

National agricultural information management system in Nigeria: a conceptual framework

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Keywords

Agriculture, Information management, Information systems, Nigeria

Abstract

The paper reviews the state of agricultural literature control in Nigeria. The problems of data inconsistencies, scarcity of relevant information and dilemmas faced by policy makers, planners and agriculturists are described. The paper reveals that foreign-based bibliographical services do not adequately cover literature emanating from the country. A conceptual framework for the evolution of a national agricultural information management system will involve a functional integration of all agencies and individuals involved in the production, processing, provision, and utilisation of agricultural information. Critical decisions and actions that will enhance the evolution process include a commissioned inventorization of all grey literature and agricultural information resources at both Federal and State Agriculture Ministries, a systematic documentation of resources in the research and academic institutions and, the exploitation of the awesome capabilities of information technology in harnessing a nation's rich information heritage.

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Introduction

Most developing countries are faced with a crisis of efficient information resource management. The ongoing information explosion and the extensive use of information technology in industrial economies contrasts sharply with the information poverty of developing countries (Hann, 1991). He further observed that developing countries (their policy makers, managers, knowledge workers, entrepreneurs) face problems in acquiring, retrieving, processing and disseminating various types of information. In Nigeria, development planners, policy makers and researchers are handicapped by insufficient or simply unavailable data and information to facilitate the planning, policy formulation and research processes. Kalu (1986) observed that the achievement of optimal results in the formulation and implementation of development plans in Nigeria has been constrained by scarcity of reliable statistics, data and information. Where these are available, there is the problem of "data confusion" to contend with. Comparing agricultural data from different sources, Idachaba (1985) insists that the problem of agricultural data must be solved in the fifth plan period if meaningful progress is to be made in agricultural planning. According to him, different sources produce different estimates for the same crop and time period. In the case of the Central Bank of Nigeria and the Federal Office of Statistics, as sources of rice production data for Nigeria, there is almost perfect conflict or inconsistency.

In a research study, Aiyepoku (1989) contends that:

Until specific audiences within the developing countries are identified and the information needs of each are ascertained, efforts at designing effective information systems will continue to be governed by the finding agencies, researchers and the priorities of information specialists rather than being a reflection of the identifiable information needs of the users in those countries.

Significantly the study revealed that:

- Policy makers in Nigeria need maximum information support at the planning stage in a multi-phased linear progression of their tasks and responsibilities: idea formulation/rejection-planning-execution/monitoring-evaluation.
- A clear definition of national planning objectives significantly enhances the

utilisation of hard information both at the planning and execution phase.

- Policymakers consider the availability and timeliness of information as the most crucial quality consideration in information service provision.
- Policymakers themselves are aware of their inadequate background and training in information recognition and use in policy analysis.
- The more an arm of the Federal Civil Service is involved in co-ordinating, controlling or supervising the functions of other agencies in the public service generally, the more it will require accurate capsule-type and jargon-free information than others.

Aiyepoku (1992) therefore counsels that:

... no country can continue to neglect substantial and sustained investment in the provision of hard information and at the same time try to evolve an equitable, national development strategy.

For agricultural development programming and research, the consequences of data or information inadequacy include reinventing the wheel, reduced innovation, retardation in the march to self-sufficiency in food and fibre production, and planning, monitoring and evaluation without data or information support systems. It is questionable whether any nation can control the trend of its food and fibre production if that country fails to make agricultural information control a national mandate. A national agricultural information management system could play a leading role in the co-ordination of the agricultural information output of a nation.

Co-ordination of the national agriculture literature

A nation's agricultural literature is the sum total of literature produced by that nation's agricultural agencies and institutions. It is also the agricultural information produced about it and for it. For Nigeria, it represents every information resource produced by the nation's agricultural agencies – whether government ministries, departments, specialised units, research institutes, universities, private farmers, workshops, seminars and professional associations. It also consists of those produced about, or for Nigeria – within or outside the country.

Elder's (1988) study shows that fugitive or grey literature presents two difficulties – first is becoming aware of its existence and second, how to acquire it. Her study further revealed that estimates on world-wide output of this type of material can be as high as 200,000 items per year. Moreover, a high percentage of agricultural materials produced in developing countries falls into this category. For a relatively large but developing country like Nigeria with 36 states, multiple Ministries of Agriculture, three agricultural universities, 37 World Bank-assisted Agricultural Developments Projects, 11 River Basin Development Authorities, 16 research institutes, many faculties of agriculture in both Federal and State universities, and so forth, the control of the nation's agricultural literature output presents many challenges.

The first is identifying which literature is qualified for inclusion in or coverage by a national agricultural information management system (NAIMS). The answer that such a literature must be "agricultural" is rather simplistic. This is because of the fact that agriculture is not only a discipline but also a domain of human activity that draws information input from all fields of human knowledge and endeavour. The result of this multidisciplinary or interdisciplinary nature of agriculture is that information on it could be drawn from pure and applied sciences, the social sciences, medicine and the arts. Thus a title like: "The guinea worm problems of Nigerian yam farmers in Enugu State" by the Federal Ministry of Health would qualify for inclusion in NAIMS database.

Another challenge which follows the multidisciplinary nature of agriculture and which can be seen in the hypothetical example of the Federal Ministry of Health publication given above, is the diversity of sources of agricultural literature. A crucial step in the evolution of NAIMS is to identify agricultural information producers, and the nature, frequency, originality and reliability of the information produced. Presently in Nigeria, there exists no such identification service. This brings in another challenge to NAIMS as far as the contribution of agriculture literature is concerned. This challenge is the point of emphasis below.

Nigeria and other developing nations cannot depend on foreign agricultural information services to control their agricultural literature. That they have not

been effective in doing so is well-documented in studies by Ibekwe and Azubuike (1988) and Aina (1987). They studied the control of Nigeria's agricultural literature by four major abstracting and indexing service. Their study focused on *Agrindex* published by the Food and Agriculture Organisation (FAO) of the United Nations, *Abstracts of Tropical Agriculture (ATA)* by the Royal Tropical Institute, Amsterdam, *Bibliography of Agriculture (BA)* by Oryx Press, Phoenix, Arizona and *Science Citation Index* by the Institute of Scientific Information (ISI). Table I shows the coverage of Nigerian agricultural literature by the four foreign indexing/abstracting services.

The authors observed that:

- In general, the indexes have a poor coverage of materials published in Nigeria.
- Actual numbers of journals and books rather than articles and contributions in books in a particular year are covered by the indexes.
- The *Bibliography of Agriculture* got its 117 entries published in Nigeria from only three conference proceedings and two journals.
- For the two years in question the *Science Citation Index (SCI)* and *Agrindex* did not cite any material published in Nigeria. Also the *SCI* since 1970 has never included any Nigerian agricultural or related publication as a source item.

It might be necessary to clarify the status of Nigeria's poor participation in and contribution to AGRIS since what is published in *Agrindex* is often a reflection of what is submitted by the participating nation(s). A search of AGRIS CDROMs between 1975 and 1997 shows that Nigeria's input has been disappointingly small as shown in Table II.

A combination of factors could account for this abysmal contribution of Nigeria to AGRIS. These factors are quite applicable to

Table II Nigeria's input to AGRIS (1975-1997)

Years	Input	Average per year	Specific observation
1975-1984	348	35	No input in 1979 and 1982-1987
1985-1994	266	27	No input in 1991 and 1993
1995-1997	89	29	No input in 1997
Total	703	30	

most developing countries. First, political instability characterised all the years when no input was made to AGRIS. For example, 1979 was a transition year from 13 years of military dictatorship to civilian democracy. Election campaigns, coups and counter coups characterised the period of 1982-1987 when no input was made to AGRIS. The country relapsed into the worst military dictatorship between 1984 and 1998. Second, and closely related to the above factor are frequent changes in national policy direction. To meet the political expediency of the moments, various national leaders have often created policy confusion by creating new ministries and departments only for these to be merged or demerged by successive administration. For instance, when AGRIS started operation in Nigeria, the co-ordinating unit was (as is still) in the Promotion Department of the Federal Ministry of Science and Technology. Today, most agricultural research institutions that should make input into AGRIS are responsible to the Agricultural Sciences Department of the Federal Ministry of Agriculture and Natural Resources.

A third factor that should be mentioned is the issue of sustainability of internationally funded and initiated programs. When AGRIS commenced operation in Nigeria and elsewhere (especially in developing nations), the Food and Agriculture Organisation provided the initial takeoff grants. Consequently, participating institutes in Nigeria, were able to engage desk officers for data input from their institutes. However, with the introduction of economic austerity

Table I Coverage of Nigerian agricultural literature by four foreign indexing/abstracting services (1985-1986)

Service	1985	1986	1985+1986	Entries published in Nigeria (%)
<i>Science Citation Index</i>	356	368	724	0
<i>Bibliography of Agriculture</i>	–	553	553	20
<i>Agrindex</i>	196	113	309	0
<i>Abstracts of Tropical Agriculture</i>	130	120	250	16

Source: Ibekwe and Azubuike (1988, p. 58)

measures and decline in international funding, many of the participating institutions in Nigeria cut their staff strength and functions. Like in the International Institute of Tropical Agriculture, Ibadan, the staff rationalization affected the AGRIS desk officer and the contribution of this vital institute to AGRIS has remained negligible since then.

It is important to note that no specific previous attempts have been initiated to index Nigerian agricultural literature as done in the USA by AGRICOLA. Neither the publishing of the *Nigeria Periodical Index* by the Committee of University Librarians of Nigerian Universities or the National Agricultural Data Bank involved a co-coordinated effort at indexing the nation's diverse agricultural literature.

The observed poor coverage of agricultural literature published in Nigeria by the above services does not render them irrelevant as far as the documentation of Nigerian agricultural literature is concerned. It rather introduces another challenge, which NAIMS must face the universality of agricultural literature. Since agricultural literature is of international significance, the coverage of Nigerian agricultural literature published outside the country by these information services, shows that NAIMS must look beyond the frontiers of Nigeria to locate and include information resources that are relevant to agricultural production effort.

The national system must be linked to international agricultural information systems like the Centre for Agricultural and Biosciences International (CABI), AGRICOLA, AGRIS amongst others. What then are the key concepts of a national information system? The focus of the section that follows below is on the clarification of key concepts of NAIMS.

NAIMS: conceptual issues

Broadbent (1982) provides a functional definition of the mission of a national information system. It plans and co-ordinates national information and ties it up with research and development (R&D) institutes, specialists and pertinent organisations abroad to provide relevant services to users in a country.

An information system, which can be a module of national information system, does not necessarily mean a computer or electronic data processing facility. The remarkable advances in information technology have increasingly made most information systems computer-oriented. An information system is "anything" that delivers information that is useful to the consumer or to the user of the system (Aiyepoku, 1992). The reliability, quality and usefulness of information from the system will depend on the reliability, quality and value of the information the system had received as inputs. An information management system evolves when a system is designed "so that specific data will be transformed into information for operational and control purposes and be further refined to service to management process" (Hurtubise, 1984). He further observed that "viewed from its most elementary state, the management information system is a process which transforms data into information. Viewed from its most evolved state, it is a process that allows for an informed decision" (Hurtubise, 1984).

There are two other networking concepts that have implications for a national information management system. First is the information network, which Broadbent (1982) sees as a system that effectively integrates institution like libraries, documentation centres, information centres and analysis centres into a co-ordinated whole to provide a community of users with relevant data irrespective of its origin, format or physical location. It may be mission or subject oriented. A national information network on the other hand co-ordinates the information facilities of a country.

Implications for a NAIMS

First, a national agricultural information management system in Nigeria and indeed any other developing country must be mission-oriented. The effective management of the national agricultural literature, and other information resources must be the operational objective of a national agricultural information management system. Second, and functionally, planning and co-ordination of the nation's agricultural information resources and services have to be addressed. Third, the national agricultural information

management system should evolve linkages between the national information pool and the R&D institutions within and outside the country. A fourth implication is the vital role as an information clearinghouse on the nation's agricultural development.

Network aspects

The above functional responsibilities can be carried out by the effective networking of agricultural information producers, information providers and information consumers. In Nigeria, the key links in the agricultural information producers-provider-consumer chains include:

- All departments in the Federal Ministries of Agriculture and Natural Resources;
- private farmers and companies, and similar;
- State Ministries of Agriculture;
- specialized agencies at both federal and state levels; and
- research and academic institutions providers.

The conceptual framework suggested in Figure 1 is an attempt to integrate the above into network relationships as either information producers, providers or users.

Explanation of the network concepts

The categorisation of organisations in the framework is based on two factors:

- (1) the functional or administrative relationships already existing between them; and
- (2) the ease with which the systematisation of information input into NAIMS could be done.

The Federal Ministries node

To contribute effectively to NAIMS, each department and its offices collect all publications and information resources acquired or produced as data input into NAIMS.

The specialised agencies node

Key agencies here includes the Project Coordinating Unit (PCU), the Agricultural Projects Monitoring and Evaluation Unit (APMEU), the Forestry Monitoring, Evaluation and Coordinating Unit (FORMECU), the River Basin Development Authorities (RBDAs) and the Agricultural

Development Projects (ADPs). Others relevant agencies are the Central Bank of Nigeria, the Federal Office of Statistics, the National Agricultural Research Project, the National Agricultural Extension Research Liaison Services and the Agricultural Data Bank.

The research and academic node

These institutions are sources of current or primary agricultural information. New research findings documented in mimeographs, and technical reports, conference proceedings, students' theses, journal articles and reprints need proper identification and documentation for input into NAIMS.

Private sector node

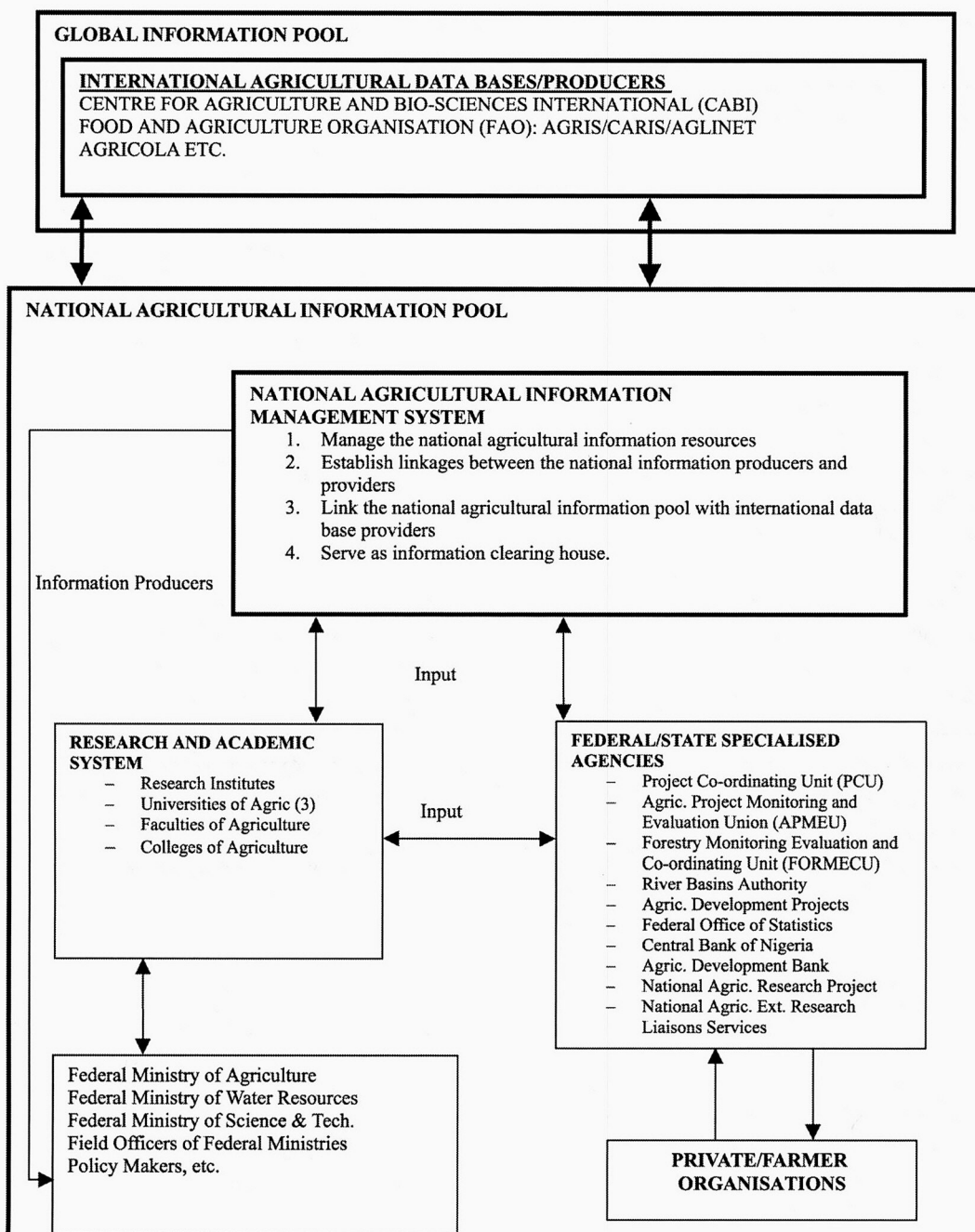
The NAIMS should co-ordinate and document information generated by private agricultural institutions like banks (e.g. the Nigerian Agricultural Co-operatives Bank, the Nigerian Agricultural Insurance Corporation), farmer organisation (e.g. National Council of Nigerian Farmers), farm plantations and the mass media.

Critical issues to consider

There are critical issues that are germane to the evolution process of the above conceptualization. These factors may be operational, administrative, political or system-based. These issues need proper delineation to ensure system efficiency and sustainability:

- *NAIMS operational status/mandate.* A clear definition of the operational status and mandate of NAIMS is very vital to both system efficiency and effectiveness. If NAIMS operates like a typical civil service institution in developing countries, commitment to its mission may be subjected to official bureaucracy and bottlenecks. If it operates as an independent mission-oriented national system, probably responsible directly to Agriculture Minister, system efficiency and effectiveness can be more guaranteed.
- *Administrative location.* This follows directly from the above and needs further amplification. Reflecting on the impressive performance of the Education

Figure 1 A conceptual framework for national agricultural information management system in Nigeria



Data Bank in Nigeria, Lyaniwura (1993) observed that:

... the location of the Education Data Bank project outside the Federal Ministry of Education (FMED), the recruitment of own staff and their payment from project fund and the achievement recorded have shown that the civil service outfit is not suitable for the establishment and management of operational data banks.

- *The political factor.* Most developing countries suffer from political discontinuities and policy dislocations. Such an unstable policy environment can affect the effective operation of a mission

oriented information system. For example, in 1992, Nigeria had a Federal Ministry of Agriculture, Water Resources and Rural Development. At the moment two federal ministries have been carved out of the former Agriculture Ministry. They are the Federal Ministry of Agriculture and Natural Resources and the Federal Ministry of Water Resources and Rural Development.

- *Composition and component obligations.* A crucial factor in the evolution process of NAIMS deals with system globality the total aspects of NAIMS as well as system

components, the various elements that will make up NAIMS. When agencies and participating institutions have been identified, the practical contributions of each of them to NAIMS must be stated, understood, and practically honoured. This is essential to ensure NAIMS sustainability.

- *An understanding of the information needs of NAIMS users.* If NAIMS will respond reliably to the information needs of the users, it is important that their information requirements be analysed and synthesized. This will ensure the inclusion of only need-based information resources/sources in NAIMS database(s).
- *Characteristics of input data.* A clear understanding of the information requirements of NAIMS users will determine the type of data to be collected, analysed and included in NAIMS data bases as either reference (bibliographic or referral) or source data bases (with numeric or textual-numeric properties, or just full-text). It is important that data from various sources be harmonised before inclusion in the NAIMS database.
- *Emphasis on information resource management.* The point has been made that presently agricultural information resources in government agricultural departments, and other institutions are largely fugitive with their existence and value unknown. A solid starting point in the evolution of NAIMS will be emphasis on information resource management. Institutionally generated and externally acquired information should be regarded as a resource that must be organised, maintained, and exploited.
- *Standardisation of data input formats.* To ensure uniformity in the data collection process, common communication formats for all components of NAIMS need to be developed at the initial stages of the system.

Conclusion and remarks

Nigeria has the physical, financial, and human capabilities to evolve a functional national agricultural information management system. The nation's information heritage comes from many completed and ongoing agricultural policies and programmes. This paper has consistently emphasized the need to identify,

organize and disseminate this rich heritage. This is essential to move the country from the present state of information poverty to that of information abundance. This is a national mandate, for no country can expect to control the trend of her food and fibre production without effective control of her agricultural information resources. Unesco (1981) has rightly said that:

Each nation has an important responsibility to husband its information resources for the purpose of developing its economy and enlightening its people. . . Structuring of a national information system has a major effect upon a nation's future economic and social development. A wellorganised, carefully planned national information system can accelerate progress and enhance development. But a disorganised information system can lead to paralysis of decision making and insufficiencies in national growth and culture.

The way forward in the evolution process of a national agricultural information management system in Nigeria includes:

- A commissioned inventORIZATION or documentation of all grey or archival collections and other agricultural information resources and facilities in all Departments of the Federal Ministry of Agriculture, Water Resources and Rural Development, its specialised units and those of the State Ministries of Agriculture, and National Resources.
- A systematic documentation of all agricultural information resources of the nation's research institutes, universities of agriculture and faculties of agriculture of other universities and any other major agricultural information producers.
- Evolution of a functional linkage between all producers, provider and consumers of agricultural information in Nigeria.
- Exploitation of current information technology capabilities in harnessing NAIMS and Nigeria's agricultural information users to international information data bases thereby facilitating trans-border data flow (TBD).
- The establishment of agricultural libraries or documentation centres in all Departments of the Federal Ministry of Agriculture, Water Resources and Rural Development and State Agriculture Ministries and appointing qualified librarians or information scientists to manage them. Alternatively NAIMS could adopt the status of a National

Agricultural Library as is the case in the United States Department of Agriculture.

- The introduction of a publication to be called *Quarterly Checklist of Government Agricultural Publications*. This will index agricultural publication from Federal and State agricultural agencies.

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Charles O. Omekezu

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The paper reviews the state of agricultural literature control in Nigeria. The problems of data inconsistencies, scarcity of relevant information and dilemmas faced by policy makers, planners and agriculturists are described. The paper reveals that foreign-based bibliographical services do not adequately cover literature emanating from the country. A conceptual framework for the evolution of a national agricultural information management system will involve a functional integration of all agencies and individuals involved in the production, processing, provision, and utilisation of agricultural information. Critical decisions and actions that will enhance the evolution process include a commissioned inventorization of all grey literature and agricultural information resources at both Federal and State Agriculture Ministries, a systematic documentation of resources in the research and academic institutions and, the

exploitation of the awesome capabilities of information technology in harnessing a nation's rich information heritage.

The answer to all our problems? Trialling a library portal

David Groenewegen and Simon Huggard

Keywords Portals, Libraries, Information retrieval, Computer software, Australia

In early 2002, Monash University Library trialled Fretwell-Downing's ZPortal software. This software was designed to create seamless access to all the library's electronic online resources. Monash was one of the first libraries in the world to use the ZPortal software. The paper will discuss the reasons for adopting a portal, what was expected of the software, and the aims of the trial. In addition some outcomes of the trial will be discussed, as well as the practical maintenance issues that a system of this nature creates.

articulée par des cours. Par la suite, les services TALSS et la bibliothèque ont développé et appliqué, en collaboration, toute une série de stratégies et initiatives pour l'enseignement et l'apprentissage. L'article met en évidence certaines de ces initiatives. Celles-ci sont également renforcées par un réseau de spécialistes, notamment par des bibliothécaires de liaison, des conseillers informaticiens pour les étudiants, un fonctionnaire de transition et un coordonnateur des compétences en information.

Est-il nécessaire d'avoir une approche convergente pour traiter de la prestation de services d'information électroniques? Preuves empruntées au projet JUBILEE

Graham Coulson, Kathryn Ray et Linda Banwell

Mots-clés Information, Bibliothèques, Compétences, Intégration

L'article cite et considère toute une série de résultats et de questions suscitées par les preuves recueillies jusqu'ici dans le cadre du projet JUBILEE (Comité Commun pour les Systèmes Informatiques (Joint Information Systems Committee - JISC) - comportement des utilisateurs dans la recherche de l'évaluation longitudinale des services d'information électroniques), un projet important et permanent, mené au Royaume-Uni. Les preuves se fondent surtout sur l'analyse et l'interprétation des données qualitatives provenant de la recherche; les discussions portent sur le comportement de recherche des informations et les compétences en information ayant trait aux sources d'information électroniques. L'article donne l'historique de la recherche et en indique les buts, puis il explore les différents types de compétences en informatique (information technology IT) dont ont besoin les utilisateurs pour pouvoir utiliser de manière efficace les services d'information électroniques (electronic information services EIS). Pour terminer, l'article extrapole à partir des données de la recherche et considère la manière dont ces compétences en informatique peuvent être développées de manière efficace dans l'environnement que représente l'éducation supérieure. Pour en revenir au titre de l'article, l'accent est placé sur l'importance qu'il y a de choisir une approche convergente et "reliée" envers la prestation des services EIS.

Système national de gestion des informations agricoles au Nigéria: une structure conceptuelle

Charles O. Omekezu

Mots-clés Agriculture, Gestion de l'information, Systèmes informatiques, Nigéria

L'article examine l'état dans lequel se trouve le contrôle des publications agricoles au Nigéria. Il décrit les problèmes que représentent l'incohérence des données, le manque d'informations pertinentes, ainsi que les dilemmes auxquels font face les dirigeants d'entreprises, les planificateurs et les agriculteurs. L'article révèle que les services bibliographiques établis à l'étranger ne traitent pas les publications émanant du pays de manière adéquate. Une structure conceptuelle facilitant l'évolution d'un système national de gestion des informations agricoles impliquera l'intégration fonctionnelle de toutes les agences et de toutes les personnes impliquées dans la production, le traitement, la prestation et l'utilisation des informations agricoles. Les décisions et actions critiques qui rehausseront le processus d'évolution comprendront notamment l'établissement commissionné d'un inventaire de toutes les publications et ressources en informations agricoles grises, détenues au Ministère de l'Agriculture, au niveau fédéral aussi bien que national, une documentation systématique des ressources existant dans les institutions de recherche et d'enseignement, et l'exploitation des capacités impressionnantes que l'informatique a d'exploiter le riche héritage en information d'une nation.

La solution à tous nos problèmes ? Mettre un portail de bibliothèque à l'épreuve

David Groenewegen et Simon Huggard

Mots-clés Portails, Bibliothèques, Récupération des informations, Logiciels, Australie

Au début de l'année 2002, la Bibliothèque de l'Université de Monash mit à l'épreuve le logiciel Zportal de Fretwell-Downing. Ce logiciel avait pour but de créer un accès continu à toutes les ressources électroniques en ligne de la bibliothèque. Monash était l'une des premières bibliothèques au monde à utiliser le logiciel ZPortal. L'article discute les raisons qui expliquent l'adoption d'un portail, ce qui était attendu du logiciel, ainsi que les objectifs recherchés. Il discute en plus certains des résultats de l'essai et les questions d'entretien pratique que ce genre de système engendre.

Ist bei der Bereitstellung von EIS ein konvergierender Ansatz erforderlich? Indizien aus dem JUBILEE-Projekt

Graham Coulson, Kathryn Ray und Linda Banwell

Stichworte Information, Bibliotheken, Fertigkeiten, Integration

Der Artikel berichtet und reflektiert über eine Reihe von Erkenntnissen und Fragen, die sich bisher aus dem JUBILEE-Projekt ergeben haben. JUBILEE ist ein wichtiges, fortlaufendes britisches Forschungsprojekt eine Langzeituntersuchung elektronischer Informationssysteme (electronic information services EIS), mit der das gemeinsame Komitee für Informationssysteme (Joint Information Systems Committee - JISC) das Verhalten der Benutzer bei der Informationssuche untersuchen will. Die Indizien beruhen weitgehend auf der Analyse und Interpretation der qualitativen Forschungsdaten; die Diskussion konzentriert sich auf das Informationssuchverhalten und die Informationskompetenzen bezüglich elektronischer Informationsquellen. Der Hintergrund und die Ziele der Untersuchung werden umrissen; anschließend werden die verschiedenen Arten von IT-Kompetenzen untersucht, die von Benutzern benötigt werden, um elektronische Informationsdienste (EIS) effektiv nutzen zu können. Durch Extrapolierung der Forschungsdaten wird abschließend untersucht, wie diese IT-Kompetenzen im Hochschulbereich effektiv weiterentwickelt werden können. Wie aus dem Titel des Artikels hervorgeht, liegt das Gewicht dabei auf einem "konvergierenden" oder gemeinsamen Ansatz bei der Bereitstellung von EIS.

Nationales landwirtschaftliches Informationsmanagementsystem in Nigeria: ein konzeptueller Rahmen

Charles O. Omekwu

Stichworte Landwirtschaft, Informationsmanagement, Informationssysteme, Nigeria

Der Artikel untersucht die Kontrolle der landwirtschaftlichen Fachliteratur in Nigeria.

Verschiedene Probleme werden beschrieben: die Inkonsistenz der Daten, der Mangel an relevanten Informationen und die Dilemmas, vor die sich politische Entscheidungsträger, Planer und Landwirte gestellt sehen. Der Artikel zeigt, dass bibliographische Dienste im Ausland die im Land veröffentlichte Fachliteratur nicht angemessen abdecken. Ein konzeptueller Rahmen für die Entwicklung eines landesweiten landwirtschaftlichen Informationsmanagement-Systems sieht eine funktionale Integration aller Stellen und Personen vor, die an der Produktion, Verarbeitung, Bereitstellung und Nutzung von landwirtschaftlichen Informationen beteiligt sind. Zu den kritischen Entscheidungen und Handlungen, die den Evolutionsprozess verbessern, gehört eine Fremdinventarisierung der gesamten grauen Literatur und der landwirtschaftlichen Informationsquellen in den nationalen und bundesstaatlichen Landwirtschaftsministerien, eine systematische Dokumentierung der Ressourcen in den Forschungs- und Lehrinrichtungen sowie die Nutzung der enormen Möglichkeiten, die die Informationstechnik bei der Nutzbarmachung des reichhaltigen Informationserbes des Landes bietet.

Die Antwort auf alle unsere Probleme? Die Erprobung eines Bibliothekenportals

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Anfang 2002 wurde in der Bibliothek der Monash-Universität die Software ZPortal von Fretwell-Downing erprobt. Ihr Ziel ist es, einen nahtlosen Zugang zu sämtlichen elektronischen Online-Ressourcen der Bibliothek zu ermöglichen. Monash war eine der ersten Bibliotheken der Welt, die ZPortal benutzt. Der Artikel beschreibt die Gründe für die Einführung eines Portals, die Erwartungen an die Software und die Ziele der Erprobung. Daneben werden verschiedene Ergebnisse der Erprobung sowie die praktischen Wartungsfragen, die bei einem System dieser Art eine Rolle spielen, diskutiert.