation. To put it another way, does it eventually contribute to the attainment of the mission of the institute.

The conducting of such a study is no small task, unless you have a very small organisation. The OVI consists of about 400 staff members, an entire campus of buildings and many facilities. The people who have to conduct the audit, i e the information services co-ordinator and his own support staff, are still responsible for the daily running of the library which is some day days a challenge in itself. It will therefore either have to be contracted out, or have to fit in during the daily tasks. Budgeting to contract an external consultant would be difficult and would consume a lot of energy. I decided to do it myself, thereby providing growth in personal career development. However, the plan of action will concentrate on the reaching of milestones, but not so much within time frames. Therefore a thorough job will eventually be ensured rather than the "quick and dirty" approach.

The main proponents of this technique are F Burk and F W Horton (8). Like in the SA study by Lubbe, (9) the Burk-Horton approach is adjusted.

The main methodology consists of:

1. Analysing the mission and objectives of the institute, including the different operational divisions.
2. Describing the structures and environment in which the information assets operate.
3. Conduct a survey of the information assets the institute possess and utilise. It will therefore list both internal and external assets, as a financial layout is made for the utilisation of external information.
4. Determine the medium of the asset, who are the people involved, i.e. the people managing or supplying such an asset, as well as the users.
5. Determine the value and appraisal for the assets as assessed by the manager as well as the users thereof.
6. Determine the capital and operating expenses of information assets.
7. Write and submit a report on this to the senior management of the institute, including recommendations for the improvement of the set-up. Such a report can take the form of an information management plan, or it can suggest the creation of one, for which further official approval is sought. In all cases for such large projects approval and commitment from senior management and even lower level managers are essential.

### Progress

Stage one has been completed. This is actually a relatively easy task as most of the information can be obtained from the Business Plan of the institute that is issued annually, while the rest can be derived from the OVI WWW home page. The annual report of the institute also helps, although it usually reflects a historical view.

Step two is in progress. From step one, the following organisational division and subdivision of functions concerned with information were identified:

- *Archives*  
Closed-off archives, from which historical research can already be done, as well as current correspondence files. There are also several photographic collections.
- *Computer Centre*  
This division manages the local area network, all computers and peripherals, therefore a vast financial investment in capital equipment. It also hosts the World-Wide-Web facility and provides Internet support
- *Diagnostic Information*  
An officer (a trained veterinarian) evaluates all the results of diagnostic tests and recommends steps to prevent further outbreaks of the disease. This officer also handles all ad hoc scientific enquiries.
- *Finances Division*  
This division maintains the corporate financial information system, ARCFIN. It also maintains a register of all tangible assets (capital equipment, furniture etc).
- *Library*  
Services include computerised and manual reference services, and document delivery by way of maintaining an own stock of journals and books, from which can be copied or borrowed, as well as making use of inter-lending facilities nationally and internationally. We strive to contribute to improved decision making, problem solving and innovation.

- *Marketing*  
Information projects of this division includes maintaining registers of clients, donor organisations, who can assist in projects on behalf of developing communities and an expertise register. Together with the asset register it would eventually be developed into a capability register.
- *Molecular handling facility*  
This provides access to mainly commercial and co-operative databases of non-bibliographical nature.
- *Museums*  
This consists of a historical museum, an open-air museum (also historical), a popular museum of displays of diseased organs, insects etc; also called the "Information Centre", a reference museum of the Pathology division and divisional reference specimen collections.
- *Management Information*  
This division supports the Senior Management inter alia with regard to processing information from the finances and asset registers, the identification of research projects, the compilation of the annual business plan and the register of current publications (mainly scientific journal articles).
- *Technology Transfer*  
This division arranges courses and conferences, attends and exhibits at agricultural shows, compile the Institute's annual report (including list of scientific articles) and also write or arrange popular articles in agricultural and related magazines.

Often the functions between the different divisions are not exactly defined. The nature of the division between some functions will of necessity be blurred.

The divisions of Marketing and Technology Transfer co-operate closely together and are housed in the same building. Both have to do with the promotion and transfer of our scientific capabilities. One tries to market the capabilities to customers, while the other disseminates what already has been accomplished. The management support unit draws from the financial system. The diagnostic information facility was previously part of the Public Relations (PR) division. For practical purposes the former was made a part of the diagnostic programme (within the Division of Pathology) but the responsible officer still co-operates with PR and her title is "Scientific Public Relations Officer". In the same vein the officers at the Technology Transfer division's post description is that of Public Relations Officer. They therefore conduct yet another aspect of the institute's PR work.

Eventually all this may seem chaotic. It is not necessarily the case, but co-ordination and sound management of all these can increase performance and cut on costs. An estimated 30 persons are directly involved in these functions. Their total remuneration packages will run into a few million Rands. They use expensive capital assets like computers and fax machines and consume other resources. Only a detailed information audit will establish the exact amount.

## Conclusion

In the introduction it was mentioned that the information function was rated only fair in the institute. Although it improved after commercialisation, it is not yet at the level it should be. Two other major resources, finances and human resources, are on a higher level. The managers of those two divisions are members of the Senior Management. In my view they have a rather co-ordinating role, as the Financial manager does not manage the budgets of each division and the Personnel manager does not supervise the staff of these divisions. The same principle can be applied to the information manager. A post should be created at the same level. However for that, a sound base of principles should be available. This should involve:

- an information policy
- an information management plan and even enforceable regulations if this is necessary for the sound operations of this resource, as this is the case with finances and human resources.

It can be seen that the process has just started at the Onderstepoort Veterinary Institute. A lot of work still has to be done.

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