IMARK

**Module
Investing in Information for Development**

Information Access

Lesson 1: Introduction to Information Access

Learner Notes

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This lesson is part of the IMARK Module on "Investing in Information for Development". The Module contains six units. The unit on "Information Access" comprises five lessons:

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This course is available in self-paced e-learning format on CD-ROM and the Internet (www.imarkgroup.org).

Learning objectives

At the end of this lesson, you will be able to:

- acknowledge the need for the development of an Information Access Plan;

- describe the main features of information as a commodity.

Introduction

Today, information access is a more complex issue than it was in the past.

"Access" in this context is taken to mean:

(a) **acquisition** from external sources; and
(b) **mobilization** from internal sources.

Before the introduction of new Information Technologies (IT), two of the most important means of acquiring information were purchasing books and subscribing to scientific journals.

Today, however, more and more organizations are moving from printed to electronic media, and the Internet has introduced new ways of accessing information from any source.

How do these new conditions influence the decisions a manager has to make regarding access to all types of information?

Let's look at an example.

The need for an Information Access plan

Yelena is a young director of research in an agricultural organization based in Brazil.

She has been working there for the past five years, and has seen the beginnings of a move from print to electronic media. At the time of her arrival, the library in her organization did not have many books or journals. If someone from the organization wanted to find something, the library could not have been of much help.

But about three years ago, the organization received a large government grant, some of which was provided to the library, and investments could be made.

Yelena tells us what kind of decisions she had to make then:

We decided which books the library would buy, to which journals it would subscribe, and how much it would spend on these acquisitions…
We thought about the time the organization could spend teaching people how to use the library…We decided how much time library staff could spend classifying these materials for easy retrieval… and about maintaining personal contacts with peers elsewhere.
*We had to think about **external** acquisitions, but also about keeping track of our **internal** information, so that we could locate it when we needed it…Furthermore, now that more information was available in digital formats, mostly via the Internet and on CD-ROMs, we had to make decisions on other issues as well:*

- *where to acquire this "new" information;*
- *how to move from an emphasis on ownership of traditional printed journals to improved access to electronic journals;*
- *how to train our scientific and administrative colleagues to help them use a new "digitalized" library;*
- *how to organize our internal documents and records so that we can retrieve and use what we already have…*

From Yelena's example, we can see that good information access requires planning. The basis for such planning is an organization-wide **Information Access Plan**.

An access plan is likely to occur in **three phases**:

1. **assessment of information needs** (for both the organization as a whole and for the individuals who work in it);

2. **consensus on the formats** of information best suited to meet these needs (books, hardcopy journals, electronic journals, CD-ROMs, the Internet);

3. **analysis of where and how to acquire required information** in the preferred formats.

Information as a commodity

One consideration will be most important throughout the planning process:
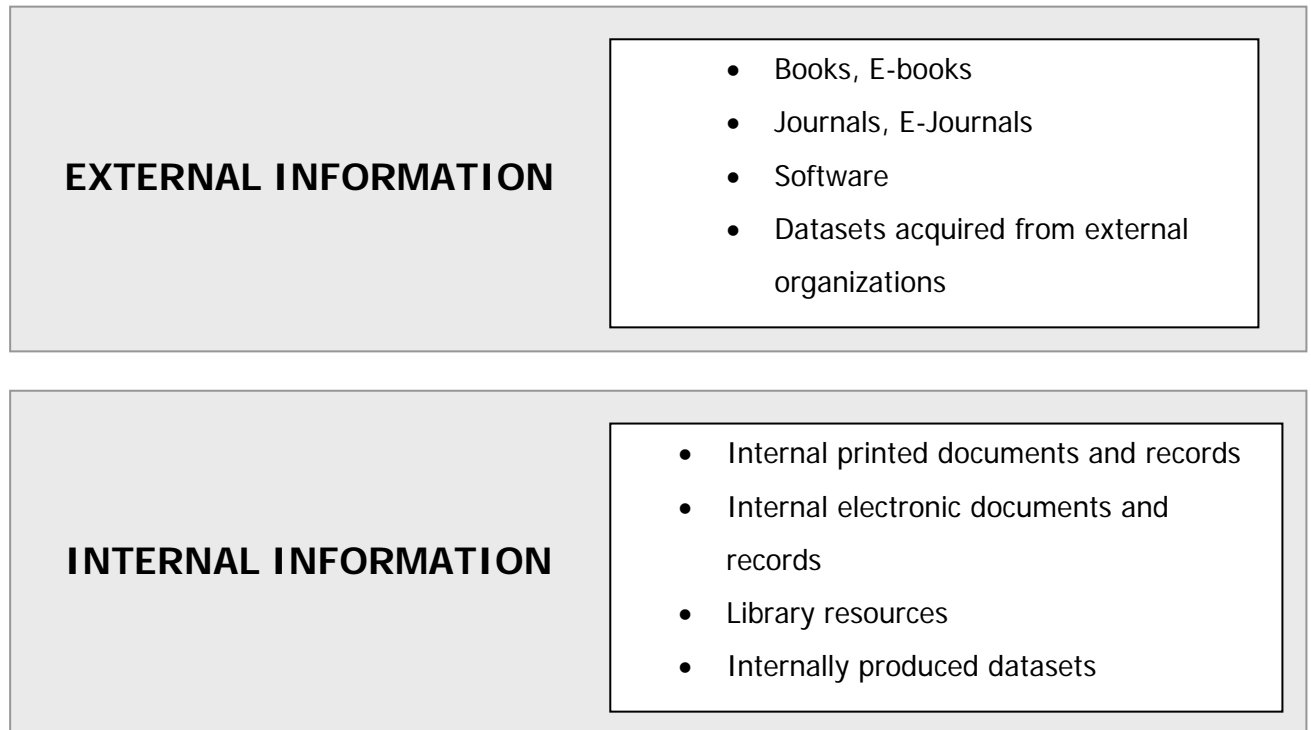
> **Information often comes with a price**

This issue obviously applies to the purchase and licensing of books, journals, CD-ROMs and Internet access. But it can also apply to the acquisition of information through personal channels.

For most professionals, personal communication has always been one of the most important sources of information. But the Internet has dramatically changed the way personal networks of contacts operate. Now many scientists, teachers and managers have email, electronic discussion groups and other types of digital communities.

All such networks cost money. The price for acquiring information through personal channels comes in the **resources** invested in new technologies, as well as in the **time** that professionals spend to maintain and benefit from their contacts.

If information is a "good" in the economic sense, then there is a **market** for it.

For clarity, we will distinguish between **two different** kinds of markets:

EXTERNAL INFORMATION	• Books, E-books • Journals, E-Journals • Software • Datasets acquired from external organizations

INTERNAL INFORMATION	• Internal printed documents and records • Internal electronic documents and records • Library resources • Internally produced datasets

Later, we will look at these markets in more detail.

Four features of information as a commodity

In an information market, in order to find a balance between acquisition costs and benefits, we must consider four special features of information as a commodity:

1. Relevance	2. Timeliness	3. Ownership	4. Long-term Usability

1. **Relevance of information**

We usually pay for selection of information as well as for information itself. A prominent scientific journal may reject up to 80% of articles submitted. When we subscribe, therefore, we are paying not only for the remaining 20%, but also for the selection service that the journal has provided.

Scientific organizations are usually willing to pay for such filtered information. Their assumption is that the most expensive journals have selected the most important articles. And they know that information that is relevant for one user may not be relevant for another.

How does the new digital environment affect our own process of selecting information?

In a digital environment, we face an increased danger of "information overload". But we can use **three types of resources** to improve our own information selection:

- **Internal alerting services**
  Librarians can assist users by preparing summaries of new resources and distributing them either in hardcopy or via email.

- **Publishers' alerting services**
  Many commercial publishers send out alerting bulletins by email containing the tables of contents of their latest journals, and other types of publishers offer similar products. Often, users can specify a profile that customizes the service to meet their particular subject interests.

- **Subject-oriented portals**
  When we use the Internet, we can use subject-specific portals instead of generic search engines.

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2. Timeliness of information

Another decisive factor when acquiring information is its relevance in time. In fact, relevance of information – and the price that one is prepared to pay for it – may depend on the moment that the user can access it. For example, farmers selling their products are interested in today's prices on different markets, but not in yesterday's prices.

On the other hand, economic researchers may be interested in longer time series of market prices, so timeliness is not as important.

The issue of how current information is will affect its market price: up-to-date information will almost always cost more than out-of-date information.

> **How has the new digital environment affected our thinking about the timeliness of information?**
>
> The timeliness and currency of information are perhaps even more important in a digital environment than they were in a hardcopy one. Most web sites are not updated regularly, and users must check carefully that the information they are accessing is still current.

3. Ownership of information

In a printed environment, the issue of ownership of information was easier. But the move to a digital environment has introduced at least two new challenges:

- **Intellectual property rights**

  In an electronic environment, it has become simpler to copy, distribute and reuse information. However, information providers often regard such practices as illegal. Part of an Information Access Plan should therefore be agreement with providers on the terms and conditions for information use (and re-use).

- **Access**

  In an Internet environment, many organizations are prepared to pay for access to a digital version of an information product rather than ownership of a printed version of the same product.

What happens when an organization stops a subscription to an electronic information resource (for example, a journal)? Does it still have access to back issues?

If your library cancels a subscription to a printed journal, users will still be able to read back issues that have been received. But if the library cancels a subscription to an electronic journal, the publisher may cancel the organization's password and users will not be able to access back issues.

In practice, when your library moves from a printed to a digital version of the same journal, the publisher may offer electronic access to only three or four years of back issues (such an arrangement is usually called a "moving wall"). The problem is that a gap may develop between the printed issues that you have on hand and your access to electronic ones.

For instance, if your library changes from a printed to an electronic subscription in 2005, and the publisher offers rights to three years of back electronic issues, you will be fine until 2008. But in 2009, you will no longer have access to issues from 2006, the three-year wall will move, and the gap will become increasingly wider. If your users need to have access to back information over a longer period, there will be a problem.

What is the solution? As a manager, you should make sure that the publisher offers you a contract that ensures rights to back issues from a certain year onwards, to avoid such a gap.

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4. **Long-term usability of information**

The question here is: will the information that you are buying or licensing today still be accessible in ten or even twenty years? Let's compare the hardcopy and digital situations.

- **Information in hardcopy**

  The only real problem with paper is storage costs.

  Paper is actually a wonderful and time-tested storage medium, and if an organization treats its hardcopy resources well, they can last for centuries and still be read.

- **Information in digital formats**

  The problem here is obsolescence. If the hardware and/or software on which our information exists becomes out –of date or is discontinued, how will we access our material?

What can an organization do to ensure the long-term usability of digital information?

Many information providers publish products and services that require specific hardware platforms and specific software. Given the speed at which the Information Technology world is changing, it is probable that some of these hardware platforms and software will not be usable in ten or twenty years.
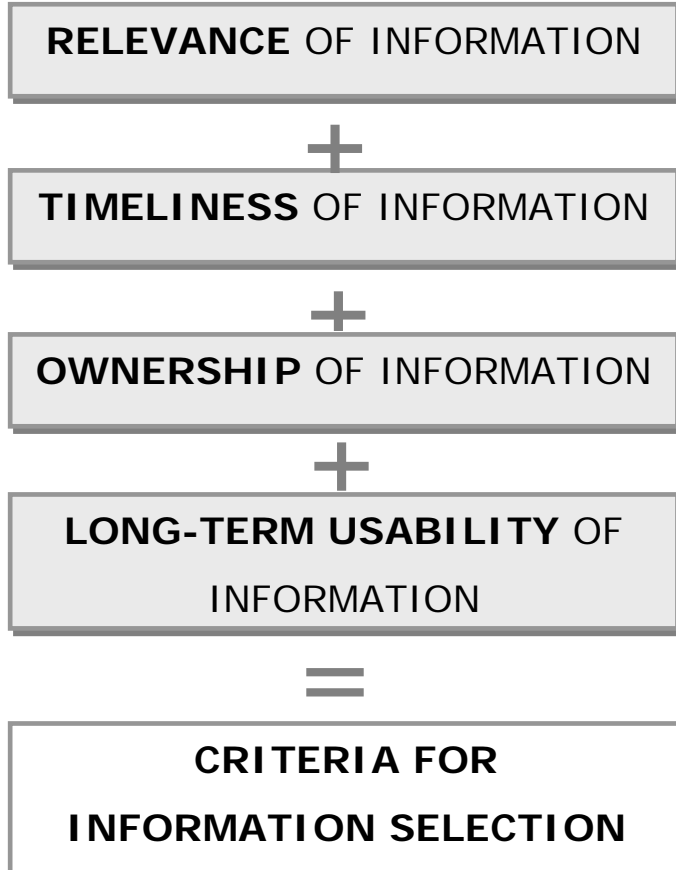
What's the solution? What choices does a manager have?

The easy answer is that the Information Access Plan for any organization should include a section on **data preservation**. The organization can try to decide which data it is likely to need in ten, or twenty, or fifty years, and then make plans to store it in formats that do not depend on proprietary software.

Fortunately, technical solutions are now being developed by consortia of publishers, software vendors and Internet practitioners. Publishers have been using a non-proprietary storage format for documents for more then ten years ("SGML"), and this format has now been simplified ("XML") to be applicable to both datasets and documents.

Conclusions

RELEVANCE OF INFORMATION

+

TIMELINESS OF INFORMATION

+

OWNERSHIP OF INFORMATION

+

LONG-TERM USABILITY OF INFORMATION

=

CRITERIA FOR INFORMATION SELECTION

As your organization develops its Information Access Plan, it will need to think of information as a **commodity**. And it will need to think of the policy and management implications of each of these four features of information. One of the advantages of such a framework is that it can assist a manager in analysing whether the benefits of acquiring certain types of information outweigh the costs – or vice versa.

Summary

Information Access today is a more complex issue than it was in the past.

Accessing information requires making a set of inter-related strategic, policy and planning decisions. This means that it is important for an organization to have an Information Access Plan.

Developing such an Information Access Plan will require an assessment of information needs, agreement on the formats of information best suited to meet those needs, and analysis of where and how to acquire required information.

One of the underlying assumptions in the Plan will be that information is a commodity with a market price.

Four features of information that will most likely figure in the Plan will be:

- Relevance
- Timeliness
- Ownership
- Long-term Usability